

Appendix H

Traffic Impact Analysis



MEMORANDUM

To: Gia Kim
Engineering Manager
City of Fontana

From: Trevor Briggs, P.E.
Kimley-Horn and Associates, Inc.

Date: August 12, 2022

Subject: Trip Generation Consistency Memorandum for the Proposed Fontana Square Project in the City of Fontana

Kimley-Horn and Associates, Inc. has prepared a trip generation consistency memorandum to evaluate the revised trip generation potential for the proposed Fontana Square project compared to the trip generation noted in the approved Traffic Impact Analysis (January 2022).

PROJECT DESCRIPTION

The project is located on the northwest corner of the intersection of Highland Avenue and Citrus Avenue, and to the east of Catawba Avenue, in the northern area of the City of Fontana. The project site is shown in its regional setting on **Figure 1**. The project site (approximately 8.9 acres) is bounded by the SR-210 Freeway to the north, Citrus Avenue to the east, Highland Avenue to the south, and Catawba Avenue to the west.

APPROVED TRIP GENERATION

A Traffic Impact Analysis (TIA, January 2022) was prepared for the proposed Fontana Square project and was approved by City staff in March 2022. The approved TIA assumed the following land use and quantities for the proposed project:

- 104-room Hotel (Holiday Inn Express)
- 117-room Hotel (Staybridge Suites)
- 23,800-square-foot Recreational Community Center (Banquet Hall)
- 5,000-square-foot High-Turnover (Sit-Down) Restaurant
- 3,885-square-foot Fast-Food Restaurant W/ Drive-thru

After applying internal capture and pass-by reductions, the proposed project would generate 4,573 net new trips on a daily basis, with 264 net new trips in the morning peak hour, and 259 net new trips in the evening peak hour. Trip generation rates and the resulting trip generation estimates from the approved TIA are summarized on **Table 1**.

REVISED TRIP GENERATION

After the TIA was approved for the Fontana Square project, the proposed site plan was modified with following updated land use quantities:

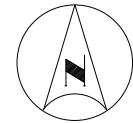
- 184-room Hotel (Holiday Inn Express/ Staybridge Suites)
- 28,000-square-foot Recreational Community Center (Banquet Hall)
- 5,000-square-foot High-Turnover (Sit-Down) Restaurant
- 3,885-square-foot Fast-Food Restaurant W/ Drive-thru

After applying internal capture and pass-by reduction, the proposed project would generate 4,393 net new trips on a daily basis, with 255 net new trips in the morning peak hour, and 245 net new trips in the evening peak hour. Trip generation rates and the resulting trip generation estimates for the revised Fontana Square project are summarized on **Table 2**.

CONCLUSION

Compared to the trip generation in the Approved TIA, the revised project is expected to generate 180 fewer net new trips on a daily basis, including 9 fewer net new during the morning peak hour and 14 fewer net new trips during the evening peak hour. Therefore, no further traffic analysis is required for the proposed project.

Should you have any questions regarding this memorandum, please do not hesitate to contact me at 714-786-6117.



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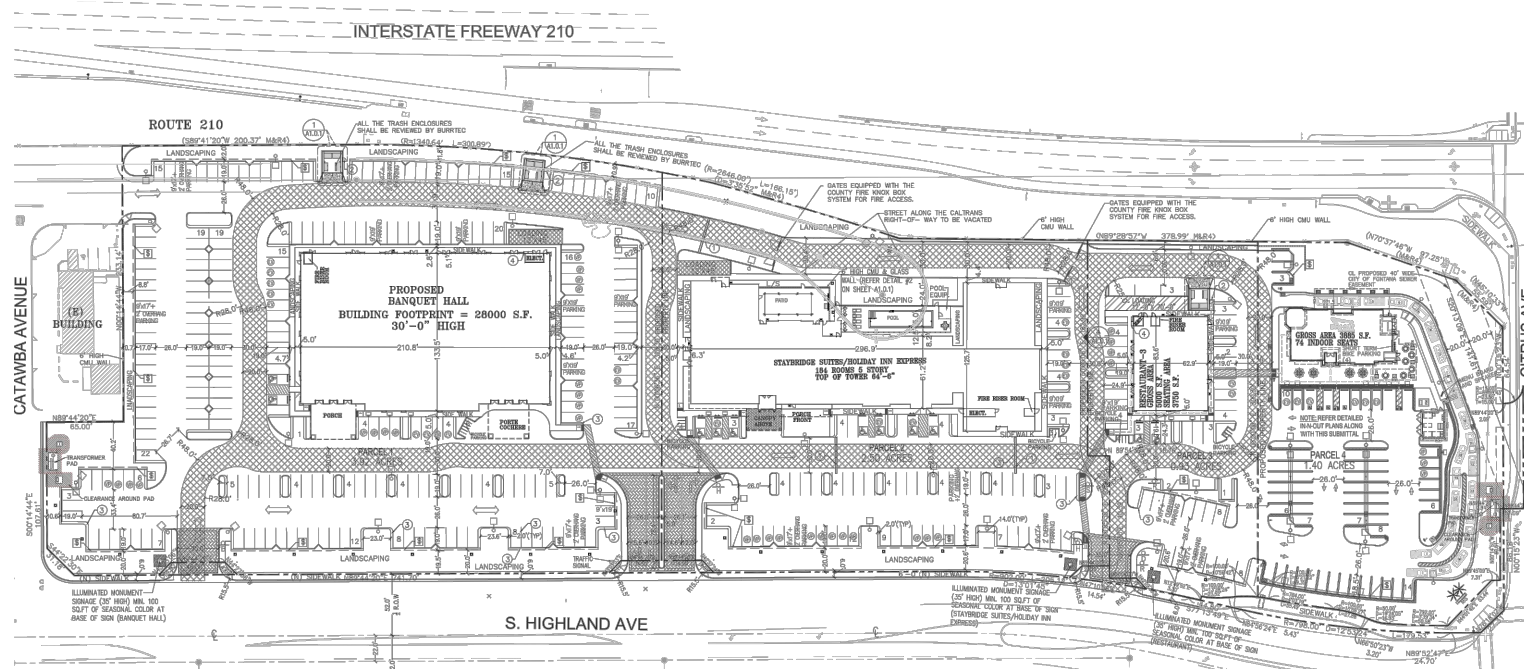


FIGURE 1
PROJECT SITE PLAN

**TABLE 1
SUMMARY OF PROJECT TRIP GENERATION - APPROVED TIA (JANUARY, 2022)
FONTANA SQUARE PROJECT**

Land Use	ITE Code	Unit	Trip Generation Rates ¹						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Hotel	310	Room	8.360	0.277	0.193	0.470	0.306	0.294	0.600
Recreational Community Center	495	KSF	28.820	1.162	0.598	1.760	1.086	1.224	2.310
High-Turnover (Sit-Down) Restaurant	932	KSF	112.180	5.467	4.473	9.940	6.057	3.713	9.770
Fast-Food Restaurant w/ Drive-thru	934	KSF	470.950	20.497	19.693	40.190	16.988	15.682	32.670
Trip Generation Estimates									
Land Use	Quantity	Unit	Trip Generation Estimates						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Hotel (Holiday Inn Express)	104	Room	869	29	20	49	32	31	63
Hotel (Staybridge Suites)	117	Room	978	32	23	55	36	34	70
Recreational Community Center (Banquet Hall)	23.800	KSF	686	28	14	42	26	29	55
High-Turnover (Sit-Down) Restaurant	5.000	KSF	561	27	22	49	30	19	49
Fast-Food Restaurant w/ Drive-thru	3.885	KSF	1,830	80	77	157	66	61	127
Total Before Internal Capture/Pass-by			4,924	196	156	352	190	174	364
Internal Capture (4% Daily; 4% AM; 7% PM)²			-197	-8	-6	-14	-13	-12	-25
Pass-By Reduction for High-Turnover (Sit-Down) Restaraunt - (43% PM)³			-20	0	0	0	-12	-8	-20
Pass-By Reduction for Fast-Food Restaurant w/ Drive-thru - (49% AM; 50% PM)³			-134	-38	-36	-74	-31	-29	-60
Total Net New Project Trips			4,573	150	114	264	134	125	259

¹ Source: Institute of Transportation Engineers publication: Trip Generation Manual, 10th Edition

² See Internal Capture Worksheets

³ Source: Institute of Transportation Engineers (ITE) Trip Generation Handbook, 3rd Edition. The daily pass-by trips shown are the sum of the AM and the PM pass-by trips.

**TABLE 2
SUMMARY OF PROJECT TRIP GENERATION - REVISED SITE PLAN
FONTANA SQUARE PROJECT**

Land Use	ITE Code	Unit	Trip Generation Rates ¹						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Hotel	310	Room	8.360	0.277	0.193	0.470	0.306	0.294	0.600
Recreational Community Center	495	KSF	28.820	1.162	0.598	1.760	1.086	1.224	2.310
High-Turnover (Sit-Down) Restaurant	932	KSF	112.180	5.467	4.473	9.940	6.057	3.713	9.770
Fast-Food Restaurant w/ Drive-thru	934	KSF	470.950	20.497	19.693	40.190	16.988	15.682	32.670
Trip Generation Estimates									
Land Use	Quantity	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Hotel (Holiday Inn Express/Staybridge Suites)	184	Room	1,538	51	36	87	56	54	110
Recreational Community Center (Banquet Hall)	28.000	KSF	807	33	17	50	30	34	64
High-Turnover (Sit-Down) Restaurant	5.000	KSF	561	27	22	49	30	19	49
Fast-Food Restaurant w/ Drive-thru	3.885	KSF	1,830	80	77	157	66	61	127
Total Before Internal Capture/Pass-by			4,736	191	152	343	182	168	350
Internal Capture (4% Daily; 4% AM; 7% PM)²			-189	-8	-6	-14	-13	-12	-25
Pass-By Reduction for High-Turnover (Sit-Down) Restaraunt - (43% PM)³			-20	0	0	0	-12	-8	-20
Pass-By Reduction for Fast-Food Restaurant w/ Drive-thru - (49% AM; 50% PM)³			-134	-38	-36	-74	-31	-29	-60
Total Net New Project Trips			4,393	145	110	255	126	119	245
Approved Net New Project Trips (From Approved TIA)⁴			4,573	150	114	264	134	125	259
Net Difference (Proposed Minus Approved Traffic Study)			-180	-5	-4	-9	-8	-6	-14
¹ Source: Institute of Transportation Engineers publication: Trip Generation Manual , 10th Edition ² See Internal Capture Worksheets ³ Source: Institute of Transportation Engineers (ITE) Trip Generation Handbook , 3rd Edition. The daily pass-by trips shown are the sum of the AM and the PM pass-by trips. ⁴ Total net new trips from the Approved TIA for the proposed Fontana Square project (January, 2022)									



Traffic Impact Analysis
for

Fontana Square In the City of Fontana

December 2021

Kimley»»Horn

TRAFFIC IMPACT ANALYSIS
FOR THE PROPOSED
FONTANA SQUARE PROJECT
IN THE CITY OF FONTANA

Prepared by:

Kimley-Horn and Associates, Inc.
1100 Town and Country, Suite 700,
Orange, California 92868

December 2021

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TRAFFIC IMPACT ANALYSIS
FOR THE PROPOSED
FONTANA SQUARE PROJECT
IN THE CITY OF FONTANA

INTRODUCTION

Purpose and Study Objectives

This traffic impact analysis has been prepared to address the traffic-related effects of the proposed Fontana Square project in the City of Fontana. This traffic impact analysis has been conducted in accordance with the City of Fontana *Traffic Impact Analysis (TIA) Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment* (October 2020).

This report includes a description of existing traffic conditions in the surrounding area, estimated project trip generation and distribution, future traffic growth, and an assessment of project-related effects on the transportation system. Where necessary, circulation system improvements have been identified to address project-related deficiencies at the study locations.

Project Overview

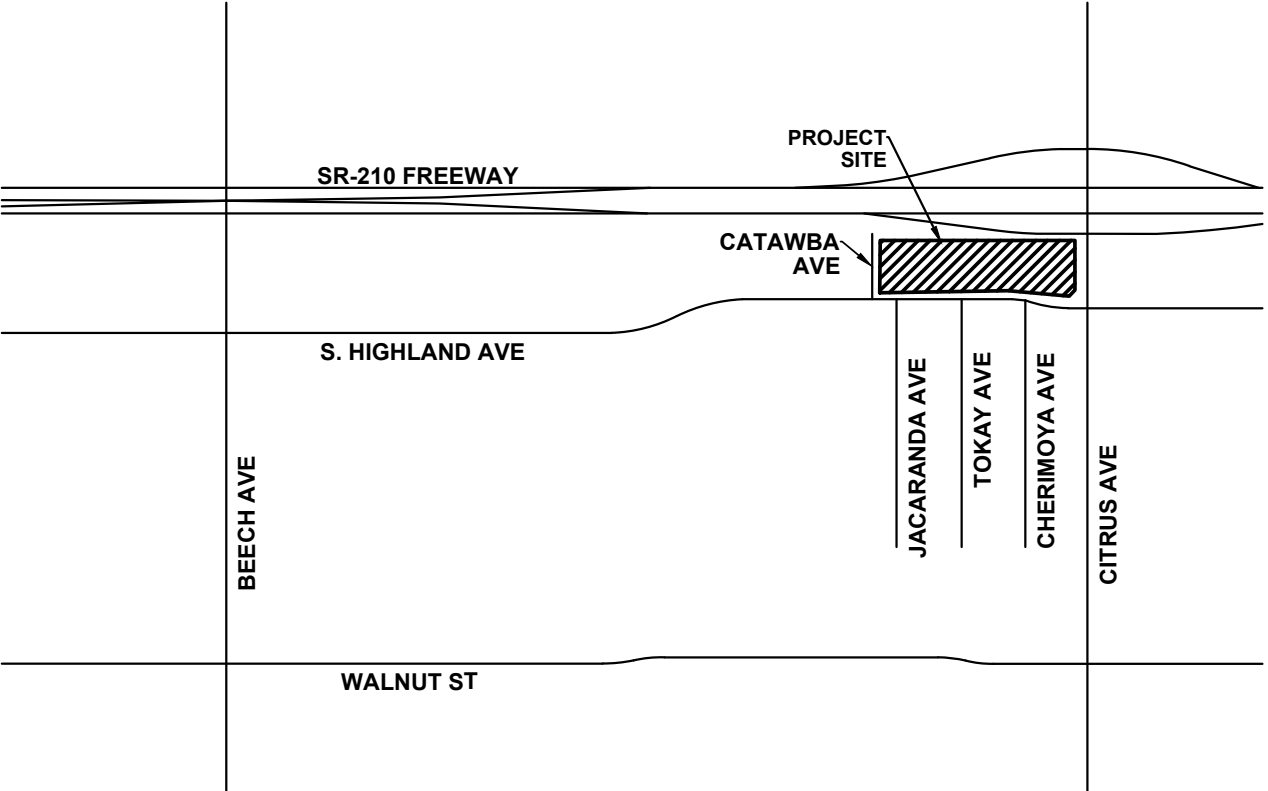
The project is located on the northwest corner of the intersection of Highland Avenue and Citrus Avenue, and to the east of Catawba Avenue, in the northern area of the City of Fontana. The project site is shown in its regional setting on Figure 1. The project site (approximately 8.9 acres) is bounded by the SR-210 Freeway to the north, Citrus Avenue to the east, Highland Avenue to the south, and Catawba Avenue to the west.

The project consists of the construction of 5 buildings consisting of a 23,800 square foot (SF) banquet hall, a 104-Room Holiday Inn Express Hotel, a 117-Room Staybridge Suites, a 5,000 SF sit-down restaurant, and a 3,885 SF fast-food restaurant with drive-through. Additionally, the project will include widening along the project frontage on Highland Avenue to add a second westbound through lane along the project frontage. The project would also re-stripe the westbound approach (east leg) of the intersection of Citrus Avenue at Highland Avenue to allow for a second westbound through lane at the intersection. A copy of the project site plan is provided on Figure 2.

Vehicular access for the project site would be via three driveways on Highland Avenue and one full-movement driveway on Catawba Avenue. The driveways on Highland Avenue would consist of one unsignalized full-movement driveway (across from Jacaranda Avenue), one full-movement signalized driveway (across from Tokay Avenue), and one unsignalized right-in-right-out (RIRO) driveway (across from Cherimoya Avenue).



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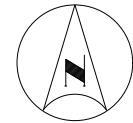


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FIGURE 1
VICINITY MAP

LEGEND:
 = Project Site





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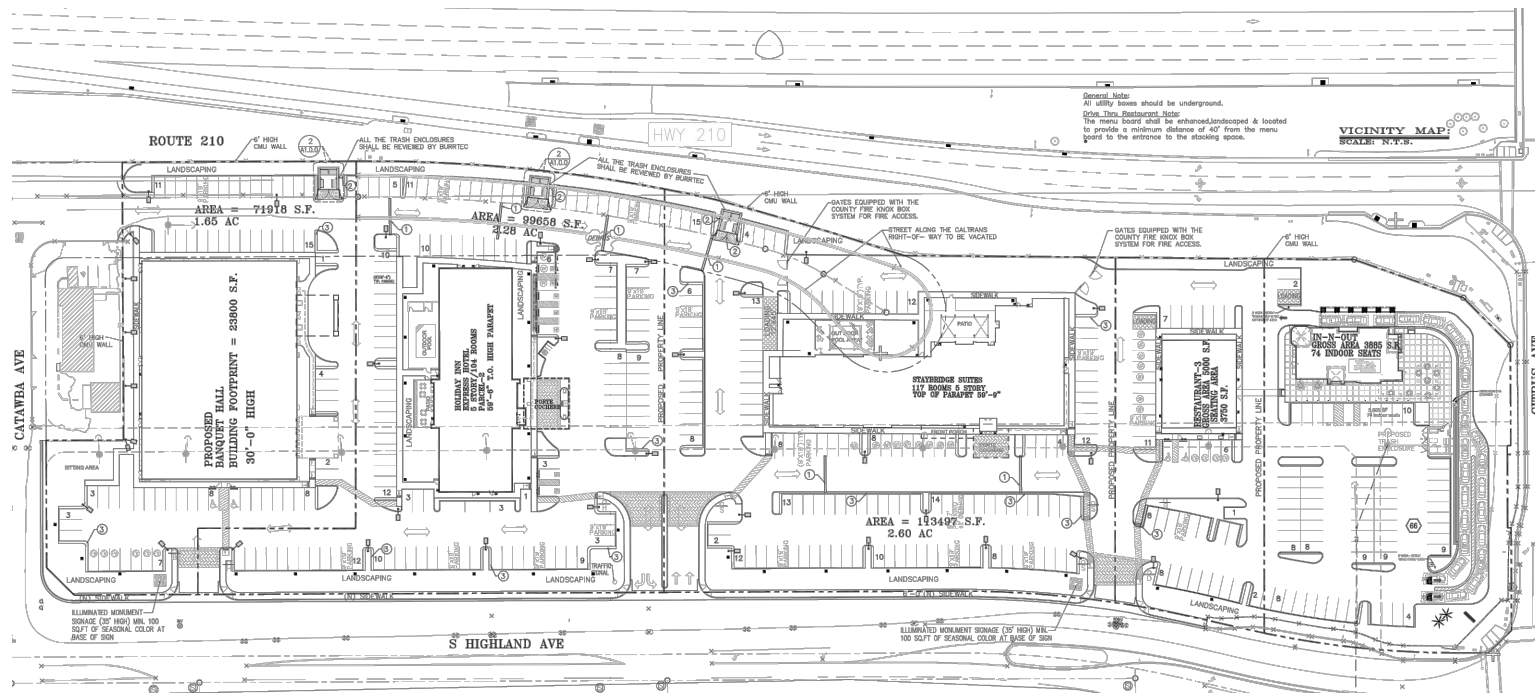


FIGURE 2
PROJECT SITE PLAN

ANALYSIS SCENARIOS AND METHODOLOGY

Analysis Scenarios

Based on the City of Fontana's Traffic Impact Analysis (TIA) guidelines, the project will be evaluated in the morning and evening peak hours for the following conditions:

- Existing Conditions
- Existing Plus Project
- Opening Year 2023 Cumulative
- Opening Year 2023 Cumulative Plus Project
- Horizon Year 2040
- Horizon Year 2040 Plus Project

Intersection Analysis – HCM Methodology

This study includes evaluation of morning and evening peak hour operations at ten existing intersections located in the City of Fontana.

Peak hour intersection operations at signalized and unsignalized intersections were evaluated using the methods prescribed in the Highway Capacity Manual (HCM) 2010, consistent with the City of Fontana *TIA Guidelines for VMT and Level of Service Assessment* (October 2020).

The City of Fontana's TIA guidelines require analysis of traffic operations to be based on the vehicular delay methodologies of the HCM (Transportation Research Board Special Report 209). The City does not designate a specific software to be used in the analysis, but allows the use of one of several software packages that are consistent with the HCM methodologies. The intersection analysis for the proposed project has been accomplished using the Vistro software program and using the specified input parameters outlined in the City's TIA guidelines.

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-minute period within the hour analyzed. The average control delay includes initial deceleration delay, queue move-up time, and final acceleration time in addition to the stop delay. The tables on the following page provide a description of the operating characteristics of each Level of Service and define the LOS in terms of average seconds of delay for signalized and unsignalized intersections.

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

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 S.
D	This level encompasses a zone of increasing restriction, approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

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

¹ Source: Highway Capacity Manual (HCM 6th Edition), Exhibit 18-4.

² Source: Highway Capacity Manual (HCM 6th Edition), Exhibits 19-1 and 20-2.

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 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 the following chart:

CITY OF FONTANA ROADWAY CAPACITY STANDARDS		
Roadway Classification	Number of Lanes	Daily Capacity (Vehicles per day)
Major Highway	6	54,000
Primary Highway	4	36,000
Secondary Highway	4	24,000
Collector Street	2	12,000
<i>Source: Fontana Forward General Plan 2015-2035 Draft EIR</i>		

Level of Service Standards and Measure of Significance

The Level of Service standard in the City of Fontana for an intersection is LOS C or better. According to the City of Fontana's TIA guidelines, a significant traffic impact would occur when the project causes the Level of Service to fall below LOS C, or causes the peak hour delay to increase as follows:

CITY OF FONTANA THRESHOLDS OF SIGNIFICANT IMPACT	
With Project LOS	Significant Impact Threshold
A/B	10.0 Seconds
C	8.0 Seconds
D	5.0 Seconds
E	3.0 Seconds
F	1.0 Seconds

AREA CONDITIONS

Study Area

This traffic study includes documentation of existing conditions, future conditions, and identification of project-related impacts at the following study locations:

Intersections:

1. Beech Avenue at Highland Avenue
2. Beech Avenue at SR-210 HOV Ramps
3. Catawba Avenue at Highland Avenue
4. Citrus Avenue at SR-210 WB Ramps
5. Citrus Avenue at SR-210 EB Ramps
6. Citrus Avenue at Highland Avenue
7. Citrus Avenue at Walnut Street
- D1. Jacaranda Avenue at Highland Avenue
- D2. Tokay Avenue at Highland Avenue
- D3. Cherimoya Avenue at Highland Avenue

Roadway Segments:

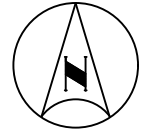
1. Highland Avenue from Beech Avenue to Citrus Avenue
2. Highland Avenue from Citrus Avenue to Oleander Avenue
3. Citrus Avenue from SR-210 EB Ramps to Highland Avenue
4. Citrus Avenue from Highland Avenue to Walnut Street

The study locations were established in consultation with City of Fontana staff through the Scoping Letter Agreement process. A copy of the approved Scoping Letter Agreement is provided in *Appendix A*.

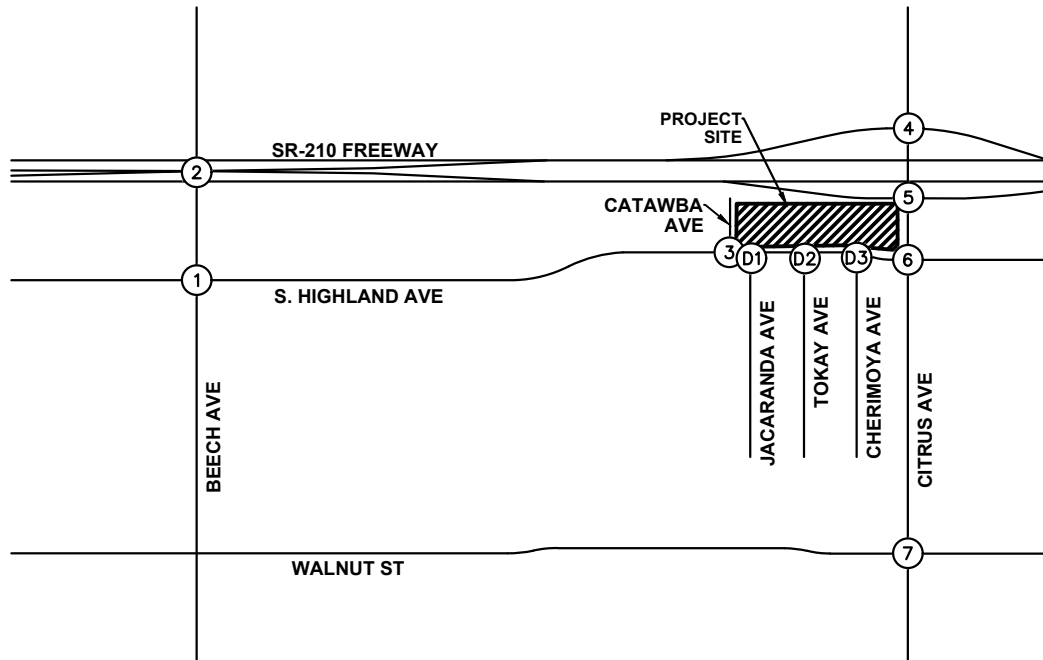
Existing Street System

Regional access to the site is provided primarily by the Ontario Freeway (I-15) and the Foothill Freeway (SR-210). The I-15 Freeway is located approximately 2.0 miles to the west of the site and access to the SR-210 Freeway via Citrus Avenue is located approximately 1,000 feet north of the project site. Other facilities that provide regional access to the site include the San Bernardino Freeway (SR-10), located approximately 5 miles to the south of the site; and the I-215 Freeway, located approximately 8 miles to the east of the project site.

Existing lane configurations and intersection controls at the study intersections are shown on Figure 3. A copy of the City of Fontana's Hierarchy of Streets Plan is provided on Figure 4. The following provides a description of the roadways surrounding the project site.



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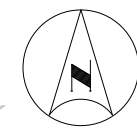


1. Beech Ave at S. Highland Ave	2. Beech Ave at SR-210 HOV Ramps	3. Catawba Ave at S. Highland Ave	4. Citrus Ave at SR-210 WB Ramps	5. Citrus Ave at SR-210 EB Ramps
6. Citrus Ave at S. Highland Ave	7. Citrus Ave at Walnut St	D1. Jacaranda Ave at S. Highland Ave	D2. Tokay Ave at S. Highland Ave	D3. Cherimoya Ave at S. Highland Ave

LEGEND:

- = Study Intersection
- = Turn or Through Lane
- = Signal
- = Stop Sign

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



NOT TO SCALE

Legend

Roadway Functional Class

- To be determined
- 8 lane major Highway
- Major Highway
- Modified Major Highway
- Primary Highway
- Modified Primary Highway
- Secondary Highway
- Modified Secondary Highway
- Industrial Collector
- Modified Industrial Collector
- Collector Street
- Modified Collector Street
- Fontana Sphere of Influence

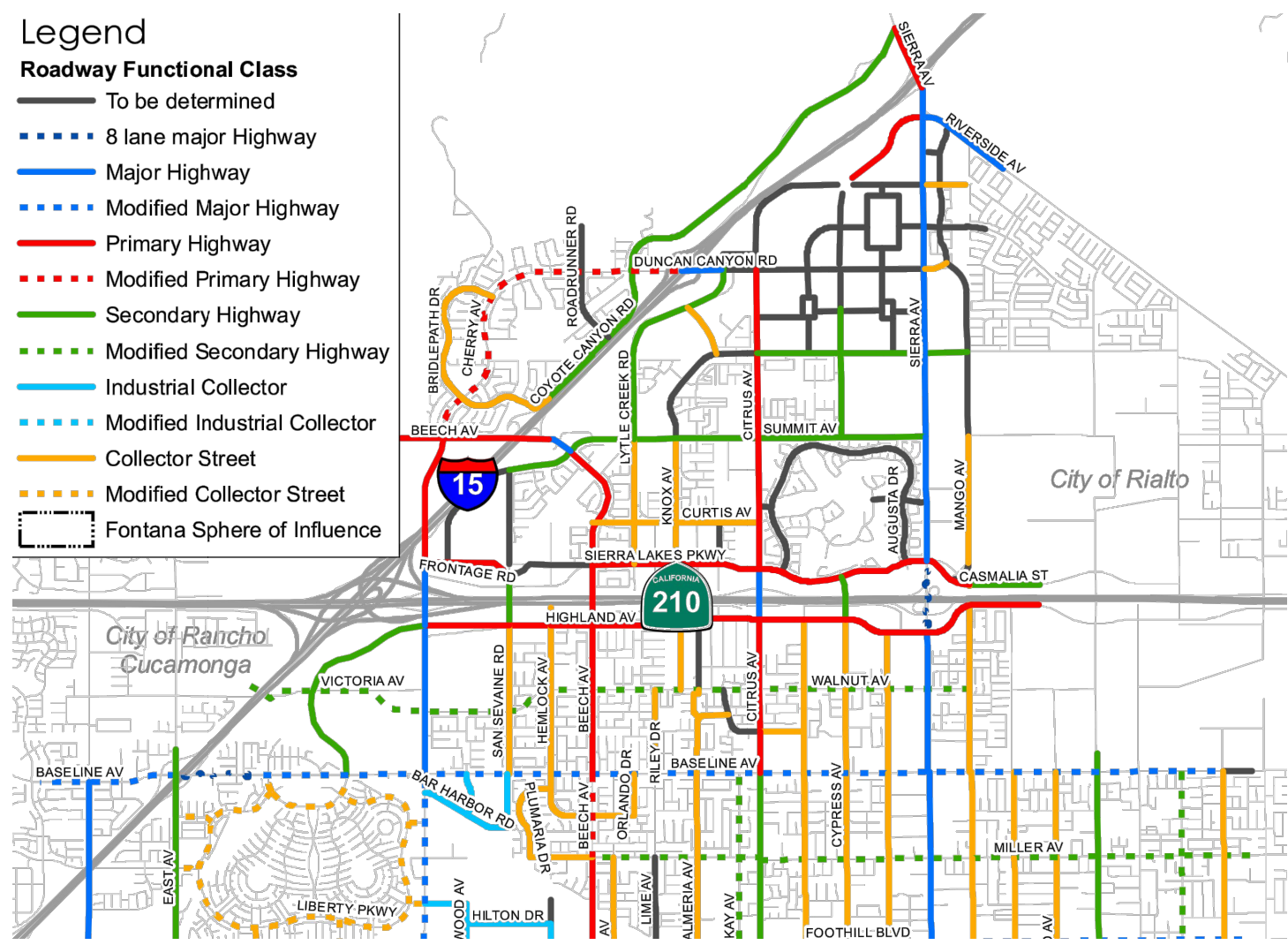


FIGURE 4
CITY OF FONTANA - HIERARCHY OF STREETS PLAN



Beech Avenue – Beech Avenue is a four-lane divided roadway through the study area. The posted speed limit along Beech Avenue is 40 miles per hour (mph). On-street parking is not allowed on the roadway. Beech Avenue is designated as a Primary Highway on the City of Fontana Circulation Master Plan, which would provide four travel lanes with a center median.

Citrus Avenue – Citrus Avenue is a four-lane divided roadway through the study area. The posted speed limit along Citrus Avenue is 45 mph. On-street parking is not allowed on the roadway. Citrus Avenue is designated as a Major Highway north of Highland Avenue and a Primary Highway south of Highland Avenue within the project vicinity.

Highland Avenue – Highland Avenue is a two to four-lane roadway through the study area. The posted speed limit along Highland Avenue is 45 mph. On-street parking is not allowed on the roadway. Highland Avenue is designated as a Primary Highway on the City of Fontana Circulation Master Plan and forms the southern boundary of the site, which would provide access to the site via a full-movement driveway.

Walnut Avenue – Walnut Avenue is a two-lane divided roadway within the study area. The posted speed limit along Walnut Avenue is 35 mph, and 25 mph when children are present near Cecilia Lucero Solorio Elementary School. On-street parking is not allowed on the roadway. Walnut Avenue is designated as a Modified Secondary Highway on the City of Fontana Circulation Master Plan.

Catawba Avenue – Catawba Avenue is a two-lane undivided roadway within the study area. On-street parking is not allowed on the roadway. Catawba is not designated on the Fontana Circulation Master Plan and there is no posted speed limit.

Transit Service

Transit service to the project area is provided via the OmniTrans transit lines, which serve many San Bernardino cities in the area. Bus stops in the project vicinity are located along Sierra Lakes Parkway, Walnut Avenue, Baseline Avenue, and Citrus Avenue. A description of the bus routes serving the project area is provided below.

Route 10 operates between the City of Fontana and the City of San Bernardino, traveling through Fontana along Citrus Avenue and Walnut Avenue in the project vicinity. Route 10 operates on weekdays from approximately 5:10 AM to 8:30 PM with approximately 30-minute headways (the time between bus arrivals), on Saturdays from approximately 6:15 AM to 7:10 PM with approximately 1-hour headways, and on Sundays from approximately 7:15 AM to 6:10 PM with approximately 1-hour headways.

Route 67 operates between Chaffey College and Fontana Metrolink Transit Center, traveling along Baseline Avenue, Citrus Avenue, and Walnut Avenue in the project vicinity. Route 67 operates on weekdays from approximately 5:55 AM to 8:50 PM with approximately 60-minute headways (the time between bus arrivals). Route 67 does not operate on weekends.

Route 82 operates between the City of Rancho Cucamonga and the City of Fontana, traveling along Summit Avenue, Citrus Avenue, and Sierra Lakes Parkway in the project vicinity. Route 82 operates on weekdays from approximately 4:20 AM to 10:00 PM with approximately 1-hour headways, and on Saturdays and Sundays from approximately 6:15 AM to 7:10 PM with approximately 1-hour headways.

Existing Traffic Volumes

Due to the current closure of schools and businesses during the COVID-19 pandemic, modifications to typical traffic count protocol was proposed. Based on information provided by a 3rd party data collection company, there is recent historical counts for the following intersections:

1. Beech Avenue at Highland Avenue
6. Citrus Avenue at Highland Avenue

An ambient growth rate of two (2) percent per year was applied to this study intersection to develop existing year 2021 volumes.

New morning and evening peak hour turning movement and daily roadway traffic counts were collected on a typical weekday. Based on a comparison of historical and new traffic count data, a 36% COVID adjustment factor was applied to the new traffic counts for the study intersections. Existing morning and evening peak hour volumes and daily roadway volumes are presented on Figure 5. Peak hour intersection traffic count worksheets and daily roadway volume worksheets are provided in *Appendix B*.

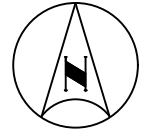
Peak Hour Operating Conditions

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

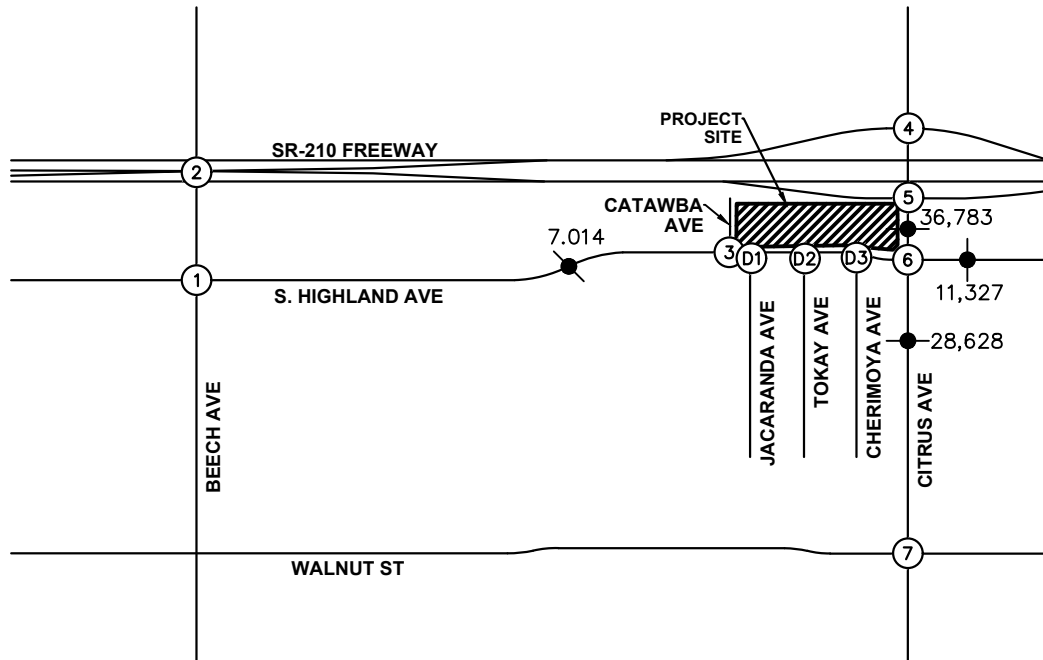
Daily Roadway Operating Conditions

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 on Table 2. Review of this table indicates that all study roadway segments are currently operating at an acceptable Level of Service on a daily basis except for the following:

- Citrus Avenue from SR-210 EB Ramps to Highland Avenue: LOS F



NOT TO SCALE



1. Beech Ave at Highland Ave	2. Beech Ave at SR-210 HOV Ramps	3. Catawba Ave at Highland Ave	4. Citrus Ave at SR-210 WB Ramps	5. Citrus Ave at SR-210 EB Ramps
6. Citrus Ave at Highland Ave	7. Citrus Ave at Walnut St	D1. Jacaranda Ave at Highland Ave	D2. Tokay Ave at Highland Ave	D3. Cherimoya Ave at Highland Ave

LEGEND:

- ⊗ = Study Intersection
- = Average Daily Traffic Volume
- XXXX
- XX/YY = AM/PM Peak Hour Turning Movement Volumes

**FIGURE 5
EXISTING TRAFFIC VOLUMES**

TABLE 1
SUMMARY OF INTERSECTION OPERATION
EXISTING CONDITIONS

Int. #	Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Beech Avenue at Highland Avenue	S	23.8	C	27.6	C
2	Beech Avenue at SR-210 HOV Ramps	U	16.4	C	15.3	C
3	Catawba Avenue at Highland Avenue	U	11.5	B	14.8	B
4	Citrus Avenue at SR-210 WB Ramps	S	20.3	C	29.8	C
5	Citrus Avenue at SR-210 EB Ramps	S	20.4	C	27.8	C
6	Citrus Avenue at Highland Avenue	S	23.6	C	29.7	C
7	Citrus Avenue at Walnut Street	S	11.2	B	11.9	B
D1	Jacaranda Avenue at Highland Avenue	U	10.4	B	11.6	B
D2	Tokay Avenue at Highland Avenue	U	9.4	A	10.0	A
D3	Cherimoya Avenue at Highland Avenue	U	9.5	A	10.0	A

Notes:

- Bold values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

S = Signalized
U = Unsignalized

TABLE 2
SUMMARY OF ROADWAY SEGMENT ANALYSIS
EXISTING CONDITIONS

Roadway	Segment	Existing Configuration	Existing ADT	LOS E Capacity ¹	V/C	LOS
Highland Avenue	Beech Avenue to Citrus Avenue	3-Lane Primary Highway	7,014	27,000	0.260	A
	Citrus Avenue to Oleander Avenue	4-Lane Primary Highway	11,327	36,000	0.315	A
Citrus Avenue	SR-210 EB Ramps to Highland Avenue	4-Lane Primary Highway	36,783	36,000	1.022	F
	Highland Avenue to Walnut Avenue	4-Lane Primary Highway	28,628	36,000	0.795	C

Notes: ¹ Source: City of Fontana, [Fontana Forward General Plan Update 2015-2035, Draft Environmental Impact Report](#)

LOS = Level of Service

ADT = Average Daily Traffic

V / C = Volume to Capacity

PROJECT TRAFFIC

Project Trip Generation

Trip generation estimates for the project are based on daily and peak hourly trip generation rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition). ITE trip generation estimates for the project are based on the trip generation rates for the following ITE Land Uses: Hotel (Land Use 310); Recreational Community Center (Land Use 495); High-Turnover (Sit-Down) Restaurant (Land Use 932); and Fast-Food Restaurant w/ Drive-thru (Land Use 934).

Not all trips from the project are anticipated to be new. Some trips are expected to be captured by the internal land uses, or from the existing flow of traffic passing the site. Internal capture and pass-by trip reductions were applied to the project based on methodology within the ITE Trip Generation Handbook (3rd Edition) and the National Cooperative Highway Research Program (NCHRP) 684 Internal Trip Capture Estimation Tool.

Trip generation rates and the resulting trip generation estimates for the Fontana Square Project are summarized on Table 3. Internal capture worksheets are included in *Appendix D*.

After applying internal capture and pass-by, the project is estimated to generate 4,573 net new trips on a daily basis, with 264 net new trips in the morning peak hour, and 259 net new trips in the evening peak hour.

Trip Distribution and Assignment

Project trip distribution assumptions for the project site were developed taking into account the proposed site uses, existing travel patterns, and routes to and from the freeway system. Trip distribution assumptions are shown on Figure 6. Based on the trip distribution and assignment assumptions, the new trips to be added to the street system by the proposed project were calculated and are shown on Figure 7.

TABLE 3
SUMMARY OF PROJECT TRIP GENERATION
FONTANA SQUARE PROJECT

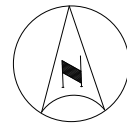
Land Use	ITE Code	Unit	Trip Generation Rates ¹						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Hotel	310	Room	8.360	0.277	0.193	0.470	0.306	0.294	0.600
Recreational Community Center	495	KSF	28.820	1.162	0.598	1.760	1.086	1.224	2.310
High-Turnover (Sit-Down) Restaurant	932	KSF	112.180	5.467	4.473	9.940	6.057	3.713	9.770
Fast-Food Restaurant w/ Drive-thru	934	KSF	470.950	20.497	19.693	40.190	16.988	15.682	32.670

Land Use	Quantity	Unit	Trip Generation Estimates						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Hotel (Holiday Inn Express)	104	Room	869	29	20	49	32	31	63
Hotel (Staybridge Suites)	117	Room	978	32	23	55	36	34	70
Recreational Community Center (Banquet Hall)	23.800	KSF	686	28	14	42	26	29	55
High-Turnover (Sit-Down) Restaurant	5.000	KSF	561	27	22	49	30	19	49
Fast-Food Restaurant w/ Drive-thru	3.885	KSF	1,830	80	77	157	66	61	127
Total Before Internal Capture/Pass-by			4,924	196	156	352	190	174	364
Internal Capture (4% Daily; 4% AM; 7% PM) ²			-197	-8	-6	-14	-13	-12	-25
Pass-By Reduction for High-Turnover (Sit-Down) Restaraunt - (43% PM) ³			-20	0	0	0	-12	-8	-20
Pass-By Reduction for Fast-Food Restaurant w/ Drive-thru - (49% AM; 50% PM) ³			-134	-38	-36	-74	-31	-29	-60
Total Net New Project Trips			4,573	150	114	264	134	125	259

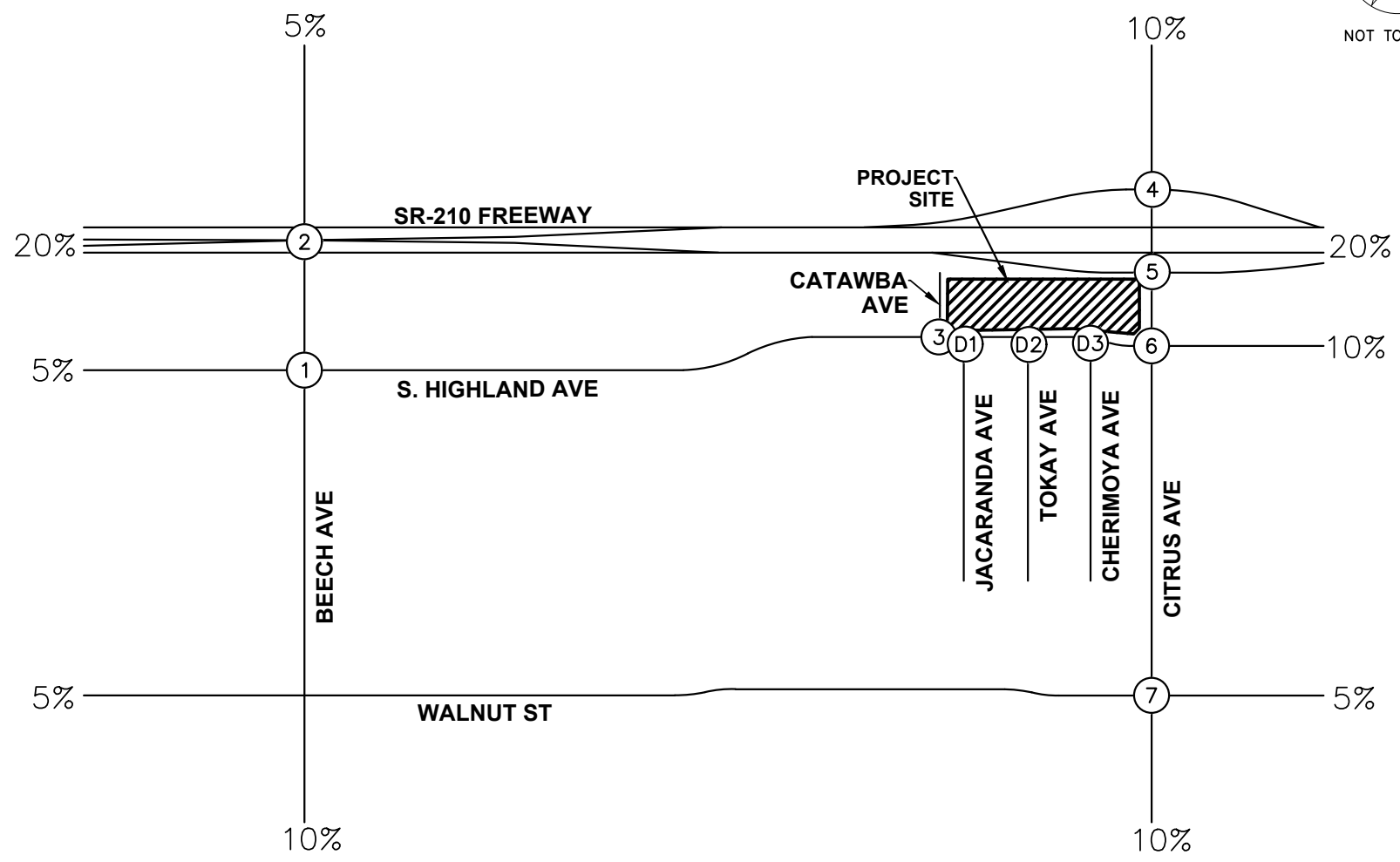
¹ Source: Institute of Transportation Engineers publication: Trip Generation Manual, 10th Edition

² See Internal Capture Worksheets

³ Source: Institute of Transportation Engineers (ITE) Trip Generation Handbook, 3rd Edition. The daily pass-by trips shown are the sum of the AM and the PM pass-by trips.



NOT TO SCALE



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FIGURE 6
PROJECT TRIP DISTRIBUTION

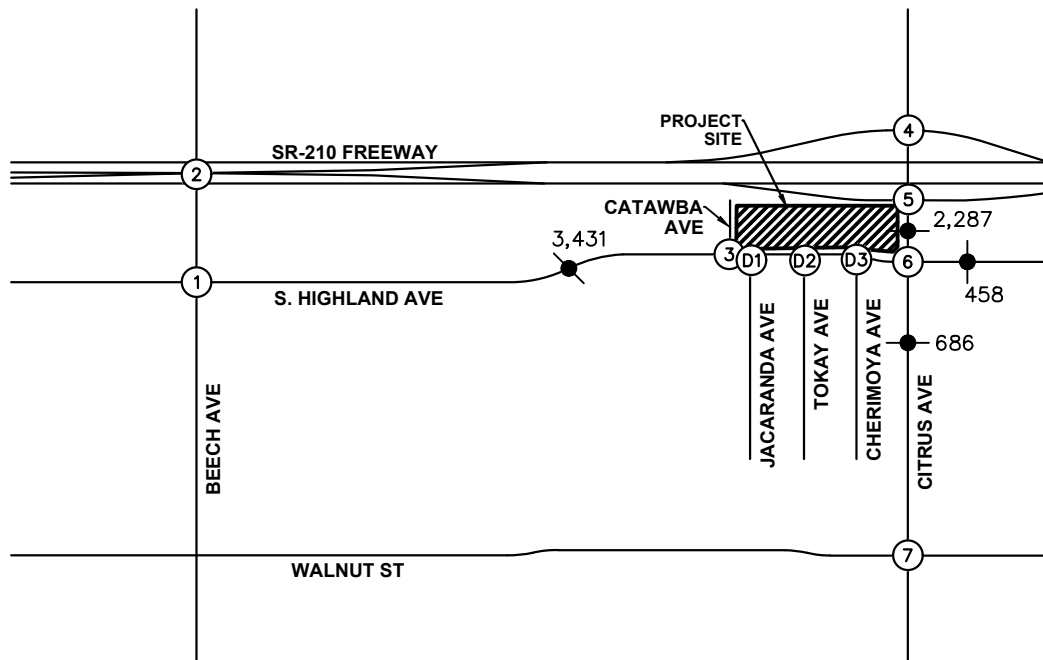
LEGEND:

- ⊗ = Study Intersection
- XX% = Trip Distribution





NOT TO SCALE



1. Beech Ave at Highland Ave	2. Beech Ave at SR-210 HOV Ramps	3. Catawba Ave at Highland Ave	4. Citrus Ave at SR-210 WB Ramps	5. Citrus Ave at SR-210 EB Ramps
6. Citrus Ave at Highland Ave	7. Citrus Ave at Walnut St	D1. Jacaranda Ave at Highland Ave	D2. Tokay Ave at Highland Ave	D3. Cherimoya Ave at Highland Ave

LEGEND:

- (X) = Study Intersection
- = Average Daily Traffic Volume
- XXXX = Average Daily Traffic Volume
- XX/YY = AM/PM Peak Hour Turning Movement Volumes

**FIGURE 7
PROJECT-RELATED TRAFFIC VOLUMES**

EXISTING PLUS PROJECT

Project-related traffic was added to the Existing traffic volumes, and the resulting traffic volumes at the study locations are shown on Figure 8.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the morning and evening peak hours for the Existing Plus Project conditions. The results of the intersection analysis are shown on Table 4.

Review of this table indicates that, with the addition of project traffic, all of the study intersections would operate at an acceptable Level of Service.

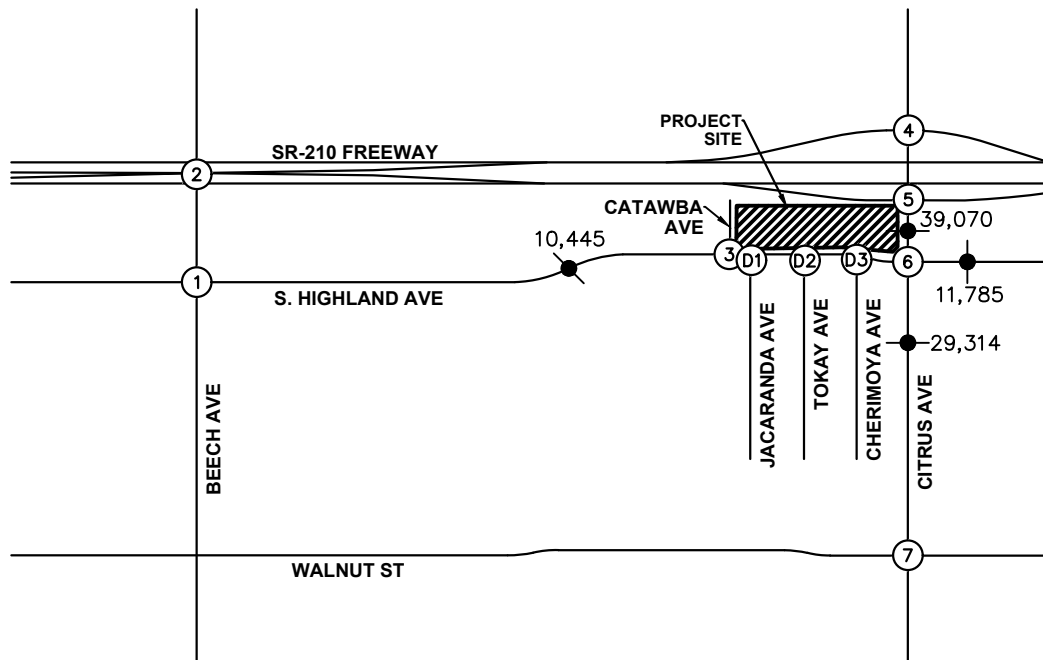
Daily Roadway Operating Conditions

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 Plus Project conditions are shown on Table 5. Review of this table indicates that the following study roadway segments would operate at an unacceptable Level of Service:

- Citrus Avenue from SR-210 EB Ramps to Highland Avenue: LOS F
- Citrus Avenue from Highland Avenue to Walnut Avenue: LOS D



NOT TO SCALE



1. Beech Ave at Highland Ave	2. Beech Ave at SR-210 HOV Ramps	3. Catawba Ave at Highland Ave	4. Citrus Ave at SR-210 WB Ramps	5. Citrus Ave at SR-210 EB Ramps
6. Citrus Ave at Highland Ave	7. Citrus Ave at Walnut St	D1. Jacaranda Ave at Highland Ave	D2. Tokay Ave at Highland Ave	D3. Cherimoya Ave at Highland Ave

LEGEND:

- = Study Intersection
- = Average Daily Traffic Volume
- XXXX = Average Daily Traffic Volume
- XX/YY = AM/PM Peak Hour Turning Movement Volumes

**FIGURE 8
EXISTING PLUS PROJECT
TRAFFIC VOLUMES**

TABLE 4
SUMMARY OF INTERSECTION OPERATION
EXISTING PLUS PROJECT

Int. #	Intersection	Traffic Control	AM Peak Hour						PM Peak Hour					
			Without Project		With Project		Change in Delay	Project-Related Effect?	Without Project		With Project		Change in Delay	Project-Related Effect?
			Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS		
1	Beech Avenue at Highland Avenue	S	23.8	C	24.9	C	1.1	No	27.6	C	28.0	C	0.4	No
2	Beech Avenue at SR-210 HOV Ramps	U	16.4	C	16.6	C	0.2	No	15.3	C	15.4	C	0.1	No
3	Catawba Avenue at Highland Avenue	U	11.5	B	11.0	B	-0.5	No	14.8	B	13.7	B	-1.1	No
4	Citrus Avenue at SR-210 WB Ramps	S	20.3	C	20.7	C	0.4	No	29.8	C	30.4	C	0.6	No
5	Citrus Avenue at SR-210 EB Ramps	S	20.4	C	20.7	C	0.3	No	27.8	C	30.9	C	3.1	No
6	Citrus Avenue at Highland Avenue	S	23.6	C	25.8	C	2.2	No	29.7	C	31.7	C	2.0	No
7	Citrus Avenue at Walnut Street	S	11.2	B	11.6	B	0.4	No	11.9	B	12.3	B	0.4	No
D1	Jacaranda Avenue at Highland Avenue	U	10.4	B	12.8	B	2.4	No	11.6	B	19.4	C	7.8	No
D2	Tokay Avenue at Highland Avenue	S	9.4	A	11.9	B	2.5	No	10.0	A	9.6	A	-0.4	No
D3	Cherimoya Avenue at Highland Avenue	U	9.5	A	9.9	A	0.4	No	10.0	A	10.6	B	0.6	No

Notes:

- Bold values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

S = Signalized
U = Unsignalized

TABLE 5
SUMMARY OF ROADWAY SEGMENT ANALYSIS
EXISTING PLUS PROJECT

Roadway	Segment	Existing ADT	Project ADT	Existing Plus Project ADT	LOS E Capacity ¹	V/C	LOS
Highland Avenue	Beech Avenue to Citrus Avenue	7,014	3,431	10,445	27,000	0.387	A
	Citrus Avenue to Oleander Avenue	11,327	458	11,785	36,000	0.327	A
Citrus Avenue	SR-210 EB Ramps to Highland Avenue	36,783	2,287	39,070	36,000	1.085	F
	Highland Avenue to Walnut Avenue	28,628	686	29,314	36,000	0.814	D

Notes: ¹ Source: City of Fontana, Fontana Forward General Plan Update 2015-2035, Draft Environmental Impact Report
LOS = Level of Service
ADT = Average Daily Traffic
V / C = Volume to Capacity

FUTURE CONDITIONS

Opening Year 2023 Cumulative

The Project Opening Year (the year the project would be constructed and occupied) is anticipated to be Year 2023. Based on consultation with City staff, an ambient growth rate of 2.0% per year to Opening Year 2023 was applied to existing traffic volumes. Cumulative Project traffic was also added to Opening Year 2023 volumes and is explained below.

Cumulative Projects

Information about Cumulative Projects in the area was provided by the City of Fontana. Cumulative Projects consist of any project that has been approved but is not yet constructed/occupied, and projects that are in various stages of the application and approval process but have not yet been approved. A summary of Cumulative Projects in the project vicinity and the trip generation associated with each is provided on Table 6. The locations of the Cumulative Projects are shown on Figure 9.

Cumulative Projects Trip Generation

Trip generation information for Cumulative Projects was derived either from approved traffic studies, where available; or developed by Kimley-Horn if approved traffic studies were not available.

Cumulative Projects Trip Distribution and Assignment

Likewise, trip distribution and assignment for the Cumulative Projects were either derived from approved traffic studies, where available; or were developed by Kimley-Horn if approved traffic studies were not available. Project information and trip distribution assumptions for Cumulative Projects are provided in *Appendix E*.

Ambient growth and Cumulative Project trips were added to existing traffic to develop Opening Year 2023 Cumulative forecasts. The resulting peak hour turning movement volumes at the study locations are shown in Figure 10.

TABLE 6
SUMMARY OF CUMULATIVE PROJECTS
FONTANA SQUARE PROJECT

Proj #	Description	Land Use	Quantity	Units	Trip Generation Estimates						
					AM Peak Hour			PM Peak Hour			
					Daily	In	Out	Total	In	Out	Total
1	Shady Trails PA 13 & 14	Single-Family Detached Housing	101	DU	953	19	56	75	63	37	100
2	Shady Trail Spa 16	Multifamily Housing (Mid-Rise)	139	DU	756	13	37	50	37	24	61
3	Casa Grande Warehouse	Warehousing	188.338	KSF	328	25	7	32	10	26	36
4	Sierra/Summit Warehouse	Warehousing	92.380	KSF	161	12	4	16	5	13	18
5	Mango Avenue Industrial	Warehousing	115.100	KSF	200	15	4	19	6	16	22
6	Sierra Lakes & Mango Convenience Store and Pumps	Convenience Market w/ Gasoline Pumps	8	FP	2,580	83	83	166	92	92	184
7	Smile Studio Dental Building	Medical-Dental Office Building	3.834	KSF	133	8	2	10	4	10	14
8	Costco Fuel Facility Expansion	Gasoline/Service Station	4	FP	688	21	21	42	28	28	56
9	The Retreat	Mixed Residential	196	DU	1,638	29	88	117	95	56	151
10	Citrus Crossroads	Shopping Center	40.100	KSF	1,514	23	14	37	73	79	152
11	Fontana Hyundai	Automobile Sales (New)	26.083	KSF	726	36	13	49	25	38	63
12	Fontana CDRJ Dealership	Automobile Sales (New)	44.625	KSF	1,242	61	23	84	43	65	108
		Automated Car Wash	4.150	KSF	677	24	14	38	29	29	58
13	Walnut Village Senior Housing	Senior Adult Housing-Detached	93	DU	397	7	15	22	17	11	28
14	Providence II Amendment	Single-Family Detached Housing	96	DU	906	18	53	71	60	35	95
15	Kingston Meadow	Single-Family Detached Housing	19	DU	179	4	11	15	12	7	19
16	Baseline Apartments	Multifamily Housing (Low-Rise)	54	DU	395	6	19	25	19	11	30
17	Multi-Family Project	Multifamily Housing (Mid-Rise)	60	DU	326	6	16	22	16	10	26
18	Mango Villas	Single-Family Detached Housing	15	DU	142	3	8	11	9	5	14
19	Almeria Senior Housing	Senior Adult Housing-Detached	72	DU	307	6	12	18	13	8	21
20	Single Family Residences	Single-Family Detached Housing	5	DU	47	1	3	4	3	2	5
Total Project Trips					14,295	420	503	923	659	602	1,261
DU = Dwelling Unit, KSF = 1,000 square feet, FP = Fueling Position											



NOT TO SCALE

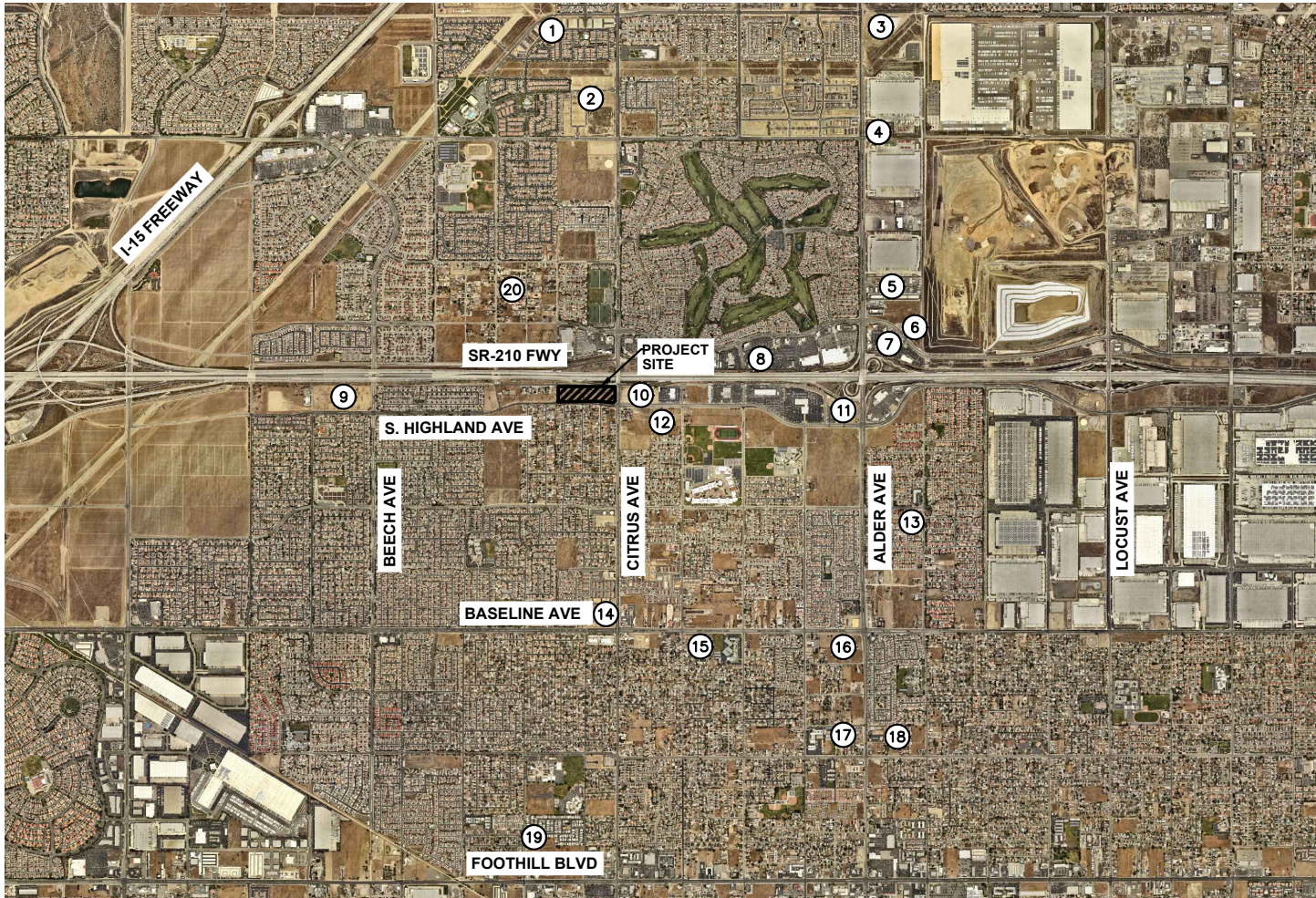
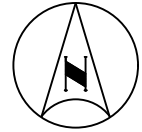


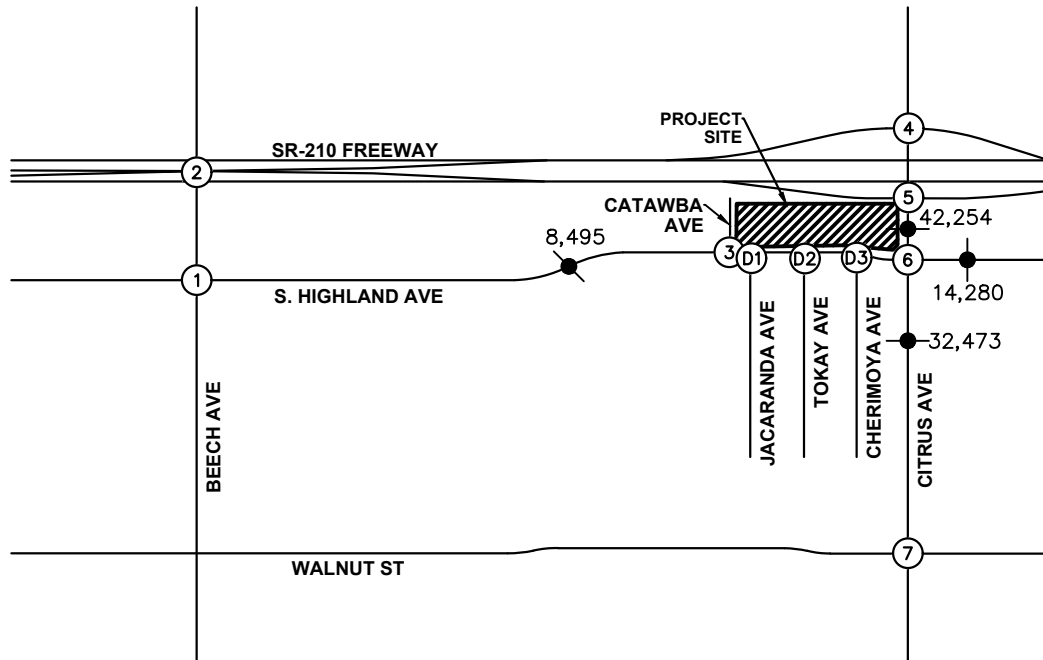
FIGURE 9
LOCATION OF CUMULATIVE PROJECTS

LEGEND:
⊗ = Cumulative Project





NOT TO SCALE



1. Beech Ave at Highland Ave	2. Beech Ave at SR-210 HOV Ramps	3. Catawba Ave at Highland Ave	4. Citrus Ave at SR-210 WB Ramps	5. Citrus Ave at SR-210 EB Ramps
6. Citrus Ave at Highland Ave	7. Citrus Ave at Walnut St	D1. Jacaranda Ave at Highland Ave	D2. Tokay Ave at Highland Ave	D3. Cherimoya Ave at Highland Ave

LEGEND:

- = Study Intersection
- = Average Daily Traffic Volume
- XXXX
- XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 10
OPENING YEAR 2023 CUMULATIVE
TRAFFIC VOLUMES

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the morning and evening peak hours for the Opening Year 2023 Cumulative conditions. The results are shown on Table 7. Intersection analysis worksheets are provided in *Appendix C*.

Review of this table indicates that, with the addition of ambient growth and cumulative project traffic, the following study intersections would operate at an unacceptable Level of Service:

- #4 – Citrus Avenue at SR-210 WB Ramps: PM – LOS D
- #5 – Citrus Avenue at SR-210 EB Ramps: PM – LOS D
- #6 – Citrus Avenue at Highland Avenue: PM – LOS D

Daily Roadway Operating Conditions

The results of the roadway analysis for Opening Year 2023 Cumulative conditions are shown on Table 8. Review of this table indicates that the following study roadway segments would continue to operate at an unacceptable Level of Service:

- Citrus Avenue from SR-210 EB Ramps to Highland Avenue: LOS F
- Citrus Avenue from Highland Avenue to Walnut Avenue: LOS D

TABLE 7
SUMMARY OF INTERSECTION OPERATION
OPENING YEAR 2023 CUMULATIVE

Int. #	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Beech Avenue at Highland Avenue	25.7	C	29.2	C
2	Beech Avenue at SR-210 HOV Ramps	18.3	C	17.0	C
3	Catawba Avenue at Highland Avenue	12.1	B	16.0	C
4	Citrus Avenue at SR-210 WB Ramps	22.1	C	42.5	D
5	Citrus Avenue at SR-210 EB Ramps	22.7	C	42.8	D
6	Citrus Avenue at Highland Avenue	26.5	C	47.5	D
7	Citrus Avenue at Walnut Street	12.4	B	13.4	B
D1	Jacaranda Avenue at Highland Avenue	10.8	B	12.2	B
D2	Tokay Avenue at Highland Avenue	9.7	A	10.2	B
D3	Cherimoya Avenue at Highland Avenue	9.7	A	10.3	B

Note:

- Bold values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

TABLE 8
SUMMARY OF ROADWAY SEGMENT ANALYSIS
OPENING YEAR 2023 CUMULATIVE

Roadway	Segment	Existing ADT	Opening Year 2023 Base ADT	Cumulative Projects	Opening Year 2023 Cumulative ADT	LOS E Capacity ¹	V/C	LOS
Highland Avenue	Beech Avenue to Citrus Avenue	7,014	7,295	1,200	8,495	27,000	0.315	A
	Citrus Avenue to Oleander Avenue	11,327	11,780	2,500	14,280	36,000	0.397	A
Citrus Avenue	SR-210 EB Ramps to Highland Avenue	36,783	38,254	4,000	42,254	36,000	1.174	F
	Highland Avenue to Walnut Avenue	28,628	29,773	2,700	32,473	36,000	0.902	D

Notes: ¹ Source: City of Fontana, [Fontana Forward General Plan Update 2015-2035, Draft Environmental Impact Report](#)
LOS = Level of Service
ADT = Average Daily Traffic
V / C = Volume to Capacity

FUTURE CONDITIONS PLUS PROJECT

Opening Year 2023 Cumulative Plus Project

Project-related traffic was added to the Opening Year 2023 Cumulative traffic volumes, and the resulting peak hour turning movement volumes at the study intersections are shown on Figure 11.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the morning and evening peak hours for the Opening Year 2023 Cumulative Plus Project conditions. The results of the intersection analysis are shown on Table 9. Copies of intersection analysis worksheets for this scenario are provided in *Appendix C*.

Review of this table indicates that, with the addition project traffic, the following study intersections would continue to operate at an unacceptable Level of Service:

- #4 – Citrus Avenue at SR-210 WB Ramps: PM – LOS D
- #5 – Citrus Avenue at SR-210 EB Ramps: PM – LOS D
- #6 – Citrus Avenue at Highland Avenue: PM – LOS D

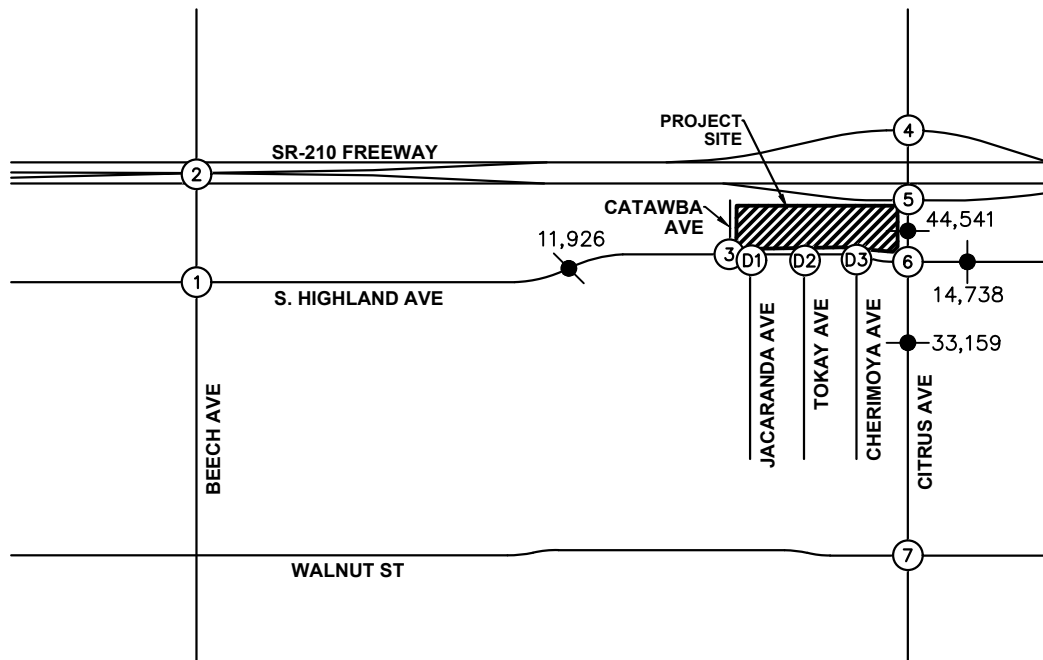
Based on the significance thresholds presented earlier in this report, the following intersection would experience a project-related effect due to the increase in delay caused by the addition of project traffic:

- D1 – Jacaranda Avenue at Highland Avenue: PM – LOS C

The Level of Service for an unsignalized intersection is reported based on the single approach movement with the highest delay, which in this case, would be the southbound left-turn for intersection D1. The traffic on this approach would experience delay during the evening peak hour while waiting for an acceptable gap in traffic on Highland Avenue. While the side street approach operates at a deficient Level of Service based on the highest delay movement (southbound left-turn), the overall intersection delay would be acceptable. Any queuing that occurs on the side street is contained on the minor intersection approach, would occur only a limited period of time, and would not impact the progression of traffic on the main arterial. Intersection analysis worksheets are provided in *Appendix C*.



NOT TO SCALE



1. Beech Ave at Highland Ave	2. Beech Ave at SR-210 HOV Ramps	3. Catawba Ave at Highland Ave	4. Citrus Ave at SR-210 WB Ramps	5. Citrus Ave at SR-210 EB Ramps
6. Citrus Ave at Highland Ave	7. Citrus Ave at Walnut St	D1. Jacaranda Ave at Highland Ave	D2. Tokay Ave at Highland Ave	D3. Cherimoya Ave at Highland Ave

LEGEND:

- = Study Intersection
- = Average Daily Traffic Volume
- XXXX
- XX/YY = AM/PM Peak Hour Turning Movement Volumes

**FIGURE 11
OPENING YEAR 2023 CUMULATIVE
PLUS PROJECT TRAFFIC VOLUMES**

TABLE 9
SUMMARY OF INTERSECTION OPERATION
OPENING YEAR 2023 CUMULATIVE PLUS PROJECT

Int. #	Intersection	AM Peak Hour						PM Peak Hour					
		Without Project		With Project		Change in Delay	Project-Related Effect?	Without Project		With Project		Change in Delay	Project-Related Effect?
		Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS		
1	Beech Avenue at Highland Avenue	25.7	C	26.6	C	0.9	No	29.2	C	29.6	C	0.4	No
2	Beech Avenue at SR-210 HOV Ramps	18.3	C	18.6	C	0.3	No	17.0	C	17.2	C	0.2	No
3	Catawba Avenue at Highland Avenue	12.1	B	11.3	B	-0.8	No	16.0	C	14.8	B	-1.2	No
4	Citrus Avenue at SR-210 WB Ramps	22.1	C	22.5	C	0.4	No	42.5	D	44.6	D	2.1	No
5	Citrus Avenue at SR-210 EB Ramps	22.7	C	23.4	C	0.7	No	42.8	D	47.4	D	4.6	No
6	Citrus Avenue at Highland Avenue	26.5	C	29.5	C	3.0	No	47.5	D	49.6	D	2.1	No
7	Citrus Avenue at Walnut Street	12.4	B	12.8	B	0.4	No	13.4	B	13.8	B	0.4	No
D1	Jacaranda Avenue at Highland Avenue	10.8	B	13.6	B	2.8	No	12.2	B	22.6	C	10.4	Yes
D2	Tokay Avenue at Highland Avenue	9.7	A	11.2	B	1.5	No	10.2	B	9.2	A	-1.0	No
D3	Cherimoya Avenue at Highland Avenue	9.7	A	10.2	B	0.5	No	10.3	B	10.8	B	0.5	No

Notes:

- Bold values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

Daily Roadway Operating Conditions

The results of the roadway analysis for Opening Year 2023 Cumulative Plus Project conditions are shown on Table 10. Review of this table indicates that the following study roadway segments would continue to operate at an unacceptable Level of Service:

- Citrus Avenue from SR-210 EB Ramps to Highland Avenue: LOS F
- Citrus Avenue from Highland Avenue to Walnut Avenue: LOS E

Recommended Improvements for the roadway segments are presented in the Recommended Improvements section of this report.

TABLE 10
SUMMARY OF ROADWAY SEGMENT ANALYSIS
OPENING YEAR 2023 CUMULATIVE PLUS PROJECT

Roadway	Segment	Opening Year 2023 Cumulative ADT	Project ADT	Opening Year 2023 Plus Project ADT	LOS E Capacity ¹	V/C	LOS
Highland Avenue	Beech Avenue to Citrus Avenue	8,495	3,431	11,926	36,000	0.331	A
	Citrus Avenue to Oleander Avenue	14,280	458	14,738	36,000	0.409	A
Citrus Avenue	SR-210 EB Ramps to Highland Avenue	42,254	2,287	44,541	36,000	1.237	F
	Highland Avenue to Walnut Avenue	32,473	686	33,159	36,000	0.921	E

Notes: ¹ Source: City of Fontana, [Fontana Forward General Plan Update 2015-2035, Draft Environmental Impact Report](#)
LOS = Level of Service
ADT = Average Daily Traffic
V / C = Volume to Capacity

HORIZON YEAR CONDITIONS

Horizon Year 2040

To develop the Horizon Year 2040 intersection turning movement forecasts, the San Bernardino Transportation Analysis Model (SBTAM) Base Year 2012 and Horizon Year 2040 future traffic projections were used. The raw forecasts obtained from the model output were post-processed by determining the annual growth between the base model year and the future model year, and applying the resulting growth to existing count volumes. The B-Turns analysis worksheets, developed by the Federal Highway Administration (FHWA), translate the grown volumes into peak hour turning movements. As a conservative approach, if a turning movement volume produced by this model was less than Opening Year 2023 volumes for that movement, manual adjustments were made to assure that all forecast Horizon Year volumes would be equal to or greater than the Opening Year 2023 turning movement volumes. Both SBTAM Model plots and B-Turns analysis worksheets are provided in *Appendix F*. The resulting traffic volumes for Horizon Year 2040 condition are shown on Figure 12.

The Horizon Year lane geometries for the study intersections and roadways are assumed to be the same as Existing conditions, previously shown on Figure 3.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the morning and evening peak hours for the Horizon Year 2040 conditions. The results of the intersection analysis are shown on Table 11. Copies of intersection analysis worksheets for this scenario are provided in *Appendix C*.

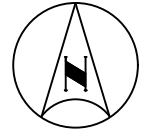
Review of this table indicates that under Horizon Year 2040 conditions, the following study intersections would operate at an unacceptable Level of Service:

- #2 – Beech Avenue at SR-210 HOV Ramps: PM – LOS D
- #4 – Citrus Avenue at SR-210 WB Ramps: PM – LOS D
- #5 – Citrus Avenue at SR-210 EB Ramps: PM – LOS E
- #6 – Citrus Avenue at Highland Avenue: PM – LOS D

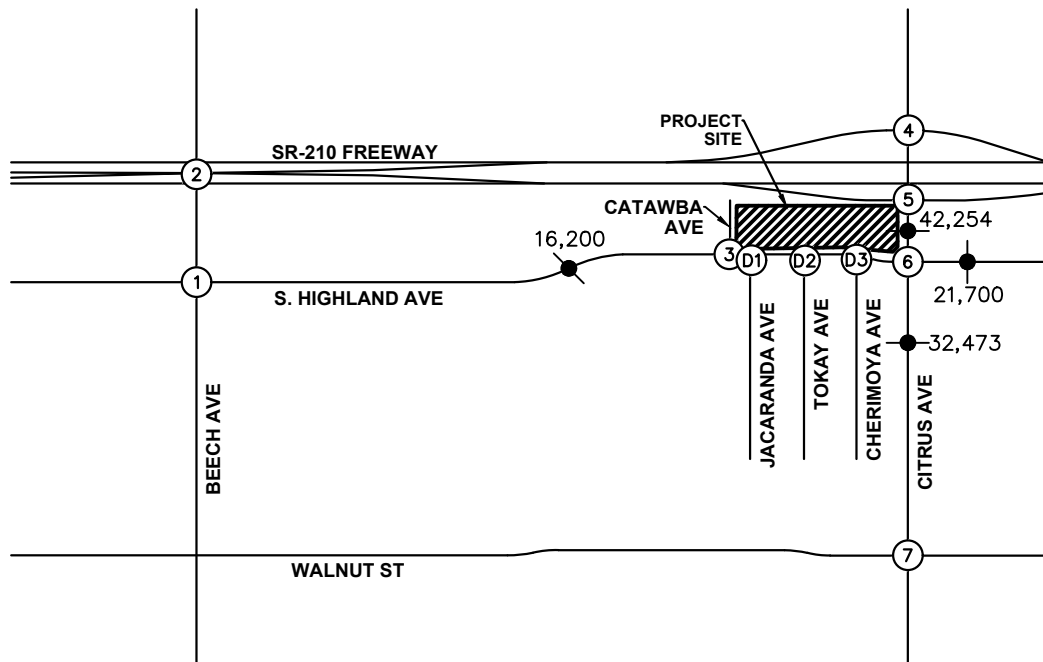
Daily Roadway Operating Conditions

The results of the roadway analysis for Horizon Year 2040 conditions are shown on Table 12. Review of this table indicates that the following study roadway segments would continue to operate at an unacceptable Level of Service:

- Citrus Avenue from SR-210 EB Ramps to Highland Avenue: LOS F
- Citrus Avenue from Highland Avenue to Walnut Avenue: LOS D



NOT TO SCALE



1. Beech Ave at Highland Ave	2. Beech Ave at SR-210 HOV Ramps	3. Catawba Ave at Highland Ave	4. Citrus Ave at SR-210 WB Ramps	5. Citrus Ave at SR-210 EB Ramps
6. Citrus Ave at Highland Ave	7. Citrus Ave at Walnut St	D1. Jacaranda Ave at Highland Ave	D2. Tokay Ave at Highland Ave	D3. Cherimoya Ave at Highland Ave

LEGEND:

- = Study Intersection
- = Average Daily Traffic Volume
- XXXX
- XX/YY = AM/PM Peak Hour Turning Movement Volumes

**FIGURE 12
HORIZON YEAR 2040
TRAFFIC VOLUMES**

TABLE 11
SUMMARY OF INTERSECTION OPERATION
HORIZON YEAR 2040

Int. #	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Beech Avenue at Highland Avenue	26.2	C	30.6	C
2	Beech Avenue at SR-210 HOV Ramps	24.7	C	25.2	D
3	Catawba Avenue at Highland Avenue	13.1	B	18.4	C
4	Citrus Avenue at SR-210 WB Ramps	23.9	C	35.4	D
5	Citrus Avenue at SR-210 EB Ramps	22.6	C	67.0	E
6	Citrus Avenue at Highland Avenue	27.4	C	48.7	D
7	Citrus Avenue at Walnut Street	13.8	B	16.9	B
D1	Jacaranda Avenue at Highland Avenue	11.1	B	14.5	B
D2	Tokay Avenue at Highland Avenue	9.8	A	11.1	B
D3	Cherimoya Avenue at Highland Avenue	9.8	A	11.2	B

Note:

- Bold values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

TABLE 12
SUMMARY OF ROADWAY SEGMENT ANALYSIS
HORIZON YEAR 2040

Roadway	Segment	Horizon Year 2040 ADT	LOS E Capacity ¹	V/C	LOS
Highland Avenue	Beech Avenue to Citrus Avenue	16,200	27,000	0.600	A
	Citrus Avenue to Oleander Avenue	21,700	36,000	0.603	A
Citrus Avenue	SR-210 EB Ramps to Highland Avenue	42,254	36,000	1.174	F
	Highland Avenue to Walnut Avenue	32,473	36,000	0.902	D

Notes: ¹ Source: City of Fontana, Fontana Forward General Plan Update 2015-2035, Draft Environmental Impact Report
 LOS = Level of Service
 ADT = Average Daily Traffic
 V / C = Volume to Capacity

Horizon Year 2040 Plus Project

Project-related traffic was added to the Horizon Year 2040 traffic volumes. Horizon Year 2040 Plus Project peak hour turning movement volumes at study intersections and daily roadway volumes are shown on Figure 13.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the morning and evening peak hours for the Horizon Year 2040 Plus Project conditions. The results of the intersection analysis are shown on Table 13. Copies of intersection analysis worksheets for this scenario are provided in *Appendix C*.

Review of this table indicates that, with the addition of project traffic, the following study intersections would operate at an unacceptable Level of Service:

- #2 – Beech Avenue at SR-210 HOV Ramps: AM – LOS D; PM – LOS D
- #4 – Citrus Avenue at SR-210 WB Ramps: PM – LOS D
- #5 – Citrus Avenue at SR-210 EB Ramps: PM – LOS D
- #6 – Citrus Avenue at Highland Avenue: PM – LOS D
- D1 – Jacaranda Avenue at Highland Avenue: PM – LOS D

Based on the significance thresholds presented earlier in this report, the following intersections would experience a project-related effect due to the increase in delay caused by the addition of project traffic:

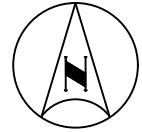
- D1 – Jacaranda Avenue at Highland Avenue: PM – LOS D

Daily Roadway Operating Conditions

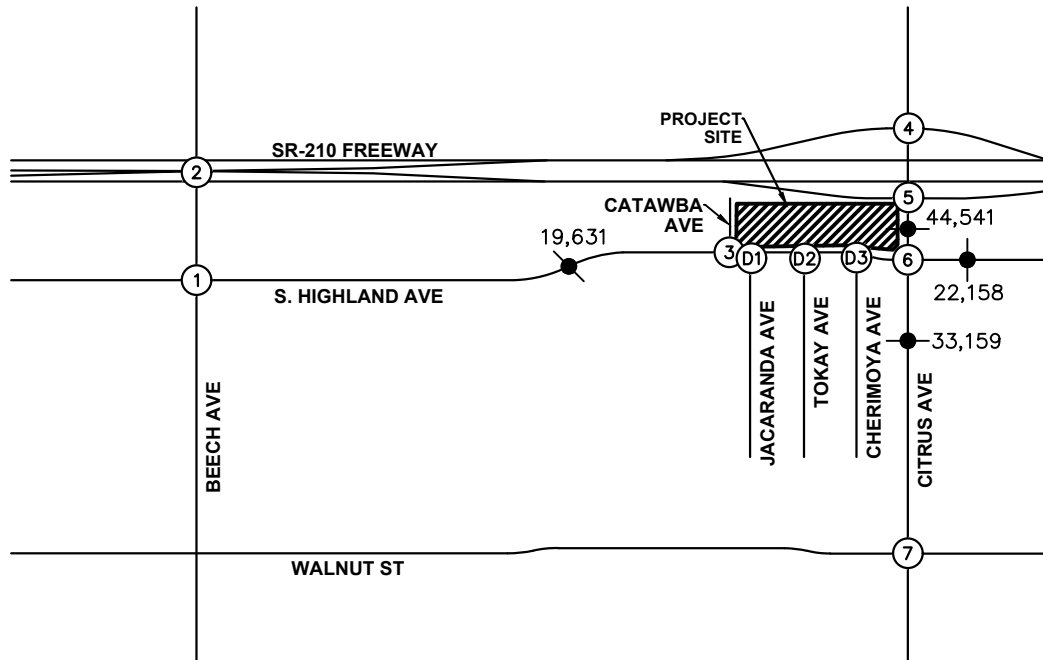
The results of the roadway analysis for Horizon Year 2040 Plus Project conditions are shown on Table 14. Review of this table indicates that the following study roadway segments would continue to operate at an unacceptable Level of Service:

- Citrus Avenue from SR-210 EB Ramps to Highland Avenue: LOS F
- Citrus Avenue from Highland Avenue to Walnut Avenue: LOS E

Recommended Improvements for the roadway segments are presented in the Recommended Improvements section of this report.



NOT TO SCALE



1. Beech Ave at Highland Ave	2. Beech Ave at SR-210 HOV Ramps	3. Catawba Ave at Highland Ave	4. Citrus Ave at SR-210 WB Ramps	5. Citrus Ave at SR-210 EB Ramps
6. Citrus Ave at Highland Ave	7. Citrus Ave at Walnut St	D1. Jacaranda Ave at Highland Ave	D2. Tokay Ave at Highland Ave	D3. Cherimoya Ave at Highland Ave

LEGEND:

- = Study Intersection
- = Average Daily Traffic Volume
- XXXX = Average Daily Traffic Volume
- XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 13
HORIZON YEAR 2040 PLUS PROJECT
TRAFFIC VOLUMES

TABLE 13
SUMMARY OF INTERSECTION OPERATION
HORIZON YEAR 2040 PLUS PROJECT

Int. #	Intersection	AM Peak Hour						PM Peak Hour					
		Without Project		With Project		Change in Delay	Project-Related Effect?	Without Project		With Project		Change in Delay	Project-Related Effect?
		Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS		
1	Beech Avenue at Highland Avenue	26.2	C	26.8	C	0.6	No	30.6	C	31.5	C	0.9	No
2	Beech Avenue at SR-210 HOV Ramps	24.7	C	25.3	D	0.6	No	25.2	D	25.7	D	0.5	No
3	Catawba Avenue at Highland Avenue	13.1	B	12.5	B	-0.6	No	18.4	C	16.1	C	-2.3	No
4	Citrus Avenue at SR-210 WB Ramps	23.9	C	24.3	C	0.4	No	35.4	D	36.6	D	1.2	No
5	Citrus Avenue at SR-210 EB Ramps	22.6	C	23.2	C	0.6	No	67.0	E	67.0	E	0.0	No
6	Citrus Avenue at Highland Avenue	27.4	C	29.4	C	2.0	No	48.7	D	50.5	D	1.8	No
7	Citrus Avenue at Walnut Street	13.8	B	14.2	B	0.4	No	16.9	B	17.2	B	0.3	No
D1	Jacaranda Avenue at Highland Avenue	11.1	B	16.7	C	5.6	No	14.5	B	29.9	D	15.4	Yes
D2	Tokay Avenue at Highland Avenue	9.8	A	10.0	A	0.2	No	11.1	B	8.6	A	-2.5	No
D3	Cherimoya Avenue at Highland Avenue	9.8	A	10.3	B	0.5	No	11.2	B	11.8	B	0.6	No

Notes:

- Bold values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

TABLE 14
SUMMARY OF ROADWAY SEGMENT ANALYSIS
HORIZON YEAR 2040 PLUS PROJECT

Roadway	Segment	Horizon Year 2040 ADT	Project ADT	Horizon Year 2040 Plus Project ADT	LOS E Capacity ¹	V/C	LOS
Highland Avenue	Beech Avenue to Citrus Avenue	16,200	3,431	19,631	36,000	0.545	A
	Citrus Avenue to Oleander Avenue	21,700	458	22,158	36,000	0.616	B
Citrus Avenue	SR-210 EB Ramps to Highland Avenue	42,254	2,287	44,541	36,000	1.237	F
	Highland Avenue to Walnut Avenue	32,473	686	33,159	36,000	0.921	E

Notes: ¹ Source: City of Fontana, Fontana Forward General Plan Update 2015-2035, Draft Environmental Impact Report
 LOS = Level of Service
 ADT = Average Daily Traffic
 V / C = Volume to Capacity

SITE ACCESS ANALYSIS

Vehicular access for the project site would be via three driveways on Highland Avenue and one full-movement driveway on Catawba Avenue. The driveways on Highland Avenue would consist of one unsignalized full-movement driveway (across from Jacaranda Avenue), one full-movement signalized driveway (across from Tokay Avenue), and one unsignalized right-in-right-out (RIRO) driveway (across from Cherimoya Avenue).

STORAGE CAPACITY AT PROJECT DRIVEWAYS

Queue lengths at the project driveways were assessed for the following locations and movements:

- D1 - Jacaranda Avenue at Highland Avenue
 - Southbound Left-Turn
 - Eastbound Left-Turn
- D2 – Tokay Avenue at Highland Avenue
 - Southbound Left-Turn
 - Eastbound Left-Turn
- D3 – Cherimoya Avenue at Highland Avenue
 - Southbound Right-Turn

A summary of the driveway pocket storage capacity, as well as the 50th and 95th percentile queue lengths at the locations noted above are shown on Table 15 and Table 16.

As shown in Tables 15 and 16, the 95th percentile queue exceeds the southbound left turn storage (approximately 2 vehicles) under the Plus Project scenarios during both AM and the PM peak hours. However, it should be noted that the 95th percentile queue has only a 5 percent probability of occurring during the peak hours. The 50th percentile queue, or average queue, is likely to be observed more frequently during the peak hours, and as shown in Tables 15 and 16, the southbound left turn storage is sufficient to meet average queues. Additionally, the project will provide adequate traffic control including signage and pavement markings to ensure internal circulation path is kept clear and is not blocked by turning traffic.

TABLE 15
SUMMARY OF LEFT-TURN POCKET STORAGE CAPACITY - AM PEAK HOUR
FONTANA SQUARE PROJECT

Intersection	Left-Turn Movement	Storage Capacity (ft/In)	AM Peak Hour Queue Length (ft/In)					
			Existing Plus Project		OY Plus Project		HY Plus Project	
			50th Percentile ¹	95th Percentile	50th Percentile ¹	95th Percentile	50th Percentile ¹	95th Percentile
Jacaranda Avenue at Highland Avenue	EBL	--	--	1	--	1	--	1
	SBL	40	--	2	--	2	--	3
Tokay Avenue at Highland Avenue	EBL	--	21	38	21	38	21	38
	SBL	80	68	122	68	122	67	120
Cherimoya Avenue at Highland Avenue	SBR	40	--	2	--	2	--	2

Notes:

¹ 50th percentile queue not reported for unsignalized intersections

TABLE 16
SUMMARY OF LEFT-TURN POCKET STORAGE CAPACITY - PM PEAK HOUR
FONTANA SQUARE PROJECT

Intersection	Left-Turn Movement	Storage Capacity (ft/In)	PM Peak Hour Queue Length (ft/In)					
			Existing Plus Project		OY Plus Project		HY Plus Project	
			50th Percentile ¹	95th Percentile	50th Percentile ¹	95th Percentile	50th Percentile ¹	95th Percentile
Jacaranda Avenue at Highland Avenue	EBL	--	--	1	--	1	--	1
	SBL	40	--	7	--	8	--	11
Tokay Avenue at Highland Avenue	EBL	--	18	32	18	32	18	32
	SBL	80	67	121	67	121	67	121
Cherimoya Avenue at Highland Avenue	SBR	40	--	1	--	1	--	1

Notes:

¹ 50th percentile queue not reported for unsignalized intersections

TRAFFIC SIGNAL WARRANT ANALYSIS

A signal warrant analysis was conducted based on the 2014 California Manual on Uniform Traffic Control Devices (CAMUTCD) for the following intersections.

Jacaranda Avenue at Highland Avenue (D1)

The warrant was conducted using Warrant 3 (Peak Hour Warrant) for the following scenarios:

- Opening Year 2023 Cumulative Plus Project
- Horizon Year 2040 Plus Project

Traffic Signal Warrant Analysis worksheets are provided in *Appendix G*. Under the scenarios noted above, Warrant 3 was not met for the intersection of Jacaranda Avenue at Highland Avenue (D1).

Beech Avenue at SR-210 HOV Ramps (#2)

The warrant was conducted using Warrant 3 (Peak Hour Warrant) for the following scenarios:

- Horizon Year 2040
- Horizon Year 2040 Plus Project

Traffic Signal Warrant Analysis worksheets are provided in *Appendix G*. Based on the signal warrant analysis, Warrant 3 was met during both the AM and PM peak hours under with and without project Horizon Year scenarios for the intersection of Beech Avenue at SR-210 HOV Ramps (#2).

The CA MUTCD specifically states that, "The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal." The reference document goes on to state a number of other factors to take into account when considering a signal for a specific location, including whether or not a signal would improve the overall safety of the intersection, whether it would benefit or disrupt progressive traffic flow (in this case, on Beech Avenue), and consideration of queuing, signal spacing, and overall delay to the main street through movements.

The decision to install a traffic signal should be based on engineering judgment, and not solely upon satisfying a peak hour warrant. It is recommended that a decision about signalization at the intersection should be made based on future observations as well as engineering judgment, based on the factors listed above.

IMPROVEMENTS AND RECOMMENDATIONS

Intersection Improvements

Based on the Level of Service standards and significance criteria discussed previously, intersection improvements are not required at any of the study intersections.

Roadway Improvements

The daily traffic volumes on the segments of Citrus Avenue from SR-210 EB Ramps to Highland Avenue will exceed the roadway capacity in the Existing conditions. Citrus Avenue is currently a four-lane divided roadway, with a capacity of 36,000 vehicles per day (vpd). The project is estimated to add 2,287 vehicles to the segment from SR-210 EB Ramps to Highland Avenue.

Citrus Avenue is designated as a Major Highway (six-lane divided roadway) in the City of Fontana Circulation General Plan. With this improvement, the daily roadway capacity would be 54,000 vehicles per day, and the segment would provide sufficient capacity.

VEHICLE MILES TRAVELED (VMT) ANALYSIS

Introduction

Senate Bill 743 (SB 743) was approved by California legislature in September 2013. SB 743 requires changes to California Environmental Quality Act (CEQA), specifically directing the Governor's Office of Planning and Research (OPR) to develop alternative metrics to the use of vehicular "Level of Service" (LOS) for evaluating transportation projects. OPR has prepared a technical advisory ("OPR Technical Advisory") for evaluating transportation impacts in CEQA and has recommended that Vehicle Miles Traveled (VMT) replace LOS as the primary measure of transportation impacts. This analysis was prepared to document the VMT analysis for the Fontana Square Project following the OPR Technical Advisory (December 2018) and the San Bernardino County Transportation Authority (SBCTA) Recommended VMT Guidelines.

Vehicle Miles Traveled Screening

This section documents Vehicle Miles Traveled (VMT)/SB 743 considerations for the project. OPR provides details on appropriate screening thresholds that can be used to identify when a proposed land use project is anticipated to result in a less-than-significant impact without conducting a more detailed level analysis. Screening thresholds are broken into the following three steps:

1. Transit Priority Area (TPA) Screening
2. Low VMT Area Screening
3. Low Project Type Screening
4. Project Net Daily Trips Less Than 500 ADT Screening

A land use project needs only meet one of the above screening thresholds to be presumed to result in not a significant impact under CEQA pursuant to SB 743.

Transit Priority Area (TPA) Screening

As described in the OPR Guidelines, projects located within half mile from an existing major transit stop or within half of a mile from an existing stop along a high-quality transit corridor can be screened out. Based on San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool, the project is not located in a Transit Priority Area (TPA).

The TPA Screening threshold is not met.

Low VMT Area Screening

The project is located in a Low VMT (15% below County Average) zone based on SBCTA VMT Screening tool, as shown in Table 18.

Table 17 – SBCTA VMT Screening Tool Results

Threshold Option	Threshold	Project	% Above Threshold	Potentially Significant?
OD VMT per Service Population	28.2	25.69	-22.63%	No

The Low VMT Area Screening threshold is met.

Land Use Type Screening

The OPR and SBCTA VMT Guidelines identify that Project types falling under the screening criteria include the following:

- K-12 Schools
- Local-serving retail less than 50,000 square feet
- Local parks
- Day care centers
- Local serving gas stations
- Local serving banks
- Local serving hotels (e.g. non-destination hotels)
- Student housing Projects on or adjacent college campuses
- Local-serving assembly uses, Community Institutions
- Local serving community colleges
- Affordable or supportive housing, Assisted living facilities, Senior housing
- Projects generating less than 110 daily vehicle trips

Based on the Project types above, all Project land uses have been identified as having the presumption of a less-than-significant impact. The proposed Holiday Inn Express Hotel and Staybridge Suites are expected to operate as local serving hotels. The proposed banquet hall is expected to operate as local serving assembly use. The proposed 5,000 SF sit-down restaurant and 3,885 SF In-N-Out Burger are less than 50,000 SF and are expected to operate as local-serving retail. They are not anticipated to lead to longer trips, thus reducing or maintaining regional VMT.

The Low Project Type Screening threshold is met.

Project Net Daily Trips Less Than 500 ADT Screening

Projects that generate fewer than 500 average daily trips (ADT) would not cause a substantial increase in the total citywide or regional VMT and are therefore presumed to have a less-than-significant impact on VMT. Based on Table 3 (previously mentioned), the project is estimated to generate more than 500 average daily trips.

The Project Net Daily Trips Less Than 500 ADT Screening threshold is not met.

Based on the Low VMT Area and Low Project Type Screening criteria, the project may be presumed to create a less-than-significant transportation impact.

DRIVE-THROUGH QUEUING ANALYSIS

City staff has requested that a drive-through queuing analysis be conducted for the proposed project to evaluate the adequacy of the drive-through lane queuing capacity.

The opening to the drive-through lane would be located at the southeastern corner of the proposed building, and the drive-through lane would wrap counterclockwise along the east and north sides of the building. The drive-through would provide two side-by-side entry lanes. After the entry lanes, the two lanes would merge into a single drive-through lane prior to the order boards and pay and pick-up window.

There will be approximately 340 feet of total queuing capacity from the drive-through entrance to the order board and approximately 180 feet from the order board to the pick-up window. This would provide a total drive-through queue length of approximately 520 feet, for a drive-through queuing capacity of 24-26 vehicles, assuming 20-22 feet per vehicle, from beginning of the drive-through lanes to the pick-up window.

Queuing Data Collection

Drive-through (DT) queuing observations were conducted at the following existing drive-through In-N-Out sites:

- City of Corona: 2305 Compton Avenue
- City of Highland: 28009 Greenspot Road
- City of Thousand Palms: 72265 Varner Road

These sites were selected for queuing data collection because of the following site characteristics that are similar to the proposed project:

- An In-N-Out restaurant with a drive-through lane
- Located in Southern California
- Located adjacent to or within a larger commercial center

The drive-through activity was observed during the following times for the In-N-Out sites on a typical weekday and weekend:

- Corona Site:
 - 11:00 AM – 2:00 PM (lunchtime)
 - 4:00 PM – 8:30 PM (commute peak hour/ dinnertime)
- Highland Site:
 - 11:00 AM – 2:00 PM (lunchtime)
 - 4:00 PM – 8:30 PM (commute peak hour/ dinnertime)
- Thousand Palms Site:
 - 11:00 AM – 2:00 PM (lunchtime)
 - 4:00 PM – 8:30 PM (commute peak hour/ dinnertime)

A copy of the queuing data collection worksheets is provided in *Appendix H*.

The results of the observations are summarized in Appendix H for a typical weekday and weekend. The data summaries in Appendix H present the number of vehicles in the drive-through lane, broken down into 15-minute periods, based on the observed average queue, 85th percentile queue, and the peak queue for each of the data collection periods.

Queuing Observations

The queuing activity was observed to vary with an ebb and flow pattern throughout the data collection periods. The following vehicle movement and queuing observations of the drive-through operation at the study locations were made:

Corona Site

- The peak 15 minutes during the weekday lunchtime peak was 12:15 PM to 12:30 PM, with an average queue of 17 vehicles and a peak queue of 24 vehicles.
- The peak 15 minutes during the weekday dinnertime peak was from 6:30 PM to 6:45 PM, with an average queue of 22 vehicles and a peak queue of 24 vehicles.
- The peak 15 minutes during the weekend lunchtime peak was from 1:30 PM to 1:45 PM, with an average queue of 23 vehicles and a peak queue of 24 vehicles.
- The peak 15 minutes during the weekend dinnertime peak was from 6:30 PM to 6:45 PM, with an average queue of 24 vehicles and a peak queue of 25 vehicles.

Highland Site

- The peak 15 minutes during the weekday lunchtime peak was from 12:15 PM to 12:30 PM, with an average queue of 18 vehicles and a peak queue of 21 vehicles.
- The peak 15 minutes during the weekday dinnertime peak was from 6:00 PM to 6:15 PM, with an average queue of 20 vehicles and a peak queue of 23 vehicles.
- The peak 15 minutes during the weekend lunchtime peak was from 1:45 PM to 2:00 PM, with an average queue of 20 vehicles and a peak queue of 22 vehicles.
- The peak 15 minutes during the weekend dinnertime peak was from 6:00 PM to 6:15 PM, with an average queue of 22 vehicles and a peak queue of 23 vehicles.

Thousand Palms Side

- The peak 15 minutes during the weekday lunchtime peak was from 12:45 PM to 1:00 PM, with an average queue of 18 vehicles and a peak queue of 20 vehicles.
- The peak 15 minutes during the weekday dinnertime peak was from 7:15 PM to 7:30 PM, with an average queue of 18 vehicles and a peak queue of 20 vehicles.
- The peak 15 minutes during the weekend lunchtime peak was from 1:30 PM to 1:45 PM, with an average queue of 17 vehicles and a peak queue of 18 vehicles.
- The peak 15 minutes during the weekend dinnertime peak was from 6:45 PM to 7:00 PM, with an average queue of 18 vehicles and a peak queue of 20 vehicles.

General Observations

- At the In-N-Out sites, spillovers outside the drive-through lane opening were observed to occur occasionally and to last briefly.
- Some customers were observed to pull into the site; evaluate the wait time, based on the vehicle queue; and choose to park and go into the building, rather than join the existing queue.
- Based on the drive-through queuing data, the peak observed queue was 25 vehicles. During peak periods, the proposed site would have a drive-through queuing capacity of 26 vehicles. Therefore, the proposed capacity would be able to accommodate the expected peak demand.

SUMMARY OF FINDINGS AND CONCLUSIONS

- The project is located on the northwest corner of the intersection of Highland Avenue and Citrus Avenue, in the northern area of the City of Fontana.
- The project consists of the construction of 5 new buildings: Banquet Hall, Holiday Inn Express Hotel, Staybridge Suites, fast-food restaurant with drive-through, and sit-down restaurant.
- The project is estimated to generate 4,573 net new trips on a daily basis, with 264 net new trips in the morning peak hour, and 259 net new trips in the evening peak hour.
- The project would not have a project-related effect at any of the study intersections in the Existing Plus Project scenario.
- The project would have a project-related effect at the following intersection in the Opening Year 2023 Plus Project scenario:
 - D1 – Jacaranda Avenue at Highland Avenue: PM – LOS C
- The project would have a project-related effect at the following intersection in the Horizon Year 2040 Plus Project scenario:
 - D1 – Jacaranda Avenue at Highland Avenue: PM – LOS D
- Under Existing Conditions, all study roadway segments would operate at Level of Service C or better, except for the following:
 - Citrus Avenue from SR-210 EB Ramps to Highland Avenue
- Under Opening Year and Horizon Year Conditions, all study roadway segments would operate at Level of Service C or better, except for the following:
 - Citrus Avenue from SR-210 EB Ramps to Highland Avenue
 - Citrus Avenue from Highland Avenue to Walnut Avenue
- Based on the storage capacity driveway queuing analysis, the proposed driveways would have enough capacity to accommodate the expected peak demand.
- Based on the site plan, there is sufficient driveway queuing storage on-site for the intersection of Jacaranda Avenue at Highland Avenue. It is recommended that the project driveway queuing be observed to see if there are any driveway queuing concerns when in operation.

- A signal warrant analysis was conducted for the following intersections:
 - D1 – Jacaranda Avenue at Highland Avenue
 - #2 – Beech Avenue at SR-210 HOV Ramps
- Warrant 3 (Peak Hour Warrant) was not met for the intersection of Jacaranda Avenue at Highland Avenue (D1).
- Warrant 3 was met during both the AM and PM peak hours under with and without project Horizon Year scenarios for the intersection of Beech Avenue at SR-210 HOV Ramps (#2).
- The decision to install a traffic signal should be based on engineering judgment, and not solely upon satisfying a peak hour warrant. It is recommended that a decision about signalization at the intersection should be made based on future observations as well as engineering judgment.
- The project would result in a less-than-significant finding under SB 743. Based on the considerations noted above, the project would not generate new "demand", but meets existing demand that would shorten the distance that road users would otherwise travel. Additionally, the project is located in a low VMT area based on the SBCTA VMT Screening Tool. As such the project would result in a less-than-significant finding based on the project being a local-serving use and low VMT area
- Based on the drive-through queuing analysis, the proposed drive-through capacity would be able to accommodate the expected peak demand.

APPENDIX A

APPROVED SCOPING
AGREEMENT

Exhibit B

SCOPING AGREEMENT FOR TRAFFIC IMPACT STUDY

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

Case No. MCN20-000083

Related Cases -

SP No. _____

EIR No. _____

GPA No. _____

CZ No. _____

Project Name: Fontana Square

Project Address: Northwest corner of Highland Ave and Citrus Ave

Project Description: Mixed-Use Hotels and Restaurants (See Site Plan - Attachment 1)

	<u>Consultant</u>	<u>Developer</u>
Name:	<u>Kimley-Horn and Associates, Inc.</u>	<u>ACE Design, LLC</u>
Address:	<u>3880 Lemon Street, Suite 420</u> <u>Riverside, CA 92501</u>	<u>1024 Iron Point Road, Suite 1046</u> <u>Folsom, CA 95630</u>
Telephone:	<u>951-543-9869</u>	<u>702-396-5113</u>
Fax:	_____	_____

A. Trip Generation Source: ITE 10th Edition (see Attachment 2)

Current GP Land Use	<u>Vacant</u>	Proposed Land Use	<u>General Commercial (C-G)</u>
Current Zoning	<u>General Commercial (C-G)</u>	Proposed Zoning	<u>General Commercial (C-G)</u>

	Current Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips	<u>0</u>	<u>0</u>	<u>0</u>	<u>150</u>	<u>114</u>	<u>264</u>
PM Trips	<u>0</u>	<u>0</u>	<u>0</u>	<u>134</u>	<u>125</u>	<u>259</u>

Internal Trip Allowance Yes No (4% Daily; 4% AM; 7% PM % Trip Discount) (See Attachment 3)
Pass-By Trip Allowance Yes No (See Attachment 2 % Trip Discount)

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

B. Trip Geographic Distribution: N 15 % S 20 % E 35 % W 30 %
(attach exhibit for detailed assignment)

(See Attachment 4)

C. Background Traffic

Project Opening & Future Build-Out Year: _____

Annual Ambient Growth Rate: 2.0 %

Phase Year(s) 2023

Other area projects to be analyzed: Information regarding Related Projects will be requested from the Planning Department

Model/Forecast methodology Opening Year 2023: Existing + Growth + Cumulative Projects + Project / Forecast 2040: SBTAM Forecasts

Exhibit B – Scoping Agreement – Page 2

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

- | | |
|---|--|
| 1. <u>Beech Avenue and Highland Avenue</u> | 6. <u>Citrus Avenue and Highland Avenue</u> |
| 2. <u>Beech Avenue and I-210 HOV Ramps</u> | 7. <u>Citrus Avenue and Walnut Street</u> |
| 3. <u>Catawaba Avenue and Highland Avenue</u> | 8. <u>Project Driveway along Highland Avenue at Jacaranda Avenue</u> |
| 4. <u>Citrus Avenue and I-210 WB Ramps</u> | 9. <u>Project Driveway along Highland Avenue at Tokay Avenue</u> |
| 5. <u>Citrus Avenue and I-210 EB Ramps</u> | 10. <u>Project Driveway along Highland Avenue and Cherimoya Avenue</u> |

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

- | | |
|---|-----------|
| 1. <u>Citrus Avenue, between S. Highland Avenue and EB Ramps</u> | 6. _____ |
| 2. <u>Citrus Avenue, between S. Highland Avenue and Walnut Street</u> | 7. _____ |
| 3. <u>S. Highland Avenue, between Citrus Avenue and Oleander Avenue</u> | 8. _____ |
| 4. <u>S. Highland Avenue, between Citrus Avenue and Beech Avenue</u> | 9. _____ |
| 5. _____ | 10. _____ |

E. Other Jurisdictional Impacts

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

If so, name of City Jurisdiction: Caltrans

F. Site Plan (please attach reduced copy) **See Attachment 1**

G. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline) (To be filled out by Engineering Department)
 (NOTE: If the traffic study states that “a traffic signal is warranted” (or “a traffic signal appears to be warranted,” or similar statement) at an existing unsignalized intersection under existing conditions, 8-hour approach traffic volume information must be submitted in addition to the peak hourly turning movement counts for that intersection.)

Perform signal warrants and queuing analysis at all project driveways

H. Existing Conditions

Traffic count data must be new or recent. Provide traffic count dates if using other than new counts.
 Date of counts New TMC and ADT Classification counts will be collected and a COVID-19 factor will be applied based on historical count data.

I. VMT Assessment

Provide VMT screening or assessment per the latest TIA & VMT Guidelines.

NOTE* Traffic Study Submittal Form and appropriate fee must be submitted with, or prior to submittal of this form. Transportation Department staff will not process the Scoping Agreement prior to receipt of the fee.

Recommended by:

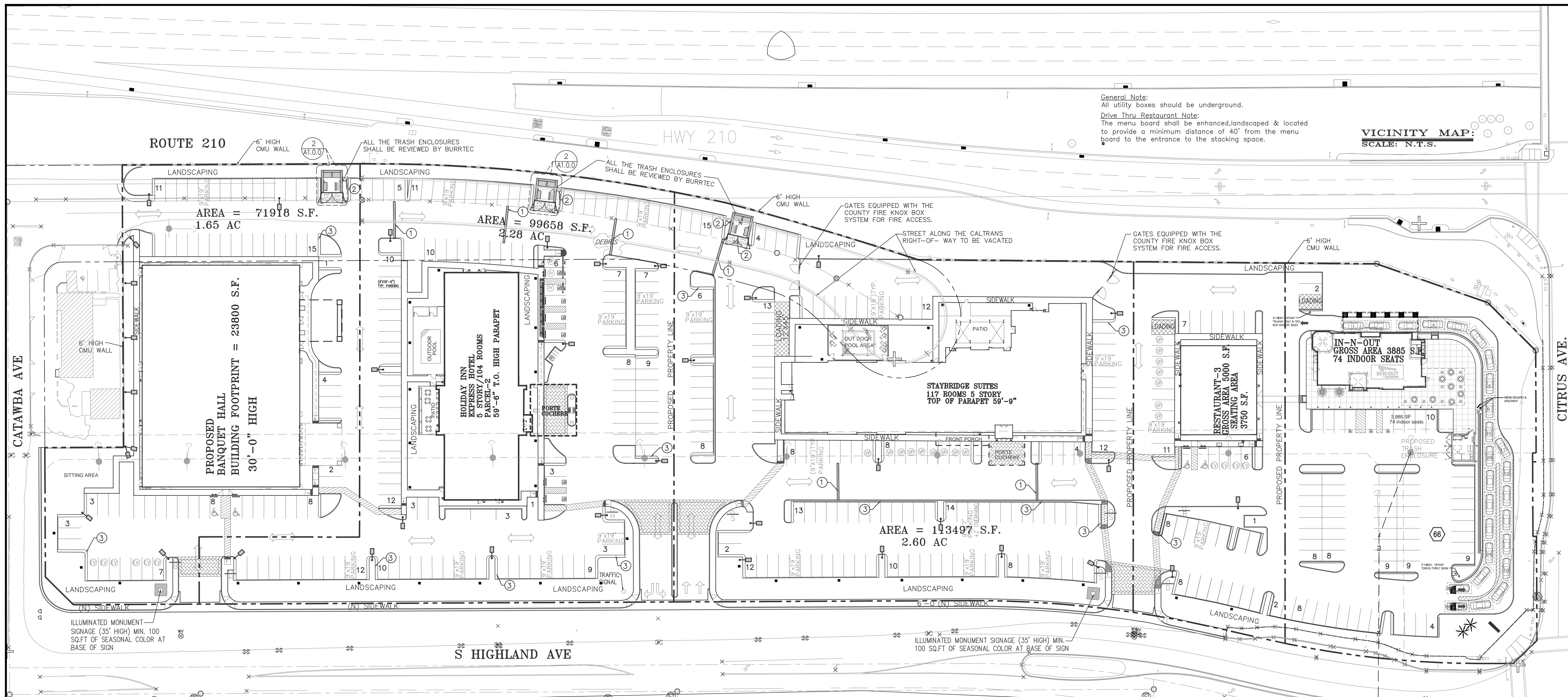
Trevor Briggs 7/27/21
 Consultant’s Representative Date

Scoping Agreement Submitted on 4/20/21

Revised on 7/27/21

Approved Scoping Agreement:

City of Fontana Traffic Engineer Date



General Note:
All utility boxes should be underground.
Drive Thru Restaurant Note:
The menu board shall be enhanced, landscaped & located to provide a minimum distance of 40' from the menu board to the entrance to the stacking space.

VICINITY MAP:
SCALE: N.T.S.

KEY NOTE:
① SPEED HUMP
② ALL TRASH ENCLOSURES SHALL HAVE LOCKING MAN-DOOR.
③ 2.0' DECORATIVE CONCRETE TOP

UTILITY NOTE:
ALL UTILITY BOXES TO BE UNDERGROUND

BUILDING DEPTT NOTES:
1. AUTOMATIC FIRE SUPPRESSION SYSTEMS SHALL BE INSTALLED IN ALL NEW CONSTRUCTION PER ARTICLE II, CHAPTER 11 OF THE CODE OF THE CITY OF FONTANA. DESIGN AND TYPE OF SYSTEM SHALL BE BASED UPON THE REQUIREMENTS OF THE BUILDING CODE, FIRE CODE AND THE REQUIREMENTS OF THE FONTANA FIRE PREVENTION DISTRICT.
2. ANY TEMPORARY BUILDING, TRAILER, COMMERCIAL COACH, ETC. INSTALLED AND/OR USED IN CONNECTION WITH A CONSTRUCTION PROJECT SHALL COMPLY WITH CITY CODE.
3. ALL SIGNS SHALL BE UNDERWRITERS LABORATORIES APPROVED, OR EQUAL.
4. ALL EXTERIOR LIGHTING SHALL BE ORIENTED, DIRECTED, AND/OR SHIELDED AS MUCH AS POSSIBLE SO THAT DIRECT ILLUMINATION DOES NOT INFRINGE ONTO ADJOINING PROPERTIES.
5. ALL DRIVE AISLES SHOULD BE MIN. 14'-6" CLEAR IN HEIGHT.

SIGNAGES

- ⊕ DIRECTIONAL SIGNAGE TO GUIDE GUESTS TOWARDS STAYBRIDGE SUITES
- ⊕ DIRECTIONAL SIGNAGE TO GUIDE GUESTS TOWARDS HOLIDAY INN EXPRESS
- ⊕ DIRECTIONAL SIGNAGE TO GUIDE GUESTS TOWARDS BANQUET HALL
- ⊕ DIRECTIONAL SIGNAGE TO GUIDE GUESTS TOWARDS RESTAURANT
- ⊕ DIRECTIONAL SIGNAGE TO GUIDE GUESTS TOWARDS IN-N OUT BURGER

INDEX OF DRAWINGS

- A1.0.0 SITE PLAN
- A1.1.0 1ST FLOOR PLAN (BANQUET HALL)
- A1.1.1 2ND FLOOR PLAN (BANQUET HALL)
- A1.2.0 EXTERIOR ELEVATIONS (BANQUET HALL)
- A2.1.0 1ST FLOOR PLAN (HOLIDAY INN EXPRESS)
- A2.1.1 2ND FLOOR PLAN (HOLIDAY INN EXPRESS)
- A2.1.2 3RD & 4TH FLOOR PLAN (HOLIDAY INN EXPRESS)
- A2.1.3 5TH FLOOR PLAN (HOLIDAY INN EXPRESS)
- A2.2.0 EXTERIOR ELEVATIONS (HOLIDAY INN EXPRESS)
- A2.2.1 EXTERIOR ELEVATIONS (HOLIDAY INN EXPRESS)
- A3.1.0 1ST FLOOR PLAN (STAYBRIDGE SUITES)
- A3.1.1 2ND FLOOR PLAN (STAYBRIDGE SUITES)
- A3.1.2 3RD & 4TH FLOOR PLAN (STAYBRIDGE SUITES)
- A3.1.3 5TH FLOOR PLAN (STAYBRIDGE SUITES)
- A3.2.0 EXTERIOR ELEVATIONS (STAYBRIDGE SUITES)
- A4.1.0 1ST FLOOR PLAN & ELEVATIONS (RESTAURANT-3)
- A5.1.0 1ST FLOOR PLAN & ELEVATIONS (IN-N-OUT BURGER)
- L1.0.0 LANDSCAPE PLAN

LEGEND:

- PROPERTY LINE
- PARKING STRIPS
- CENTER LINE
- BLDG LINE
- ACCESSIBLE AISLE
- FIRE ACCESS ROUTE
- POLE LIGHT, 25' HEIGHT
- MIN. 1 FOOT CANDLE
- WALL SCONCE LIGHT
- BOLLARD LIGHT
- FIRE DEPARTMENT CONNECTION
- 6' HIGH CMU WALL
- 6' HIGH CMU/GLASS WALL AROUND POOL REFER DETAIL #2 & #3 ON A1.0.1 SHEET.
- DECORATIVE PAVING.
- TRUNCATED DOMES
- ELECTRICAL VEHICLE CHARGING STATION
- PROPOSED VAN POOL PARKING (SHALL BE MARKED WITH SIGNS RESTRICTING THEIR USE TO CLEAN AIR VAN POOL)
- FIRE HYDRANT AS PER CIVIL PLANS
- SPEED HUMP
- ENTRY GATE
- MENU BOARD

PARKING ANALYSIS

1. PARKING FOR HOLIDAY INN EXPRESS 104 ROOM HOTEL (1 SPACE:1 ROOM)	104 SPACES
+ PARKING FOR EMPLOYEES	7 SPACES
TOTAL PARKING REQUIRED	117 SPACES
2. PARKING FOR STAYBRIDGE SUITES 117 ROOM HOTEL (1 SPACE:1 ROOM)	117 SPACES
+ PARKING FOR EMPLOYEES	7 SPACES
TOTAL PARKING REQUIRED	124 SPACES
3. PARKING FOR BANQUET HALL (1/40 @ 7630 NET SEATING SQ.FT.)	19 SPACES
+ PARKING FOR OFFICE 1/250 @ 1140 SQ.FT.	5 SPACES
TOTAL PARKING REQUIRED	129 SPACES
4. PARKING REQUIRED FOR IN-N-OUT: 1/75 @ 3885 NET SEATING SQ.FT.	51 SPACES
+ PARKING FOR OUTDOOR SEATING 1/75 @ 500 SQ.FT.	7 SPACES
TOTAL PARKING REQUIRED	58 SPACES
5. PARKING FOR RESTAURANT-3 : 1 SPACE : 100 SQ.FT @ 3750 NET SQ.FT.	38 SPACES
TOTAL PARKING REQUIRED	528 SPACES
GROSS PARKING REQUIRED	449 SPACES
GROSS PARKING PROVIDED (AFTER 15% REDUCTION)	450 SPACES
LOADING REQUIRED	5 SPACES
ACCESSIBLE PARKING REQUIRED	10 SPACES
ACCESSIBLE PARKING PROVIDED	14 SPACES
EV PARKING REQUIRED (6% OF 427 SPACES (2019 CALGREEN, TABLE 4.106.4.3.1) = 26 SPACES)	26 SPACES
GROSS EV PARKING PROVIDED (29 SPACES (INCLUDING ACCESSIBLE))	29 SPACES
VP PARKING REQUIRED @ 8% OF TOTAL PARKING	34 SPACES
VP PARKING PROVIDED	39 SPACES

PROJECT DATA

ASSESSOR'S PARCEL NUMBER: 0228-301-01, 0228-301-02, 0228-301-03, 0228-301-04, 0228-301-05, 0228-301-06, 0228-301-07, 0228-301-08, 0228-301-20, 0228-301-21, 0228-301-22, 0228-301-23, 0228-301-33, 0228-301-34, 0228-301-35, 0228-301-36, 0228-301-37, 0228-301-38, 0228-301-39, 0228-301-40, 0228-301-41, 0228-301-42, 0228-301-43, 0228-301-44, 0228-301-45, 0228-301-46, 0228-301-47, 0228-301-48, 0228-301-49, 0228-301-51 AND 0228-301-52

ADDRESS: FONTANA SQUARE, NWC CITRUS & SO. HIGHLAND AVE, FONTANA, CALIFORNIA

PROJECT DESCRIPTION: HOTEL

ZONING: COMMERCIAL

JURISDICTION: CITY OF GILROY

DESIGNATION: COMMERCIAL

CODE ANALYSIS

1. OCCUPANCY CLASSIFICATION: R1, A2

2. TYPE OF CONSTRUCTION: V-A FOR BANQUET/RESTAURANT III-B FOR HOTELS

3. FIRE SPRINKLERS: HEIGHT (MAXIMUM) AS MENTION ON SITE PLAN ALLOWABLE: 75' R1, 70' A2 TABLE 504.3

4. STORIES (MAXIMUM) AS MENTION ON SITE PLAN ALLOWABLE: 5 FOR HOTELS & 4 FOR BANQUET/RESTAURANT

5. BUILDING AREA: (a) BANQUET HALL AREA BREAKDOWN
1ST FLOOR AREA: 23800 S.F.
PORTE COCHERE AREA: 1028 S.F.
PORCH AREA: 1148 S.F.
2ND FLOOR AREA: 7958 S.F.
TOTAL BUILDING AREA: 33,934 S.F.

(b) HOLIDAY INN EXPRESS HOTEL & SUITE BREAKDOWN
1ST FLOOR AREA: 12000+1672 S.F. (INCLUDING PORTE COCHERE)
2ND FLOOR AREA: 11878 S.F.
3RD FLOOR AREA: 11878 S.F.
4TH & 5TH FLOOR AREA: 11878+11878 S.F.
TOTAL BUILDING AREA: 61,184 S.F.
OUT DOOR POOL-DECK: 2119 S.F.

(c) STAYBRIDGE SUITES BREAKDOWN
1ST FLOOR AREA: 17445 S.F.
2ND FLOOR AREA: 17518 S.F.
3RD FLOOR AREA: 17518 S.F.
4TH & 5TH FLOOR AREA: 17518+17518 S.F.
PORTE COCHERE AREA: 362 S.F.
TOTAL BUILDING AREA: 87,879 S.F.
OUT DOOR POOL-DECK: 1405 S.F.

(d) RESTAURANT-3: 5000 S.F.

(e) IN-N-OUT BURGER: 3885 S.F.
OUTDOOR SITTING: 500 S.F.

7. LOT COVERAGE (HOTEL)
TOTAL AREA OF SITE: 386644 S.F. (8.876 AC)
BUILDINGS FOOTPRINT: 23800+13672+17807+5000+3885=64164 S.F. (16.5%)
REQUIRED LANDSCAPE AREA: 47770.2 S.F. (15% OF SITE AREA EXCLUDING BUILDING FOOTPRINT)
PROVIDED LANDSCAPE AREA: 65155 S.F. (20.6% OF SITE AREA EXCLUDING BLDG. FOOTPRINT)
TOTAL PAVED AREA: 243165 S.F. (62.9%)
F.A.R.: 1:0.20

9. EXIT ON 1ST FLOOR: 2 PROVIDED: 10 (FOR PRIMARY OCCUPANTS)
REQUIRED FIRE RESISTANCE OF EXTERIOR WALLS AND PROTECTION OF OPENINGS DUE TO LOCATION ON PROPERTY: YES (TABLE 602)

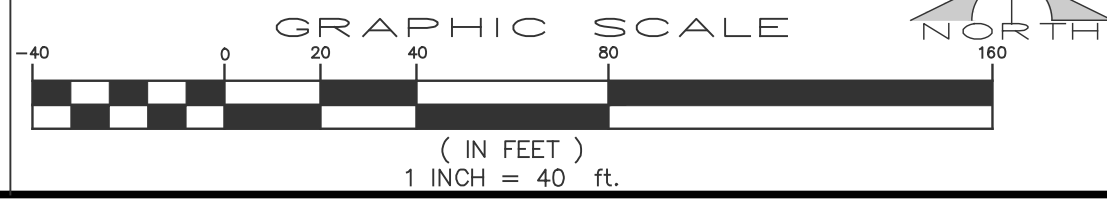
11. FIRE RESISTIVE CONSTRUCTION REQUIREMENTS: YES

12. SPECIAL INSPECTIONS REQUIRED: YES

13. CODE YEAR/TYPE: 2019 CBC, 2019 CRC, 2019 CPC, 2019 CMC, 2019 CFC, 2019 CGBSC, 2019 CALIFORNIA ENERGY CODE, 2019 CALIFORNIA FIRE CODE.

14. PROPOSED BUILDING USE: RESTAURANT, HOTEL, BANQUET HALL

15. HOURS OF OPERATION: A. HOURS OF OPERATION FOR THE BREAKFAST BUFFET WILL BE FROM 6:00 A.M. TO 10:00 P.M. DAILY.
B. HOURS OF OPERATION FOR THE POOL SHALL BE 8:00 A.M. TO 9:00 P.M. SUNDAY THROUGH THURSDAY AND 8:00 A.M. TO 10:00 P.M. ON FRIDAY AND SATURDAY.



REVISIONS: [Table with columns for REVISION, ISSUE, DATED]

ACE Design LLC
1024 Iron Point Road, Suite 1046
Folsom, CA 95630
Phone: (707) 396-5113, Fax: (707) 446-8155
Land Planning • Civil Engineering • Architectural Design • Structural Engineering

SITE PLAN
FONTANA SQUARE
NWC CITRUS & SO. HIGHLAND AVE,
FONTANA, CALIFORNIA

DATE: 05/03/2021
JOB: 19-03
DWG. BY: HS
CHK. BY: MG

A1.0.0
SHEET 2 OF 18

ATTACHMENT 2
SUMMARY OF PROJECT TRIP GENERATION
FONTANA SQUARE PROJECT

Land Use	ITE Code	Unit	Trip Generation Rates ¹						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Hotel	310	Room	8.360	0.277	0.193	0.470	0.306	0.294	0.600
Recreational Community Center	495	KSF	28.820	1.162	0.598	1.760	1.086	1.224	2.310
High-Turnover (Sit-Down) Restaurant	932	KSF	112.180	5.467	4.473	9.940	6.057	3.713	9.770
Fast-Food Restaurant w/ Drive-thru	934	KSF	470.950	20.497	19.693	40.190	16.988	15.682	32.670
Trip Generation Estimates									
Land Use	Quantity	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
			Hotel (Holiday Inn Express)	104	Room	869	29	20	49
Hotel (Staybridge Suites)	117	Room	978	32	23	55	36	34	70
Recreational Community Center (Banquet Hall)	23.800	KSF	686	28	14	42	26	29	55
High-Turnover (Sit-Down) Restaurant	5.000	KSF	561	27	22	49	30	19	49
Fast-Food Restaurant w/ Drive-thru	3.885	KSF	1,830	80	77	157	66	61	127
Total Before Internal Capture/Pass-by			4,924	196	156	352	190	174	364
Internal Capture (4% Daily; 4% AM; 7% PM) ²			-197	-8	-6	-14	-13	-12	-25
Pass-By Reduction for High-Turnover (Sit-Down) Restaraunt - (43% PM) ³			-20	0	0	0	-12	-8	-20
Pass-By Reduction for Fast-Food Restaurant w/ Drive-thru - (49% AM; 50% PM) ³			-134	-38	-36	-74	-31	-29	-60
Total Net New Project Trips			4,573	150	114	264	134	125	259

¹ Source: Institute of Transportation Engineers publication: [Trip Generation Manual](#), 10th Edition

² See Internal Capture Worksheets

³ Source: Institute of Transportation Engineers (ITE) [Trip Generation Handbook](#), 3rd Edition. The daily pass-by trips shown are the sum of the AM and the PM pass-by trips.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Fontana Square	Organization:	
Project Location:	NWC of Citrus/Highland in Fontana	Performed By:	JPH
Scenario Description:		Date:	7/26/2021
Analysis Year:		Checked By:	
Analysis Period:	AM Street Peak Hour	Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				0		
Restaurant				206	107	99
Cinema/Entertainment				0		
Residential				0		
Hotel				104	61	43
All Other Land Uses ²				0		
				310	168	142

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	0	2
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	4	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	310	168	142
Internal Capture Percentage	4%	4%	4%
External Vehicle-Trips ⁵	298	162	136
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	4%	2%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	3%	9%

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Fontana Square	Organization:	
Project Location:	NWC of Citrus/Highland in Fontana	Performed By:	JPH
Scenario Description:		Date:	7/26/2021
Analysis Year:		Checked By:	
Analysis Period:	PM Street Peak Hour	Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				0		
Restaurant				176	96	80
Cinema/Entertainment				0		
Residential				0		
Hotel				133	68	65
All Other Land Uses ²				0		
				309	164	145

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail	0		0	0	0	0
Restaurant	0	0		0	0	6
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	5	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	309	164	145
Internal Capture Percentage	7%	7%	8%
External Vehicle-Trips ⁵	287	153	134
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	5%	8%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	9%	8%

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

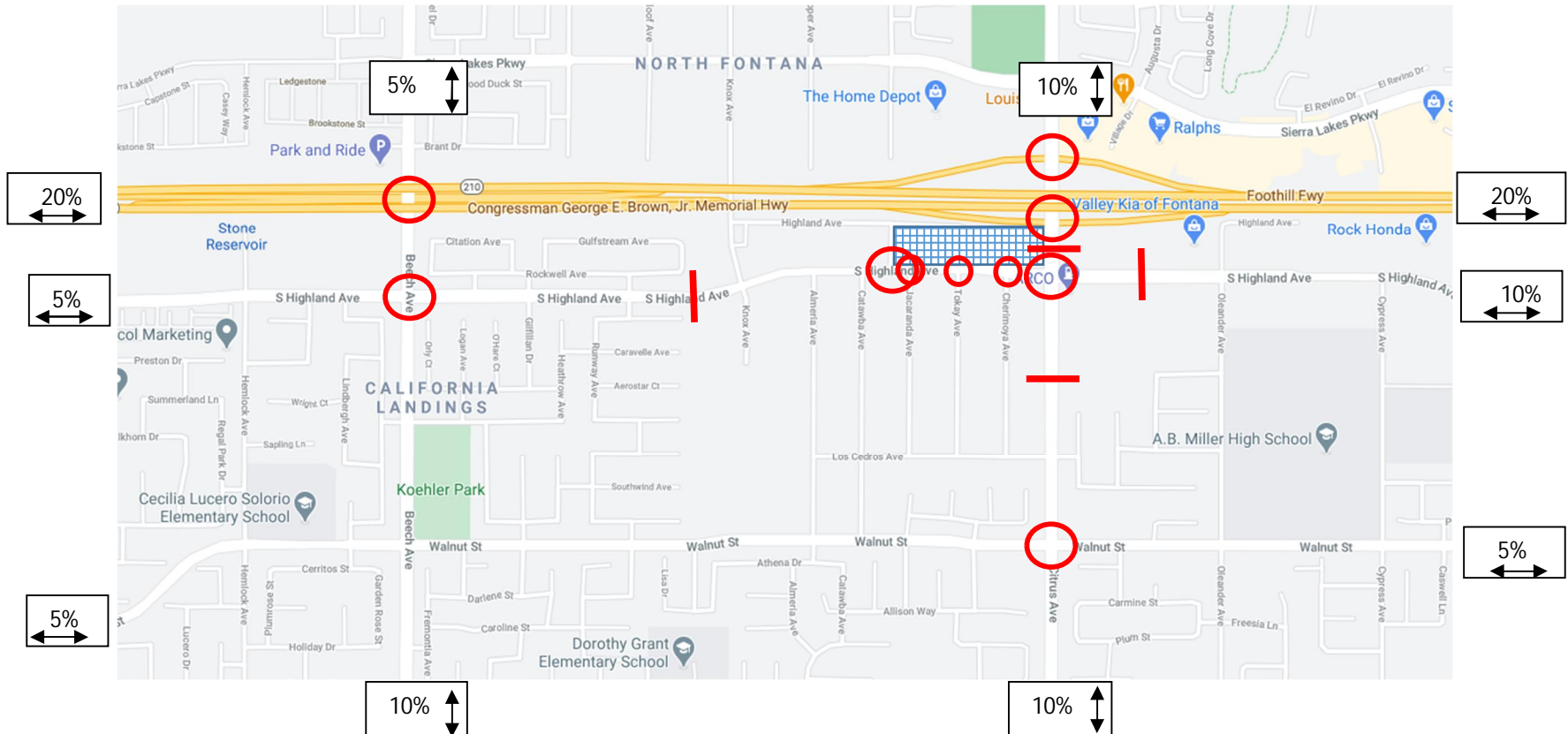
⁴Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

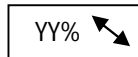
⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

ATTACHMENT 4 PROJECT STUDY AREA AND TRIP DISTRIBUTION



PROJECT SITE



PROJECT TRIP DISTRIBUTION



STUDY INTERSECTION



PROJECT DRIVEWAY INTERSECTION



STUDY ROADWAY SEGMENT

APPENDIX B

TRAFFIC COUNT
DATA SHEETS

National Data & Surveying Services

Intersection Turning Movement Count

Location: Beech Ave & S Highland Ave
 City: Fontana
 Control: Signalized

Project ID: 21-030060-001
 Date: 7/29/2021

Data - Totals

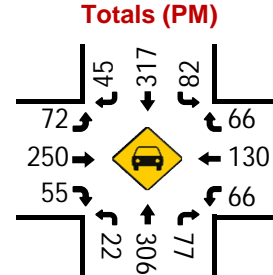
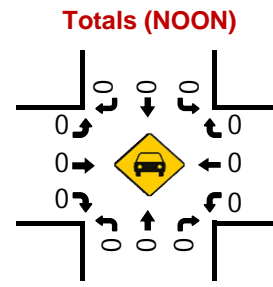
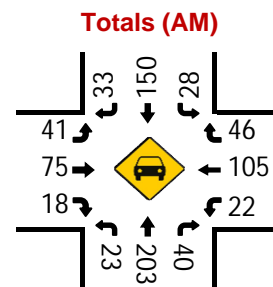
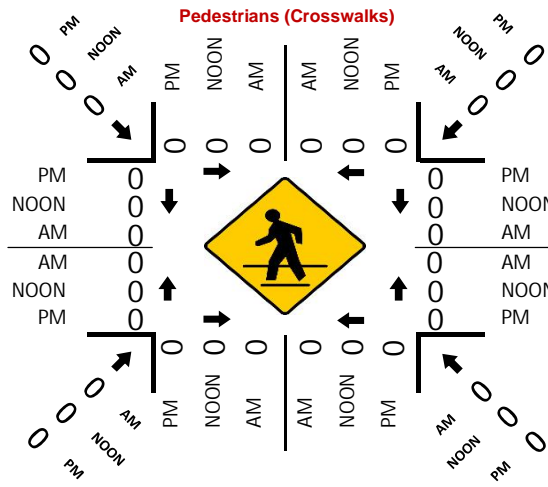
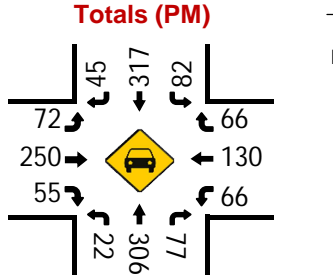
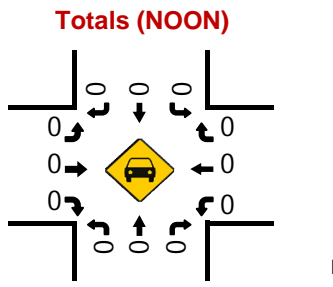
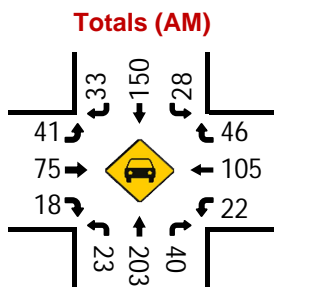
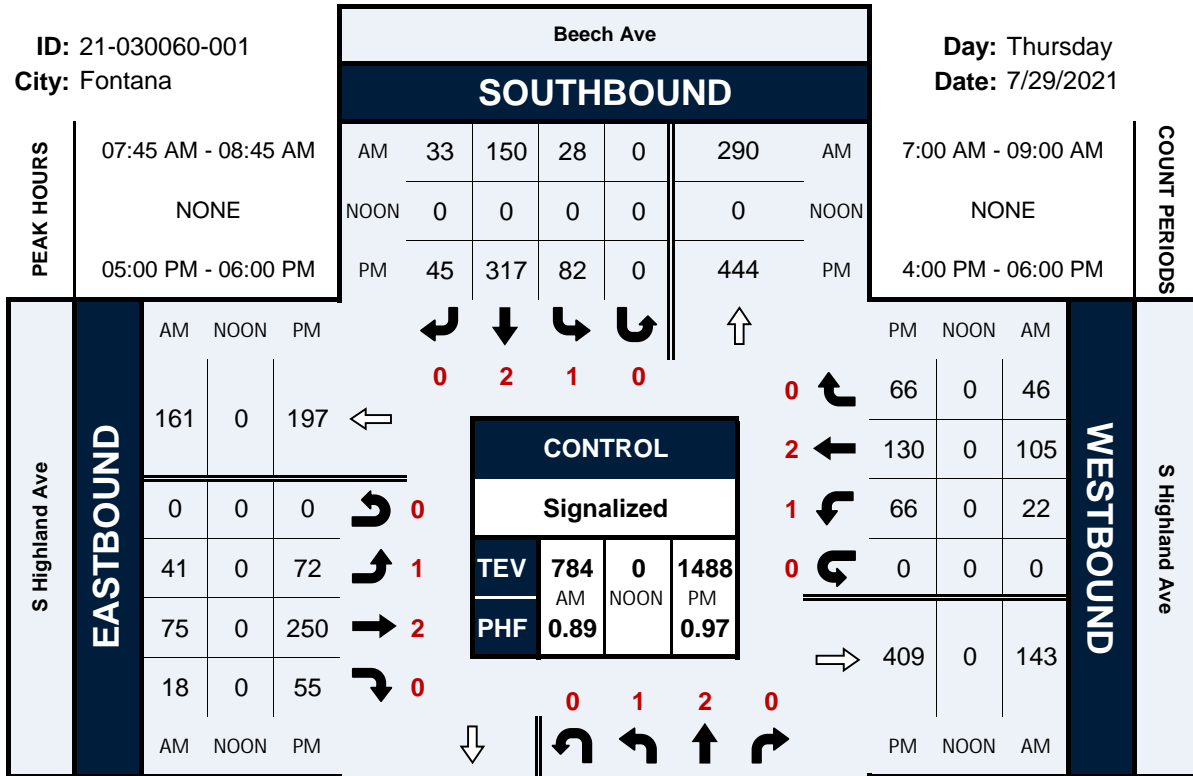
NS/EW Streets:	Beech Ave				Beech Ave				S Highland Ave				S Highland Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	8	32	10	0	5	27	5	0	7	24	3	0	5	21	5	0	152
7:15 AM	4	31	6	0	6	25	3	0	10	23	3	0	6	25	9	0	151
7:30 AM	2	36	7	0	3	27	9	0	7	26	0	0	6	28	16	0	167
7:45 AM	9	47	10	0	7	42	15	0	17	23	3	0	6	33	9	0	221
8:00 AM	6	48	9	0	6	33	10	0	14	23	6	0	4	28	16	0	203
8:15 AM	5	54	14	0	9	40	3	0	4	15	6	0	5	23	12	0	190
8:30 AM	3	54	7	0	6	35	5	0	6	14	3	0	7	21	9	0	170
8:45 AM	4	61	13	0	10	32	4	0	7	22	4	0	7	24	10	0	198
TOTAL VOLUMES :	41	363	76	0	52	261	54	0	72	170	28	0	46	203	86	0	1452
APPROACH %'s :	8.54%	75.63%	15.83%	0.00%	14.17%	71.12%	14.71%	0.00%	26.67%	62.96%	10.37%	0.00%	13.73%	60.60%	25.67%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																
PEAK HR VOL :	23	203	40	0	28	150	33	0	41	75	18	0	22	105	46	0	784
PEAK HR FACTOR :	0.639	0.940	0.714	0.000	0.778	0.893	0.550	0.000	0.603	0.815	0.750	0.000	0.786	0.795	0.719	0.000	0.887
	0.911				0.824				0.779				0.901				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	5	55	16	0	20	71	12	0	11	51	8	0	12	18	16	0	295
4:15 PM	4	63	12	0	19	75	4	0	16	62	15	0	15	29	10	0	324
4:30 PM	6	66	20	0	30	64	8	0	15	67	9	0	10	25	8	0	328
4:45 PM	8	69	13	0	14	69	11	0	17	68	12	0	17	36	20	0	354
5:00 PM	6	100	17	0	14	82	10	0	21	50	11	0	19	28	10	0	368
5:15 PM	2	71	15	0	22	79	10	0	23	64	10	0	16	33	18	0	363
5:30 PM	8	53	25	0	24	75	15	0	13	72	14	0	15	42	18	0	374
5:45 PM	6	82	20	0	22	81	10	0	15	64	20	0	16	27	20	0	383
TOTAL VOLUMES :	45	559	138	0	165	596	80	0	131	498	99	0	120	238	120	0	2789
APPROACH %'s :	6.06%	75.34%	18.60%	0.00%	19.62%	70.87%	9.51%	0.00%	17.99%	68.41%	13.60%	0.00%	25.10%	49.79%	25.10%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																
PEAK HR VOL :	22	306	77	0	82	317	45	0	72	250	55	0	66	130	66	0	1488
PEAK HR FACTOR :	0.688	0.765	0.770	0.000	0.854	0.966	0.750	0.000	0.783	0.868	0.688	0.000	0.868	0.774	0.825	0.000	0.971
	0.823				0.974				0.952				0.873				

Beech Ave & S Highland Ave

Peak Hour Turning Movement Count

ID: 21-030060-001
City: Fontana

Day: Thursday
Date: 7/29/2021



City of Fontana
 N/S: Beech Avenue
 E/W: SR-210 HOV Ramps
 Weather: Clear

File Name : 06_FON_Beech_210HOV AM
 Site Code : 10821597
 Start Date : 10/14/2021
 Page No : 1

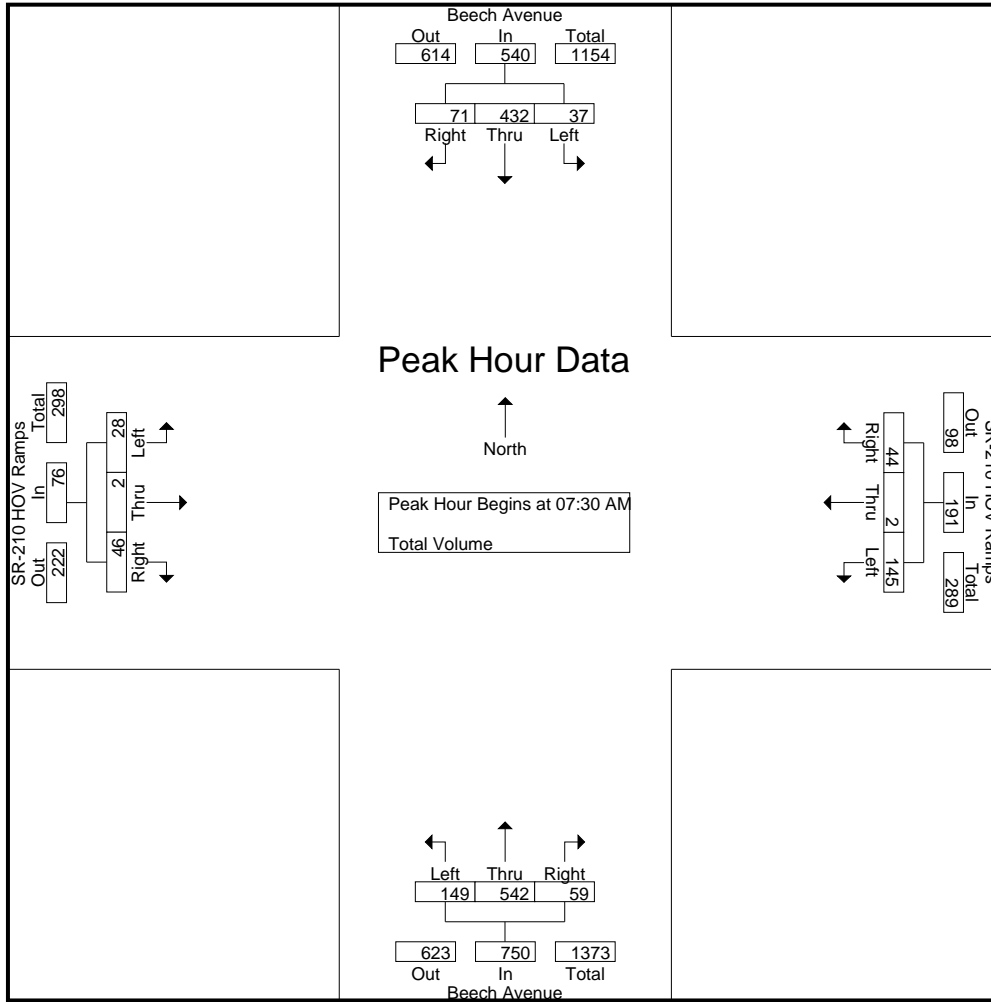
Groups Printed- Total Volume

Start Time	Beech Avenue Southbound				SR-210 HOV Ramps Westbound				Beech Avenue Northbound				SR-210 HOV Ramps Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	10	43	18	71	23	0	7	30	23	48	16	87	5	0	4	9	197
07:15 AM	16	62	20	98	29	0	3	32	28	64	15	107	4	0	3	7	244
07:30 AM	12	76	27	115	54	0	7	61	50	95	17	162	4	0	3	7	345
07:45 AM	7	114	19	140	57	1	9	67	47	129	13	189	7	0	7	14	410
Total	45	295	84	424	163	1	26	190	148	336	61	545	20	0	17	37	1196
08:00 AM	7	109	17	133	24	1	15	40	35	170	18	223	8	2	19	29	425
08:15 AM	11	133	8	152	10	0	13	23	17	148	11	176	9	0	17	26	377
08:30 AM	9	97	10	116	4	0	6	10	5	62	9	76	7	0	5	12	214
08:45 AM	6	53	4	63	10	0	4	14	12	51	4	67	3	0	6	9	153
Total	33	392	39	464	48	1	38	87	69	431	42	542	27	2	47	76	1169
Grand Total	78	687	123	888	211	2	64	277	217	767	103	1087	47	2	64	113	2365
Apprch %	8.8	77.4	13.9		76.2	0.7	23.1		20	70.6	9.5		41.6	1.8	56.6		
Total %	3.3	29	5.2	37.5	8.9	0.1	2.7	11.7	9.2	32.4	4.4	46	2	0.1	2.7	4.8	

Start Time	Beech Avenue Southbound				SR-210 HOV Ramps Westbound				Beech Avenue Northbound				SR-210 HOV Ramps Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:30 AM	12	76	27	115	54	0	7	61	50	95	17	162	4	0	3	7	345
07:45 AM	7	114	19	140	57	1	9	67	47	129	13	189	7	0	7	14	410
08:00 AM	7	109	17	133	24	1	15	40	35	170	18	223	8	2	19	29	425
08:15 AM	11	133	8	152	10	0	13	23	17	148	11	176	9	0	17	26	377
Total Volume	37	432	71	540	145	2	44	191	149	542	59	750	28	2	46	76	1557
% App. Total	6.9	80	13.1		75.9	1	23		19.9	72.3	7.9		36.8	2.6	60.5		
PHF	.771	.812	.657	.888	.636	.500	.733	.713	.745	.797	.819	.841	.778	.250	.605	.655	.916

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

Peak Hour for Entire Intersection Begins at 07:30 AM



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

	07:45 AM				07:15 AM				07:30 AM				07:45 AM			
+0 mins.	7	114	19	140	29	0	3	32	50	95	17	162	7	0	7	14
+15 mins.	7	109	17	133	54	0	7	61	47	129	13	189	8	2	19	29
+30 mins.	11	133	8	152	57	1	9	67	35	170	18	223	9	0	17	26
+45 mins.	9	97	10	116	24	1	15	40	17	148	11	176	7	0	5	12
Total Volume	34	453	54	541	164	2	34	200	149	542	59	750	31	2	48	81
% App. Total	6.3	83.7	10		82	1	17		19.9	72.3	7.9		38.3	2.5	59.3	
PHF	.773	.852	.711	.890	.719	.500	.567	.746	.745	.797	.819	.841	.861	.250	.632	.698

City of Fontana
 N/S: Beech Avenue
 E/W: SR-210 HOV Ramps
 Weather: Clear

File Name : 06_FON_Beech_210HOV PM
 Site Code : 10821597
 Start Date : 10/14/2021
 Page No : 1

Groups Printed- Total Volume

Start Time	Beech Avenue Southbound				SR-210 HOV Ramps Westbound				Beech Avenue Northbound				SR-210 HOV Ramps Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	10	97	8	115	20	0	7	27	16	91	27	134	25	5	27	57	333
04:15 PM	12	82	5	99	25	4	12	41	14	83	12	109	20	2	27	49	298
04:30 PM	7	83	10	100	17	0	12	29	27	83	12	122	20	3	26	49	300
04:45 PM	16	106	5	127	17	2	12	31	22	123	18	163	23	5	36	64	385
Total	45	368	28	441	79	6	43	128	79	380	69	528	88	15	116	219	1316
05:00 PM	18	90	4	112	12	1	11	24	27	121	18	166	28	3	26	57	359
05:15 PM	17	85	8	110	20	1	12	33	19	119	15	153	34	4	22	60	356
05:30 PM	9	85	13	107	21	0	18	39	27	111	15	153	29	4	22	55	354
05:45 PM	12	85	6	103	19	0	3	22	15	141	11	167	42	2	31	75	367
Total	56	345	31	432	72	2	44	118	88	492	59	639	133	13	101	247	1436
Grand Total	101	713	59	873	151	8	87	246	167	872	128	1167	221	28	217	466	2752
Apprch %	11.6	81.7	6.8		61.4	3.3	35.4		14.3	74.7	11		47.4	6	46.6		
Total %	3.7	25.9	2.1	31.7	5.5	0.3	3.2	8.9	6.1	31.7	4.7	42.4	8	1	7.9	16.9	

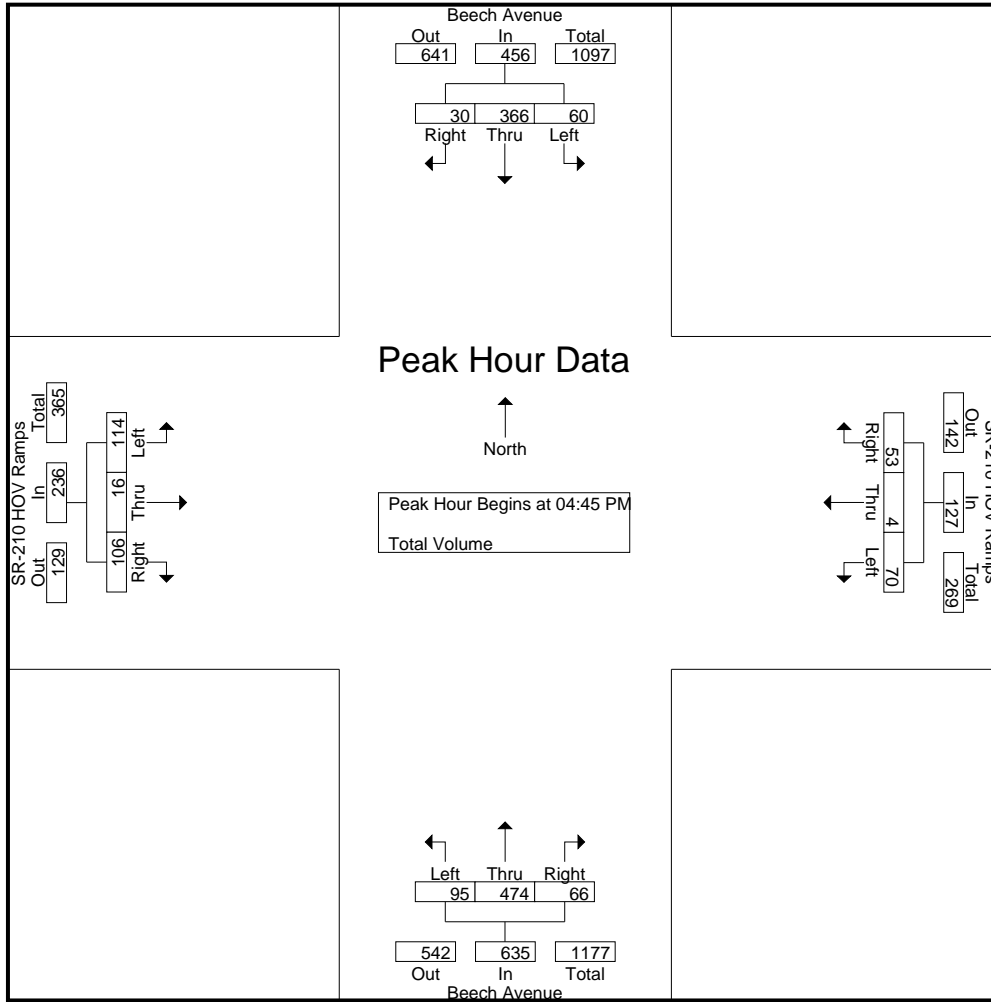
Start Time	Beech Avenue Southbound				SR-210 HOV Ramps Westbound				Beech Avenue Northbound				SR-210 HOV Ramps Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:45 PM	16	106	5	127	17	2	12	31	22	123	18	163	23	5	36	64	385
05:00 PM	18	90	4	112	12	1	11	24	27	121	18	166	28	3	26	57	359
05:15 PM	17	85	8	110	20	1	12	33	19	119	15	153	34	4	22	60	356
05:30 PM	9	85	13	107	21	0	18	39	27	111	15	153	29	4	22	55	354
Total Volume	60	366	30	456	70	4	53	127	95	474	66	635	114	16	106	236	1454
% App. Total	13.2	80.3	6.6		55.1	3.1	41.7		15	74.6	10.4		48.3	6.8	44.9		
PHF	.833	.863	.577	.898	.833	.500	.736	.814	.880	.963	.917	.956	.838	.800	.736	.922	.944

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

Peak Hour for Entire Intersection Begins at 04:45 PM

City of Fontana
 N/S: Beech Avenue
 E/W: SR-210 HOV Ramps
 Weather: Clear

File Name : 06_FON_Beech_210HOV PM
 Site Code : 10821597
 Start Date : 10/14/2021
 Page No : 2



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

	04:45 PM				04:00 PM				05:00 PM				05:00 PM			
+0 mins.	16	106	5	127	20	0	7	27	27	121	18	166	28	3	26	57
+15 mins.	18	90	4	112	25	4	12	41	19	119	15	153	34	4	22	60
+30 mins.	17	85	8	110	17	0	12	29	27	111	15	153	29	4	22	55
+45 mins.	9	85	13	107	17	2	12	31	15	141	11	167	42	2	31	75
Total Volume	60	366	30	456	79	6	43	128	88	492	59	639	133	13	101	247
% App. Total	13.2	80.3	6.6		61.7	4.7	33.6		13.8	77	9.2		53.8	5.3	40.9	
PHF	.833	.863	.577	.898	.790	.375	.896	.780	.815	.872	.819	.957	.792	.813	.815	.823

National Data & Surveying Services

Intersection Turning Movement Count

Location: Catawba Ave & S Highland Ave
 City: Fontana
 Control: 1-Way Stop(SB)

Project ID: 21-030053-002
 Date: 7/27/2021

Data - Totals

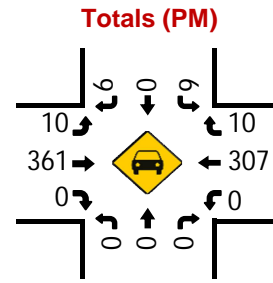
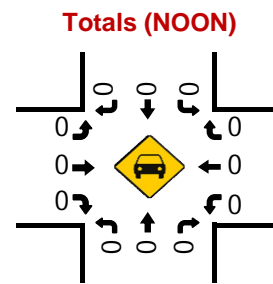
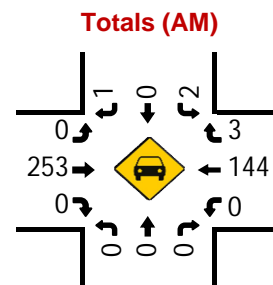
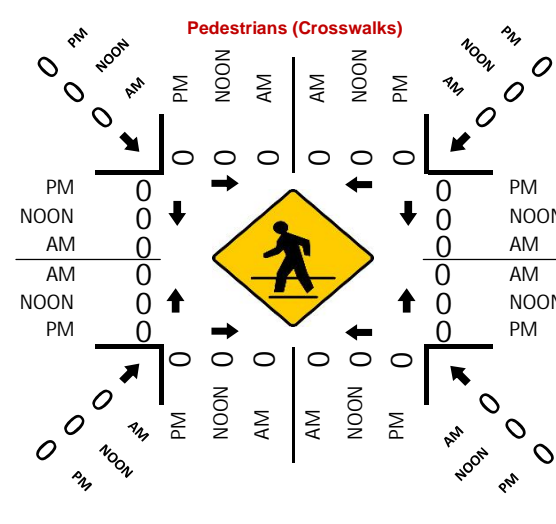
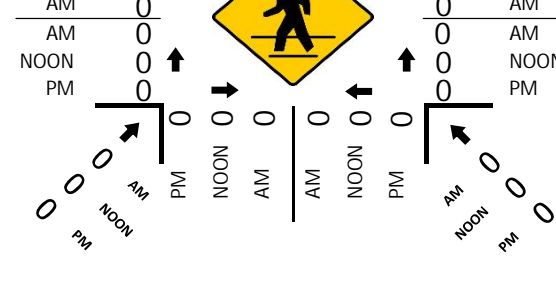
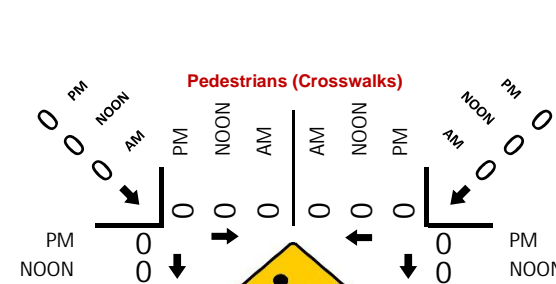
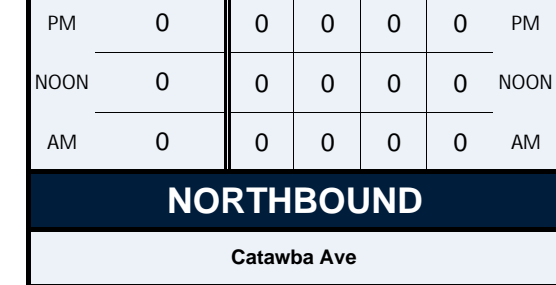
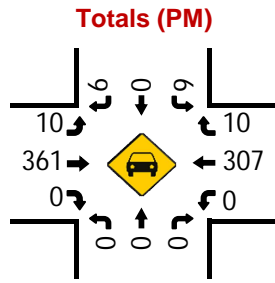
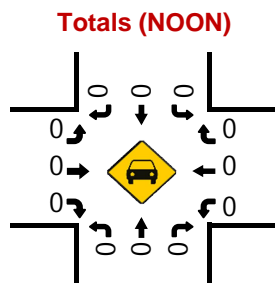
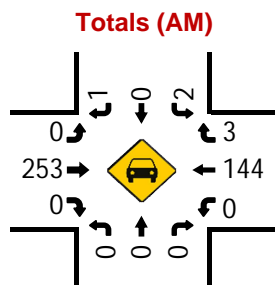
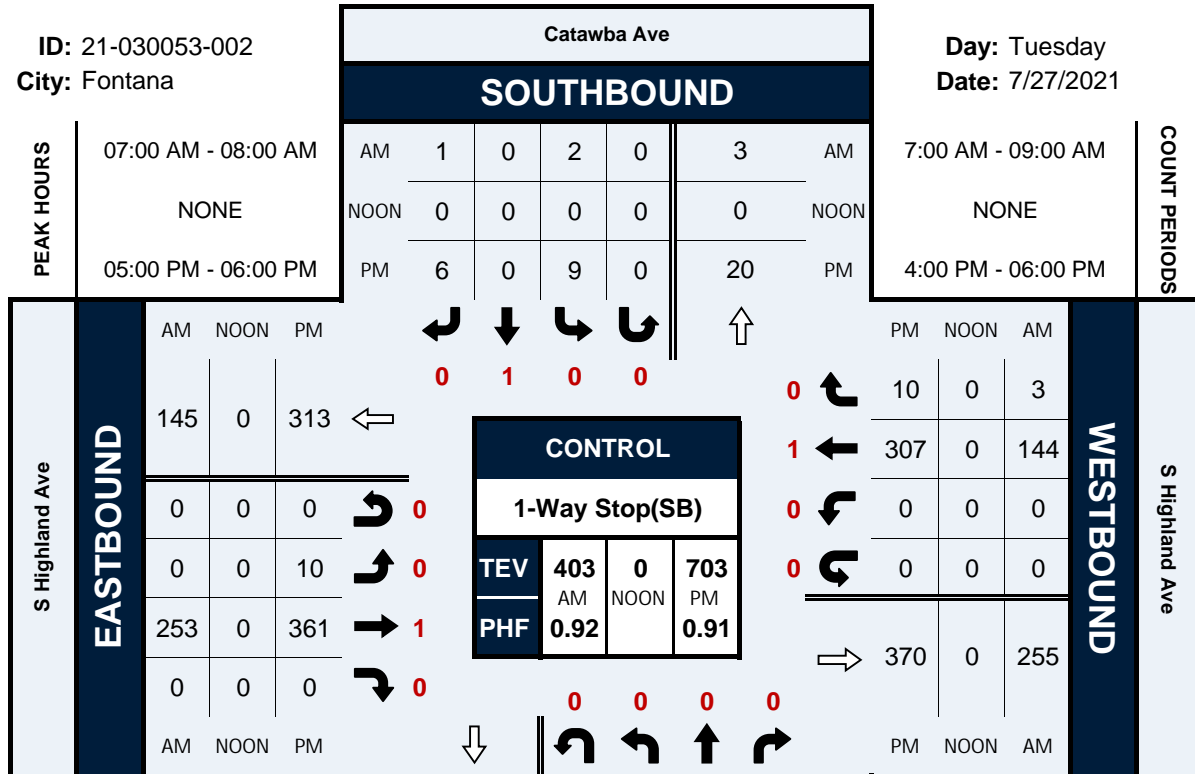
NS/EW Streets:	Catawba Ave				Catawba Ave				S Highland Ave				S Highland Ave						
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU			
7:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	98
7:15 AM	0	0	0	0	0	0	0	0	0	0	65	0	0	0	32	1	0	93	
7:30 AM	0	0	0	0	1	0	1	0	0	0	65	0	0	0	35	0	0	102	
7:45 AM	0	0	0	0	1	0	0	0	0	0	58	0	0	0	50	1	0	110	
8:00 AM	0	0	0	0	1	0	0	0	0	0	60	0	0	0	29	0	0	90	
8:15 AM	0	0	0	0	1	0	0	0	0	0	54	0	0	0	41	0	0	96	
8:30 AM	0	0	0	0	1	0	0	0	0	0	56	0	0	0	30	1	0	88	
8:45 AM	0	0	0	0	3	0	0	0	0	1	41	0	0	0	36	1	0	82	
TOTAL VOLUMES :	0	0	0	0	8	0	1	0	0	1	464	0	0	0	280	5	0	759	
APPROACH %'s :					88.89%	0.00%	11.11%	0.00%		0.22%	99.78%	0.00%	0.00%		0.00%	98.25%	1.75%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL		
PEAK HR VOL :	0	0	0	0	2	0	1	0	0	0	253	0	0	0	144	3	0	403	
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.000	0.973	0.000	0.000	0.000	0.720	0.750	0.000	0.916	
					0.375				0.973				0.721						
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU			
4:00 PM	0	0	0	0	4	0	1	0	0	1	97	0	0	0	58	3	0	164	
4:15 PM	0	0	0	0	1	0	2	0	0	1	98	0	0	0	71	1	0	174	
4:30 PM	0	0	0	0	4	0	0	0	0	1	111	0	0	0	61	3	1	181	
4:45 PM	0	0	0	0	1	0	1	0	0	0	99	0	0	0	69	1	0	171	
5:00 PM	0	0	0	0	2	0	2	0	0	3	82	0	0	0	81	5	0	175	
5:15 PM	0	0	0	0	2	0	2	0	0	3	65	0	0	0	69	1	0	142	
5:30 PM	0	0	0	0	4	0	1	0	0	3	116	0	0	0	67	2	0	193	
5:45 PM	0	0	0	0	1	0	1	0	0	1	98	0	0	0	90	2	0	193	
TOTAL VOLUMES :	0	0	0	0	19	0	10	0	0	13	766	0	0	0	566	18	1	1393	
APPROACH %'s :					65.52%	0.00%	34.48%	0.00%		1.67%	98.33%	0.00%	0.00%		0.00%	96.75%	3.08%	0.17%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL		
PEAK HR VOL :	0	0	0	0	9	0	6	0	0	10	361	0	0	0	307	10	0	703	
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.563	0.000	0.750	0.000	0.000	0.833	0.778	0.000	0.000	0.000	0.853	0.500	0.000	0.911	
					0.750				0.779				0.861						

Catawba Ave & S Highland Ave

Peak Hour Turning Movement Count

ID: 21-030053-002
City: Fontana

Day: Tuesday
Date: 7/27/2021



National Data & Surveying Services

Intersection Turning Movement Count

Location: Citrus Ave & I-210 WB Ramps
 City: Fontana
 Control: Signalized

Project ID: 21-030053-003
 Date: 7/27/2021

Data - Totals

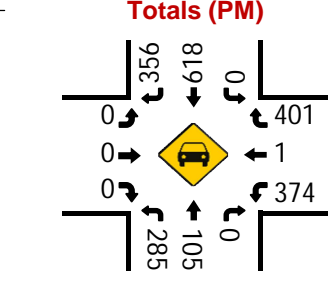
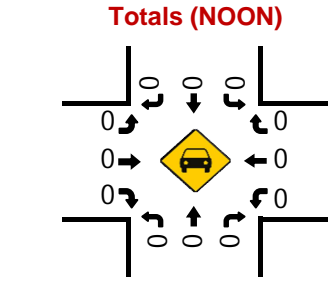
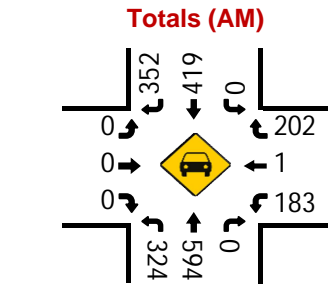
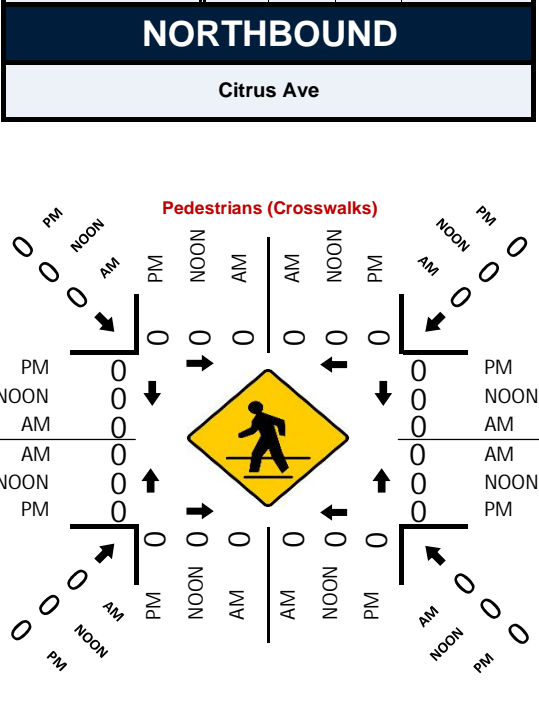
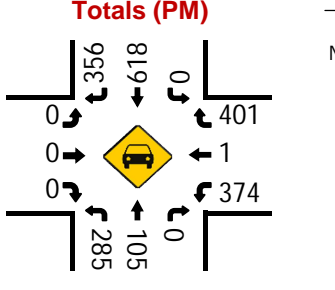
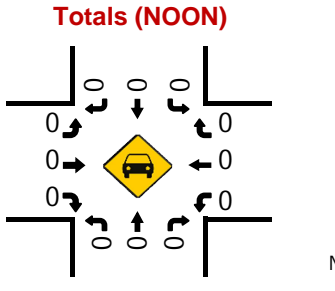
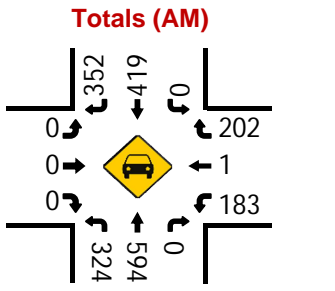
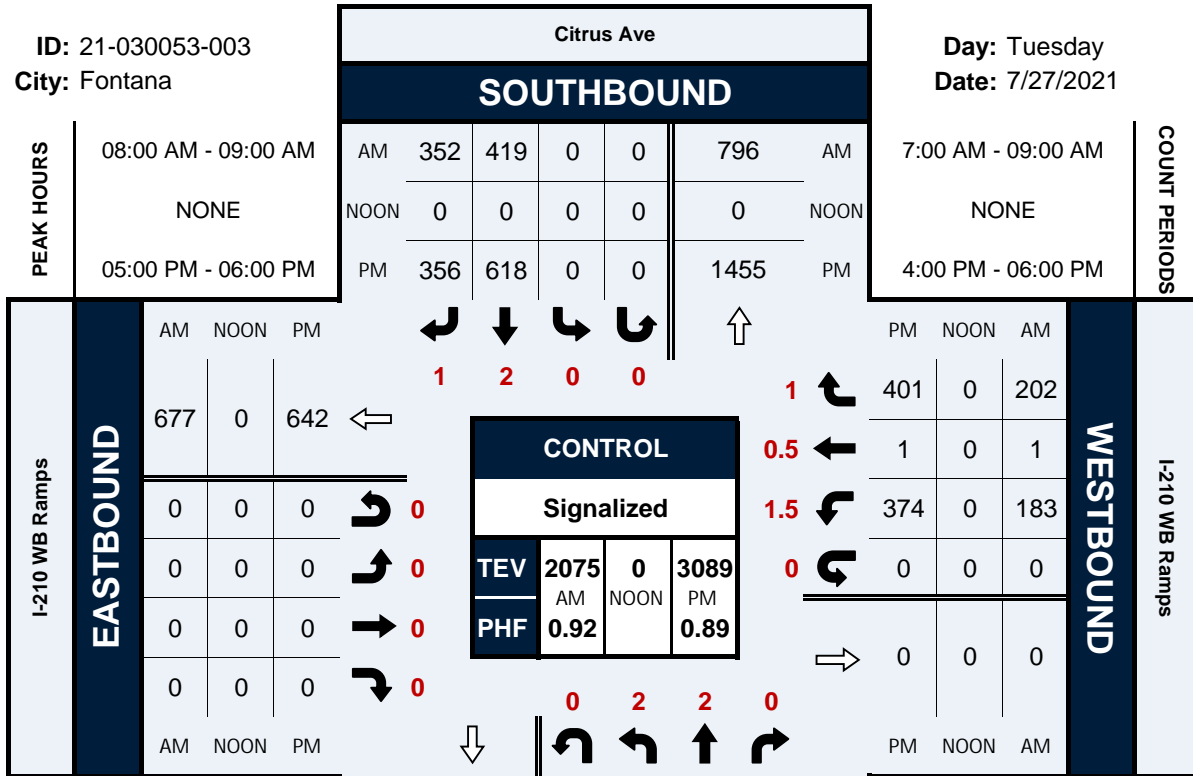
NS/EW Streets:	Citrus Ave				Citrus Ave				I-210 WB Ramps				I-210 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
	2	2	0	0	0	2	1	0	0	0	0	0	1.5	0.5	1	0	
7:00 AM	84	81	0	0	0	75	73	0	0	0	0	0	44	0	27	0	
7:15 AM	104	103	0	0	0	89	91	0	0	0	0	0	53	0	36	0	
7:30 AM	99	109	0	0	0	113	89	0	0	0	0	0	64	0	49	0	
7:45 AM	87	126	0	0	0	106	91	0	0	0	0	0	89	0	61	0	
8:00 AM	65	144	0	0	0	127	87	0	0	0	0	0	38	1	41	0	
8:15 AM	69	128	0	0	0	88	84	0	0	0	0	0	60	0	56	0	
8:30 AM	107	150	0	0	0	82	98	0	0	0	0	0	40	0	46	0	
8:45 AM	83	172	0	0	0	122	83	0	0	0	0	0	45	0	59	0	
TOTAL VOLUMES :	698	1013	0	0	0	802	696	0	0	0	0	0	433	1	375	0	
APPROACH %'s :	40.79%	59.21%	0.00%	0.00%	0.00%	53.54%	46.46%	0.00%					53.52%	0.12%	46.35%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	324	594	0	0	0	419	352	0	0	0	0	0	183	1	202	0	
PEAK HR FACTOR :	0.757	0.863	0.000	0.000	0.000	0.825	0.898	0.000	0.000	0.000	0.000	0.000	0.763	0.250	0.856	0.000	
	0.893				0.901								0.832				0.920
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
	2	2	0	0	0	2	1	0	0	0	0	0	1.5	0.5	1	0	
4:00 PM	65	227	0	0	0	169	77	0	0	0	0	0	72	1	65	0	
4:15 PM	69	218	0	0	0	152	81	0	0	0	0	0	71	1	80	0	
4:30 PM	68	202	0	0	0	165	97	0	0	0	0	0	75	0	55	0	
4:45 PM	66	236	0	0	0	130	89	0	0	0	0	0	79	0	81	0	
5:00 PM	70	241	0	0	0	156	92	0	0	0	0	0	89	0	68	0	
5:15 PM	83	253	0	0	0	142	67	0	0	0	0	0	95	0	71	0	
5:30 PM	72	250	0	0	0	156	107	0	0	0	0	0	93	0	120	0	
5:45 PM	60	310	0	0	0	164	90	0	0	0	0	0	97	1	142	0	
TOTAL VOLUMES :	553	1937	0	0	0	1234	700	0	0	0	0	0	671	3	682	0	
APPROACH %'s :	22.21%	77.79%	0.00%	0.00%	0.00%	63.81%	36.19%	0.00%					49.48%	0.22%	50.29%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	285	1054	0	0	0	618	356	0	0	0	0	0	374	1	401	0	
PEAK HR FACTOR :	0.858	0.850	0.000	0.000	0.000	0.942	0.832	0.000	0.000	0.000	0.000	0.000	0.964	0.250	0.706	0.000	
	0.905				0.926								0.808				0.894

Citrus Ave & I-210 WB Ramps

Peak Hour Turning Movement Count

ID: 21-030053-003
City: Fontana

Day: Tuesday
Date: 7/27/2021



National Data & Surveying Services

Intersection Turning Movement Count

Location: Citrus Ave & I-210 EB Ramps
 City: Fontana
 Control: Signalized

Project ID: 21-030053-004
 Date: 7/27/2021

Data - Totals

NS/EW Streets:	Citrus Ave				Citrus Ave				I-210 EB Ramps				I-210 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
	0	2	0	0	2	2	0	0	1.3	0.3	1.3	0	0	0	0	0	
7:00 AM	0	123	79	0	26	93	0	0	49	0	48	0	0	0	0	0	418
7:15 AM	0	144	77	0	46	96	0	0	56	0	58	0	0	0	0	0	477
7:30 AM	0	155	91	0	45	116	0	0	57	1	73	0	0	0	0	0	538
7:45 AM	0	143	95	0	43	164	0	0	66	0	67	0	0	0	0	0	578
8:00 AM	0	137	57	0	45	127	0	0	72	1	53	0	0	0	0	0	492
8:15 AM	0	144	83	0	35	104	0	0	57	0	57	0	0	0	0	0	480
8:30 AM	0	190	75	0	39	90	0	0	67	0	55	0	0	0	0	0	516
8:45 AM	0	188	76	0	55	111	0	0	63	3	60	0	0	0	0	0	556
TOTAL VOLUMES :	0	1224	633	0	334	901	0	0	487	5	471	0	0	0	0	0	4055
APPROACH %'s :	0.00%	65.91%	34.09%	0.00%	27.04%	72.96%	0.00%	0.00%	50.57%	0.52%	48.91%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	579	326	0	168	511	0	0	252	2	250	0	0	0	0	0	2088
PEAK HR FACTOR :	0.000	0.934	0.858	0.000	0.933	0.779	0.000	0.000	0.875	0.500	0.856	0.000	0.000	0.000	0.000	0.000	0.903
	0.920				0.820				0.947								
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
	0	2	0	0	2	2	0	0	1.3	0.3	1.3	0	0	0	0	0	
4:00 PM	0	203	85	0	64	171	0	0	96	0	78	0	0	0	0	0	697
4:15 PM	0	187	79	0	56	174	0	0	95	4	54	0	0	0	0	0	649
4:30 PM	0	182	100	0	46	187	0	0	92	0	78	0	0	0	0	0	685
4:45 PM	0	213	89	0	47	174	0	0	83	1	66	0	0	0	0	0	673
5:00 PM	0	207	78	0	51	188	0	0	112	0	80	0	0	0	0	0	716
5:15 PM	0	203	85	0	43	191	0	0	125	0	73	0	0	0	0	0	720
5:30 PM	0	209	73	0	55	197	0	0	118	2	77	0	0	0	0	0	731
5:45 PM	0	222	74	0	47	208	0	2	141	1	84	0	0	0	0	0	779
TOTAL VOLUMES :	0	1626	663	0	409	1490	0	2	862	8	590	0	0	0	0	0	5650
APPROACH %'s :	0.00%	71.04%	28.96%	0.00%	21.51%	78.38%	0.00%	0.11%	59.04%	0.55%	40.41%	0.00%					
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	841	310	0	196	784	0	2	496	3	314	0	0	0	0	0	2946
PEAK HR FACTOR :	0.000	0.947	0.912	0.000	0.891	0.942	0.000	0.250	0.879	0.375	0.935	0.000	0.000	0.000	0.000	0.000	0.945
	0.972				0.955				0.899								

National Data & Surveying Service

Intersection Turning Movement Count

Location: Citrus Ave & S Highland Ave
 City: Fontana
 Control: Signalized

Project ID: 21-030053-005
 Date: 7/27/2021

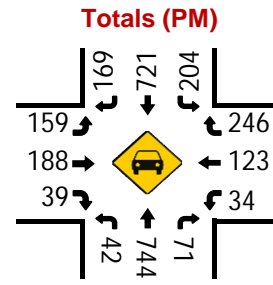
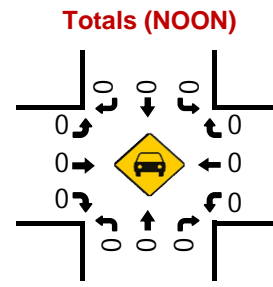
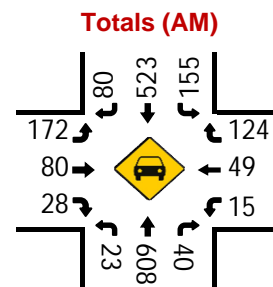
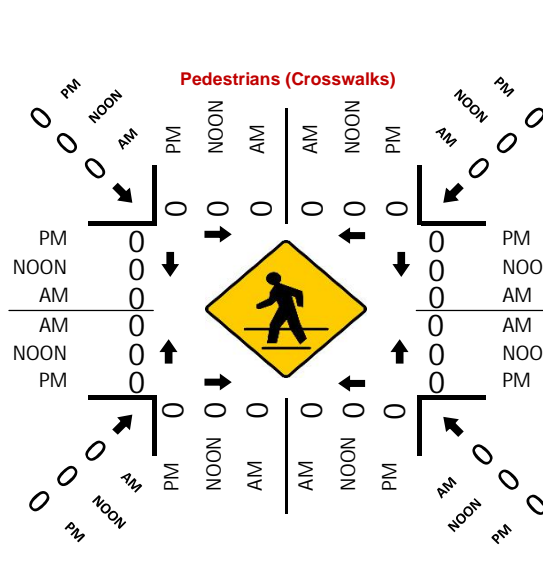
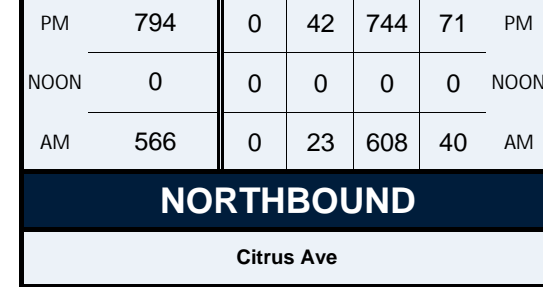
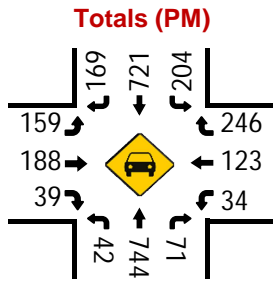
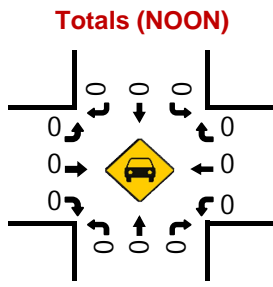
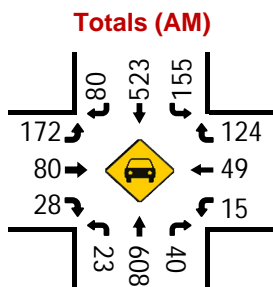
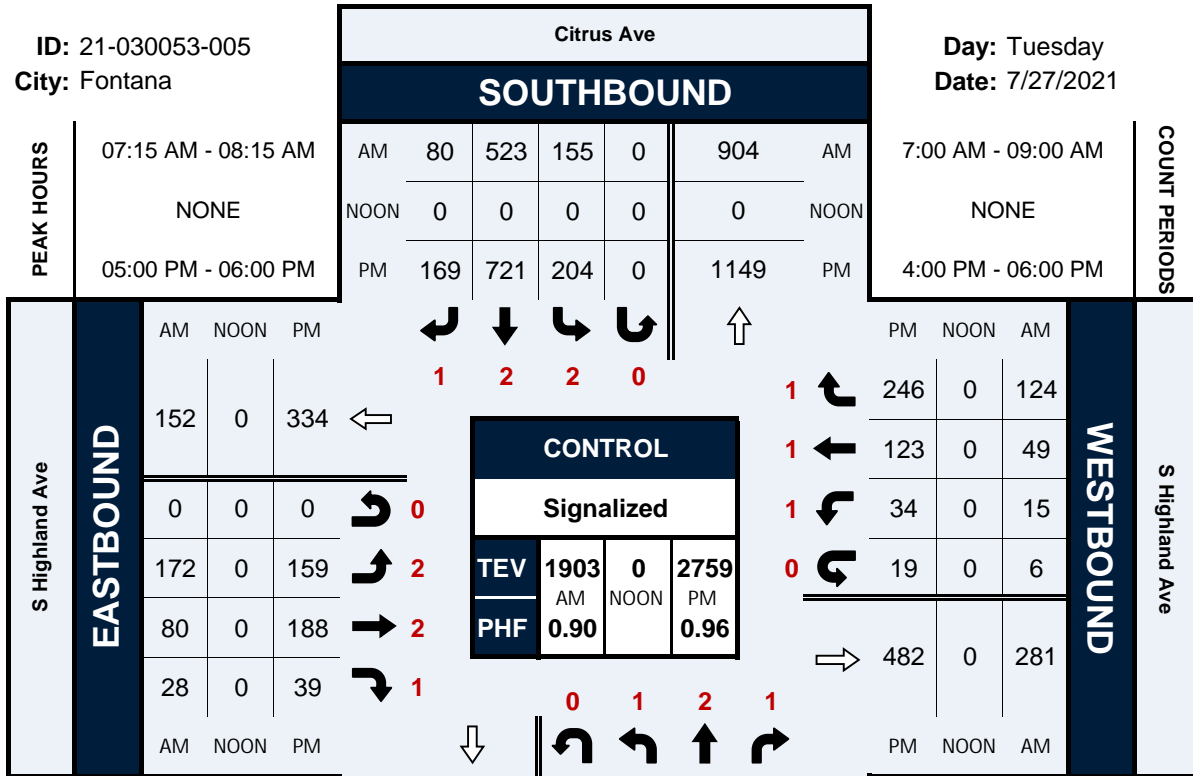
Data - Totals

NS/EW Streets:	Citrus Ave				Citrus Ave				S Highland Ave				S Highland Ave				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1	2	1	0	2	2	1	0	2	2	1	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	6	124	5	0	34	101	13	0	50	22	4	0	1	11	24	2	397
7:15 AM	4	152	11	0	28	107	15	0	41	27	4	0	6	13	31	0	439
7:30 AM	5	155	10	0	43	133	18	0	49	15	8	0	3	12	38	2	491
7:45 AM	9	172	7	0	43	157	27	0	46	16	8	0	1	11	29	3	529
8:00 AM	5	129	12	0	41	126	20	0	36	22	8	0	5	13	26	1	444
8:15 AM	9	145	4	0	31	111	14	0	42	13	5	0	6	16	34	1	431
8:30 AM	7	179	5	0	34	103	11	0	47	23	3	0	7	15	41	2	477
8:45 AM	5	182	10	0	45	109	12	0	35	19	7	0	8	14	45	2	493
TOTAL VOLUMES :	50	1238	64	0	299	947	130	0	346	157	47	0	37	105	268	13	3701
APPROACH %'s :	3.70%	91.57%	4.73%	0.00%	21.73%	68.82%	9.45%	0.00%	62.91%	28.55%	8.55%	0.00%	8.75%	24.82%	63.36%	3.07%	
PEAK HR :	07:15 AM - 08:15 AM																
PEAK HR VOL :	23	608	40	0	155	523	80	0	172	80	28	0	15	49	124	6	1903
PEAK HR FACTOR :	0.639	0.884	0.833	0.000	0.901	0.833	0.741	0.000	0.878	0.741	0.875	0.000	0.625	0.942	0.816	0.500	0.899
	0.892																
	0.835																
	0.972																
	0.882																
PM	1	2	1	0	2	2	1	0	2	2	1	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	10	167	17	0	56	165	26	0	52	50	12	0	11	26	65	6	663
4:15 PM	10	180	14	0	41	161	28	0	44	51	9	0	22	35	45	5	645
4:30 PM	12	179	13	0	58	169	26	0	38	70	6	0	17	21	59	3	671
4:45 PM	10	207	23	0	49	177	26	0	38	48	15	0	14	33	61	10	711
5:00 PM	14	192	19	0	46	176	40	0	34	51	8	0	7	38	55	5	685
5:15 PM	8	199	17	0	51	175	42	0	36	29	11	0	8	27	56	7	666
5:30 PM	8	163	14	0	52	189	35	0	55	58	10	0	12	24	67	4	691
5:45 PM	12	190	21	0	55	181	52	0	34	50	10	0	7	34	68	3	717
TOTAL VOLUMES :	84	1477	138	0	408	1393	275	0	331	407	81	0	98	238	476	43	5449
APPROACH %'s :	4.94%	86.93%	8.12%	0.00%	19.65%	67.10%	13.25%	0.00%	40.42%	49.69%	9.89%	0.00%	11.46%	27.84%	55.67%	5.03%	
PEAK HR :	05:00 PM - 06:00 PM																
PEAK HR VOL :	42	744	71	0	204	721	169	0	159	188	39	0	34	123	246	19	2759
PEAK HR FACTOR :	0.750	0.935	0.845	0.000	0.927	0.954	0.813	0.000	0.723	0.810	0.886	0.000	0.708	0.809	0.904	0.679	0.962
	0.952																
	0.950																
	0.785																
	0.942																

Prepared by National Data & Surveying Services
Citrus Ave & S Highland Ave
 Peak Hour Turning Movement Count

ID: 21-030053-005
 City: Fontana

Day: Tuesday
 Date: 7/27/2021



National Data & Surveying Services

Intersection Turning Movement Count

Location: Citrus Ave & Walnut St
 City: Fontana
 Control: Signalized

Project ID: 21-030053-006
 Date: 7/27/2021

Data - Totals

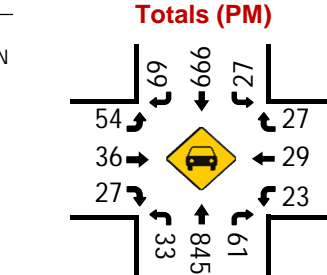
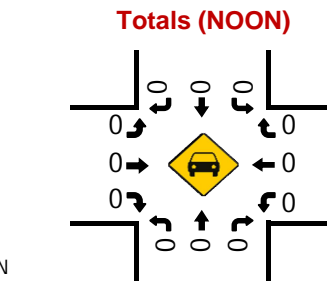
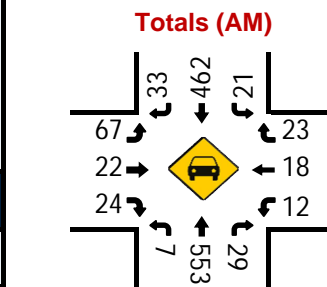
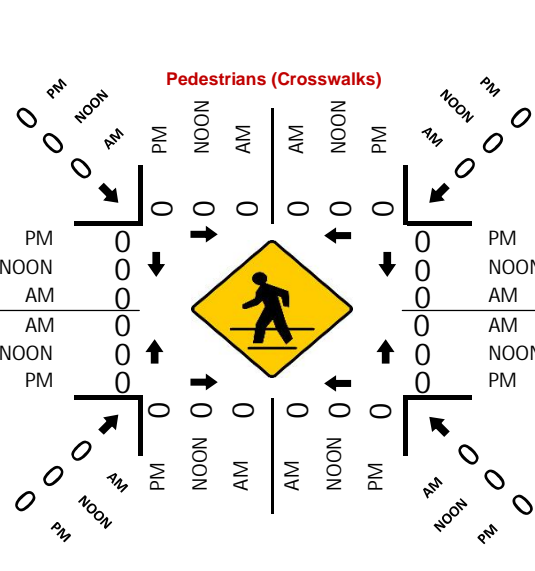
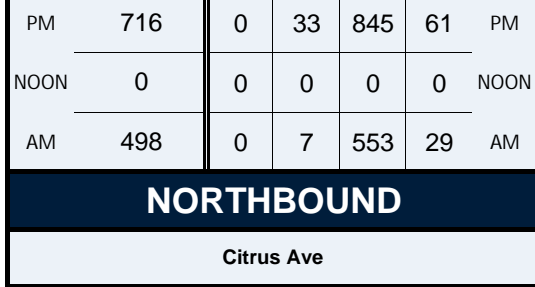
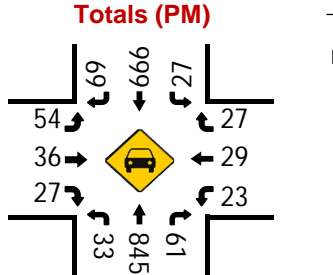
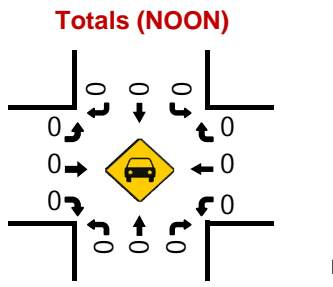
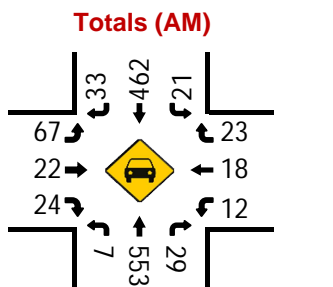
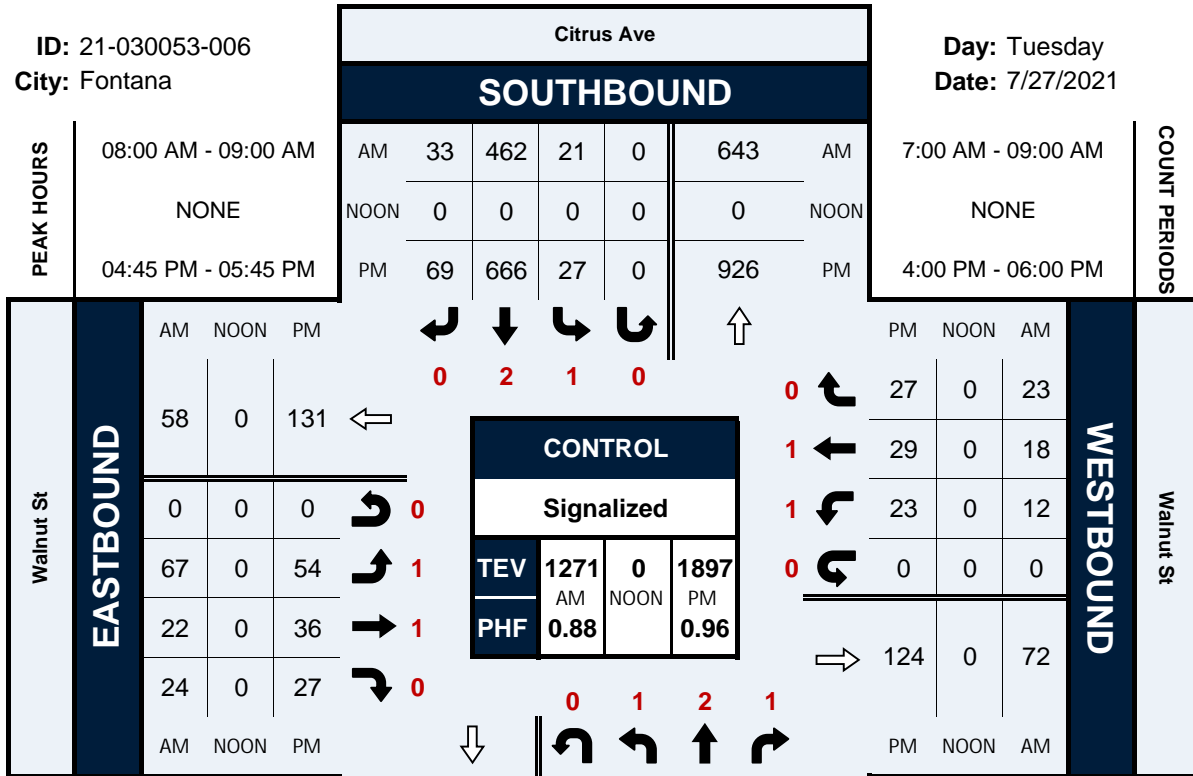
NS/EW Streets:	Citrus Ave				Citrus Ave				Walnut St				Walnut St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1	2	1	0	1	2	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	1	118	3	0	1	98	3	0	14	3	6	0	2	3	10	0	262
7:15 AM	2	140	1	0	5	125	1	0	16	3	5	0	3	0	4	0	305
7:30 AM	2	137	5	0	6	138	7	0	15	2	5	0	4	3	7	0	331
7:45 AM	3	129	3	0	1	146	7	0	14	3	5	0	2	1	8	0	322
8:00 AM	1	107	7	0	1	124	9	0	13	7	7	0	1	2	6	0	285
8:15 AM	3	142	7	0	7	109	10	0	20	6	5	0	3	4	3	0	319
8:30 AM	3	147	6	0	5	96	6	0	19	4	4	0	3	4	9	0	306
8:45 AM	0	157	9	0	8	133	8	0	15	5	8	0	5	8	5	0	361
TOTAL VOLUMES :	15	1077	41	0	34	969	51	0	126	33	45	0	23	25	52	0	2491
APPROACH %'s :	1.32%	95.06%	3.62%	0.00%	3.23%	91.94%	4.84%	0.00%	61.76%	16.18%	22.06%	0.00%	23.00%	25.00%	52.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	7	553	29	0	21	462	33	0	67	22	24	0	12	18	23	0	1271
PEAK HR FACTOR :	0.583	0.881	0.806	0.000	0.656	0.868	0.825	0.000	0.838	0.786	0.750	0.000	0.600	0.563	0.639	0.000	0.880
	0.887				0.866				0.911				0.736				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1	2	1	0	1	2	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	6	140	17	0	9	167	11	0	12	2	3	0	1	5	8	0	381
4:15 PM	2	171	10	0	5	179	12	0	20	11	6	0	2	15	6	0	439
4:30 PM	3	207	12	0	8	174	14	0	17	9	6	0	5	7	5	0	467
4:45 PM	12	228	19	0	9	151	21	0	7	9	6	0	5	3	9	0	479
5:00 PM	7	201	17	0	6	189	6	0	11	12	7	0	6	10	5	0	477
5:15 PM	10	189	15	0	6	144	23	0	16	12	4	0	9	8	9	0	445
5:30 PM	4	227	10	0	6	182	19	0	20	3	10	0	3	8	4	0	496
5:45 PM	11	185	11	0	9	166	34	0	13	14	10	0	1	12	9	0	475
TOTAL VOLUMES :	55	1548	111	0	58	1352	140	0	116	72	52	0	32	68	55	0	3659
APPROACH %'s :	3.21%	90.32%	6.48%	0.00%	3.74%	87.23%	9.03%	0.00%	48.33%	30.00%	21.67%	0.00%	20.65%	43.87%	35.48%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	33	845	61	0	27	666	69	0	54	36	27	0	23	29	27	0	1897
PEAK HR FACTOR :	0.688	0.927	0.803	0.000	0.750	0.881	0.750	0.000	0.675	0.750	0.675	0.000	0.639	0.725	0.750	0.000	0.956
	0.906				0.920				0.886				0.760				

Citrus Ave & Walnut St

Peak Hour Turning Movement Count

ID: 21-030053-006
City: Fontana

Day: Tuesday
Date: 7/27/2021



National Data & Surveying Services

Intersection Turning Movement Count

Location: Beech Ave & Highland Ave
 City: Fontana
 Control: Signalized

Project ID: Historical
 Date: 2/19/2019

Total

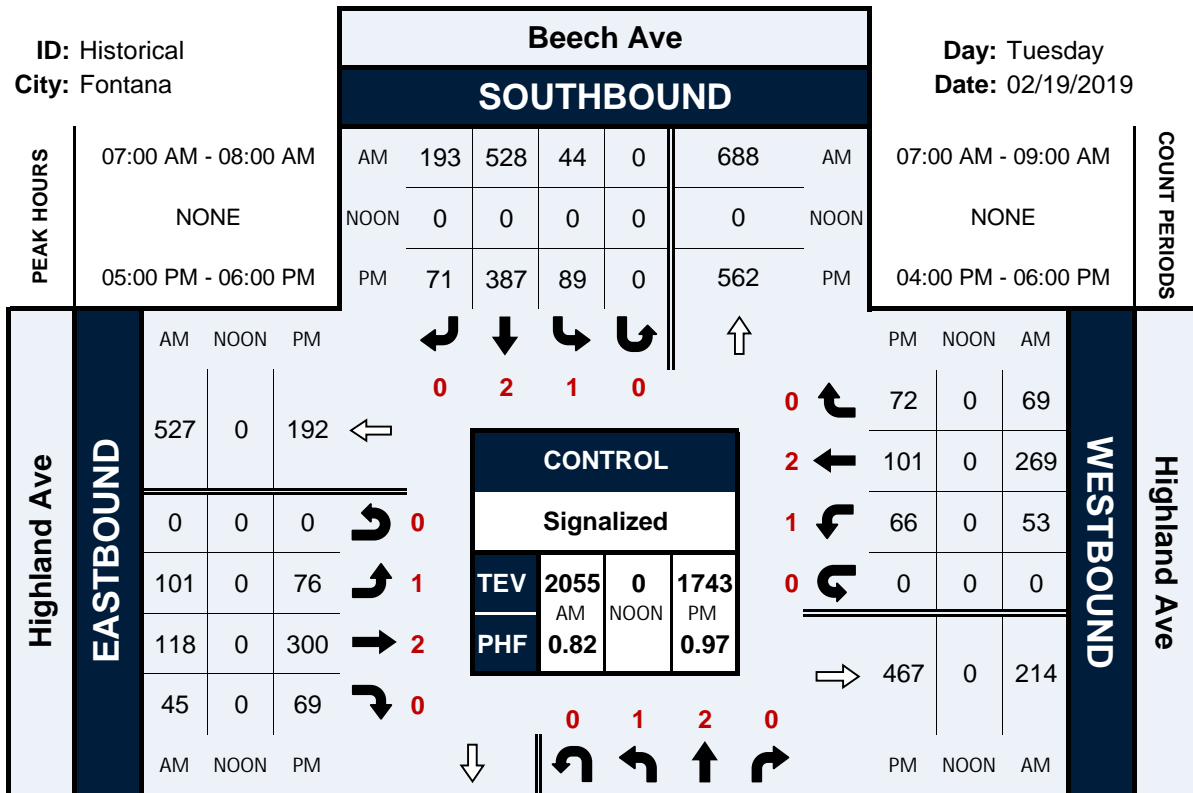
NS/EW Streets:	Beech Ave				Beech Ave				Highland Ave				Highland Ave				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
7:00 AM	29	148	14	0	11	105	34	0	31	20	6	0	10	52	24	0	
7:15 AM	17	201	17	0	10	154	53	0	35	32	11	0	14	66	18	0	
7:30 AM	8	100	11	0	9	161	59	0	18	25	14	0	9	87	14	0	
7:45 AM	11	69	10	0	14	108	47	0	17	41	14	0	20	64	13	0	
8:00 AM	5	53	21	0	6	91	25	0	38	79	38	0	20	51	6	0	
8:15 AM	4	52	11	0	4	45	11	0	30	42	28	0	5	32	5	0	
8:30 AM	8	47	8	0	7	44	12	0	11	24	5	0	4	21	8	0	
8:45 AM	9	55	4	0	8	27	10	0	4	14	5	0	9	23	6	0	
TOTAL VOLUMES :	91	725	96	0	69	735	251	0	184	277	121	0	91	396	94	0	
APPROACH %'s :	9.98%	79.50%	10.53%	0.00%	6.54%	69.67%	23.79%	0.00%	31.62%	47.59%	20.79%	0.00%	15.66%	68.16%	16.18%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	65	518	52	0	44	528	193	0	101	118	45	0	53	269	69	0	
PEAK HR FACTOR :	0.560	0.644	0.765	0.000	0.786	0.820	0.818	0.000	0.721	0.720	0.804	0.000	0.663	0.773	0.719	0.000	
	0.676				0.835				0.846				0.889				0.818
PM	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	10	85	14	0	21	98	12	0	21	66	19	0	12	29	11	0	
4:15 PM	13	102	13	0	28	73	17	0	18	71	17	0	11	28	14	0	
4:30 PM	5	97	20	0	28	97	15	0	25	61	14	0	9	35	17	0	
4:45 PM	5	91	18	0	23	72	17	0	31	64	10	0	19	24	15	0	
5:00 PM	8	97	19	0	19	95	12	0	22	80	21	0	16	30	18	0	
5:15 PM	5	117	19	0	19	97	15	0	19	67	17	0	19	26	16	0	
5:30 PM	3	107	26	0	25	96	27	0	14	77	12	0	16	24	20	0	
5:45 PM	4	93	14	0	26	99	17	0	21	76	19	0	15	21	18	0	
TOTAL VOLUMES :	53	789	143	0	189	727	132	0	171	562	129	0	117	217	129	0	
APPROACH %'s :	5.38%	80.10%	14.52%	0.00%	18.03%	69.37%	12.60%	0.00%	19.84%	65.20%	14.97%	0.00%	25.27%	46.87%	27.86%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	20	414	78	0	89	387	71	0	76	300	69	0	66	101	72	0	
PEAK HR FACTOR :	0.625	0.885	0.750	0.000	0.856	0.977	0.657	0.000	0.864	0.938	0.821	0.000	0.868	0.842	0.900	0.000	
	0.908				0.924				0.904				0.934				0.975

Beech Ave & Highland Ave

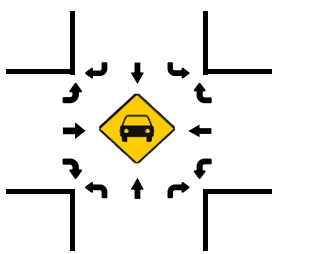
Peak Hour Turning Movement Count

ID: Historical
City: Fontana

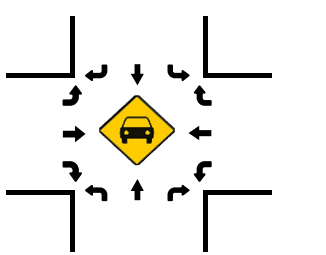
Day: Tuesday
Date: 02/19/2019



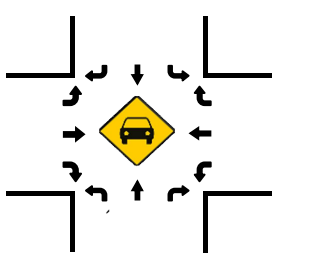
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)

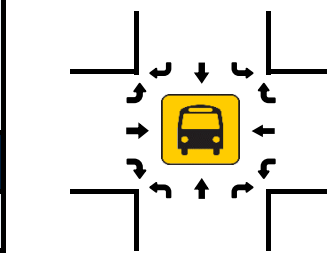


PM	522	0	20	414	78	PM
NOON	0	0	0	0	0	NOON
AM	626	0	65	518	52	AM

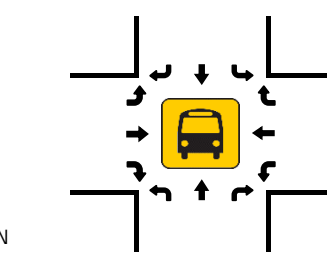
NORTHBOUND

Beech Ave

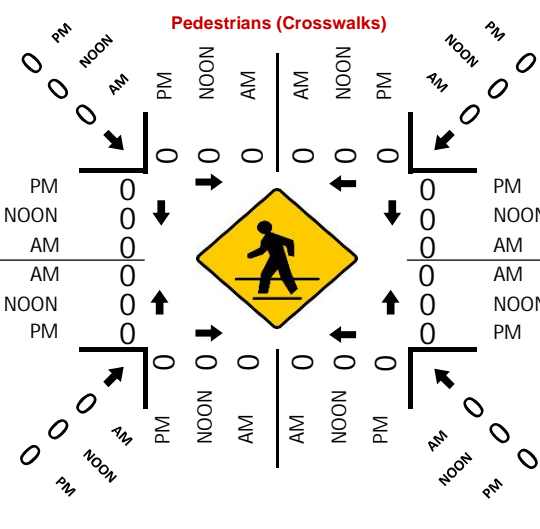
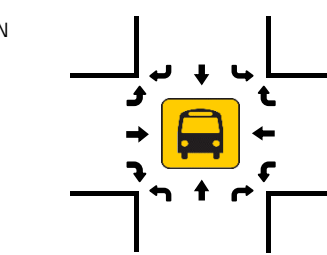
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Beech Ave & Walnut St
 City: Fontana
 Control: 4-Way Stop

Project ID: Historical
 Date: 2/19/2019

Total

NS/EW Streets:	Beech Ave				Beech Ave				Walnut St				Walnut St				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
7:00 AM	19	152	5	0	9	80	12	0	6	14	3	0	20	37	25	0	
7:15 AM	9	189	2	0	21	145	17	0	8	10	7	0	18	30	32	0	
7:30 AM	16	94	4	0	13	179	15	0	11	9	5	0	14	44	12	0	
7:45 AM	36	74	10	0	8	97	33	0	5	11	20	0	13	22	6	0	
8:00 AM	49	45	5	0	9	95	53	0	23	16	24	0	10	23	10	0	
8:15 AM	7	51	4	0	5	59	9	0	7	10	6	0	7	6	8	0	
8:30 AM	6	42	2	0	6	48	4	0	8	4	4	0	2	4	6	0	
8:45 AM	2	53	3	0	2	35	3	0	6	6	1	0	9	8	9	0	
TOTAL VOLUMES :	144	700	35	0	73	738	146	0	74	80	70	0	93	174	108	0	
APPROACH %'s :	16.38%	79.64%	3.98%	0.00%	7.63%	77.12%	15.26%	0.00%	33.04%	35.71%	31.25%	0.00%	24.80%	46.40%	28.80%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																
PEAK HR VOL :	80	509	21	0	51	501	77	0	30	44	35	0	65	133	75	0	
PEAK HR FACTOR :	0.556	0.673	0.525	0.000	0.607	0.700	0.583	0.000	0.682	0.786	0.438	0.000	0.813	0.756	0.586	0.000	
	0.763				0.760				0.757				0.832				0.830
PM	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
4:00 PM	3	89	12	1	21	94	8	1	12	19	13	0	4	17	9	0	
4:15 PM	11	99	7	0	10	79	10	0	17	24	7	0	7	13	12	0	
4:30 PM	7	99	15	0	9	95	7	2	17	22	10	0	1	12	10	0	
4:45 PM	9	100	13	0	13	78	11	0	21	16	8	0	3	7	6	0	
5:00 PM	7	96	8	0	17	96	13	0	12	14	8	0	5	2	11	0	
5:15 PM	9	119	5	0	18	105	5	0	15	28	7	0	8	8	8	0	
5:30 PM	6	108	10	0	10	90	9	0	16	15	7	0	4	8	6	0	
5:45 PM	6	93	11	0	19	111	7	0	6	24	4	0	4	10	9	0	
TOTAL VOLUMES :	58	803	81	1	117	748	70	3	116	162	64	0	36	77	71	0	
APPROACH %'s :	6.15%	85.15%	8.59%	0.11%	12.47%	79.74%	7.46%	0.32%	33.92%	47.37%	18.71%	0.00%	19.57%	41.85%	38.59%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																
PEAK HR VOL :	28	416	34	0	64	402	34	0	49	81	26	0	21	28	34	0	
PEAK HR FACTOR :	0.778	0.874	0.773	0.000	0.842	0.905	0.654	0.000	0.766	0.723	0.813	0.000	0.656	0.700	0.773	0.000	
	0.898				0.912				0.780				0.865				0.908

APPENDIX C

INTERSECTION ANALYSIS
WORKSHEETS

Fontana Square Project

Vistro File: K:\...\Fontana Square AM.vistro

Scenario 1 EX AM

Report File: K:\...\1 EX AM.pdf

12/6/2021

Intersection Analysis Summary





ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Beech Ave at Highland Ave	Signalized	HCM 6th Edition	EB Left	0.280	23.8	C
2	Beech Ave at SR-210 HOV Ramps	All-way stop	HCM 6th Edition	NB Thru	0.600	16.4	C
3	Catawba Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.005	11.5	B
4	Citrus Ave at SR-210 WB Ramps	Signalized	HCM 6th Edition	WB Right	0.624	20.3	C
5	Citrus Ave at SR-210 EB Ramps	Signalized	HCM 6th Edition	SB Left	0.650	20.4	C
6	Citrus Ave at Highland Ave	Signalized	HCM 6th Edition	NB Left	0.632	23.6	C
7	Citrus Ave at Walnut St	Signalized	HCM 6th Edition	NB Left	0.387	11.2	B
8	Driveway 1/Jacaranda Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.018	10.4	B
9	Driveway 2/Tokay Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.015	9.4	A
10	Driveway 3/Cherimoya Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.016	9.5	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Beech Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	23.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.280

Intersection Setup

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	31	276	54	38	204	45	56	102	24	30	143	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	276	54	38	204	45	56	102	24	30	143	63
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	78	15	11	57	13	16	29	7	8	40	18
Total Analysis Volume [veh/h]	35	311	61	43	230	51	63	115	27	34	161	71
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	34	0	11	34	0	19	26	0	19	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	57	57	3	57	57	4	11	11	3	10	10
g / C, Green / Cycle	0.03	0.63	0.63	0.04	0.63	0.63	0.05	0.13	0.13	0.03	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.02	0.10	0.10	0.02	0.08	0.08	0.04	0.04	0.04	0.02	0.06	0.07
s, saturation flow rate [veh/h]	1781	1870	1766	1781	1870	1755	1781	1870	1751	1781	1870	1683
c, Capacity [veh/h]	58	1172	1107	66	1180	1108	83	235	220	59	209	188
d1, Uniform Delay [s]	42.94	6.97	6.99	42.77	6.63	6.65	42.40	35.78	35.84	42.91	37.91	38.05
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	9.50	0.30	0.32	10.48	0.21	0.23	13.12	0.73	0.83	8.80	2.42	3.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.60	0.16	0.16	0.65	0.12	0.12	0.76	0.31	0.32	0.58	0.57	0.60
d, Delay for Lane Group [s/veh]	52.45	7.27	7.31	53.25	6.84	6.88	55.52	36.51	36.67	51.71	40.33	41.11
Lane Group LOS	D	A	A	D	A	A	E	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.90	1.35	1.31	1.11	0.98	0.95	1.63	1.42	1.39	0.86	2.51	2.42
50th-Percentile Queue Length [ft/ln]	22.46	33.86	32.80	27.63	24.40	23.72	40.68	35.41	34.68	21.45	62.76	60.50
95th-Percentile Queue Length [veh/ln]	1.62	2.44	2.36	1.99	1.76	1.71	2.93	2.55	2.50	1.54	4.52	4.36
95th-Percentile Queue Length [ft/ln]	40.42	60.95	59.04	49.74	43.93	42.69	73.22	63.73	62.42	38.61	112.97	108.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	52.45	7.28	7.31	53.25	6.86	6.88	55.52	36.57	36.67	51.71	40.54	41.11
Movement LOS	D	A	A	D	A	A	E	D	D	D	D	D
d_A, Approach Delay [s/veh]	11.17			13.02			42.41			42.12		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	23.84											
Intersection LOS	C											
Intersection V/C	0.280											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
l_p,int, Pedestrian LOS Score for Intersection	2.483	2.501	2.434	2.443
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	667	667	489	489
d_b, Bicycle Delay [s]	20.00	20.00	25.69	25.69
l_b,int, Bicycle LOS Score for Intersection	1.895	1.827	1.729	1.779
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Beech Ave at SR-210 HOV Ramps

Control Type:	All-way stop	Delay (sec / veh):	16.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.600

Intersection Setup

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Base Volume Input [veh/h]	149	542	59	37	432	71	28	2	46	145	2	44
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	149	542	59	37	432	71	28	2	46	145	2	44
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	148	16	10	118	19	8	1	13	40	1	12
Total Analysis Volume [veh/h]	163	592	64	40	472	78	31	2	50	158	2	48
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	507	547	558	489	525	541	491	494
Degree of Utilization, x	0.32	0.60	0.59	0.08	0.52	0.51	0.17	0.42

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.38	3.94	3.78	0.27	3.01	2.86	0.60	2.06
95th-Percentile Queue Length [ft]	34.42	98.42	94.44	6.66	75.37	71.52	15.07	51.62
Approach Delay [s/veh]	17.27			16.08			11.81	15.50
Approach LOS	C			C			B	C
Intersection Delay [s/veh]	16.37							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 3: Catawba Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name	Catawba Ave		Highland Ave		Highland Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Catawba Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	3	1	0	344	196	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	1	0	344	196	4
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	94	53	1
Total Analysis Volume [veh/h]	3	1	0	376	214	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	1	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.55	9.41	7.66	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.50	0.50	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.01		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.07					
Intersection LOS	B					

Intersection Level of Service Report
Intersection 4: Citrus Ave at SR-210 WB Ramps

Control Type:	Signalized	Delay (sec / veh):	20.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.624

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐ ↑			↓ ⇐						⇐ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Base Volume Input [veh/h]	441	808	0	0	570	479	0	0	0	249	1	275
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	96	0	0	0	0	0	28
Total Hourly Volume [veh/h]	441	808	0	0	570	383	0	0	0	249	1	247
Peak Hour Factor	0.9200	0.9200	1.0000	1.0000	0.9200	0.9200	1.0000	1.0000	1.0000	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	120	220	0	0	155	104	0	0	0	68	0	67
Total Analysis Volume [veh/h]	479	878	0	0	620	416	0	0	0	271	1	268
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	0	0	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	0	0	0	0	10	0
Maximum Green [s]	30	30	0	0	30	0	0	0	0	0	0	30	0
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Split [s]	21	52	0	0	31	0	0	0	0	0	0	38	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	0	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	7	0	0	0	0	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No							No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No			No							No	
Maximum Recall	No	No			No							No	
Pedestrian Recall	No	No			No							No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R		L	C	R
C, Cycle Length [s]	90	90	90	90		90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	15	64	45	45		18	18	18
g / C, Green / Cycle	0.16	0.71	0.51	0.51		0.20	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.14	0.25	0.17	0.26		0.08	0.08	0.17
s, saturation flow rate [veh/h]	3459	3560	3560	1589		1781	1782	1589
c, Capacity [veh/h]	561	2533	1796	802		356	356	318
d1, Uniform Delay [s]	36.66	4.98	13.37	14.96		31.20	31.20	34.66
k, delay calibration	0.11	0.50	0.50	0.50		0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	3.81	0.38	0.53	2.39		0.67	0.67	6.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.35	0.35	0.52		0.38	0.38	0.84
d, Delay for Lane Group [s/veh]	40.47	5.36	13.90	17.35		31.87	31.87	40.75
Lane Group LOS	D	A	B	B		C	C	D
Critical Lane Group	Yes	No	No	Yes		No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.13	2.25	3.44	5.50		2.59	2.59	6.06
50th-Percentile Queue Length [ft/ln]	128.23	56.36	85.94	137.39		64.72	64.74	151.49
95th-Percentile Queue Length [veh/ln]	8.84	4.06	6.19	9.34		4.66	4.66	10.10
95th-Percentile Queue Length [ft/ln]	221.08	101.45	154.68	233.50		116.49	116.53	252.41

Movement, Approach, & Intersection Results

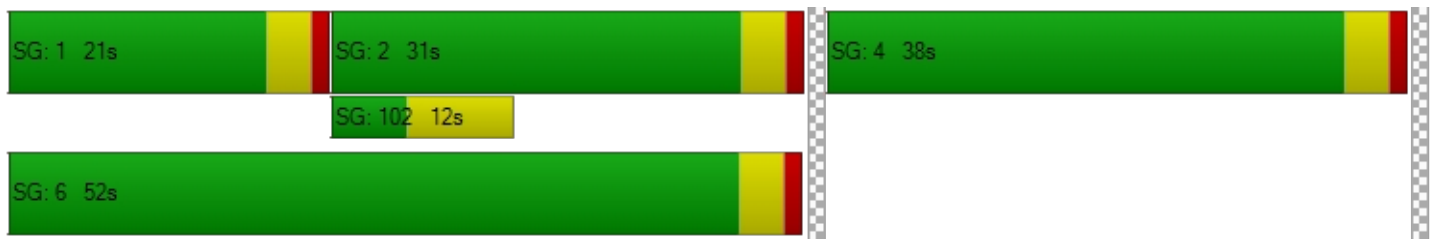
d_M, Delay for Movement [s/veh]	40.47	5.36	0.00	0.00	13.90	17.35	0.00	0.00	0.00	31.87	31.87	40.75
Movement LOS	D	A			B	B				C	C	D
d_A, Approach Delay [s/veh]	17.75				15.29		0.00		36.27			
Approach LOS	B				B		A		D			
d_I, Intersection Delay [s/veh]	20.29											
Intersection LOS	C											
Intersection V/C	0.624											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0		0.0		9.0		0.0	
M_corner, Corner Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		0.00		36.45		0.00	
l_p,int, Pedestrian LOS Score for Intersection	0.000		0.000		2.200		0.000	
Crosswalk LOS	F		F		B		F	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	1067		600		0		756	
d_b, Bicycle Delay [s]	9.80		22.05		45.00		17.42	
l_b,int, Bicycle LOS Score for Intersection	2.679		2.494		4.132		2.497	
Bicycle LOS	B		B		D		B	

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Citrus Ave at SR-210 EB Ramps

Control Type:	Signalized	Delay (sec / veh):	20.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.650

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↑↑			↑↑↑			↑↑↑↑					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Base Volume Input [veh/h]	0	787	443	228	695	0	343	3	340	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	89	0	0	0	0	0	34	0	0	0
Total Hourly Volume [veh/h]	0	787	354	228	695	0	343	3	306	0	0	0
Peak Hour Factor	1.0000	0.9030	0.9030	0.9030	0.9030	1.0000	0.9030	0.9030	0.9030	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	218	98	63	192	0	95	1	85	0	0	0
Total Analysis Volume [veh/h]	0	872	392	252	770	0	380	3	339	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss
Signal Group	0	6	0	5	2	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	5	10	0	0	10	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	43	0	13	56	0	0	34	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No				
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No			No				
Maximum Recall		No		No	No			No				
Pedestrian Recall		No		No	No			No				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C	R	
C, Cycle Length [s]	90	90	90	90	90	90	90	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	53	53	8	66	16	16	16	
g / C, Green / Cycle	0.59	0.59	0.09	0.73	0.18	0.18	0.18	
(v / s)_i Volume / Saturation Flow Rate	0.34	0.37	0.07	0.22	0.14	0.14	0.14	
s, saturation flow rate [veh/h]	1870	1685	3459	3560	1781	1690	1589	
c, Capacity [veh/h]	1107	998	325	2600	322	306	288	
d1, Uniform Delay [s]	11.32	11.99	39.85	4.18	35.15	35.22	35.29	
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11	0.11	
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	2.14	3.06	4.00	0.29	4.10	4.53	5.09	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.57	0.63	0.78	0.30	0.78	0.79	0.80	
d, Delay for Lane Group [s/veh]	13.46	15.05	43.86	4.47	39.25	39.75	40.38	
Lane Group LOS	B	B	D	A	D	D	D	
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	
50th-Percentile Queue Length [veh/ln]	6.98	7.55	2.77	1.66	5.51	5.34	5.13	
50th-Percentile Queue Length [ft/ln]	174.55	188.67	69.37	41.54	137.86	133.39	128.36	
95th-Percentile Queue Length [veh/ln]	11.32	12.05	4.99	2.99	9.37	9.12	8.85	
95th-Percentile Queue Length [ft/ln]	282.89	301.30	124.87	74.76	234.15	228.09	221.26	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	13.90	15.05	43.86	4.47	0.00	39.43	39.75	40.19	0.00	0.00	0.00
Movement LOS		B	B	D	A		D	D	D			
d_A, Approach Delay [s/veh]		14.26		14.18			39.77			0.00		
Approach LOS		B		B			D			A		
d_I, Intersection Delay [s/veh]	20.36											
Intersection LOS	C											
Intersection V/C	0.650											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0		0.0		9.0		0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00
d_p, Pedestrian Delay [s]	0.00		0.00		36.45		0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000		0.000		2.365		0.000
Crosswalk LOS	F		F		B		F
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000
c_b, Capacity of the bicycle lane [bicycles/h]	867		1156		667		0
d_b, Bicycle Delay [s]	14.45		8.02		20.00		45.00
I_b,int, Bicycle LOS Score for Intersection	2.676		2.403		2.807		4.132
Bicycle LOS	B		B		C		D

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Citrus Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	23.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.632

Intersection Setup

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	[Diagram]			[Diagram]			[Diagram]			[Diagram]		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	31	827	54	211	711	109	234	109	38	29	67	169
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	827	54	211	711	109	234	109	38	29	67	169
Peak Hour Factor	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	230	15	59	198	30	65	30	11	8	19	47
Total Analysis Volume [veh/h]	34	920	60	235	791	121	260	121	42	32	75	188
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	29	0	14	33	0	14	33	0	14	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	24	0	0	21	0	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	44	44	8	49	49	9	19	19	3	13	13
g / C, Green / Cycle	0.03	0.49	0.49	0.09	0.55	0.55	0.10	0.21	0.21	0.03	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.02	0.26	0.04	0.07	0.22	0.08	0.08	0.03	0.03	0.02	0.04	0.12
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	3560	1589	1781	1870	1589
c, Capacity [veh/h]	58	1748	780	311	1953	872	335	746	333	57	270	230
d1, Uniform Delay [s]	42.96	15.73	12.12	39.98	11.79	9.93	39.69	29.11	28.88	42.95	34.31	37.35
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	9.25	1.14	0.19	3.72	0.63	0.33	3.88	0.10	0.17	8.50	0.55	7.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.59	0.53	0.08	0.75	0.41	0.14	0.78	0.16	0.13	0.56	0.28	0.82
d, Delay for Lane Group [s/veh]	52.21	16.87	12.32	43.70	12.42	10.26	43.57	29.21	29.05	51.46	34.86	44.38
Lane Group LOS	D	B	B	D	B	B	D	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.86	5.95	0.61	2.58	4.08	1.09	2.85	1.03	0.71	0.81	1.44	4.25
50th-Percentile Queue Length [ft/ln]	21.58	148.68	15.29	64.50	102.09	27.21	71.34	25.63	17.86	20.18	35.88	106.29
95th-Percentile Queue Length [veh/ln]	1.55	9.95	1.10	4.64	7.35	1.96	5.14	1.85	1.29	1.45	2.58	7.63
95th-Percentile Queue Length [ft/ln]	38.85	248.66	27.53	116.10	183.75	48.99	128.40	46.13	32.15	36.32	64.58	190.84

Movement, Approach, & Intersection Results

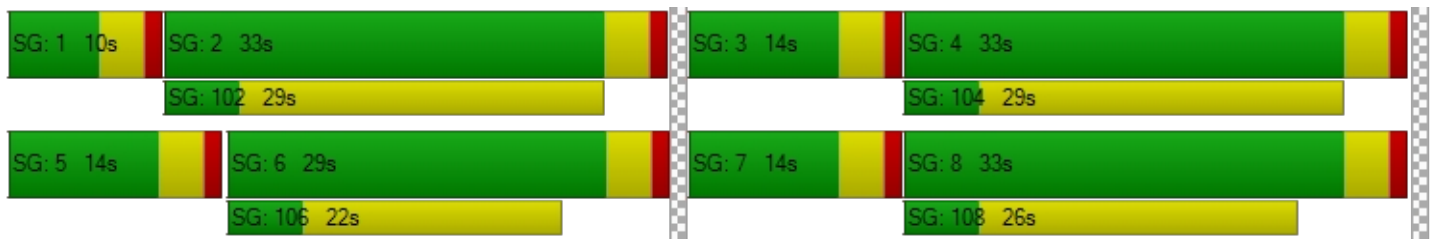
d_M, Delay for Movement [s/veh]	52.21	16.87	12.32	43.70	12.42	10.26	43.57	29.21	29.05	51.46	34.86	44.38
Movement LOS	D	B	B	D	B	B	D	C	C	D	C	D
d_A, Approach Delay [s/veh]	17.78			18.60			38.02			42.72		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	23.64											
Intersection LOS	C											
Intersection V/C	0.632											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.912	3.121	2.732	2.509
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	556	644	644	644
d_b, Bicycle Delay [s]	23.47	20.67	20.67	20.67
I_b,int, Bicycle LOS Score for Intersection	2.396	2.506	1.909	2.046
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Citrus Ave at Walnut St**

Control Type:	Signalized	Delay (sec / veh):	11.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.387

Intersection Setup

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Base Volume Input [veh/h]	10	752	39	29	628	45	91	30	33	16	24	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	752	39	29	628	45	91	30	33	16	24	31
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	214	11	8	178	13	26	9	9	5	7	9
Total Analysis Volume [veh/h]	11	855	44	33	714	51	103	34	38	18	27	35
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	32	19	0	41	28	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	21	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	61	61	3	63	63	14	14	14	14
g / C, Green / Cycle	0.01	0.68	0.68	0.03	0.70	0.70	0.16	0.16	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.01	0.24	0.03	0.02	0.21	0.21	0.08	0.04	0.01	0.04
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1827	1340	1711	1328	1701
c, Capacity [veh/h]	24	2416	1078	56	1302	1272	213	268	205	266
d1, Uniform Delay [s]	44.05	6.12	4.78	43.00	5.23	5.23	39.53	33.41	37.42	33.22
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.58	0.41	0.07	9.35	0.58	0.60	1.69	0.53	0.18	0.44
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.35	0.04	0.59	0.30	0.30	0.48	0.27	0.09	0.23
d, Delay for Lane Group [s/veh]	56.64	6.53	4.86	52.35	5.81	5.83	41.23	33.95	37.61	33.66
Lane Group LOS	E	A	A	D	A	A	D	C	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.32	2.64	0.22	0.84	2.17	2.12	2.27	1.39	0.37	1.19
50th-Percentile Queue Length [ft/ln]	7.96	66.10	5.57	21.01	54.16	53.08	56.66	34.79	9.18	29.75
95th-Percentile Queue Length [veh/ln]	0.57	4.76	0.40	1.51	3.90	3.82	4.08	2.50	0.66	2.14
95th-Percentile Queue Length [ft/ln]	14.33	118.98	10.03	37.82	97.49	95.54	101.99	62.62	16.52	53.55

Movement, Approach, & Intersection Results

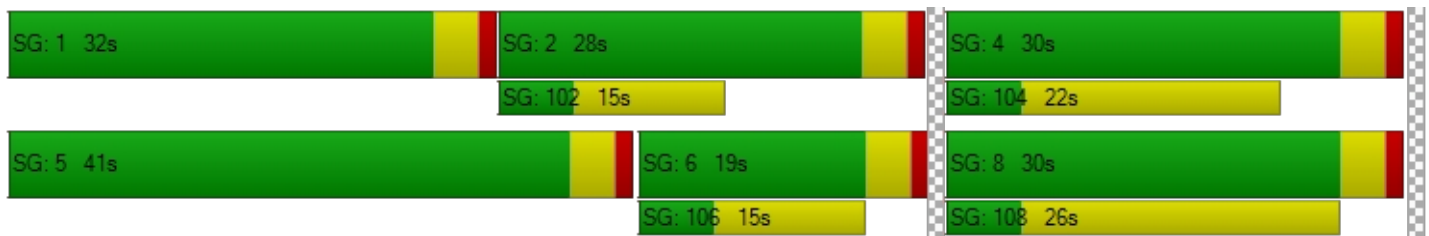
d_M, Delay for Movement [s/veh]	56.64	6.53	4.86	52.35	5.82	5.83	41.23	33.95	33.95	37.61	33.66	33.66
Movement LOS	E	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	7.06			7.74			38.23			34.55		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	11.24											
Intersection LOS	B											
Intersection V/C	0.387											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersection	2.889			2.972			2.042			2.014		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	333			533			578			578		
d_b, Bicycle Delay [s]	31.25			24.20			22.76			22.76		
I_b,int, Bicycle LOS Score for Intersection	2.310			2.218			1.848			1.692		
Bicycle LOS	B			B			A			A		

Sequence


Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Driveway 1/Jacaranda Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.018

Intersection Setup

Name	Jacaranda Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Jacaranda Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	11	347	0	3	200
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	11	347	0	3	200
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	3	91	0	1	53
Total Analysis Volume [veh/h]	0	12	365	0	3	211
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0


Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.69	10.39	0.00	0.00	8.02	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	1.35	1.35	0.00	0.00	0.19	0.19
d_A, Approach Delay [s/veh]	10.39		0.00		0.11	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.25					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 9: Driveway 2/Tokay Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Tokay Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Tokay Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	11	358	0	4	203
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	11	358	0	4	203
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	3	94	0	1	53
Total Analysis Volume [veh/h]	0	12	377	0	4	214
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.21	9.45	0.00	0.00	8.07	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.01	0.00
95th-Percentile Queue Length [ft/ln]	1.11	1.11	0.00	0.00	0.26	0.00
d_A, Approach Delay [s/veh]	9.45		0.00		0.15	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.24					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 10: Driveway 3/Cherimoya Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.016

Intersection Setup

Name	Cherimoya Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Cherimoya Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	12	369	0	0	207
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	12	369	0	0	207
Peak Hour Factor	1.0000	0.9500	0.9500	0.9500	1.0000	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	3	97	0	0	54
Total Analysis Volume [veh/h]	0	13	388	0	0	218
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	9.49	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.05	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	1.22	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.49		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.20					
Intersection LOS	A					

Fontana Square Project

Vistro File: K:\...\Fontana Square PM.vistro

Scenario 1 EX PM

Report File: K:\...\1 EX PM.pdf

12/6/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Beech Ave at Highland Ave	Signalized	HCM 6th Edition	NB Left	0.468	27.6	C
2	Beech Ave at SR-210 HOV Ramps	All-way stop	HCM 6th Edition	NB Thru	0.543	15.3	C
3	Catawba Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.034	14.8	B
4	Citrus Ave at SR-210 WB Ramps	Signalized	HCM 6th Edition	WB Right	0.873	29.8	C
5	Citrus Ave at SR-210 EB Ramps	Signalized	HCM 6th Edition	SB Left	0.847	27.8	C
6	Citrus Ave at Highland Ave	Signalized	HCM 6th Edition	NB Left	0.806	29.7	C
7	Citrus Ave at Walnut St	Signalized	HCM 6th Edition	NB Left	0.481	11.9	B
8	Driveway 1/Jacaranda Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.013	11.6	B
9	Driveway 2/Tokay Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.010	10.0	A
10	Driveway 3/Cherimoya Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.011	10.0	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Beech Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	27.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.468

Intersection Setup

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↵ ↑			↵ ↑			↵ ↑			↵ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	30	416	105	112	431	61	98	340	75	90	177	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	30	416	105	112	431	61	98	340	75	90	177	90
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	107	27	29	111	16	25	88	19	23	46	23
Total Analysis Volume [veh/h]	31	428	108	115	444	63	101	350	77	93	182	93
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	26	0	12	26	0	26	38	0	14	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	47	47	7	52	52	7	13	13	6	13	13
g / C, Green / Cycle	0.03	0.53	0.53	0.08	0.58	0.58	0.07	0.15	0.15	0.07	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.02	0.15	0.15	0.06	0.14	0.14	0.06	0.12	0.12	0.05	0.08	0.08
s, saturation flow rate [veh/h]	1781	1870	1742	1781	1870	1790	1781	1870	1755	1781	1870	1664
c, Capacity [veh/h]	54	984	917	144	1079	1032	132	277	260	120	263	234
d1, Uniform Delay [s]	43.05	11.85	11.87	40.63	9.35	9.36	40.90	37.00	37.07	41.32	35.95	36.08
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	9.16	0.71	0.78	9.63	0.52	0.55	8.87	5.06	5.69	10.35	1.72	2.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.57	0.28	0.28	0.80	0.24	0.24	0.77	0.79	0.80	0.78	0.54	0.57
d, Delay for Lane Group [s/veh]	52.22	12.56	12.65	50.26	9.88	9.91	49.76	42.06	42.76	51.67	37.68	38.22
Lane Group LOS	D	B	B	D	A	A	D	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.80	2.94	2.79	2.80	2.32	2.24	2.42	4.79	4.60	2.28	2.89	2.72
50th-Percentile Queue Length [ft/ln]	19.94	73.56	69.86	70.00	58.07	56.12	60.58	119.70	115.02	57.06	72.25	67.92
95th-Percentile Queue Length [veh/ln]	1.44	5.30	5.03	5.04	4.18	4.04	4.36	8.38	8.12	4.11	5.20	4.89
95th-Percentile Queue Length [ft/ln]	35.89	132.41	125.75	126.00	104.52	101.01	109.04	209.41	202.96	102.71	130.05	122.26

Movement, Approach, & Intersection Results

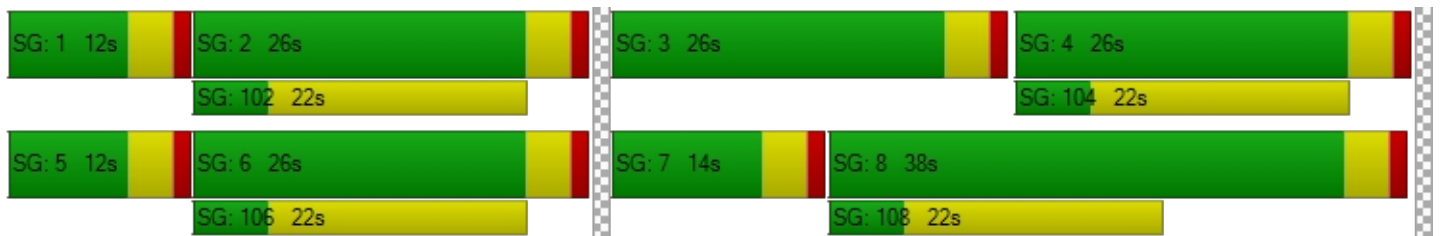
d_M, Delay for Movement [s/veh]	52.22	12.59	12.65	50.26	9.89	9.91	49.76	42.32	42.76	51.67	37.79	38.22
Movement LOS	D	B	B	D	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	14.77			17.36			43.81			41.41		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	27.60											
Intersection LOS	C											
Intersection V/C	0.468											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.608	2.625	2.537	2.577
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	756	489
d_b, Bicycle Delay [s]	25.69	25.69	17.42	25.69
I_b,int, Bicycle LOS Score for Intersection	2.027	2.073	1.995	1.863
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Beech Ave at SR-210 HOV Ramps

Control Type:	All-way stop	Delay (sec / veh):	15.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.543

Intersection Setup

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Base Volume Input [veh/h]	95	474	66	60	366	30	114	16	106	70	4	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	95	474	66	60	366	30	114	16	106	70	4	53
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	126	17	16	97	8	30	4	28	19	1	14
Total Analysis Volume [veh/h]	101	502	70	64	388	32	121	17	112	74	4	56
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	490	527	541	474	508	516	519	497
Degree of Utilization, x	0.21	0.54	0.53	0.14	0.41	0.41	0.48	0.27

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.77	3.22	3.08	0.46	2.01	1.96	2.59	1.08
95th-Percentile Queue Length [ft]	19.19	80.59	76.91	11.61	50.14	48.95	64.81	27.02
Approach Delay [s/veh]	16.24			14.13			16.23	12.89
Approach LOS	C			B			C	B
Intersection Delay [s/veh]	15.28							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 3: Catawba Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	14.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.034

Intersection Setup

Name	Catawba Ave		Highland Ave		Highland Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Catawba Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	12	8	14	491	418	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	8	14	491	418	14
Peak Hour Factor	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	4	135	115	4
Total Analysis Volume [veh/h]	13	9	15	539	459	15
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	1	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.02	0.01	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	14.75	11.45	8.36	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.15	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.84	3.84	1.05	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	13.40		0.23		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.40					
Intersection LOS	B					

Intersection Level of Service Report
Intersection 4: Citrus Ave at SR-210 WB Ramps

Control Type:	Signalized	Delay (sec / veh):	29.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.873

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐			⇐						⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Base Volume Input [veh/h]	388	1433	0	0	840	484	0	0	0	509	1	545
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	97	0	0	0	0	0	55
Total Hourly Volume [veh/h]	388	1433	0	0	840	387	0	0	0	509	1	490
Peak Hour Factor	0.8940	0.8940	1.0000	1.0000	0.8940	0.8940	1.0000	1.0000	1.0000	0.8940	0.8940	0.8940
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	109	401	0	0	235	108	0	0	0	142	0	137
Total Analysis Volume [veh/h]	434	1603	0	0	940	433	0	0	0	569	1	548
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	0	0	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	0	0	0	0	10	0
Maximum Green [s]	30	30	0	0	30	0	0	0	0	0	0	30	0
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Split [s]	20	52	0	0	32	0	0	0	0	0	0	38	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	0	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	7	0	0	0	0	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No							No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No			No							No	
Maximum Recall	No	No			No							No	
Pedestrian Recall	No	No			No							No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R		L	C	R
C, Cycle Length [s]	90	90	90	90		90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	13	49	32	32		33	33	33
g / C, Green / Cycle	0.15	0.55	0.35	0.35		0.37	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.13	0.45	0.26	0.27		0.16	0.16	0.34
s, saturation flow rate [veh/h]	3459	3560	3560	1589		1781	1781	1589
c, Capacity [veh/h]	519	1943	1250	558		651	651	581
d1, Uniform Delay [s]	37.17	16.90	25.75	26.04		21.57	21.57	27.65
k, delay calibration	0.11	0.50	0.50	0.50		0.11	0.11	0.39
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	3.64	4.15	4.21	10.15		0.46	0.46	21.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.83	0.75	0.78		0.44	0.44	0.94
d, Delay for Lane Group [s/veh]	40.81	21.05	29.95	36.19		22.03	22.03	49.44
Lane Group LOS	D	C	C	D		C	C	D
Critical Lane Group	No	Yes	No	No		No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.65	12.48	8.80	9.10		4.49	4.49	14.37
50th-Percentile Queue Length [ft/ln]	116.34	311.99	220.07	227.40		112.21	112.21	359.33
95th-Percentile Queue Length [veh/ln]	8.19	18.27	13.67	14.04		7.96	7.96	20.59
95th-Percentile Queue Length [ft/ln]	204.79	456.83	341.71	351.05		199.08	199.07	514.77

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.81	21.05	0.00	0.00	29.95	36.19	0.00	0.00	0.00	22.03	22.03	49.44
Movement LOS	D	C			C	D				C	C	D
d_A, Approach Delay [s/veh]	25.26				31.92		0.00		35.47			
Approach LOS	C				C		A		D			
d_I, Intersection Delay [s/veh]	29.80											
Intersection LOS	C											
Intersection V/C	0.873											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.187	0.000
Crosswalk LOS	F	F	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1067	622	0	756
d_b, Bicycle Delay [s]	9.80	21.36	45.00	17.42
I_b,int, Bicycle LOS Score for Intersection	3.240	2.772	4.132	3.495
Bicycle LOS	C	C	D	C

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Citrus Ave at SR-210 EB Ramps

Control Type:	Signalized	Delay (sec / veh):	27.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.847

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↑↑			↑↑↑			↑↑↑					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Base Volume Input [veh/h]	0	1144	422	269	1066	0	675	4	427	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	84	0	0	0	0	0	43	0	0	0
Total Hourly Volume [veh/h]	0	1144	338	269	1066	0	675	4	384	0	0	0
Peak Hour Factor	1.0000	0.9450	0.9450	0.9450	0.9450	1.0000	0.9450	0.9450	0.9450	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	303	89	71	282	0	179	1	102	0	0	0
Total Analysis Volume [veh/h]	0	1211	358	285	1128	0	714	4	406	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss
Signal Group	0	6	0	5	2	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	5	10	0	0	10	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	50	0	12	62	0	0	28	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No				
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No			No				
Maximum Recall		No		No	No			No				
Pedestrian Recall		No		No	No			No				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C	R	
C, Cycle Length [s]	90	90	90	90	90	90	90	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	47	47	8	59	23	23	23	
g / C, Green / Cycle	0.52	0.52	0.09	0.65	0.26	0.26	0.26	
(v / s)_i Volume / Saturation Flow Rate	0.42	0.45	0.08	0.32	0.21	0.21	0.24	
s, saturation flow rate [veh/h]	1870	1731	3459	3560	1781	1764	1589	
c, Capacity [veh/h]	970	897	307	2321	462	457	412	
d1, Uniform Delay [s]	17.97	19.08	40.71	7.99	31.27	31.35	32.30	
k, delay calibration	0.50	0.50	0.11	0.50	0.18	0.18	0.24	
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	7.26	11.58	11.82	0.73	5.66	6.11	15.05	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.81	0.87	0.93	0.49	0.81	0.82	0.91	
d, Delay for Lane Group [s/veh]	25.23	30.67	52.53	8.72	36.92	37.46	47.36	
Lane Group LOS	C	C	D	A	D	D	D	
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	
50th-Percentile Queue Length [veh/ln]	13.38	15.01	3.49	4.46	8.15	8.22	9.40	
50th-Percentile Queue Length [ft/ln]	334.40	375.35	87.21	111.52	203.84	205.59	234.94	
95th-Percentile Queue Length [veh/ln]	19.37	21.37	6.28	7.92	12.84	12.93	14.43	
95th-Percentile Queue Length [ft/ln]	484.35	534.21	156.98	198.11	320.91	323.16	360.63	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	27.14	30.67	52.53	8.72	0.00	37.18	37.46	46.59	0.00	0.00	0.00
Movement LOS		C	C	D	A		D	D	D			
d_A, Approach Delay [s/veh]	27.95			17.55			40.58			0.00		
Approach LOS	C			B			D			A		
d_I, Intersection Delay [s/veh]	27.83											
Intersection LOS	C											
Intersection V/C	0.847											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			9.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			36.45			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			2.478			0.000		
Crosswalk LOS	F			F			B			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	1022			1289			533			0		
d_b, Bicycle Delay [s]	10.76			5.69			24.20			45.00		
I_b,int, Bicycle LOS Score for Intersection	2.923			2.725			3.485			4.132		
Bicycle LOS	C			B			C			D		

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Citrus Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	29.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.806

Intersection Setup

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	[Diagram]			[Diagram]			[Diagram]			[Diagram]		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	57	1012	97	277	981	230	216	256	53	72	167	335
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	1012	97	277	981	230	216	256	53	72	167	335
Peak Hour Factor	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	263	25	72	255	60	56	67	14	19	43	87
Total Analysis Volume [veh/h]	59	1052	101	288	1020	239	225	266	55	75	174	348
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	31	0	13	34	0	13	30	0	16	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	24	0	0	21	0	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	35	35	9	40	40	8	25	25	5	22	22
g / C, Green / Cycle	0.04	0.39	0.39	0.10	0.45	0.45	0.09	0.28	0.28	0.06	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.03	0.30	0.06	0.08	0.29	0.15	0.07	0.07	0.03	0.04	0.09	0.22
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	3560	1589	1781	1870	1589
c, Capacity [veh/h]	78	1389	620	346	1589	710	300	982	438	101	459	390
d1, Uniform Delay [s]	42.57	23.77	17.88	39.76	19.33	16.23	40.15	25.51	24.45	41.82	28.24	32.80
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.20
l, Upstream Filtering 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
d2, Incremental Delay [s]	14.04	3.91	0.56	5.23	2.00	1.28	3.78	0.15	0.13	10.35	0.52	11.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.76	0.76	0.16	0.83	0.64	0.34	0.75	0.27	0.13	0.74	0.38	0.89
d, Delay for Lane Group [s/veh]	56.61	27.68	18.44	44.99	21.33	17.51	43.92	25.66	24.58	52.17	28.76	44.76
Lane Group LOS	E	C	B	D	C	B	D	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.54	9.47	1.36	3.23	7.77	3.14	2.48	2.11	0.84	1.86	3.00	8.12
50th-Percentile Queue Length [ft/ln]	38.62	236.74	33.90	80.64	194.28	78.43	61.90	52.71	21.08	46.48	75.05	202.90
95th-Percentile Queue Length [veh/ln]	2.78	14.52	2.44	5.81	12.34	5.65	4.46	3.79	1.52	3.35	5.40	12.79
95th-Percentile Queue Length [ft/ln]	69.52	362.90	61.03	145.16	308.58	141.17	111.43	94.87	37.94	83.66	135.09	319.71

Movement, Approach, & Intersection Results

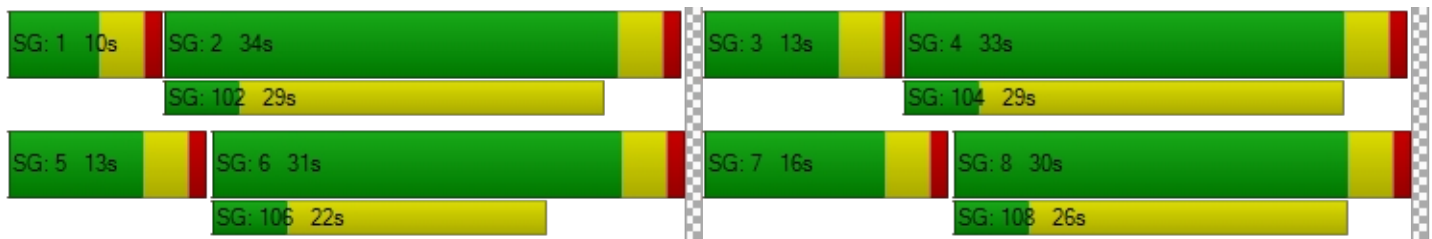
d_M, Delay for Movement [s/veh]	56.61	27.68	18.44	44.99	21.33	17.51	43.92	25.66	24.58	52.17	28.76	44.76
Movement LOS	E	C	B	D	C	B	D	C	C	D	C	D
d_A, Approach Delay [s/veh]	28.32			25.15			33.08			41.03		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	29.67											
Intersection LOS	C											
Intersection V/C	0.806											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.030	3.258	2.808	2.668
Crosswalk LOS	C	C	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	667	578	644
d_b, Bicycle Delay [s]	22.05	20.00	22.76	20.67
I_b,int, Bicycle LOS Score for Intersection	2.560	2.836	2.010	2.545
Bicycle LOS	B	C	B	B

Sequence





Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Citrus Ave at Walnut St**

Control Type:	Signalized	Delay (sec / veh):	11.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.481

Intersection Setup

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Base Volume Input [veh/h]	45	1149	83	37	906	94	73	49	37	31	39	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	1149	83	37	906	94	73	49	37	31	39	37
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	300	22	10	237	25	19	13	10	8	10	10
Total Analysis Volume [veh/h]	47	1202	87	39	948	98	76	51	39	32	41	39
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	41	51	0	9	19	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	21	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	62	62	3	61	61	13	13	13	13
g / C, Green / Cycle	0.04	0.69	0.69	0.03	0.68	0.68	0.15	0.15	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.03	0.34	0.05	0.02	0.28	0.28	0.06	0.05	0.02	0.05
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1809	1318	1737	1306	1722
c, Capacity [veh/h]	69	2441	1090	62	1275	1233	184	254	177	252
d1, Uniform Delay [s]	42.71	6.71	4.70	42.88	6.38	6.38	40.49	34.58	39.54	34.39
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.15	0.71	0.14	10.22	1.01	1.04	1.47	0.84	0.49	0.72
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.68	0.49	0.08	0.63	0.42	0.42	0.41	0.35	0.18	0.32
d, Delay for Lane Group [s/veh]	53.86	7.42	4.85	53.10	7.38	7.42	41.96	35.42	40.03	35.11
Lane Group LOS	D	A	A	D	A	A	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	1.20	4.14	0.44	1.00	3.62	3.51	1.68	1.79	0.68	1.58
50th-Percentile Queue Length [ft/ln]	30.05	103.43	10.96	24.88	90.46	87.86	42.02	44.73	17.03	39.49
95th-Percentile Queue Length [veh/ln]	2.16	7.45	0.79	1.79	6.51	6.33	3.03	3.22	1.23	2.84
95th-Percentile Queue Length [ft/ln]	54.09	186.17	19.73	44.79	162.83	158.15	75.64	80.52	30.65	71.08

Movement, Approach, & Intersection Results

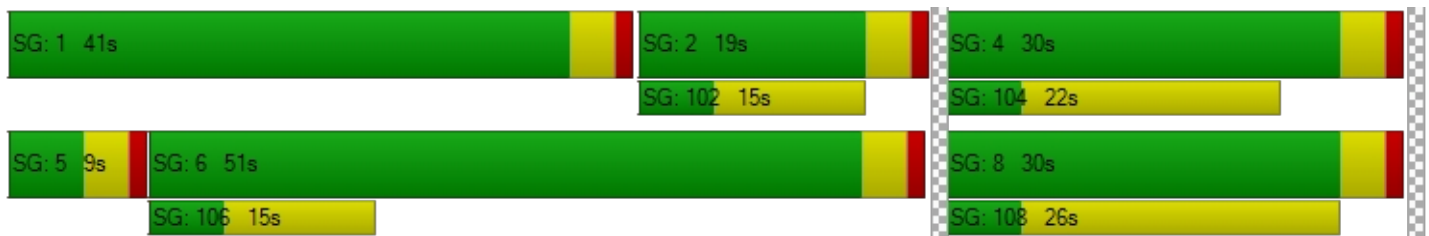
d_M, Delay for Movement [s/veh]	53.86	7.42	4.85	53.10	7.40	7.42	41.96	35.42	35.42	40.03	35.11	35.11
Movement LOS	D	A	A	D	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	8.89			9.04			38.41			36.51		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	11.91											
Intersection LOS	B											
Intersection V/C	0.481											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.074	3.112	2.075	2.051
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1044	333	578	578
d_b, Bicycle Delay [s]	10.27	31.25	22.76	22.76
I_b,int, Bicycle LOS Score for Intersection	2.662	2.455	1.834	1.744
Bicycle LOS	B	B	A	A

Sequence


Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Driveway 1/Jacaranda Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	11.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

Intersection Setup

Name	Jacaranda Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Jacaranda Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	7	503	0	11	431
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	7	503	0	11	431
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	132	0	3	113
Total Analysis Volume [veh/h]	0	7	529	0	12	454
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	18.78	11.63	0.00	0.00	8.51	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.04	0.04
95th-Percentile Queue Length [ft/ln]	0.97	0.97	0.00	0.00	0.88	0.88
d_A, Approach Delay [s/veh]	11.63		0.00		0.22	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.18					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 9: Driveway 2/Tokay Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

Intersection Setup

Name	Tokay Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Tokay Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	7	510	0	12	442
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	7	510	0	12	442
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	134	0	3	116
Total Analysis Volume [veh/h]	0	7	537	0	13	465
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	16.28	9.98	0.00	0.00	8.55	0.00
Movement LOS	C	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.00	0.04	0.00
95th-Percentile Queue Length [ft/ln]	0.73	0.73	0.00	0.00	0.96	0.00
d_A, Approach Delay [s/veh]	9.98		0.00		0.23	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.18					
Intersection LOS	A					

Intersection Level Of Service Report**Intersection 10: Driveway 3/Cherimoya Ave at Highland Ave**

Control Type:	Two-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name	Cherimoya Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↻		↻		↑	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Cherimoya Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	8	517	0	0	454
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	8	517	0	0	454
Peak Hour Factor	1.0000	0.9500	0.9500	0.9500	1.0000	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	136	0	0	119
Total Analysis Volume [veh/h]	0	8	544	0	0	478
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	10.02	0.00	0.00	0.00	0.00
Movement LOS		B	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.03	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.84	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.02		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.08					
Intersection LOS	B					

Fontana Square Project

Vistro File: K:\...\Fontana Square AM.vistro

Scenario 2 EX WP AM

Report File: K:\...\2 EX WP AM.pdf

12/6/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Beech Ave at Highland Ave	Signalized	HCM 6th Edition	EB Left	0.300	24.9	C
2	Beech Ave at SR-210 HOV Ramps	All-way stop	HCM 6th Edition	NB Thru	0.607	16.6	C
3	Catawba Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.005	11.0	B
4	Citrus Ave at SR-210 WB Ramps	Signalized	HCM 6th Edition	WB Right	0.632	20.7	C
5	Citrus Ave at SR-210 EB Ramps	Signalized	HCM 6th Edition	SB Left	0.677	20.7	C
6	Citrus Ave at Highland Ave	Signalized	HCM 6th Edition	NB Left	0.653	25.8	C
7	Citrus Ave at Walnut St	Signalized	HCM 6th Edition	NB Left	0.398	11.6	B
8	Driveway 1/Jacaranda Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.019	12.8	B
9	Driveway 2/Tokay Ave at Highland Ave	Signalized	HCM 6th Edition	WB Left	0.190	11.9	B
10	Driveway 3/Cherimoya Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.018	9.9	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Beech Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	24.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.300

Intersection Setup

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↵ ↑			↵ ↑			↵ ↑			↵ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	31	276	54	38	204	45	56	102	24	30	143	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	23	7	0	0	0	7	0	17	6	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	276	77	45	204	45	56	109	24	47	149	69
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	78	22	13	57	13	16	31	7	13	42	19
Total Analysis Volume [veh/h]	35	311	87	51	230	51	63	123	27	53	168	78
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	34	0	11	34	0	19	26	0	19	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	56	56	4	57	57	4	10	10	4	10	10
g / C, Green / Cycle	0.03	0.62	0.62	0.04	0.63	0.63	0.05	0.12	0.12	0.04	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.02	0.11	0.11	0.03	0.08	0.08	0.04	0.04	0.04	0.03	0.07	0.07
s, saturation flow rate [veh/h]	1781	1870	1733	1781	1870	1755	1781	1870	1757	1781	1870	1677
c, Capacity [veh/h]	58	1166	1080	72	1180	1108	83	218	205	74	209	188
d1, Uniform Delay [s]	42.94	7.17	7.19	42.67	6.64	6.65	42.40	36.59	36.65	42.59	38.07	38.21
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	9.50	0.33	0.36	12.14	0.21	0.23	13.12	0.95	1.07	11.86	2.80	3.55
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.60	0.18	0.18	0.71	0.12	0.12	0.76	0.35	0.36	0.71	0.60	0.64
d, Delay for Lane Group [s/veh]	52.45	7.50	7.55	54.80	6.85	6.88	55.52	37.53	37.71	54.45	40.87	41.76
Lane Group LOS	D	A	A	D	A	A	E	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.90	1.49	1.43	1.33	0.98	0.95	1.63	1.52	1.49	1.36	2.69	2.58
50th-Percentile Queue Length [ft/ln]	22.46	37.36	35.72	33.17	24.42	23.72	40.68	38.09	37.34	33.99	67.37	64.58
95th-Percentile Queue Length [veh/ln]	1.62	2.69	2.57	2.39	1.76	1.71	2.93	2.74	2.69	2.45	4.85	4.65
95th-Percentile Queue Length [ft/ln]	40.42	67.25	64.30	59.70	43.96	42.69	73.22	68.56	67.21	61.19	121.27	116.24

Movement, Approach, & Intersection Results

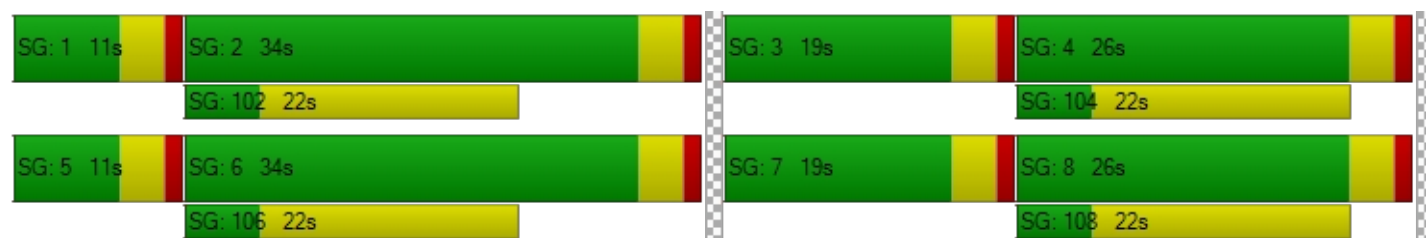
d_M, Delay for Movement [s/veh]	52.45	7.51	7.55	54.80	6.86	6.88	55.52	37.60	37.71	54.45	41.09	41.76
Movement LOS	D	A	A	D	A	A	E	D	D	D	D	D
d_A, Approach Delay [s/veh]	11.15			14.23			42.92			43.63		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	24.86											
Intersection LOS	C											
Intersection V/C	0.300											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
l_p,int, Pedestrian LOS Score for Intersection	2.495	2.505	2.438	2.465
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	667	667	489	489
d_b, Bicycle Delay [s]	20.00	20.00	25.69	25.69
l_b,int, Bicycle LOS Score for Intersection	1.917	1.834	1.735	1.806
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Beech Ave at SR-210 HOV Ramps

Control Type:	All-way stop	Delay (sec / veh):	16.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.607

Intersection Setup

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Base Volume Input [veh/h]	149	542	59	37	432	71	28	2	46	145	2	44
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	0	0	7	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	149	548	59	37	439	71	28	2	46	145	2	44
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	150	16	10	120	19	8	1	13	40	1	12
Total Analysis Volume [veh/h]	163	598	64	40	479	78	31	2	50	158	2	48
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	506	545	557	488	524	539	490	492
Degree of Utilization, x	0.32	0.61	0.59	0.08	0.53	0.52	0.17	0.42



Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.38	4.03	3.87	0.27	3.10	2.94	0.61	2.08
95th-Percentile Queue Length [ft]	34.53	100.76	96.70	6.68	77.44	73.51	15.13	51.89
Approach Delay [s/veh]	17.52			16.31			11.85	15.57
Approach LOS	C			C			B	C
Intersection Delay [s/veh]	16.58							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 3: Catawba Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	11.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name	Catawba Ave		Highland Ave		Highland Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Catawba Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	3	1	0	344	196	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	37	29	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	1	0	381	225	4
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	104	61	1
Total Analysis Volume [veh/h]	3	1	0	416	246	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	1	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.01	9.02	7.74	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.46	0.46	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.51		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.06					
Intersection LOS	B					

Intersection Level of Service Report
Intersection 4: Citrus Ave at SR-210 WB Ramps

Control Type:	Signalized	Delay (sec / veh):	20.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.632

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐ ↑			↓ ⇐						⇐ ↓ ⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Base Volume Input [veh/h]	441	808	0	0	570	479	0	0	0	249	1	275
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	11	0	0	16	0	0	0	0	30	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	96	0	0	0	0	0	28
Total Hourly Volume [veh/h]	464	819	0	0	586	383	0	0	0	279	1	247
Peak Hour Factor	0.9200	0.9200	1.0000	1.0000	0.9200	0.9200	1.0000	1.0000	1.0000	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	126	223	0	0	159	104	0	0	0	76	0	67
Total Analysis Volume [veh/h]	504	890	0	0	637	416	0	0	0	303	1	268
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	0	0	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	0	0	0	0	10	0
Maximum Green [s]	30	30	0	0	30	0	0	0	0	0	0	30	0
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Split [s]	21	52	0	0	31	0	0	0	0	0	0	38	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	0	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	7	0	0	0	0	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No							No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No			No							No	
Maximum Recall	No	No			No							No	
Pedestrian Recall	No	No			No							No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R		L	C	R
C, Cycle Length [s]	90	90	90	90		90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	15	64	45	45		18	18	18
g / C, Green / Cycle	0.17	0.71	0.50	0.50		0.20	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.15	0.25	0.18	0.26		0.09	0.09	0.17
s, saturation flow rate [veh/h]	3459	3560	3560	1589		1781	1781	1589
c, Capacity [veh/h]	583	2530	1771	791		357	357	319
d1, Uniform Delay [s]	36.41	5.03	13.84	15.39		31.44	31.44	34.59
k, delay calibration	0.11	0.50	0.50	0.50		0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	3.98	0.39	0.57	2.50		0.80	0.80	5.95
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.35	0.36	0.53		0.43	0.43	0.84
d, Delay for Lane Group [s/veh]	40.38	5.41	14.41	17.89		32.25	32.25	40.54
Lane Group LOS	D	A	B	B		C	C	D
Critical Lane Group	Yes	No	No	Yes		No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.40	2.31	3.63	5.61		2.92	2.92	6.04
50th-Percentile Queue Length [ft/ln]	135.05	57.67	90.64	140.30		73.08	73.10	151.08
95th-Percentile Queue Length [veh/ln]	9.21	4.15	6.53	9.50		5.26	5.26	10.07
95th-Percentile Queue Length [ft/ln]	230.34	103.81	163.15	237.42		131.55	131.59	251.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.38	5.41	0.00	0.00	14.41	17.89	0.00	0.00	0.00	32.25	32.25	40.54
Movement LOS	D	A			B	B				C	C	D
d_A, Approach Delay [s/veh]	18.05				15.79		0.00		36.13			
Approach LOS	B				B		A		D			
d_I, Intersection Delay [s/veh]	20.69											
Intersection LOS	C											
Intersection V/C	0.632											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0		0.0		9.0		0.0	
M_corner, Corner Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		0.00		36.45		0.00	
I_p,int, Pedestrian LOS Score for Intersection	0.000		0.000		2.212		0.000	
Crosswalk LOS	F		F		B		F	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	1067		600		0		756	
d_b, Bicycle Delay [s]	9.80		22.05		45.00		17.42	
I_b,int, Bicycle LOS Score for Intersection	2.710		2.508		4.132		2.550	
Bicycle LOS	B		B		D		B	

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Citrus Ave at SR-210 EB Ramps

Control Type:	Signalized	Delay (sec / veh):	20.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.677

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↑↑			↑↑↑			↑↑↑					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Base Volume Input [veh/h]	0	787	443	228	695	0	343	3	340	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	34	23	0	46	0	0	0	30	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	93	0	0	0	0	0	37	0	0	0
Total Hourly Volume [veh/h]	0	821	373	228	741	0	343	3	333	0	0	0
Peak Hour Factor	1.0000	0.9030	0.9030	0.9030	0.9030	1.0000	0.9030	0.9030	0.9030	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	227	103	63	205	0	95	1	92	0	0	0
Total Analysis Volume [veh/h]	0	909	413	252	821	0	380	3	369	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss
Signal Group	0	6	0	5	2	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	5	10	0	0	10	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	43	0	13	56	0	0	34	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No				
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No			No				
Maximum Recall		No		No	No			No				
Pedestrian Recall		No		No	No			No				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C	R	
C, Cycle Length [s]	90	90	90	90	90	90	90	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	53	53	8	65	17	17	17	
g / C, Green / Cycle	0.58	0.58	0.09	0.72	0.19	0.19	0.19	
(v / s)_i Volume / Saturation Flow Rate	0.35	0.39	0.07	0.23	0.15	0.15	0.15	
s, saturation flow rate [veh/h]	1870	1684	3459	3560	1781	1678	1589	
c, Capacity [veh/h]	1091	983	325	2571	337	317	301	
d1, Uniform Delay [s]	12.06	12.84	39.85	4.52	34.68	34.78	34.87	
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11	0.11	
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	2.50	3.67	3.99	0.33	3.85	4.38	4.92	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.61	0.67	0.78	0.32	0.78	0.79	0.80	
d, Delay for Lane Group [s/veh]	14.56	16.50	43.84	4.85	38.53	39.16	39.79	
Lane Group LOS	B	B	D	A	D	D	D	
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	
50th-Percentile Queue Length [veh/ln]	7.72	8.42	2.77	1.91	5.69	5.51	5.35	
50th-Percentile Queue Length [ft/ln]	193.12	210.40	69.35	47.72	142.25	137.70	133.67	
95th-Percentile Queue Length [veh/ln]	12.28	13.17	4.99	3.44	9.60	9.36	9.14	
95th-Percentile Queue Length [ft/ln]	307.07	329.34	124.83	85.89	240.05	233.92	228.48	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	15.09	16.50	43.84	4.85	0.00	38.73	39.16	39.58	0.00	0.00	0.00
Movement LOS		B	B	D	A		D	D	D			
d_A, Approach Delay [s/veh]		15.53		14.00			39.14		0.00			
Approach LOS		B		B			D		A			
d_I, Intersection Delay [s/veh]	20.65											
Intersection LOS	C											
Intersection V/C	0.677											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0		0.0		9.0		0.0	
M_corner, Corner Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		0.00		36.45		0.00	
I_p,int, Pedestrian LOS Score for Intersection	0.000		0.000		2.378		0.000	
Crosswalk LOS	F		F		B		F	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	867		1156		667		0	
d_b, Bicycle Delay [s]	14.45		8.02		20.00		45.00	
I_b,int, Bicycle LOS Score for Intersection	2.727		2.445		2.861		4.132	
Bicycle LOS	B		B		C		D	

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Citrus Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	25.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.653

Intersection Setup

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	[Diagram]			[Diagram]			[Diagram]			[Diagram]		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	31	827	54	211	711	109	234	109	38	29	67	169
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	0	0	0	0	76	57	11	17	0	16	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	22	-20	-2	-4	-12	16	20	4	12	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	76	807	52	207	699	201	311	124	67	29	83	169
Peak Hour Factor	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	224	14	58	194	56	86	34	19	8	23	47
Total Analysis Volume [veh/h]	85	898	58	230	778	224	346	138	75	32	92	188
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	29	0	14	33	0	14	33	0	14	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	24	0	0	21	0	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	43	43	8	46	46	10	20	20	3	13	13
g / C, Green / Cycle	0.06	0.48	0.48	0.09	0.51	0.51	0.11	0.22	0.22	0.03	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.05	0.25	0.04	0.07	0.22	0.14	0.10	0.04	0.05	0.02	0.03	0.12
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	3560	1589	1781	3560	1589
c, Capacity [veh/h]	109	1701	760	306	1799	803	384	797	356	57	515	230
d1, Uniform Delay [s]	41.66	16.41	12.73	40.04	14.09	12.82	39.51	28.20	28.45	42.95	33.80	37.34
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	11.45	1.18	0.20	3.70	0.76	0.86	7.79	0.10	0.29	8.50	0.16	6.99
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.78	0.53	0.08	0.75	0.43	0.28	0.90	0.17	0.21	0.56	0.18	0.82
d, Delay for Lane Group [s/veh]	53.11	17.58	12.93	43.74	14.85	13.68	47.30	28.30	28.74	51.46	33.96	44.33
Lane Group LOS	D	B	B	D	B	B	D	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.12	5.96	0.61	2.53	4.56	2.48	4.00	1.15	1.28	0.81	0.85	4.25
50th-Percentile Queue Length [ft/ln]	53.08	149.08	15.28	63.13	114.04	62.07	100.06	28.71	31.89	20.18	21.35	106.23
95th-Percentile Queue Length [veh/ln]	3.82	9.97	1.10	4.55	8.06	4.47	7.20	2.07	2.30	1.45	1.54	7.63
95th-Percentile Queue Length [ft/ln]	95.54	249.21	27.51	113.64	201.61	111.73	180.11	51.67	57.40	36.32	38.43	190.75

Movement, Approach, & Intersection Results

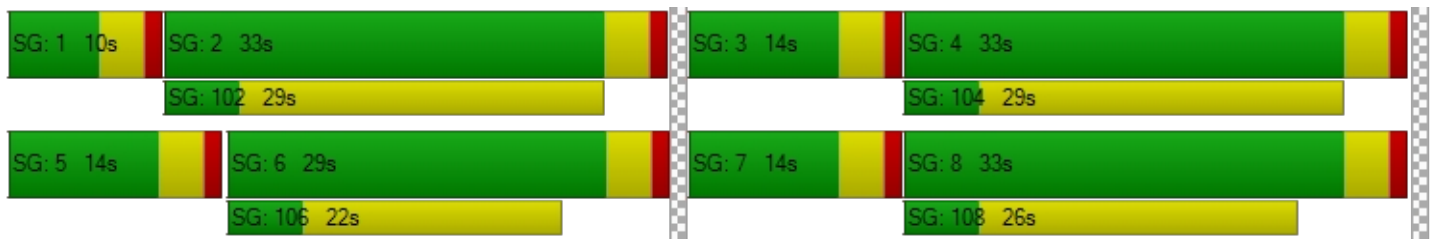
d_M, Delay for Movement [s/veh]	53.11	17.58	12.93	43.74	14.85	13.68	47.30	28.30	28.74	51.46	33.96	44.33
Movement LOS	D	B	B	D	B	B	D	C	C	D	C	D
d_A, Approach Delay [s/veh]	20.22			20.03			40.12			42.00		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	25.85											
Intersection LOS	C											
Intersection V/C	0.653											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.924	3.152	2.902	2.634
Crosswalk LOS	C	C	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	556	644	644	644
d_b, Bicycle Delay [s]	23.47	20.67	20.67	20.67
I_b,int, Bicycle LOS Score for Intersection	2.418	2.576	2.021	1.817
Bicycle LOS	B	B	B	A

Sequence





Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Citrus Ave at Walnut St**

Control Type:	Signalized	Delay (sec / veh):	11.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.398

Intersection Setup

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Base Volume Input [veh/h]	10	752	39	29	628	45	91	30	33	16	24	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	16	0	6	11	0	0	0	0	0	0	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	768	39	35	639	45	91	30	33	16	24	38
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	218	11	10	182	13	26	9	9	5	7	11
Total Analysis Volume [veh/h]	11	873	44	40	726	51	103	34	38	18	27	43
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	32	19	0	41	28	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	21	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	60	60	3	62	62	15	15	15	15
g / C, Green / Cycle	0.01	0.67	0.67	0.04	0.69	0.69	0.16	0.16	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.01	0.25	0.03	0.02	0.21	0.21	0.08	0.04	0.01	0.04
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1827	1330	1711	1328	1687
c, Capacity [veh/h]	25	2385	1065	64	1293	1264	210	275	209	272
d1, Uniform Delay [s]	44.03	6.50	5.05	42.79	5.41	5.42	39.73	33.07	37.20	33.05
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.90	0.44	0.07	9.66	0.61	0.62	1.78	0.50	0.18	0.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.37	0.04	0.63	0.30	0.30	0.49	0.26	0.09	0.26
d, Delay for Lane Group [s/veh]	55.93	6.94	5.12	52.45	6.02	6.04	41.51	33.56	37.38	33.54
Lane Group LOS	E	A	A	D	A	A	D	C	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.32	2.86	0.23	1.01	2.28	2.24	2.27	1.38	0.37	1.34
50th-Percentile Queue Length [ft/ln]	7.89	71.57	5.86	25.30	57.11	55.97	56.83	34.48	9.13	33.51
95th-Percentile Queue Length [veh/ln]	0.57	5.15	0.42	1.82	4.11	4.03	4.09	2.48	0.66	2.41
95th-Percentile Queue Length [ft/ln]	14.20	128.82	10.54	45.55	102.79	100.74	102.29	62.07	16.43	60.33

Movement, Approach, & Intersection Results

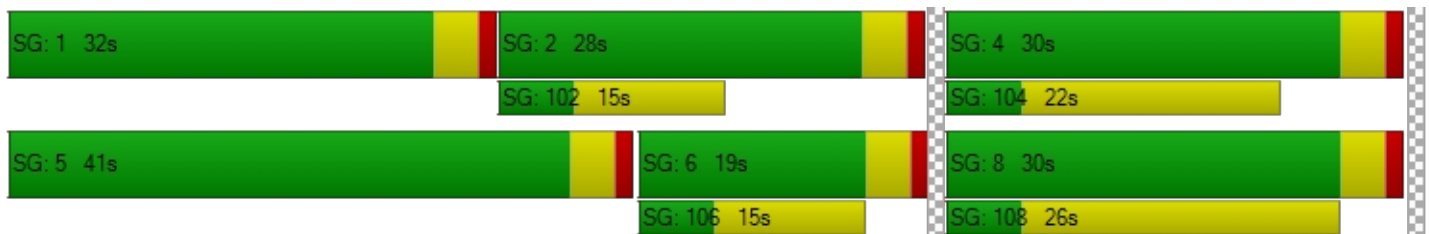
d_M, Delay for Movement [s/veh]	55.93	6.94	5.12	52.45	6.03	6.04	41.51	33.56	33.56	37.38	33.54	33.54
Movement LOS	E	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	7.43			8.30			38.24			34.33		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	11.65											
Intersection LOS	B											
Intersection V/C	0.398											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersection	2.897			2.985			2.042			2.020		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	333			533			578			578		
d_b, Bicycle Delay [s]	31.25			24.20			22.76			22.76		
I_b,int, Bicycle LOS Score for Intersection	2.325			2.234			1.848			1.705		
Bicycle LOS	B			B			A			A		

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Driveway 1/Jacaranda Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	12.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.019

Intersection Setup

Name	Jacaranda Ave			Driveway 1			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	Jacaranda Ave			Driveway 1			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	11	0	0	0	0	347	0	3	200	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	9	0	4	6	31	0	0	25	20
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	11	9	0	4	6	378	0	3	225	20
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	3	2	0	1	2	99	0	1	59	5
Total Analysis Volume [veh/h]	0	0	12	9	0	4	6	398	0	3	237	21
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.55	14.75	9.52	12.80	14.71	9.17	7.77	0.00	0.00	8.12	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.07	0.07	0.07	0.01	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.13	1.13	1.13	1.81	1.81	1.81	0.35	0.00	0.00	0.19	0.10	0.00
d_A, Approach Delay [s/veh]	9.52			11.68			0.12			0.09		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	0.49											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 9: Driveway 2/Tokay Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	11.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.190

Intersection Setup

Name	Tokay Ave			Driveway 2			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Tokay Ave			Driveway 2			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	11	0	0	0	0	358	0	4	203	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	76	0	10	31	9	0	0	35	45
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	36	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	11	112	0	10	31	367	0	4	238	45
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	3	29	0	3	8	97	0	1	63	12
Total Analysis Volume [veh/h]	0	0	12	118	0	11	33	386	0	4	251	47
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	43	0	0	43	0	15	20	0	27	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	3	68	68	0	66	66
g / C, Green / Cycle	0.11	0.11	0.11	0.03	0.75	0.75	0.01	0.73	0.73
(v / s)_i Volume / Saturation Flow Rate	0.01	0.08	0.01	0.02	0.10	0.10	0.00	0.08	0.08
s, saturation flow rate [veh/h]	1589	1402	1589	1781	1870	1870	1781	1870	1770
c, Capacity [veh/h]	211	193	171	56	1409	1409	10	1361	1288
d1, Uniform Delay [s]	36.13	39.25	36.11	43.02	3.05	3.05	44.58	3.62	3.63
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	3.11	0.16	9.53	0.20	0.20	22.26	0.17	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.61	0.06	0.59	0.14	0.14	0.39	0.11	0.11
d, Delay for Lane Group [s/veh]	36.24	42.35	36.27	52.55	3.25	3.25	66.84	3.79	3.81
Lane Group LOS	D	D	D	D	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.24	2.70	0.23	0.84	0.63	0.63	0.15	0.59	0.58
50th-Percentile Queue Length [ft/ln]	6.11	67.62	5.63	21.06	15.87	15.87	3.72	14.83	14.52
95th-Percentile Queue Length [veh/ln]	0.44	4.87	0.41	1.52	1.14	1.14	0.27	1.07	1.05
95th-Percentile Queue Length [ft/ln]	10.99	121.71	10.14	37.91	28.57	28.57	6.70	26.69	26.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.24	36.24	36.24	42.35	36.27	36.27	52.55	3.25	3.25	66.84	3.80	3.81
Movement LOS	D	D	D	D	D	D	D	A	A	E	A	A
d_A, Approach Delay [s/veh]	36.24			41.84			7.13			4.63		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	11.86											
Intersection LOS	B											
Intersection V/C	0.190											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	1.723	1.998	2.620	2.708
Crosswalk LOS	A	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	867	867	356	622
d_b, Bicycle Delay [s]	14.45	14.45	30.42	21.36
I_b,int, Bicycle LOS Score for Intersection	1.579	1.772	1.905	1.809
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Driveway 3/Cherimoya Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.018

Intersection Setup

Name	Cherimoya Ave			Driveway 3			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↶			↷			↶↷			↶↷		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	Cherimoya Ave			Driveway 3			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	12	0	0	0	0	369	0	0	207	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	15	0	85	0	0	65	50
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	36	0	0	0	38
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	12	0	0	15	0	490	0	0	272	88
Peak Hour Factor	1.0000	1.0000	0.9500	1.0000	1.0000	0.9500	1.0000	0.9500	0.9500	1.0000	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	3	0	0	4	0	129	0	0	72	23
Total Analysis Volume [veh/h]	0	0	13	0	0	16	0	516	0	0	286	93
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	9.95	0.00	0.00	9.48	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			A			A		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.34	0.00	0.00	1.49	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.95			9.48			0.00			0.00		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.30											
Intersection LOS	A											

Fontana Square Project

Vistro File: K:\...\Fontana Square PM.vistro

Scenario 2 EX WP PM

Report File: K:\...\2 EX WP PM.pdf

12/6/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Beech Ave at Highland Ave	Signalized	HCM 6th Edition	NB Left	0.496	28.0	C
2	Beech Ave at SR-210 HOV Ramps	All-way stop	HCM 6th Edition	NB Thru	0.550	15.4	C
3	Catawba Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.030	13.7	B
4	Citrus Ave at SR-210 WB Ramps	Signalized	HCM 6th Edition	WB Right	0.877	30.4	C
5	Citrus Ave at SR-210 EB Ramps	Signalized	HCM 6th Edition	SB Left	0.891	30.9	C
6	Citrus Ave at Highland Ave	Signalized	HCM 6th Edition	NB Left	0.827	31.7	C
7	Citrus Ave at Walnut St	Signalized	HCM 6th Edition	SB Left	0.490	12.3	B
8	Driveway 1/Jacaranda Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.074	19.4	C
9	Driveway 2/Tokay Ave at Highland Ave	Signalized	HCM 6th Edition	WB Left	0.249	9.6	A
10	Driveway 3/Cherimoya Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.012	10.6	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Beech Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	28.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.496

Intersection Setup

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	30	416	105	112	431	61	98	340	75	90	177	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	20	6	0	0	0	6	0	19	6	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	30	416	125	118	431	61	98	346	75	109	183	96
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	107	32	30	111	16	25	89	19	28	47	25
Total Analysis Volume [veh/h]	31	428	129	122	444	63	101	356	77	112	188	99
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	26	0	12	26	0	26	38	0	14	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	46	46	8	51	51	7	13	13	7	14	14
g / C, Green / Cycle	0.03	0.51	0.51	0.09	0.56	0.56	0.07	0.15	0.15	0.08	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.02	0.15	0.16	0.07	0.14	0.14	0.06	0.12	0.12	0.06	0.08	0.08
s, saturation flow rate [veh/h]	1781	1870	1724	1781	1870	1790	1781	1870	1757	1781	1870	1660
c, Capacity [veh/h]	54	950	876	152	1052	1007	132	280	263	142	290	257
d1, Uniform Delay [s]	43.05	12.88	12.91	40.42	9.98	9.99	40.90	36.93	36.99	40.69	34.92	35.05
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	9.16	0.82	0.91	9.45	0.56	0.58	8.87	5.07	5.69	9.45	1.42	1.73
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.57	0.30	0.31	0.80	0.25	0.25	0.77	0.79	0.80	0.79	0.52	0.54
d, Delay for Lane Group [s/veh]	52.22	13.70	13.82	49.87	10.54	10.57	49.76	42.00	42.68	50.14	36.34	36.78
Lane Group LOS	D	B	B	D	B	B	D	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.80	3.27	3.07	2.96	2.43	2.35	2.42	4.85	4.66	2.70	2.96	2.76
50th-Percentile Queue Length [ft/ln]	19.94	81.65	76.83	73.92	60.84	58.78	60.58	121.31	116.58	67.41	74.03	69.07
95th-Percentile Queue Length [veh/ln]	1.44	5.88	5.53	5.32	4.38	4.23	4.36	8.46	8.20	4.85	5.33	4.97
95th-Percentile Queue Length [ft/ln]	35.89	146.98	138.29	133.05	109.51	105.80	109.04	211.62	205.11	121.33	133.25	124.33

Movement, Approach, & Intersection Results

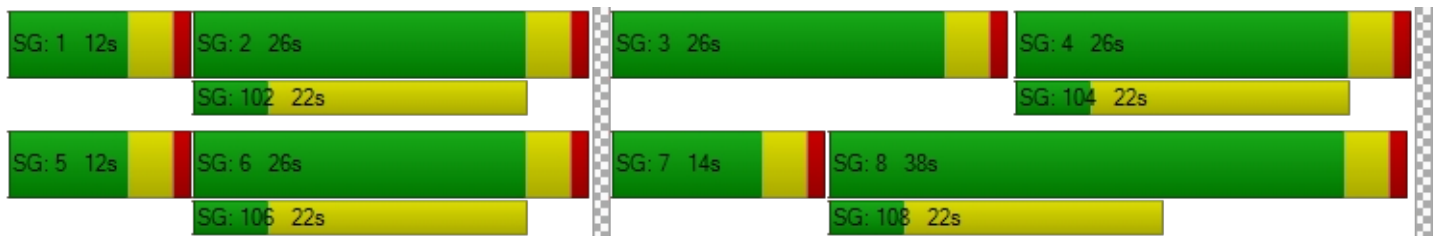
d_M, Delay for Movement [s/veh]	52.22	13.74	13.82	49.87	10.55	10.57	49.76	42.26	42.68	50.14	36.43	36.78
Movement LOS	D	B	B	D	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	15.79			18.18			43.74			40.37		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	27.99											
Intersection LOS	C											
Intersection V/C	0.496											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.619	2.628	2.540	2.596
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	756	489
d_b, Bicycle Delay [s]	25.69	25.69	17.42	25.69
I_b,int, Bicycle LOS Score for Intersection	2.045	2.079	2.000	1.889
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Beech Ave at SR-210 HOV Ramps

Control Type:	All-way stop	Delay (sec / veh):	15.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.550

Intersection Setup

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Base Volume Input [veh/h]	95	474	66	60	366	30	114	16	106	70	4	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	0	0	6	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	95	480	66	60	372	30	114	16	106	70	4	53
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	127	17	16	99	8	30	4	28	19	1	14
Total Analysis Volume [veh/h]	101	508	70	64	394	32	121	17	112	74	4	56
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	489	525	539	473	507	515	517	496
Degree of Utilization, x	0.21	0.55	0.54	0.14	0.42	0.41	0.48	0.27

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.77	3.30	3.15	0.47	2.06	2.01	2.61	1.09
95th-Percentile Queue Length [ft]	19.24	82.57	78.81	11.64	51.46	50.26	65.16	27.14
Approach Delay [s/veh]	16.45			14.28			16.31	12.93
Approach LOS	C			B			C	B
Intersection Delay [s/veh]	15.44							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 3: Catawba Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	13.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.030

Intersection Setup

Name	Catawba Ave		Highland Ave		Highland Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Catawba Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	12	8	14	491	418	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	32	31	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	8	14	523	449	14
Peak Hour Factor	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	4	144	123	4
Total Analysis Volume [veh/h]	13	9	15	574	493	15
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	1	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.01	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	13.74	10.14	8.47	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.13	0.13	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.32	3.32	1.08	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.27		0.22		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.35					
Intersection LOS	B					

Intersection Level of Service Report
Intersection 4: Citrus Ave at SR-210 WB Ramps

Control Type:	Signalized	Delay (sec / veh):	30.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.877

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐ ↑			↓ ⇐						⇐ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Base Volume Input [veh/h]	388	1433	0	0	840	484	0	0	0	509	1	545
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	24	13	0	0	14	0	0	0	0	27	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	97	0	0	0	0	0	55
Total Hourly Volume [veh/h]	412	1446	0	0	854	387	0	0	0	536	1	490
Peak Hour Factor	0.8940	0.8940	1.0000	1.0000	0.8940	0.8940	1.0000	1.0000	1.0000	0.8940	0.8940	0.8940
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	115	404	0	0	239	108	0	0	0	150	0	137
Total Analysis Volume [veh/h]	461	1617	0	0	955	433	0	0	0	600	1	548
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	0	0	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	0	0	0	10	0	
Maximum Green [s]	30	30	0	0	30	0	0	0	0	0	30	0	
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	
Split [s]	20	52	0	0	32	0	0	0	0	0	38	0	
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	
Walk [s]	0	5	0	0	5	0	0	0	0	0	5	0	
Pedestrian Clearance [s]	0	10	0	0	7	0	0	0	0	0	10	0	
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Rest In Walk		No			No						No		
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	
Minimum Recall	No	No			No						No		
Maximum Recall	No	No			No						No		
Pedestrian Recall	No	No			No						No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
I, Upstream Filtering 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	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R		L	C	R
C, Cycle Length [s]	90	90	90	90		90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	14	49	31	31		33	33	33
g / C, Green / Cycle	0.16	0.55	0.34	0.34		0.37	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.13	0.45	0.27	0.27		0.17	0.17	0.34
s, saturation flow rate [veh/h]	3459	3560	3560	1589		1781	1781	1589
c, Capacity [veh/h]	543	1942	1225	547		651	651	581
d1, Uniform Delay [s]	36.91	17.03	26.45	26.61		21.78	21.78	27.64
k, delay calibration	0.11	0.50	0.50	0.50		0.11	0.11	0.39
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	3.83	4.36	4.95	11.17		0.51	0.51	21.71
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.83	0.78	0.79		0.46	0.46	0.94
d, Delay for Lane Group [s/veh]	40.74	21.39	31.40	37.78		22.29	22.29	49.35
Lane Group LOS	D	C	C	D		C	C	D
Critical Lane Group	No	Yes	No	No		No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.95	12.72	9.21	9.33		4.78	4.78	14.36
50th-Percentile Queue Length [ft/ln]	123.72	318.07	230.15	233.15		119.59	119.58	358.97
95th-Percentile Queue Length [veh/ln]	8.60	18.57	14.18	14.33		8.37	8.37	20.57
95th-Percentile Queue Length [ft/ln]	214.93	464.31	354.55	358.36		209.26	209.25	514.33

Movement, Approach, & Intersection Results

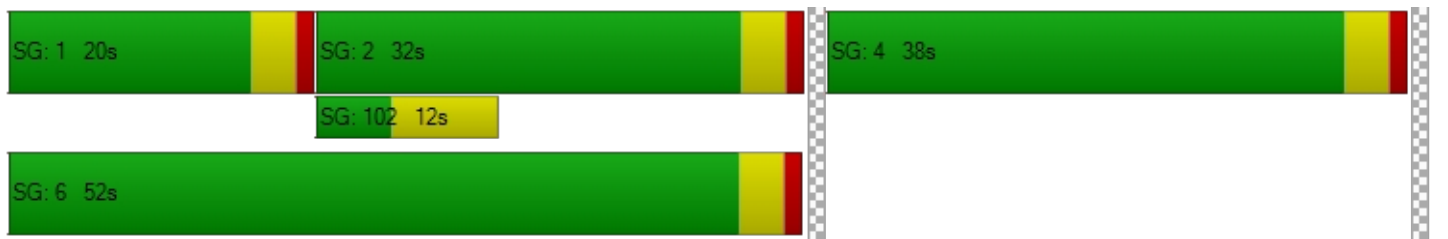
d_M, Delay for Movement [s/veh]	40.74	21.39	0.00	0.00	31.40	37.78	0.00	0.00	0.00	22.29	22.29	49.35
Movement LOS	D	C			C	D				C	C	D
d_A, Approach Delay [s/veh]	25.68				33.39		0.00		35.20			
Approach LOS	C				C		A		D			
d_I, Intersection Delay [s/veh]	30.37											
Intersection LOS	C											
Intersection V/C	0.877											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.200	0.000
Crosswalk LOS	F	F	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1067	622	0	756
d_b, Bicycle Delay [s]	9.80	21.36	45.00	17.42
I_b,int, Bicycle LOS Score for Intersection	3.274	2.785	4.132	3.546
Bicycle LOS	C	C	D	D

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Citrus Ave at SR-210 EB Ramps

Control Type:	Signalized	Delay (sec / veh):	30.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.891

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↑↑			↑↑↑			↑↑↑					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Base Volume Input [veh/h]	0	1144	422	269	1066	0	675	4	427	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	37	25	0	41	0	0	0	27	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	45	0	0	0	0	0	45	0	0	0
Total Hourly Volume [veh/h]	0	1181	402	269	1107	0	675	4	409	0	0	0
Peak Hour Factor	1.0000	0.9450	0.9450	0.9450	0.9450	1.0000	0.9450	0.9450	0.9450	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	312	106	71	293	0	179	1	108	0	0	0
Total Analysis Volume [veh/h]	0	1250	425	285	1171	0	714	4	433	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss
Signal Group	0	6	0	5	2	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	5	10	0	0	10	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	50	0	12	62	0	0	28	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No				
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No			No				
Maximum Recall		No		No	No			No				
Pedestrian Recall		No		No	No			No				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C	R	
C, Cycle Length [s]	90	90	90	90	90	90	90	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	46	46	8	58	24	24	24	
g / C, Green / Cycle	0.52	0.52	0.09	0.65	0.26	0.26	0.26	
(v / s)_i Volume / Saturation Flow Rate	0.45	0.49	0.08	0.33	0.22	0.22	0.24	
s, saturation flow rate [veh/h]	1870	1716	3459	3560	1781	1755	1589	
c, Capacity [veh/h]	964	885	307	2310	467	460	417	
d1, Uniform Delay [s]	19.14	20.64	40.71	8.28	31.20	31.33	32.27	
k, delay calibration	0.50	0.50	0.11	0.50	0.19	0.20	0.25	
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	10.52	19.82	11.82	0.80	6.26	7.08	16.78	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.87	0.95	0.93	0.51	0.82	0.83	0.92	
d, Delay for Lane Group [s/veh]	29.66	40.47	52.53	9.07	37.46	38.41	49.05	
Lane Group LOS	C	D	D	A	D	D	D	
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	
50th-Percentile Queue Length [veh/ln]	15.77	18.84	3.49	4.80	8.43	8.55	9.82	
50th-Percentile Queue Length [ft/ln]	394.16	470.91	87.21	119.93	210.65	213.74	245.44	
95th-Percentile Queue Length [veh/ln]	22.28	25.95	6.28	8.39	13.19	13.34	14.96	
95th-Percentile Queue Length [ft/ln]	556.96	648.85	156.98	209.73	329.66	333.62	373.91	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	33.23	40.47	52.53	9.07	0.00	37.90	38.41	47.84	0.00	0.00	0.00
Movement LOS		C	D	D	A		D	D	D			
d_A, Approach Delay [s/veh]		35.06		17.58			41.64			0.00		
Approach LOS		D		B			D			A		
d_I, Intersection Delay [s/veh]	30.89											
Intersection LOS	C											
Intersection V/C	0.891											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0		0.0		9.0		0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00
d_p, Pedestrian Delay [s]	0.00		0.00		36.45		0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000		0.000		2.488		0.000
Crosswalk LOS	F		F		B		F
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000
c_b, Capacity of the bicycle lane [bicycles/h]	1022		1289		533		0
d_b, Bicycle Delay [s]	10.76		5.69		24.20		45.00
I_b,int, Bicycle LOS Score for Intersection	2.979		2.761		3.533		4.132
Bicycle LOS	C		C		D		D

Sequence


Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Citrus Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	31.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.827

Intersection Setup

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	57	1012	97	277	981	230	216	256	53	72	167	335
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	20	0	0	0	0	68	62	13	19	0	14	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	25	-22	-3	-5	-13	18	21	4	12	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	102	990	94	272	968	316	299	273	84	72	181	335
Peak Hour Factor	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	257	24	71	252	82	78	71	22	19	47	87
Total Analysis Volume [veh/h]	106	1029	98	283	1006	328	311	284	87	75	188	348
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	31	0	13	34	0	13	30	0	16	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	24	0	0	21	0	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	34	34	9	37	37	9	26	26	5	22	22
g / C, Green / Cycle	0.07	0.38	0.38	0.10	0.41	0.41	0.10	0.29	0.29	0.06	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.06	0.29	0.06	0.08	0.28	0.21	0.09	0.08	0.05	0.04	0.05	0.22
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	3560	1589	1781	3560	1589
c, Capacity [veh/h]	119	1343	600	346	1462	653	346	1027	459	101	872	389
d1, Uniform Delay [s]	41.68	24.55	18.60	39.70	21.79	19.70	40.05	24.76	24.10	41.82	27.08	32.84
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.20
l, Upstream Filtering 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
d2, Incremental Delay [s]	19.44	4.22	0.59	4.78	2.67	2.75	8.46	0.14	0.20	10.35	0.12	12.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.89	0.77	0.16	0.82	0.69	0.50	0.90	0.28	0.19	0.74	0.22	0.89
d, Delay for Lane Group [s/veh]	61.12	28.77	19.19	44.48	24.46	22.45	48.51	24.90	24.30	52.17	27.20	45.13
Lane Group LOS	E	C	B	D	C	C	D	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.87	9.47	1.35	3.15	8.37	5.11	3.64	2.21	1.33	1.86	1.54	8.15
50th-Percentile Queue Length [ft/ln]	71.73	236.71	33.76	78.70	209.19	127.81	91.04	55.31	33.32	46.48	38.38	203.85
95th-Percentile Queue Length [veh/ln]	5.16	14.51	2.43	5.67	13.11	8.82	6.55	3.98	2.40	3.35	2.76	12.84
95th-Percentile Queue Length [ft/ln]	129.12	362.87	60.77	141.65	327.79	220.52	163.87	99.57	59.97	83.66	69.08	320.92

Movement, Approach, & Intersection Results

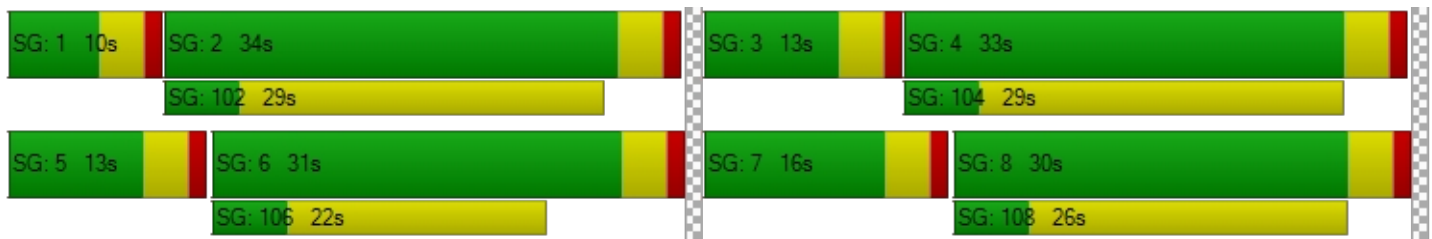
d_M, Delay for Movement [s/veh]	61.12	28.77	19.19	44.48	24.46	22.45	48.51	24.90	24.30	52.17	27.20	45.13
Movement LOS	E	C	B	D	C	C	D	C	C	D	C	D
d_A, Approach Delay [s/veh]	30.79			27.56			35.59			40.48		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	31.75											
Intersection LOS	C											
Intersection V/C	0.827											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.040	3.286	2.965	2.765
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	667	578	644
d_b, Bicycle Delay [s]	22.05	20.00	22.76	20.67
I_b,int, Bicycle LOS Score for Intersection	2.577	2.894	2.122	2.064
Bicycle LOS	B	C	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Citrus Ave at Walnut St**

Control Type:	Signalized	Delay (sec / veh):	12.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.490

Intersection Setup

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Base Volume Input [veh/h]	45	1149	83	37	906	94	73	49	37	31	39	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	14	0	6	13	0	0	0	0	0	0	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	1163	83	43	919	94	73	49	37	31	39	43
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	304	22	11	240	25	19	13	10	8	10	11
Total Analysis Volume [veh/h]	47	1217	87	45	961	98	76	51	39	32	41	45
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	41	51	0	9	19	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	21	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	61	61	3	61	61	14	14	14	14
g / C, Green / Cycle	0.04	0.68	0.68	0.04	0.68	0.68	0.15	0.15	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.03	0.34	0.05	0.03	0.29	0.29	0.06	0.05	0.02	0.05
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1810	1311	1737	1306	1712
c, Capacity [veh/h]	69	2416	1079	67	1267	1226	185	261	182	258
d1, Uniform Delay [s]	42.71	7.06	4.91	42.77	6.57	6.57	40.44	34.25	39.18	34.20
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.15	0.75	0.15	11.14	1.04	1.08	1.46	0.78	0.45	0.76
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.68	0.50	0.08	0.67	0.42	0.42	0.41	0.34	0.18	0.33
d, Delay for Lane Group [s/veh]	53.86	7.81	5.06	53.90	7.62	7.65	41.90	35.03	39.63	34.95
Lane Group LOS	D	A	A	D	A	A	D	D	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	1.20	4.38	0.45	1.15	3.76	3.65	1.68	1.78	0.68	1.70
50th-Percentile Queue Length [ft/ln]	30.05	109.46	11.36	28.83	93.95	91.30	42.01	44.44	16.92	42.40
95th-Percentile Queue Length [veh/ln]	2.16	7.81	0.82	2.08	6.76	6.57	3.02	3.20	1.22	3.05
95th-Percentile Queue Length [ft/ln]	54.09	195.25	20.46	51.89	169.10	164.34	75.61	80.00	30.46	76.32

Movement, Approach, & Intersection Results

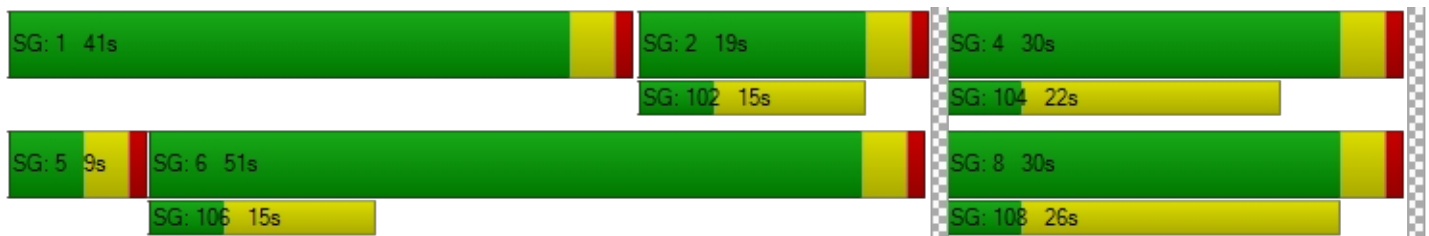
d_M, Delay for Movement [s/veh]	53.86	7.81	5.06	53.90	7.63	7.65	41.90	35.03	35.03	39.63	34.95	34.95
Movement LOS	D	A	A	D	A	A	D	D	D	D	C	C
d_A, Approach Delay [s/veh]	9.24			9.52			38.18			36.22		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	12.27											
Intersection LOS	B											
Intersection V/C	0.490											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersection	3.081			3.124			2.075			2.056		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	1044			333			578			578		
d_b, Bicycle Delay [s]	10.27			31.25			22.76			22.76		
I_b,int, Bicycle LOS Score for Intersection	2.674			2.470			1.834			1.754		
Bicycle LOS	B			B			A			A		

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Driveway 1/Jacaranda Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	19.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.074

Intersection Setup

Name	Jacaranda Ave			Driveway 1			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	Jacaranda Ave			Driveway 1			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	7	0	0	0	0	503	0	11	431	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	19	0	6	5	27	0	0	25	17
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	7	19	0	6	5	530	0	11	456	17
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	2	5	0	2	1	139	0	3	120	4
Total Analysis Volume [veh/h]	0	0	7	20	0	6	5	558	0	12	480	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.07	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	19.12	22.21	10.06	19.43	22.97	10.82	8.41	0.00	0.00	8.61	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.27	0.27	0.27	0.01	0.00	0.00	0.04	0.02	0.00
95th-Percentile Queue Length [ft/ln]	0.74	0.74	0.74	6.69	6.69	6.69	0.35	0.00	0.00	0.90	0.45	0.00
d_A, Approach Delay [s/veh]	10.06			17.44			0.07			0.20		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	0.61											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 9: Driveway 2/Tokay Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	9.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.249

Intersection Setup

Name	Tokay Ave			Driveway 2			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Tokay Ave			Driveway 2			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	7	0	0	0	0	510	0	12	442	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	75	0	15	27	19	0	0	27	50
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	37	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	7	112	0	15	27	529	0	12	469	50
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	2	29	0	4	7	139	0	3	123	13
Total Analysis Volume [veh/h]	0	0	7	118	0	16	28	557	0	13	494	53
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	45	19	0	45	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	3	67	67	1	66	66
g / C, Green / Cycle	0.11	0.11	0.11	0.03	0.74	0.74	0.02	0.73	0.73
(v / s)_i Volume / Saturation Flow Rate	0.00	0.08	0.01	0.02	0.15	0.15	0.01	0.15	0.15
s, saturation flow rate [veh/h]	1589	1408	1589	1781	1870	1870	1781	1870	1807
c, Capacity [veh/h]	211	196	171	51	1389	1389	29	1366	1320
d1, Uniform Delay [s]	36.01	39.21	36.21	43.12	3.49	3.49	43.87	3.84	3.84
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.06	2.95	0.24	8.74	0.32	0.32	10.47	0.34	0.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.60	0.09	0.55	0.20	0.20	0.45	0.20	0.20
d, Delay for Lane Group [s/veh]	36.07	42.16	36.45	51.86	3.82	3.82	54.34	4.18	4.19
Lane Group LOS	D	D	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.14	2.70	0.33	0.71	1.06	1.06	0.36	1.16	1.13
50th-Percentile Queue Length [ft/ln]	3.55	67.40	8.22	17.85	26.43	26.43	9.00	28.92	28.26
95th-Percentile Queue Length [veh/ln]	0.26	4.85	0.59	1.29	1.90	1.90	0.65	2.08	2.03
95th-Percentile Queue Length [ft/ln]	6.39	121.33	14.80	32.13	47.58	47.58	16.19	52.05	50.86

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.07	36.07	36.07	42.16	36.45	36.45	51.86	3.82	3.82	54.34	4.18	4.19
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	36.07			41.48			6.12			5.35		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	9.63											
Intersection LOS	A											
Intersection V/C	0.249											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	1.724	2.000	2.721	2.833
Crosswalk LOS	A	A	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	333	333
d_b, Bicycle Delay [s]	25.69	25.69	31.25	31.25
I_b,int, Bicycle LOS Score for Intersection	1.571	1.781	2.042	2.022
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report**Intersection 10: Driveway 3/Cherimoya Ave at Highland Ave**

Control Type:	Two-way stop	Delay (sec / veh):	10.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Cherimoya Ave			Driveway 3			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↶			↶			↶↷			↶↷		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	Cherimoya Ave			Driveway 3			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	8	0	0	0	0	517	0	0	454	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	10	0	94	0	0	67	35
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	37	0	0	0	43
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	8	0	0	10	0	648	0	0	521	78
Peak Hour Factor	1.0000	1.0000	0.9500	1.0000	1.0000	0.9500	1.0000	0.9500	0.9500	1.0000	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	2	0	0	3	0	171	0	0	137	21
Total Analysis Volume [veh/h]	0	0	8	0	0	11	0	682	0	0	548	82
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	10.57	0.00	0.00	10.38	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			B			B		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.04	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.93	0.00	0.00	1.23	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.57			10.38			0.00			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.15											
Intersection LOS	B											

Fontana Square Project

Vistro File: K:\...\Fontana Square AM.vistro

Scenario 3 OY CUM AM

Report File: K:\...\3 OY CUM AM.pdf

12/6/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Beech Ave at Highland Ave	Signalized	HCM 6th Edition	SB Left	0.321	25.7	C
2	Beech Ave at SR-210 HOV Ramps	All-way stop	HCM 6th Edition	NB Thru	0.657	18.3	C
3	Catawba Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.006	12.1	B
4	Citrus Ave at SR-210 WB Ramps	Signalized	HCM 6th Edition	NB Left	0.710	22.1	C
5	Citrus Ave at SR-210 EB Ramps	Signalized	HCM 6th Edition	SB Left	0.754	22.7	C
6	Citrus Ave at Highland Ave	Signalized	HCM 6th Edition	NB Left	0.748	26.5	C
7	Citrus Ave at Walnut St	Signalized	HCM 6th Edition	NB Left	0.458	12.4	B
8	Driveway 1/Jacaranda Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.019	10.8	B
9	Driveway 2/Tokay Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.015	9.7	A
10	Driveway 3/Cherimoya Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.017	9.7	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Beech Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	25.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.321

Intersection Setup

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	31	276	54	38	204	45	56	102	24	30	143	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	10	2	4	4	7	9	26	22	31	2	7	2
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	289	60	44	219	56	84	128	56	33	156	68
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	81	17	12	62	16	24	36	16	9	44	19
Total Analysis Volume [veh/h]	47	326	68	50	247	63	95	144	63	37	176	77
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	34	0	11	34	0	19	26	0	19	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	54	54	4	54	54	6	13	13	3	10	10
g / C, Green / Cycle	0.04	0.60	0.60	0.04	0.60	0.60	0.07	0.15	0.15	0.03	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.03	0.11	0.11	0.03	0.08	0.09	0.05	0.06	0.06	0.02	0.07	0.07
s, saturation flow rate [veh/h]	1781	1870	1760	1781	1870	1742	1781	1870	1684	1781	1870	1684
c, Capacity [veh/h]	69	1124	1058	71	1126	1049	123	274	247	62	209	189
d1, Uniform Delay [s]	42.71	8.02	8.04	42.68	7.77	7.79	41.18	34.75	34.86	42.83	38.14	38.29
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	11.21	0.35	0.38	11.89	0.26	0.29	9.70	0.90	1.08	9.06	2.99	3.78
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.68	0.18	0.18	0.70	0.14	0.14	0.77	0.39	0.41	0.60	0.62	0.65
d, Delay for Lane Group [s/veh]	53.92	8.37	8.42	54.56	8.03	8.08	50.88	35.65	35.93	51.89	41.13	42.07
Lane Group LOS	D	A	A	D	A	A	D	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.21	1.60	1.54	1.30	1.22	1.18	2.31	2.07	1.98	0.93	2.78	2.67
50th-Percentile Queue Length [ft/ln]	30.35	39.98	38.56	32.45	30.50	29.43	57.76	51.86	49.39	23.32	69.45	66.85
95th-Percentile Queue Length [veh/ln]	2.18	2.88	2.78	2.34	2.20	2.12	4.16	3.73	3.56	1.68	5.00	4.81
95th-Percentile Queue Length [ft/ln]	54.62	71.97	69.41	58.41	54.90	52.98	103.96	93.34	88.91	41.97	125.01	120.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.92	8.39	8.42	54.56	8.05	8.08	50.88	35.72	35.93	51.89	41.37	42.07
Movement LOS	D	A	A	D	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	13.25			14.52			40.54			42.90		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	25.66											
Intersection LOS	C											
Intersection V/C	0.321											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.506	2.524	2.473	2.463
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	667	667	489	489
d_b, Bicycle Delay [s]	20.00	20.00	25.69	25.69
I_b,int, Bicycle LOS Score for Intersection	1.923	1.857	1.809	1.799
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Beech Ave at SR-210 HOV Ramps

Control Type:	All-way stop	Delay (sec / veh):	18.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.657

Intersection Setup

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Base Volume Input [veh/h]	149	542	59	37	432	71	28	2	46	145	2	44
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	13	0	0	14	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	155	577	61	38	463	74	29	2	48	151	2	46
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	157	17	10	126	20	8	1	13	41	1	13
Total Analysis Volume [veh/h]	169	630	67	41	505	81	32	2	52	165	2	50
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	493	531	542	475	509	524	476	480
Degree of Utilization, x	0.34	0.66	0.64	0.09	0.58	0.56	0.18	0.45


Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.51	4.75	4.55	0.28	3.59	3.41	0.65	2.32
95th-Percentile Queue Length [ft]	37.66	118.70	113.83	7.05	89.76	85.17	16.35	57.89
Approach Delay [s/veh]	19.61			17.95			12.24	16.56
Approach LOS	C			C			B	C
Intersection Delay [s/veh]	18.31							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 3: Catawba Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	Catawba Ave		Highland Ave		Highland Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Catawba Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	3	1	0	344	196	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	44	16	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	1	0	402	220	4
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	110	60	1
Total Analysis Volume [veh/h]	3	1	0	439	240	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	1	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.08	9.56	7.72	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.54	0.54	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.45		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.07					
Intersection LOS	B					

Intersection Level of Service Report
Intersection 4: Citrus Ave at SR-210 WB Ramps

Control Type:	Signalized	Delay (sec / veh):	22.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.710

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Base Volume Input [veh/h]	441	808	0	0	570	479	0	0	0	249	1	275
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0000	1.0000	1.0400	1.0400	1.0000	1.0000	1.0000	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	55	76	0	0	82	35	0	0	0	37	0	28
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	107	0	0	0	0	0	31
Total Hourly Volume [veh/h]	514	916	0	0	675	426	0	0	0	296	1	283
Peak Hour Factor	0.9200	0.9200	1.0000	1.0000	0.9200	0.9200	1.0000	1.0000	1.0000	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	140	249	0	0	183	116	0	0	0	80	0	77
Total Analysis Volume [veh/h]	559	996	0	0	734	463	0	0	0	322	1	308
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	0	0	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	0	0	0	0	10	0
Maximum Green [s]	30	30	0	0	30	0	0	0	0	0	0	30	0
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Split [s]	21	52	0	0	31	0	0	0	0	0	0	38	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	0	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	7	0	0	0	0	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No							No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No			No							No	
Maximum Recall	No	No			No							No	
Pedestrian Recall	No	No			No							No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R		L	C	R
C, Cycle Length [s]	90	90	90	90		90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	16	62	41	41		20	20	20
g / C, Green / Cycle	0.18	0.69	0.46	0.46		0.23	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.16	0.28	0.21	0.29		0.09	0.09	0.19
s, saturation flow rate [veh/h]	3459	3560	3560	1589		1781	1781	1589
c, Capacity [veh/h]	630	2438	1631	728		403	403	360
d1, Uniform Delay [s]	35.91	6.21	16.64	18.64		29.62	29.62	33.40
k, delay calibration	0.11	0.50	0.50	0.50		0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	4.49	0.51	0.90	4.21		0.64	0.64	5.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.41	0.45	0.64		0.40	0.40	0.86
d, Delay for Lane Group [s/veh]	40.40	6.72	17.54	22.84		30.26	30.26	39.29
Lane Group LOS	D	A	B	C		C	C	D
Critical Lane Group	Yes	No	No	Yes		No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.02	3.14	4.81	7.36		3.00	3.00	6.88
50th-Percentile Queue Length [ft/ln]	150.54	78.60	120.20	183.93		74.94	74.96	172.05
95th-Percentile Queue Length [veh/ln]	10.05	5.66	8.40	11.81		5.40	5.40	11.18
95th-Percentile Queue Length [ft/ln]	251.15	141.48	210.10	295.14		134.89	134.93	279.61

Movement, Approach, & Intersection Results

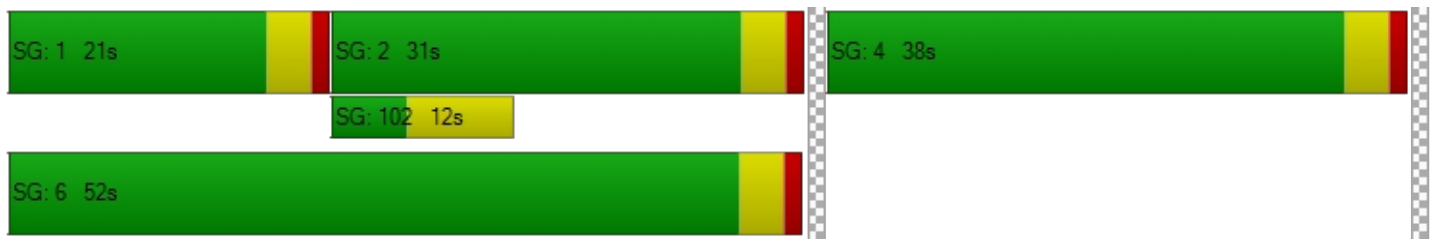
d_M, Delay for Movement [s/veh]	40.40	6.72	0.00	0.00	17.54	22.84	0.00	0.00	0.00	30.26	30.26	39.29
Movement LOS	D	A			B	C				C	C	D
d_A, Approach Delay [s/veh]	18.83				19.59		0.00		34.66			
Approach LOS	B				B		A		C			
d_I, Intersection Delay [s/veh]	22.05											
Intersection LOS	C											
Intersection V/C	0.710											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0		0.0		9.0		0.0	
M_corner, Corner Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		0.00		36.45		0.00	
I_p,int, Pedestrian LOS Score for Intersection	0.000		0.000		2.267		0.000	
Crosswalk LOS	F		F		B		F	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	1067		600		0		756	
d_b, Bicycle Delay [s]	9.80		22.05		45.00		17.42	
I_b,int, Bicycle LOS Score for Intersection	2.842		2.635		4.132		2.652	
Bicycle LOS	C		B		D		B	

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Citrus Ave at SR-210 EB Ramps

Control Type:	Signalized	Delay (sec / veh):	22.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.754

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↑↑			↑↑↑			↑↑↑					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Base Volume Input [veh/h]	0	787	443	228	695	0	343	3	340	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400	1.0400	1.0400	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	92	55	35	80	0	23	0	37	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	103	0	0	0	0	0	39	0	0	0
Total Hourly Volume [veh/h]	0	910	413	272	803	0	380	3	352	0	0	0
Peak Hour Factor	1.0000	0.9030	0.9030	0.9030	0.9030	1.0000	0.9030	0.9030	0.9030	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	252	114	75	222	0	105	1	97	0	0	0
Total Analysis Volume [veh/h]	0	1008	457	301	889	0	421	3	390	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss
Signal Group	0	6	0	5	2	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	5	10	0	0	10	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	43	0	13	56	0	0	34	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No				
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No			No				
Maximum Recall		No		No	No			No				
Pedestrian Recall		No		No	No			No				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C	R	
C, Cycle Length [s]	90	90	90	90	90	90	90	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	51	51	9	64	18	18	18	
g / C, Green / Cycle	0.56	0.56	0.10	0.71	0.20	0.20	0.20	
(v / s)_i Volume / Saturation Flow Rate	0.39	0.43	0.09	0.25	0.16	0.16	0.17	
s, saturation flow rate [veh/h]	1870	1685	3459	3560	1781	1686	1589	
c, Capacity [veh/h]	1054	949	346	2521	362	342	323	
d1, Uniform Delay [s]	14.09	15.17	39.92	5.11	33.91	34.06	34.23	
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11	0.11	
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	3.79	6.05	6.76	0.39	3.56	4.16	4.94	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.70	0.77	0.87	0.35	0.77	0.79	0.81	
d, Delay for Lane Group [s/veh]	17.88	21.21	46.69	5.50	37.47	38.22	39.17	
Lane Group LOS	B	C	D	A	D	D	D	
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	
50th-Percentile Queue Length [veh/ln]	9.93	11.09	3.45	2.34	6.03	5.92	5.80	
50th-Percentile Queue Length [ft/ln]	248.22	277.20	86.15	58.39	150.68	147.94	145.12	
95th-Percentile Queue Length [veh/ln]	15.10	16.55	6.20	4.20	10.05	9.91	9.76	
95th-Percentile Queue Length [ft/ln]	377.41	413.72	155.08	105.11	251.34	247.68	243.90	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	18.79	21.21	46.69	5.50	0.00	37.74	38.22	38.88	0.00	0.00	0.00
Movement LOS		B	C	D	A		D	D	D			
d_A, Approach Delay [s/veh]		19.55		15.92			38.27		0.00			
Approach LOS		B		B			D		A			
d_I, Intersection Delay [s/veh]	22.70											
Intersection LOS	C											
Intersection V/C	0.754											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0		0.0		9.0		0.0	
M_corner, Corner Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		0.00		36.45		0.00	
I_p,int, Pedestrian LOS Score for Intersection	0.000		0.000		2.396		0.000	
Crosswalk LOS	F		F		B		F	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	867		1156		667		0	
d_b, Bicycle Delay [s]	14.45		8.02		20.00		45.00	
I_b,int, Bicycle LOS Score for Intersection	2.853		2.541		2.967		4.132	
Bicycle LOS	C		B		C		D	

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Citrus Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	26.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.748

Intersection Setup

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	[Diagram]			[Diagram]			[Diagram]			[Diagram]		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	31	827	54	211	711	109	234	109	38	29	67	169
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	3	96	5	55	57	9	26	18	8	3	7	26
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	956	61	274	796	122	269	131	48	33	77	202
Peak Hour Factor	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	266	17	76	221	34	75	36	13	9	21	56
Total Analysis Volume [veh/h]	39	1063	68	305	885	136	299	146	53	37	86	225
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	29	0	14	33	0	14	33	0	14	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	24	0	0	21	0	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	40	40	10	46	46	10	22	22	3	15	15
g / C, Green / Cycle	0.03	0.44	0.44	0.11	0.51	0.51	0.11	0.24	0.24	0.03	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.02	0.30	0.04	0.09	0.25	0.09	0.09	0.04	0.03	0.02	0.05	0.14
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	3560	1589	1781	1870	1589
c, Capacity [veh/h]	63	1562	697	376	1824	814	371	855	382	62	314	267
d1, Uniform Delay [s]	42.83	20.22	14.81	39.21	14.25	11.71	39.27	27.09	26.88	42.82	32.67	36.31
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	9.76	2.42	0.28	4.24	0.93	0.44	4.18	0.09	0.16	8.91	0.47	7.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.62	0.68	0.10	0.81	0.49	0.17	0.81	0.17	0.14	0.60	0.27	0.84
d, Delay for Lane Group [s/veh]	52.59	22.63	15.09	43.45	15.18	12.15	43.45	27.18	27.04	51.73	33.14	43.46
Lane Group LOS	D	C	B	D	B	B	D	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.99	8.45	0.80	3.35	5.31	1.38	3.28	1.19	0.86	0.93	1.60	5.05
50th-Percentile Queue Length [ft/ln]	24.73	211.17	19.92	83.80	132.63	34.52	82.12	29.64	21.58	23.27	39.90	126.29
95th-Percentile Queue Length [veh/ln]	1.78	13.21	1.43	6.03	9.08	2.49	5.91	2.13	1.55	1.68	2.87	8.74
95th-Percentile Queue Length [ft/ln]	44.52	330.33	35.86	150.84	227.07	62.14	147.82	53.35	38.85	41.89	71.82	218.44

Movement, Approach, & Intersection Results

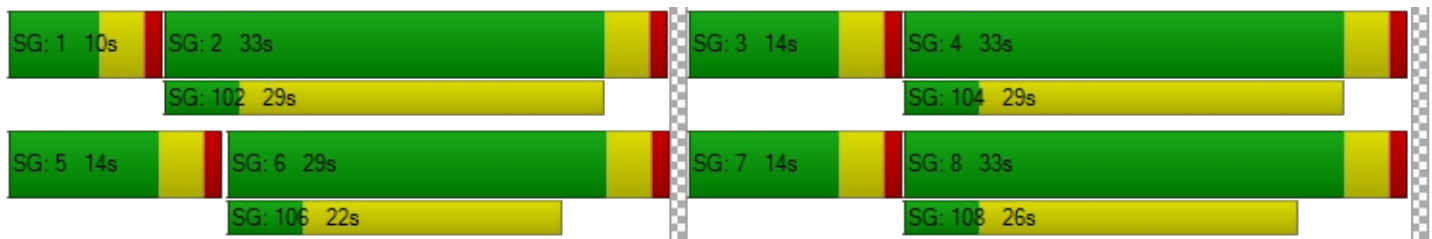
d_M, Delay for Movement [s/veh]	52.59	22.63	15.09	43.45	15.18	12.15	43.45	27.18	27.04	51.73	33.14	43.46
Movement LOS	D	C	B	D	B	B	D	C	C	D	C	D
d_A, Approach Delay [s/veh]	23.19			21.37			36.94			41.79		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	26.45											
Intersection LOS	C											
Intersection V/C	0.748											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.977	3.204	2.754	2.555
Crosswalk LOS	C	C	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	556	644	644	644
d_b, Bicycle Delay [s]	23.47	20.67	20.67	20.67
I_b,int, Bicycle LOS Score for Intersection	2.525	2.654	1.970	2.134
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Citrus Ave at Walnut St**

Control Type:	Signalized	Delay (sec / veh):	12.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.458

Intersection Setup

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Base Volume Input [veh/h]	10	752	39	29	628	45	91	30	33	16	24	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	6	111	5	1	64	5	13	5	2	3	3	3
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	893	46	31	717	52	108	36	36	20	28	35
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	254	13	9	204	15	31	10	10	6	8	10
Total Analysis Volume [veh/h]	18	1015	52	35	815	59	123	41	41	23	32	40
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	32	19	0	41	28	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	21	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	59	59	3	60	60	16	16	16	16
g / C, Green / Cycle	0.02	0.66	0.66	0.03	0.67	0.67	0.18	0.18	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.01	0.29	0.03	0.02	0.24	0.24	0.09	0.05	0.02	0.04
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1826	1328	1718	1316	1703
c, Capacity [veh/h]	37	2334	1042	59	1249	1220	232	306	225	303
d1, Uniform Delay [s]	43.60	7.47	5.52	42.91	6.50	6.50	38.86	31.93	36.29	31.75
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.66	0.59	0.09	9.15	0.79	0.81	1.86	0.47	0.20	0.40
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.49	0.43	0.05	0.59	0.35	0.35	0.53	0.27	0.10	0.24
d, Delay for Lane Group [s/veh]	53.26	8.06	5.61	52.06	7.28	7.30	40.72	32.40	36.49	32.15
Lane Group LOS	D	A	A	D	A	A	D	C	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.48	3.77	0.30	0.89	3.01	2.95	2.70	1.54	0.46	1.34
50th-Percentile Queue Length [ft/ln]	11.99	94.26	7.43	22.15	75.35	73.75	67.45	38.52	11.51	33.61
95th-Percentile Queue Length [veh/ln]	0.86	6.79	0.54	1.59	5.43	5.31	4.86	2.77	0.83	2.42
95th-Percentile Queue Length [ft/ln]	21.57	169.67	13.38	39.87	135.63	132.74	121.40	69.34	20.71	60.50

Movement, Approach, & Intersection Results

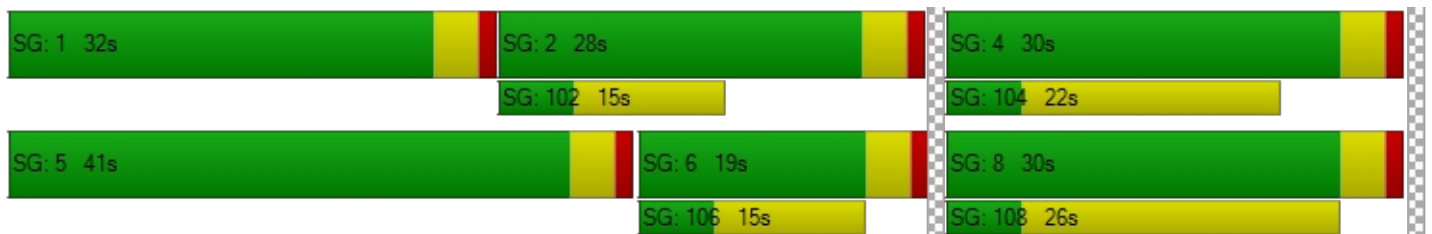
d_M, Delay for Movement [s/veh]	53.26	8.06	5.61	52.06	7.29	7.30	40.72	32.40	32.40	36.49	32.15	32.15
Movement LOS	D	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	8.69			9.02			37.39			33.20		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	12.40											
Intersection LOS	B											
Intersection V/C	0.458											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersection	2.966			3.087			2.061			2.026		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	333			533			578			578		
d_b, Bicycle Delay [s]	31.25			24.20			22.76			22.76		
I_b,int, Bicycle LOS Score for Intersection	2.455			2.310			1.898			1.716		
Bicycle LOS	B			B			A			A		

Sequence



Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Driveway 1/Jacaranda Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.019

Intersection Setup

Name	Jacaranda Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Jacaranda Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	11	347	0	3	200
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	44	0	0	16
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	11	405	0	3	224
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	3	107	0	1	59
Total Analysis Volume [veh/h]	0	12	426	0	3	236
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.64	10.84	0.00	0.00	8.18	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	1.46	1.46	0.00	0.00	0.20	0.20
d_A, Approach Delay [s/veh]	10.84		0.00		0.10	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.23					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 9: Driveway 2/Tokay Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Tokay Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Tokay Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	11	358	0	4	203
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	44	0	0	16
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	11	416	0	4	227
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	3	109	0	1	60
Total Analysis Volume [veh/h]	0	12	438	0	4	239
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.02	9.66	0.00	0.00	8.23	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	0.01	0.00
95th-Percentile Queue Length [ft/ln]	1.16	1.16	0.00	0.00	0.27	0.00
d_A, Approach Delay [s/veh]	9.66		0.00		0.14	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.21					
Intersection LOS	A					

Intersection Level Of Service Report**Intersection 10: Driveway 3/Cherimoya Ave at Highland Ave**

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.017

Intersection Setup

Name	Cherimoya Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↻		↻		↑	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Cherimoya Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	12	369	0	0	207
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0400	1.0400	1.0000	1.0000	1.0400
In-Process Volume [veh/h]	0	0	44	0	0	16
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	12	428	0	0	231
Peak Hour Factor	1.0000	0.9500	0.9500	0.9500	1.0000	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	3	113	0	0	61
Total Analysis Volume [veh/h]	0	13	451	0	0	243
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	9.71	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.05	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	1.27	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.71		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.18					
Intersection LOS	A					

Fontana Square Project

Vistro File: K:\...\Fontana Square PM.vistro

Scenario 3 OY CUM PM

Report File: K:\...\3 OY CUM PM.pdf

12/6/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Beech Ave at Highland Ave	Signalized	HCM 6th Edition	NB Left	0.517	29.2	C
2	Beech Ave at SR-210 HOV Ramps	All-way stop	HCM 6th Edition	NB Thru	0.607	17.0	C
3	Catawba Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.038	16.0	C
4	Citrus Ave at SR-210 WB Ramps	Signalized	HCM 6th Edition	WB Right	0.979	42.5	D
5	Citrus Ave at SR-210 EB Ramps	Signalized	HCM 6th Edition	SB Left	0.978	42.8	D
6	Citrus Ave at Highland Ave	Signalized	HCM 6th Edition	SB Left	0.970	47.5	D
7	Citrus Ave at Walnut St	Signalized	HCM 6th Edition	NB Left	0.548	13.4	B
8	Driveway 1/Jacaranda Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.014	12.2	B
9	Driveway 2/Tokay Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.010	10.2	B
10	Driveway 3/Cherimoya Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.012	10.3	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Beech Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	29.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.517

Intersection Setup

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↵ ↑			↵ ↑			↵ ↑			↵ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	30	416	105	112	431	61	98	340	75	90	177	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	33	7	8	8	4	29	17	14	20	10	24	10
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	64	440	117	124	452	92	119	368	98	104	208	104
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	113	30	32	116	24	31	95	25	27	54	27
Total Analysis Volume [veh/h]	66	453	120	128	465	95	123	379	101	107	214	107
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	26	0	12	26	0	26	38	0	14	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	44	44	8	48	48	8	15	15	7	14	14
g / C, Green / Cycle	0.05	0.49	0.49	0.09	0.53	0.53	0.09	0.16	0.16	0.08	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.04	0.16	0.16	0.07	0.15	0.15	0.07	0.13	0.13	0.06	0.09	0.09
s, saturation flow rate [veh/h]	1781	1870	1737	1781	1870	1762	1781	1870	1737	1781	1870	1666
c, Capacity [veh/h]	85	922	857	158	999	941	158	306	284	136	284	253
d1, Uniform Delay [s]	42.35	13.73	13.75	40.25	11.54	11.55	40.17	36.27	36.33	40.85	35.57	35.69
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	13.60	0.92	1.00	9.36	0.73	0.78	8.13	5.07	5.71	9.63	1.95	2.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.77	0.32	0.32	0.81	0.29	0.29	0.78	0.81	0.82	0.79	0.59	0.61
d, Delay for Lane Group [s/veh]	55.96	14.64	14.75	49.61	12.27	12.33	48.30	41.34	42.04	50.48	37.51	38.06
Lane Group LOS	E	B	B	D	B	B	D	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.73	3.51	3.31	3.09	3.02	2.88	2.90	5.38	5.11	2.59	3.39	3.16
50th-Percentile Queue Length [ft/ln]	43.14	87.77	82.80	77.31	75.54	71.88	72.43	134.57	127.63	64.67	84.71	79.03
95th-Percentile Queue Length [veh/ln]	3.11	6.32	5.96	5.57	5.44	5.18	5.21	9.19	8.81	4.66	6.10	5.69
95th-Percentile Queue Length [ft/ln]	77.66	157.99	149.03	139.17	135.98	129.39	130.37	229.69	220.27	116.41	152.48	142.25

Movement, Approach, & Intersection Results

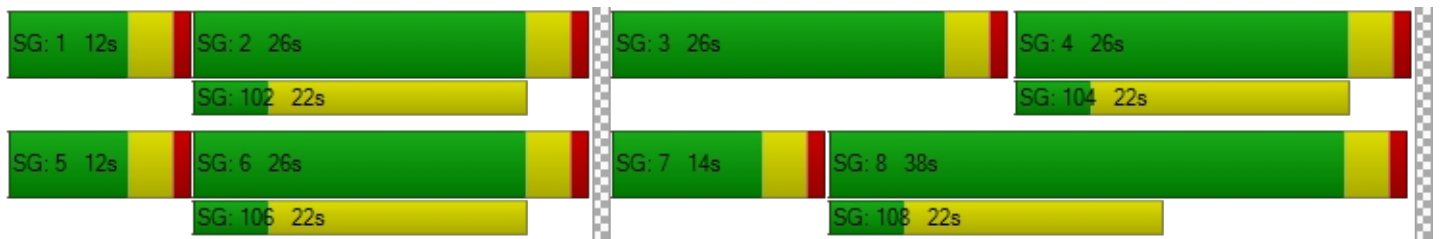
d_M, Delay for Movement [s/veh]	55.96	14.68	14.75	49.61	12.29	12.33	48.30	41.58	42.04	50.48	37.63	38.06
Movement LOS	E	B	B	D	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	18.96			19.24			43.03			40.95		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	29.19											
Intersection LOS	C											
Intersection V/C	0.517											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.642	2.658	2.587	2.610
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	756	489
d_b, Bicycle Delay [s]	25.69	25.69	17.42	25.69
I_b,int, Bicycle LOS Score for Intersection	2.087	2.127	2.057	1.913
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Beech Ave at SR-210 HOV Ramps

Control Type:	All-way stop	Delay (sec / veh):	17.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.607

Intersection Setup

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Base Volume Input [veh/h]	95	474	66	60	366	30	114	16	106	70	4	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	23	0	0	22	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	99	516	69	62	403	31	119	17	110	73	4	55
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	137	18	16	107	8	32	5	29	19	1	15
Total Analysis Volume [veh/h]	105	547	73	66	427	33	126	18	117	77	4	58
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	476	511	523	460	493	500	503	482
Degree of Utilization, x	0.22	0.61	0.59	0.14	0.47	0.46	0.52	0.29

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.83	4.00	3.82	0.50	2.45	2.39	2.94	1.18
95th-Percentile Queue Length [ft]	20.87	100.01	95.43	12.44	61.15	59.75	73.56	29.62
Approach Delay [s/veh]	18.54			15.55			17.59	13.48
Approach LOS	C			C			C	B
Intersection Delay [s/veh]	17.01							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 3: Catawba Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	16.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.038

Intersection Setup

Name	Catawba Ave		Highland Ave		Highland Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Catawba Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	12	8	14	491	418	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	40	58	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	8	15	551	493	15
Peak Hour Factor	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	4	151	135	4
Total Analysis Volume [veh/h]	13	9	16	605	541	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	1	0	0


Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.02	0.02	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	16.02	12.24	8.61	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.17	0.17	0.05	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.33	4.33	1.20	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.47		0.22		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.38					
Intersection LOS	C					

Intersection Level of Service Report
Intersection 4: Citrus Ave at SR-210 WB Ramps

Control Type:	Signalized	Delay (sec / veh):	42.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.979

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Base Volume Input [veh/h]	388	1433	0	0	840	484	0	0	0	509	1	545
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0000	1.0000	1.0400	1.0400	1.0000	1.0000	1.0000	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	64	95	0	0	99	33	0	0	0	78	0	55
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	107	0	0	0	0	0	62
Total Hourly Volume [veh/h]	468	1585	0	0	973	429	0	0	0	607	1	560
Peak Hour Factor	0.8940	0.8940	1.0000	1.0000	0.8940	0.8940	1.0000	1.0000	1.0000	0.8940	0.8940	0.8940
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	131	443	0	0	272	120	0	0	0	170	0	157
Total Analysis Volume [veh/h]	523	1773	0	0	1088	480	0	0	0	679	1	626
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	0	0	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	0	0	0	0	10	0
Maximum Green [s]	30	30	0	0	30	0	0	0	0	0	0	30	0
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Split [s]	20	52	0	0	32	0	0	0	0	0	0	38	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	0	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	7	0	0	0	0	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No							No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No			No							No	
Maximum Recall	No	No			No							No	
Pedestrian Recall	No	No			No							No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R		L	C	R
C, Cycle Length [s]	90	90	90	90		90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	15	48	29	29		34	34	34
g / C, Green / Cycle	0.17	0.53	0.32	0.32		0.38	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.15	0.50	0.31	0.30		0.19	0.19	0.39
s, saturation flow rate [veh/h]	3459	3560	3560	1589		1781	1781	1589
c, Capacity [veh/h]	597	1899	1126	503		673	673	600
d1, Uniform Delay [s]	36.29	19.52	30.30	30.14		21.53	21.53	28.00
k, delay calibration	0.11	0.50	0.50	0.50		0.11	0.11	0.49
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	4.27	10.00	19.85	30.38		0.59	0.59	47.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	0.93	0.97	0.95		0.51	0.51	1.04
d, Delay for Lane Group [s/veh]	40.56	29.52	50.15	60.52		22.12	22.12	75.83
Lane Group LOS	D	C	D	E		C	C	F
Critical Lane Group	No	Yes	No	No		No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.63	16.94	13.69	13.53		5.43	5.43	20.21
50th-Percentile Queue Length [ft/ln]	140.83	423.57	342.25	338.34		135.87	135.87	505.14
95th-Percentile Queue Length [veh/ln]	9.53	23.69	19.76	19.57		9.26	9.26	28.38
95th-Percentile Queue Length [ft/ln]	238.14	592.34	493.95	489.17		231.46	231.45	709.62

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.56	29.52	0.00	0.00	50.15	60.52	0.00	0.00	0.00	22.12	22.12	75.83
Movement LOS	D	C			D	E				C	C	F
d_A, Approach Delay [s/veh]	32.03				53.32		0.00		47.86			
Approach LOS	C				D		A		D			
d_I, Intersection Delay [s/veh]	42.49											
Intersection LOS	D											
Intersection V/C	0.979											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.258	0.000
Crosswalk LOS	F	F	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1067	622	0	756
d_b, Bicycle Delay [s]	9.80	21.36	45.00	17.42
I_b,int, Bicycle LOS Score for Intersection	3.454	2.941	4.132	3.817
Bicycle LOS	C	C	D	D

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Citrus Ave at SR-210 EB Ramps

Control Type:	Signalized	Delay (sec / veh):	42.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.978

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↑↑			↑↑↑			↑↑↑↑					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Base Volume Input [veh/h]	0	1144	422	269	1066	0	675	4	427	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400	1.0400	1.0400	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	124	64	33	132	0	41	0	78	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	101	0	0	0	0	0	52	0	0	0
Total Hourly Volume [veh/h]	0	1314	402	313	1241	0	743	4	470	0	0	0
Peak Hour Factor	1.0000	0.9450	0.9450	0.9450	0.9450	1.0000	0.9450	0.9450	0.9450	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	348	106	83	328	0	197	1	124	0	0	0
Total Analysis Volume [veh/h]	0	1390	425	331	1313	0	786	4	497	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss
Signal Group	0	6	0	5	2	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	5	10	0	0	10	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	50	0	12	62	0	0	28	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No				
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No			No				
Maximum Recall		No		No	No			No				
Pedestrian Recall		No		No	No			No				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C	R	
C, Cycle Length [s]	90	90	90	90	90	90	90	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	46	46	8	58	24	24	24	
g / C, Green / Cycle	0.51	0.51	0.09	0.64	0.27	0.27	0.27	
(v / s)_i Volume / Saturation Flow Rate	0.49	0.53	0.10	0.37	0.24	0.25	0.27	
s, saturation flow rate [veh/h]	1870	1727	3459	3560	1781	1748	1589	
c, Capacity [veh/h]	956	883	307	2295	475	466	424	
d1, Uniform Delay [s]	20.90	22.00	41.00	9.01	31.88	32.07	33.00	
k, delay calibration	0.50	0.50	0.11	0.50	0.25	0.26	0.31	
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	19.20	37.64	47.43	1.04	13.39	15.87	37.53	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.95	1.03	1.08	0.57	0.90	0.92	1.01	
d, Delay for Lane Group [s/veh]	40.09	59.64	88.43	10.06	45.27	47.94	70.53	
Lane Group LOS	D	F	F	B	D	D	F	
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	
50th-Percentile Queue Length [veh/ln]	20.36	24.86	5.27	5.87	10.50	10.84	13.35	
50th-Percentile Queue Length [ft/ln]	509.00	621.59	131.66	146.74	262.42	270.95	333.70	
95th-Percentile Queue Length [veh/ln]	27.76	33.77	9.26	9.84	15.81	16.24	19.48	
95th-Percentile Queue Length [ft/ln]	694.00	844.33	231.44	246.07	395.25	405.92	486.98	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	46.88	59.64	88.43	10.06	0.00	46.48	47.94	67.44	0.00	0.00	0.00
Movement LOS		D	E	F	B		D	D	E			
d_A, Approach Delay [s/veh]	49.87			25.84			54.58			0.00		
Approach LOS	D			C			D			A		
d_I, Intersection Delay [s/veh]	42.82											
Intersection LOS	D											
Intersection V/C	0.978											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			9.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			36.45			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			2.533			0.000		
Crosswalk LOS	F			F			B			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	1022			1289			533			0		
d_b, Bicycle Delay [s]	10.76			5.69			24.20			45.00		
I_b,int, Bicycle LOS Score for Intersection	3.140			2.916			3.769			4.132		
Bicycle LOS	C			C			D			D		

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Citrus Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	47.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.970

Intersection Setup

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	[Diagram]			[Diagram]			[Diagram]			[Diagram]		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	57	1012	97	277	981	230	216	256	53	72	167	335
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	10	81	15	74	110	29	17	24	7	16	30	88
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	69	1133	116	362	1130	268	242	290	62	91	204	436
Peak Hour Factor	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	294	30	94	294	70	63	75	16	24	53	113
Total Analysis Volume [veh/h]	72	1178	121	376	1175	279	252	301	64	95	212	453
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	31	0	13	34	0	13	30	0	16	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	24	0	0	21	0	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	29	29	9	33	33	8	30	30	6	28	28
g / C, Green / Cycle	0.05	0.32	0.32	0.10	0.37	0.37	0.09	0.33	0.33	0.07	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.04	0.33	0.08	0.11	0.33	0.18	0.07	0.08	0.04	0.05	0.11	0.28
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	3560	1589	1781	1870	1589
c, Capacity [veh/h]	93	1149	513	346	1318	589	325	1174	524	125	572	486
d1, Uniform Delay [s]	42.12	30.48	22.35	40.50	26.63	21.64	39.85	22.09	21.07	41.12	24.47	30.34
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.34
l, Upstream Filtering 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
d2, Incremental Delay [s]	12.64	33.24	1.08	50.18	9.38	2.72	3.99	0.11	0.10	9.21	0.40	20.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.77	1.03	0.24	1.09	0.89	0.47	0.78	0.26	0.12	0.76	0.37	0.93
d, Delay for Lane Group [s/veh]	54.76	63.72	23.43	90.68	36.01	24.37	43.84	22.21	21.17	50.33	24.87	51.20
Lane Group LOS	D	F	C	F	D	C	D	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.84	16.64	1.90	6.05	12.39	4.56	2.77	2.18	0.89	2.30	3.36	11.55
50th-Percentile Queue Length [ft/ln]	45.94	415.93	47.62	151.22	309.75	114.09	69.35	54.62	22.34	57.41	84.04	288.86
95th-Percentile Queue Length [veh/ln]	3.31	23.71	3.43	10.39	18.16	8.07	4.99	3.93	1.61	4.13	6.05	17.13
95th-Percentile Queue Length [ft/ln]	82.70	592.79	85.71	259.70	454.06	201.68	124.83	98.31	40.21	103.34	151.27	428.23

Movement, Approach, & Intersection Results

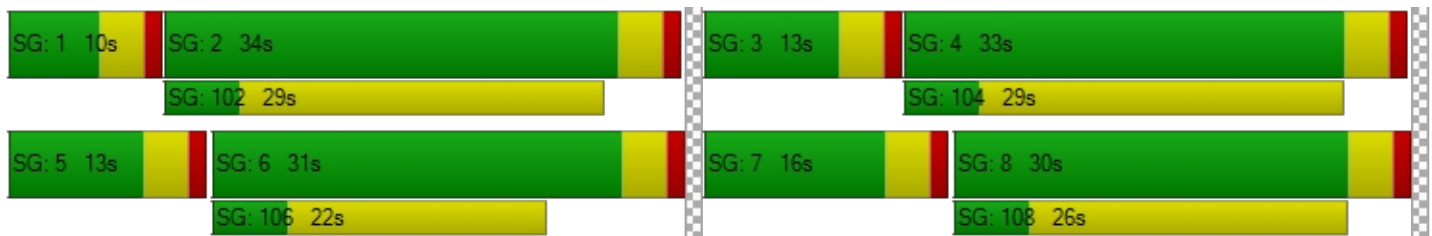
d_M, Delay for Movement [s/veh]	54.76	63.72	23.43	90.68	36.01	24.37	43.84	22.21	21.17	50.33	24.87	51.20
Movement LOS	D	F	C	F	D	C	D	C	C	D	C	D
d_A, Approach Delay [s/veh]	59.70			45.47			30.93			43.75		
Approach LOS	E			D			C			D		
d_I, Intersection Delay [s/veh]	47.49											
Intersection LOS	D											
Intersection V/C	0.970											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.114	3.371	2.842	2.757
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	667	578	644
d_b, Bicycle Delay [s]	22.05	20.00	22.76	20.67
I_b,int, Bicycle LOS Score for Intersection	2.691	3.069	2.069	2.814
Bicycle LOS	B	C	B	C

Sequence





Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Citrus Ave at Walnut St**

Control Type:	Signalized	Delay (sec / veh):	13.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.548

Intersection Setup

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Base Volume Input [veh/h]	45	1149	83	37	906	94	73	49	37	31	39	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	5	104	5	3	137	14	10	5	7	5	5	2
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	52	1299	91	41	1079	112	86	56	45	37	46	40
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	340	24	11	282	29	22	15	12	10	12	10
Total Analysis Volume [veh/h]	54	1359	95	43	1129	117	90	59	47	39	48	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	41	51	0	9	19	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	21	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	60	60	3	59	59	15	15	15	15
g / C, Green / Cycle	0.04	0.67	0.67	0.04	0.66	0.66	0.16	0.16	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.03	0.38	0.06	0.02	0.34	0.34	0.07	0.06	0.03	0.05
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1809	1306	1734	1288	1728
c, Capacity [veh/h]	75	2371	1059	65	1236	1195	198	284	186	283
d1, Uniform Delay [s]	42.60	8.12	5.34	42.80	7.82	7.84	39.97	33.50	39.10	33.18
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.44	1.01	0.17	10.77	1.52	1.58	1.62	0.81	0.56	0.64
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.72	0.57	0.09	0.66	0.51	0.51	0.45	0.37	0.21	0.32
d, Delay for Lane Group [s/veh]	55.04	9.13	5.51	53.57	9.34	9.42	41.58	34.31	39.66	33.81
Lane Group LOS	E	A	A	D	A	A	D	C	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	1.39	5.61	0.53	1.10	5.22	5.10	1.98	2.07	0.83	1.74
50th-Percentile Queue Length [ft/ln]	34.84	140.24	13.36	27.48	130.57	127.42	49.61	51.76	20.65	43.44
95th-Percentile Queue Length [veh/ln]	2.51	9.49	0.96	1.98	8.97	8.80	3.57	3.73	1.49	3.13
95th-Percentile Queue Length [ft/ln]	62.71	237.34	24.04	49.47	224.26	219.98	89.30	93.17	37.17	78.19

Movement, Approach, & Intersection Results

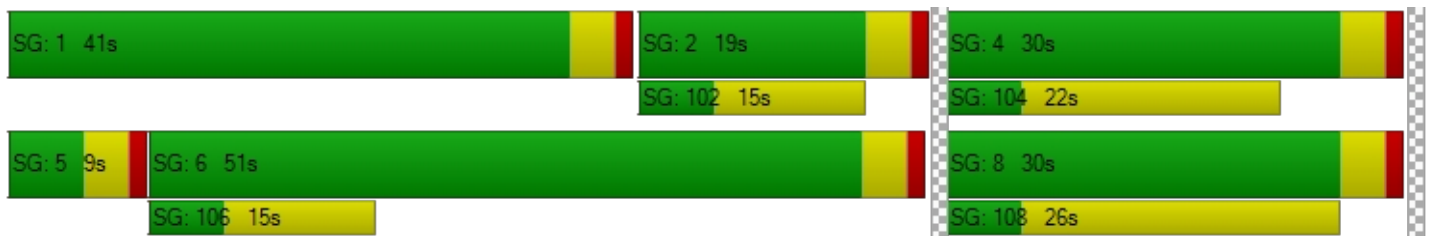
d_M, Delay for Movement [s/veh]	55.04	9.13	5.51	53.57	9.37	9.42	41.58	34.31	34.31	39.66	33.81	33.81
Movement LOS	E	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	10.55			10.85			37.65			35.58		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	13.41											
Intersection LOS	B											
Intersection V/C	0.548											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.174	3.243	2.099	2.065
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1044	333	578	578
d_b, Bicycle Delay [s]	10.27	31.25	22.76	22.76
I_b,int, Bicycle LOS Score for Intersection	2.804	2.623	1.883	1.772
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Driveway 1/Jacaranda Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.014

Intersection Setup

Name	Jacaranda Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Jacaranda Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	7	503	0	11	431
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	40	0	0	58
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	7	563	0	11	506
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	148	0	3	133
Total Analysis Volume [veh/h]	0	7	593	0	12	533
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	21.82	12.22	0.00	0.00	8.71	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.04	0.04
95th-Percentile Queue Length [ft/ln]	1.05	1.05	0.00	0.00	0.93	0.93
d_A, Approach Delay [s/veh]	12.22		0.00		0.19	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.17					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 9: Driveway 2/Tokay Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

Intersection Setup

Name	Tokay Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Tokay Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	7	510	0	12	442
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	40	0	0	58
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	7	570	0	12	518
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	150	0	3	136
Total Analysis Volume [veh/h]	0	7	600	0	13	545
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	18.14	10.22	0.00	0.00	8.75	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.00	0.04	0.00
95th-Percentile Queue Length [ft/ln]	0.76	0.76	0.00	0.00	1.02	0.00
d_A, Approach Delay [s/veh]	10.22		0.00		0.20	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.16					
Intersection LOS	B					

Intersection Level Of Service Report**Intersection 10: Driveway 3/Cherimoya Ave at Highland Ave**

Control Type:	Two-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Cherimoya Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↻		↻		↑	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Cherimoya Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	8	517	0	0	454
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0400	1.0400	1.0400	1.0000	1.0400
In-Process Volume [veh/h]	0	0	40	0	0	58
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	8	578	0	0	530
Peak Hour Factor	1.0000	0.9500	0.9500	0.9500	1.0000	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	152	0	0	139
Total Analysis Volume [veh/h]	0	8	608	0	0	558
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	10.26	0.00	0.00	0.00	0.00
Movement LOS		B	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.88	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.26		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.07					
Intersection LOS	B					

Fontana Square Project

Vistro File: K:\...\Fontana Square AM.vistro

Scenario 4 OY CUM WP AM

Report File: K:\...4 OY CUM WP AM.pdf

12/6/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Beech Ave at Highland Ave	Signalized	HCM 6th Edition	SB Left	0.341	26.6	C
2	Beech Ave at SR-210 HOV Ramps	All-way stop	HCM 6th Edition	NB Thru	0.664	18.6	C
3	Catawba Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.005	11.3	B
4	Citrus Ave at SR-210 WB Ramps	Signalized	HCM 6th Edition	NB Left	0.718	22.5	C
5	Citrus Ave at SR-210 EB Ramps	Signalized	HCM 6th Edition	SB Left	0.781	23.4	C
6	Citrus Ave at Highland Ave	Signalized	HCM 6th Edition	EB Left	0.769	29.5	C
7	Citrus Ave at Walnut St	Signalized	HCM 6th Edition	NB Left	0.470	12.8	B
8	Driveway 1/Jacaranda Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.021	13.6	B
9	Driveway 2/Tokay Ave at Highland Ave	Signalized	HCM 6th Edition	EB Left	0.204	11.2	B
10	Driveway 3/Cherimoya Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.018	10.2	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Beech Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	26.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.341

Intersection Setup

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	31	276	54	38	204	45	56	102	24	30	143	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	10	2	4	4	7	9	26	22	31	2	7	2
Site-Generated Trips [veh/h]	0	0	23	7	0	0	0	7	0	17	6	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	289	83	51	219	56	84	135	56	50	162	74
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	81	23	14	62	16	24	38	16	14	46	21
Total Analysis Volume [veh/h]	47	326	94	57	247	63	95	152	63	56	183	83
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	34	0	11	34	0	19	26	0	19	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	54	54	4	54	54	6	12	12	4	10	10
g / C, Green / Cycle	0.04	0.60	0.60	0.04	0.60	0.60	0.07	0.14	0.14	0.04	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.03	0.12	0.12	0.03	0.08	0.09	0.05	0.06	0.06	0.03	0.07	0.08
s, saturation flow rate [veh/h]	1781	1870	1729	1781	1870	1742	1781	1870	1690	1781	1870	1679
c, Capacity [veh/h]	69	1119	1035	76	1126	1049	123	259	234	76	209	188
d1, Uniform Delay [s]	42.71	8.20	8.22	42.62	7.78	7.80	41.18	35.50	35.61	42.57	38.29	38.44
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	11.21	0.38	0.43	13.96	0.26	0.29	9.70	1.11	1.34	12.73	3.44	4.37
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.68	0.19	0.20	0.75	0.14	0.14	0.77	0.43	0.45	0.73	0.65	0.69
d, Delay for Lane Group [s/veh]	53.92	8.58	8.65	56.59	8.04	8.09	50.88	36.62	36.95	55.29	41.73	42.81
Lane Group LOS	D	A	A	E	A	A	D	D	D	E	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.21	1.75	1.67	1.51	1.22	1.18	2.31	2.19	2.09	1.45	2.96	2.83
50th-Percentile Queue Length [ft/ln]	30.35	43.75	41.65	37.67	30.52	29.43	57.76	54.79	52.26	36.19	73.94	70.83
95th-Percentile Queue Length [veh/ln]	2.18	3.15	3.00	2.71	2.20	2.12	4.16	3.94	3.76	2.61	5.32	5.10
95th-Percentile Queue Length [ft/ln]	54.62	78.75	74.97	67.80	54.93	52.97	103.96	98.62	94.07	65.15	133.10	127.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.92	8.61	8.65	56.59	8.05	8.09	50.88	36.71	36.95	55.29	42.00	42.81
Movement LOS	D	A	A	E	A	A	D	D	D	E	D	D
d_A, Approach Delay [s/veh]	13.18			15.60			41.10			44.52		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	26.57											
Intersection LOS	C											
Intersection V/C	0.341											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.518	2.528	2.478	2.484
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	667	667	489	489
d_b, Bicycle Delay [s]	20.00	20.00	25.69	25.69
I_b,int, Bicycle LOS Score for Intersection	1.945	1.862	1.815	1.825
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Beech Ave at SR-210 HOV Ramps

Control Type:	All-way stop	Delay (sec / veh):	18.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.664

Intersection Setup

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Base Volume Input [veh/h]	149	542	59	37	432	71	28	2	46	145	2	44
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	13	0	0	14	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	0	0	7	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	155	583	61	38	470	74	29	2	48	151	2	46
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	159	17	10	128	20	8	1	13	41	1	13
Total Analysis Volume [veh/h]	169	636	67	41	513	81	32	2	52	165	2	50
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	492	529	540	474	508	523	473	478
Degree of Utilization, x	0.34	0.66	0.65	0.09	0.58	0.57	0.18	0.45


Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.51	4.87	4.67	0.28	3.70	3.52	0.66	2.33
95th-Percentile Queue Length [ft]	37.81	121.70	116.72	7.07	92.61	87.90	16.43	58.26
Approach Delay [s/veh]	19.96			18.29			12.29	16.66
Approach LOS	C			C			B	C
Intersection Delay [s/veh]	18.61							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 3: Catawba Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	11.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name	Catawba Ave		Highland Ave		Highland Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Catawba Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	3	1	0	344	196	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	44	16	0
Site-Generated Trips [veh/h]	0	0	0	37	29	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	1	0	439	249	4
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	120	68	1
Total Analysis Volume [veh/h]	3	1	0	479	272	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	1	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.34	9.10	7.80	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.48	0.48	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.78		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.06					
Intersection LOS	B					

Intersection Level of Service Report
Intersection 4: Citrus Ave at SR-210 WB Ramps

Control Type:	Signalized	Delay (sec / veh):	22.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.718

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐ ↑			↓ ⇒						⇐ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Base Volume Input [veh/h]	441	808	0	0	570	479	0	0	0	249	1	275
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0000	1.0000	1.0400	1.0400	1.0000	1.0000	1.0000	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	55	76	0	0	82	35	0	0	0	37	0	28
Site-Generated Trips [veh/h]	23	11	0	0	16	0	0	0	0	30	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	107	0	0	0	0	0	31
Total Hourly Volume [veh/h]	537	927	0	0	691	426	0	0	0	326	1	283
Peak Hour Factor	0.9200	0.9200	1.0000	1.0000	0.9200	0.9200	1.0000	1.0000	1.0000	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	146	252	0	0	188	116	0	0	0	89	0	77
Total Analysis Volume [veh/h]	584	1008	0	0	751	463	0	0	0	354	1	308
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	0	0	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	0	0	0	0	10	0
Maximum Green [s]	30	30	0	0	30	0	0	0	0	0	0	30	0
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Split [s]	21	52	0	0	31	0	0	0	0	0	0	38	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	0	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	7	0	0	0	0	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No							No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No			No							No	
Maximum Recall	No	No			No							No	
Pedestrian Recall	No	No			No							No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R		L	C	R
C, Cycle Length [s]	90	90	90	90		90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	17	62	41	41		20	20	20
g / C, Green / Cycle	0.19	0.68	0.45	0.45		0.23	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.17	0.28	0.21	0.29		0.10	0.10	0.19
s, saturation flow rate [veh/h]	3459	3560	3560	1589		1781	1781	1589
c, Capacity [veh/h]	649	2435	1609	718		404	405	361
d1, Uniform Delay [s]	35.73	6.27	17.13	19.08		29.86	29.86	33.34
k, delay calibration	0.11	0.50	0.50	0.50		0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	4.85	0.52	0.98	4.42		0.75	0.75	5.76
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.41	0.47	0.64		0.44	0.44	0.85
d, Delay for Lane Group [s/veh]	40.58	6.79	18.11	23.50		30.61	30.61	39.10
Lane Group LOS	D	A	B	C		C	C	D
Critical Lane Group	Yes	No	No	Yes		No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.32	3.21	5.03	7.49		3.33	3.33	6.86
50th-Percentile Queue Length [ft/ln]	157.99	80.26	125.83	187.33		83.21	83.23	171.62
95th-Percentile Queue Length [veh/ln]	10.44	5.78	8.71	11.98		5.99	5.99	11.16
95th-Percentile Queue Length [ft/ln]	261.06	144.46	217.81	299.56		149.77	149.81	279.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.58	6.79	0.00	0.00	18.11	23.50	0.00	0.00	0.00	30.61	30.61	39.10
Movement LOS	D	A			B	C				C	C	D
d_A, Approach Delay [s/veh]	19.18				20.17		0.00				34.55	
Approach LOS	B				C		A				C	
d_I, Intersection Delay [s/veh]	22.46											
Intersection LOS	C											
Intersection V/C	0.718											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0		0.0		9.0		0.0	
M_corner, Corner Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		0.00		36.45		0.00	
l_p,int, Pedestrian LOS Score for Intersection	0.000		0.000		2.279		0.000	
Crosswalk LOS	F		F		B		F	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	1067		600		0		756	
d_b, Bicycle Delay [s]	9.80		22.05		45.00		17.42	
l_b,int, Bicycle LOS Score for Intersection	2.873		2.649		4.132		2.705	
Bicycle LOS	C		B		D		B	

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Citrus Ave at SR-210 EB Ramps

Control Type:	Signalized	Delay (sec / veh):	23.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.781

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↑↑			↑↑↑			↑↑↑↑					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Base Volume Input [veh/h]	0	787	443	228	695	0	343	3	340	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400	1.0400	1.0400	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	92	55	35	80	0	23	0	37	0	0	0
Site-Generated Trips [veh/h]	0	34	23	0	46	0	0	0	30	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	108	0	0	0	0	0	42	0	0	0
Total Hourly Volume [veh/h]	0	944	431	272	849	0	380	3	379	0	0	0
Peak Hour Factor	1.0000	0.9030	0.9030	0.9030	0.9030	1.0000	0.9030	0.9030	0.9030	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	261	119	75	235	0	105	1	105	0	0	0
Total Analysis Volume [veh/h]	0	1045	477	301	940	0	421	3	420	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss
Signal Group	0	6	0	5	2	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	5	10	0	0	10	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	43	0	13	56	0	0	34	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No				
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No			No				
Maximum Recall		No		No	No			No				
Pedestrian Recall		No		No	No			No				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C	R	
C, Cycle Length [s]	90	90	90	90	90	90	90	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	50	50	9	63	19	19	19	
g / C, Green / Cycle	0.56	0.56	0.10	0.70	0.21	0.21	0.21	
(v / s)_i Volume / Saturation Flow Rate	0.41	0.45	0.09	0.26	0.16	0.17	0.17	
s, saturation flow rate [veh/h]	1870	1684	3459	3560	1781	1677	1589	
c, Capacity [veh/h]	1040	937	346	2495	375	353	334	
d1, Uniform Delay [s]	14.94	16.16	39.92	5.47	33.50	33.71	33.90	
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11	0.11	
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	4.54	7.63	6.76	0.44	3.41	4.14	4.95	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.73	0.81	0.87	0.38	0.77	0.80	0.82	
d, Delay for Lane Group [s/veh]	19.48	23.79	46.69	5.91	36.91	37.85	38.85	
Lane Group LOS	B	C	D	A	D	D	D	
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	
50th-Percentile Queue Length [veh/ln]	10.95	12.41	3.45	2.64	6.18	6.10	6.04	
50th-Percentile Queue Length [ft/ln]	273.64	310.25	86.15	65.97	154.59	152.58	151.01	
95th-Percentile Queue Length [veh/ln]	16.37	18.19	6.20	4.75	10.26	10.15	10.07	
95th-Percentile Queue Length [ft/ln]	409.29	454.68	155.08	118.75	256.54	253.87	251.78	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	20.65	23.79	46.69	5.91	0.00	37.22	37.85	38.52	0.00	0.00	0.00
Movement LOS		C	C	D	A		D	D	D			
d_A, Approach Delay [s/veh]		21.64		15.80			37.86			0.00		
Approach LOS		C		B			D			A		
d_I, Intersection Delay [s/veh]	23.42											
Intersection LOS	C											
Intersection V/C	0.781											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0		0.0		9.0		0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00
d_p, Pedestrian Delay [s]	0.00		0.00		36.45		0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000		0.000		2.408		0.000
Crosswalk LOS	F		F		B		F
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000
c_b, Capacity of the bicycle lane [bicycles/h]	867		1156		667		0
d_b, Bicycle Delay [s]	14.45		8.02		20.00		45.00
I_b,int, Bicycle LOS Score for Intersection	2.904		2.583		3.022		4.132
Bicycle LOS	C		B		C		D

Sequence




Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Citrus Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	29.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.769

Intersection Setup

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	31	827	54	211	711	109	234	109	38	29	67	169
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	3	96	5	55	57	9	26	18	8	3	7	26
Site-Generated Trips [veh/h]	23	0	0	0	0	76	57	11	17	0	16	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	22	-20	-2	-4	-12	16	20	4	12	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	80	936	59	270	784	214	346	146	77	33	93	202
Peak Hour Factor	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	260	16	75	218	60	96	41	21	9	26	56
Total Analysis Volume [veh/h]	89	1041	66	300	872	238	385	162	86	37	103	225
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	29	0	14	33	0	14	33	0	14	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	24	0	0	21	0	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	39	39	10	43	43	10	22	22	3	15	15
g / C, Green / Cycle	0.06	0.44	0.44	0.11	0.48	0.48	0.11	0.24	0.24	0.03	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.05	0.29	0.04	0.09	0.24	0.15	0.11	0.05	0.05	0.02	0.03	0.14
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	3560	1589	1781	3560	1589
c, Capacity [veh/h]	114	1552	693	371	1707	762	384	870	388	62	598	267
d1, Uniform Delay [s]	41.52	20.24	14.94	39.26	16.15	14.34	40.00	26.93	27.17	42.82	32.09	36.29
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	11.12	2.33	0.27	4.19	1.10	1.07	21.78	0.10	0.28	8.91	0.14	7.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.78	0.67	0.10	0.81	0.51	0.31	1.00	0.19	0.22	0.60	0.17	0.84
d, Delay for Lane Group [s/veh]	52.64	22.57	15.22	43.45	17.25	15.41	61.78	27.03	27.46	51.73	32.22	43.41
Lane Group LOS	D	C	B	D	B	B	F	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.21	8.25	0.78	3.30	5.71	2.87	5.20	1.31	1.42	0.93	0.93	5.05
50th-Percentile Queue Length [ft/ln]	55.24	206.13	19.44	82.40	142.72	71.69	129.89	32.82	35.60	23.27	23.15	126.21
95th-Percentile Queue Length [veh/ln]	3.98	12.95	1.40	5.93	9.63	5.16	8.94	2.36	2.56	1.68	1.67	8.73
95th-Percentile Queue Length [ft/ln]	99.43	323.85	34.99	148.32	240.68	129.05	223.50	59.08	64.08	41.89	41.67	218.33

Movement, Approach, & Intersection Results

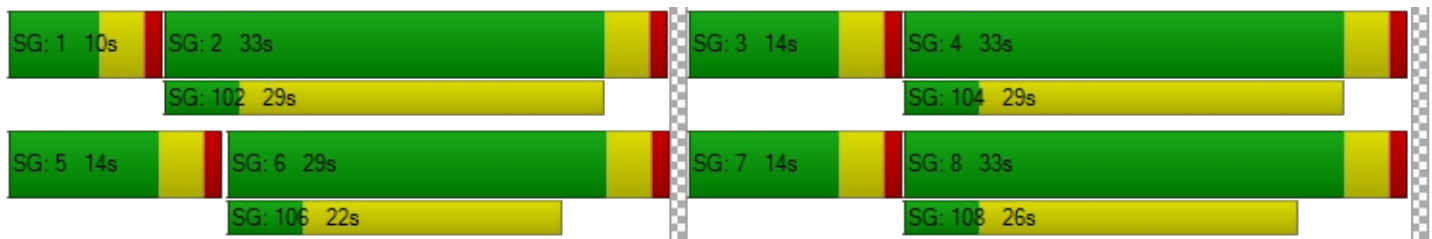
d_M, Delay for Movement [s/veh]	52.64	22.57	15.22	43.45	17.25	15.41	61.78	27.03	27.46	51.73	32.22	43.41
Movement LOS	D	C	B	D	B	B	F	C	C	D	C	D
d_A, Approach Delay [s/veh]	24.40			22.51			48.22			41.09		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	29.54											
Intersection LOS	C											
Intersection V/C	0.769											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.988	3.235	2.921	2.672
Crosswalk LOS	C	C	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	556	644	644	644
d_b, Bicycle Delay [s]	23.47	20.67	20.67	20.67
I_b,int, Bicycle LOS Score for Intersection	2.546	2.723	2.082	1.861
Bicycle LOS	B	B	B	A

Sequence





Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Citrus Ave at Walnut St**

Control Type:	Signalized	Delay (sec / veh):	12.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.470

Intersection Setup

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Base Volume Input [veh/h]	10	752	39	29	628	45	91	30	33	16	24	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	6	111	5	1	64	5	13	5	2	3	3	3
Site-Generated Trips [veh/h]	0	16	0	6	11	0	0	0	0	0	0	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	909	46	37	728	52	108	36	36	20	28	42
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	258	13	11	207	15	31	10	10	6	8	12
Total Analysis Volume [veh/h]	18	1033	52	42	827	59	123	41	41	23	32	48
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	32	19	0	41	28	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	21	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	58	58	3	60	60	16	16	16	16
g / C, Green / Cycle	0.02	0.65	0.65	0.04	0.66	0.66	0.18	0.18	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.01	0.29	0.03	0.02	0.24	0.24	0.09	0.05	0.02	0.05
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1827	1318	1718	1316	1691
c, Capacity [veh/h]	37	2303	1028	66	1240	1211	232	314	232	309
d1, Uniform Delay [s]	43.60	7.90	5.80	42.75	6.72	6.72	38.82	31.55	35.85	31.53
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.66	0.63	0.09	9.93	0.82	0.84	1.87	0.44	0.18	0.44
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.49	0.45	0.05	0.64	0.36	0.36	0.53	0.26	0.10	0.26
d, Delay for Lane Group [s/veh]	53.26	8.54	5.89	52.68	7.54	7.56	40.68	31.98	36.04	31.97
Lane Group LOS	D	A	A	D	A	A	D	C	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.48	4.03	0.31	1.06	3.14	3.08	2.70	1.53	0.46	1.49
50th-Percentile Queue Length [ft/ln]	11.99	100.66	7.73	26.59	78.58	76.92	67.44	38.23	11.42	37.29
95th-Percentile Queue Length [veh/ln]	0.86	7.25	0.56	1.91	5.66	5.54	4.86	2.75	0.82	2.68
95th-Percentile Queue Length [ft/ln]	21.57	181.18	13.91	47.87	141.44	138.46	121.39	68.81	20.56	67.12

Movement, Approach, & Intersection Results

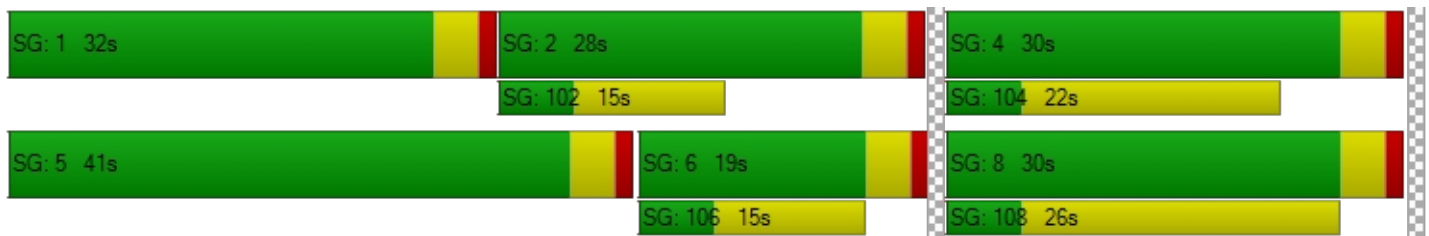
d_M, Delay for Movement [s/veh]	53.26	8.54	5.89	52.68	7.55	7.56	40.68	31.98	31.98	36.04	31.97	31.97
Movement LOS	D	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	9.14			9.59			37.20			32.88		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	12.83											
Intersection LOS	B											
Intersection V/C	0.470											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersection	2.973			3.100			2.061			2.032		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	333			533			578			578		
d_b, Bicycle Delay [s]	31.25			24.20			22.76			22.76		
I_b,int, Bicycle LOS Score for Intersection	2.470			2.325			1.898			1.730		
Bicycle LOS	B			B			A			A		

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Driveway 1/Jacaranda Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	13.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.021

Intersection Setup

Name	Jacaranda Ave			Driveway 1			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	Jacaranda Ave			Driveway 1			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	11	0	0	0	0	347	0	3	200	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	44	0	0	16	0
Site-Generated Trips [veh/h]	0	0	0	9	0	4	6	31	0	0	25	20
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	11	9	0	4	6	436	0	3	249	20
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	3	2	0	1	2	115	0	1	66	5
Total Analysis Volume [veh/h]	0	0	12	9	0	4	6	459	0	3	262	21
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.65	15.93	9.73	13.56	15.89	9.27	7.83	0.00	0.00	8.29	0.00	0.00
Movement LOS	B	C	A	B	C	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.08	0.08	0.08	0.01	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.18	1.18	1.18	1.96	1.96	1.96	0.35	0.00	0.00	0.21	0.10	0.00
d_A, Approach Delay [s/veh]	9.73			12.24			0.10			0.09		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	0.45											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 9: Driveway 2/Tokay Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	11.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.204

Intersection Setup

Name	Tokay Ave			Driveway 2			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┆			┆┆			┆┆┆			┆┆┆		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Tokay Ave			Driveway 2			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	11	0	0	0	0	358	0	4	203	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	44	0	0	16	0
Site-Generated Trips [veh/h]	0	0	0	76	0	10	31	9	0	0	35	45
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	36	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	11	112	0	10	31	425	0	4	262	45
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	3	29	0	3	8	112	0	1	69	12
Total Analysis Volume [veh/h]	0	0	12	118	0	11	33	447	0	4	276	47
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	43	0	0	43	0	15	20	0	27	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	9	0	0	12	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No			No	
Maximum Recall		No			No		No	No			No	
Pedestrian Recall		No			No		No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	3	66	66	63	63	63
g / C, Green / Cycle	0.13	0.13	0.13	0.03	0.73	0.73	0.70	0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.01	0.08	0.01	0.02	0.12	0.12	0.00	0.09	0.09
s, saturation flow rate [veh/h]	1589	1402	1589	1781	1870	1870	943	1870	1777
c, Capacity [veh/h]	211	223	211	56	1372	1372	0	1314	1249
d1, Uniform Delay [s]	34.11	39.64	34.08	43.03	3.62	3.62	0.00	4.36	4.37
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	1.95	0.10	9.67	0.26	0.26	0.00	0.19	0.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.53	0.05	0.59	0.16	0.16	10000.0	0.12	0.13
d, Delay for Lane Group [s/veh]	34.22	41.59	34.19	52.69	3.88	3.88	0.00	4.55	4.58
Lane Group LOS	C	D	C	D	A	A	F	A	A
Critical Lane Group	No	Yes	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh/ln]	0.24	2.67	0.22	0.84	0.88	0.88	0.00	0.77	0.75
50th-Percentile Queue Length [ft/ln]	5.91	66.77	5.42	21.10	22.06	22.06	0.00	19.16	18.75
95th-Percentile Queue Length [veh/ln]	0.43	4.81	0.39	1.52	1.59	1.59	0.00	1.38	1.35
95th-Percentile Queue Length [ft/ln]	10.64	120.18	9.75	37.98	39.70	39.70	0.00	34.49	33.75

Movement, Approach, & Intersection Results

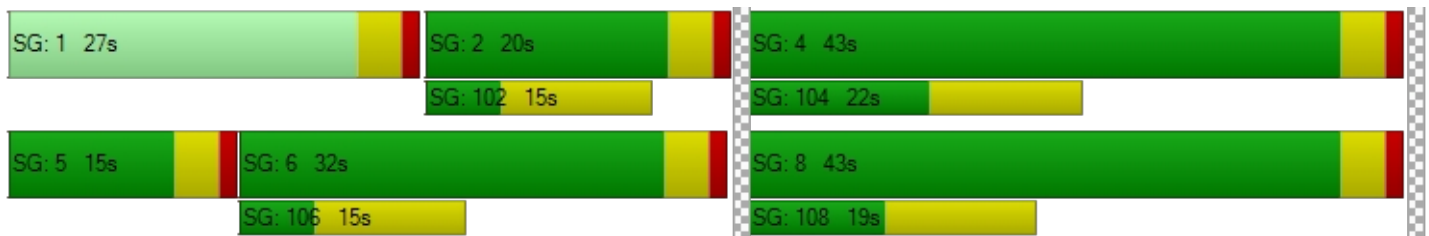
d_M, Delay for Movement [s/veh]	0.00	34.22	34.22	41.59	34.19	34.19	52.69	3.88	3.88	0.00	4.56	4.58
Movement LOS		C	C	D	C	C	D	A	A	A	A	A
d_A, Approach Delay [s/veh]		34.22		40.96			7.23		4.51			
Approach LOS		C		D			A		A			
d_I, Intersection Delay [s/veh]	11.22											
Intersection LOS	B											
Intersection V/C	0.204											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	16.0	13.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	30.42	32.94
I_p,int, Pedestrian LOS Score for Intersection	1.729	1.998	2.518	2.730
Crosswalk LOS	A	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	867	867	356	622
d_b, Bicycle Delay [s]	14.45	14.45	30.42	21.36
I_b,int, Bicycle LOS Score for Intersection	1.579	1.772	1.956	1.829
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report**Intersection 10: Driveway 3/Cherimoya Ave at Highland Ave**

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.018

Intersection Setup

Name	Cherimoya Ave			Driveway 3			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↶			↶			⊥			⊥		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	Cherimoya Ave			Driveway 3			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	12	0	0	0	0	369	0	0	207	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0400	1.0000	1.0000	1.0400	1.0000	1.0400	1.0000	1.0000	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	44	0	0	16	0
Site-Generated Trips [veh/h]	0	0	0	0	0	15	0	85	0	0	65	50
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	36	0	0	0	38
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	12	0	0	15	0	549	0	0	296	88
Peak Hour Factor	1.0000	1.0000	0.9500	1.0000	1.0000	0.9500	1.0000	0.9500	0.9500	1.0000	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	3	0	0	4	0	144	0	0	78	23
Total Analysis Volume [veh/h]	0	0	13	0	0	16	0	578	0	0	312	93
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	10.18	0.00	0.00	9.57	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			B			A		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.40	0.00	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.18			9.57			0.00			0.00		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	0.28											
Intersection LOS	B											

Fontana Square Project

Vistro File: K:\...\Fontana Square PM.vistro

Scenario 4 OY CUM WP PM

Report File: K:\...4 OY CUM WP PM.pdf

12/6/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Beech Ave at Highland Ave	Signalized	HCM 6th Edition	NB Left	0.545	29.6	C
2	Beech Ave at SR-210 HOV Ramps	All-way stop	HCM 6th Edition	NB Thru	0.615	17.2	C
3	Catawba Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.034	14.8	B
4	Citrus Ave at SR-210 WB Ramps	Signalized	HCM 6th Edition	WB Right	0.983	44.6	D
5	Citrus Ave at SR-210 EB Ramps	Signalized	HCM 6th Edition	SB Left	1.004	47.4	D
6	Citrus Ave at Highland Ave	Signalized	HCM 6th Edition	SB Left	0.990	49.6	D
7	Citrus Ave at Walnut St	Signalized	HCM 6th Edition	NB Left	0.557	13.8	B
8	Driveway 1/Jacaranda Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.090	22.6	C
9	Driveway 2/Tokay Ave at Highland Ave	Signalized	HCM 6th Edition	WB Left	0.270	9.2	A
10	Driveway 3/Cherimoya Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.013	10.8	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Beech Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	29.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.545

Intersection Setup

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	30	416	105	112	431	61	98	340	75	90	177	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	33	7	8	8	4	29	17	14	20	10	24	10
Site-Generated Trips [veh/h]	0	0	20	6	0	0	0	6	0	19	6	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	64	440	137	130	452	92	119	374	98	123	214	110
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	113	35	33	116	24	31	96	25	32	55	28
Total Analysis Volume [veh/h]	66	453	141	134	465	95	123	385	101	127	220	113
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	26	0	12	26	0	26	38	0	14	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	43	43	8	47	47	8	15	15	8	15	15
g / C, Green / Cycle	0.05	0.48	0.48	0.09	0.52	0.52	0.09	0.17	0.17	0.09	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.04	0.16	0.17	0.08	0.15	0.15	0.07	0.13	0.14	0.07	0.09	0.10
s, saturation flow rate [veh/h]	1781	1870	1720	1781	1870	1762	1781	1870	1738	1781	1870	1662
c, Capacity [veh/h]	86	894	823	158	970	914	159	310	289	158	310	275
d1, Uniform Delay [s]	42.33	14.66	14.69	40.39	12.31	12.32	40.09	36.14	36.20	40.22	34.53	34.64
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	13.26	1.05	1.16	11.60	0.78	0.83	7.76	4.96	5.58	9.01	1.59	1.92
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.77	0.34	0.35	0.85	0.30	0.30	0.77	0.81	0.82	0.80	0.56	0.58
d, Delay for Lane Group [s/veh]	55.59	15.72	15.85	51.99	13.09	13.15	47.85	41.11	41.77	49.23	36.12	36.56
Lane Group LOS	E	B	B	D	B	B	D	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.72	3.83	3.58	3.33	3.16	3.00	2.88	5.44	5.16	3.02	3.45	3.19
50th-Percentile Queue Length [ft/ln]	42.98	95.87	89.62	83.17	78.88	75.03	72.07	135.91	128.91	75.60	86.19	79.83
95th-Percentile Queue Length [veh/ln]	3.09	6.90	6.45	5.99	5.68	5.40	5.19	9.26	8.88	5.44	6.21	5.75
95th-Percentile Queue Length [ft/ln]	77.37	172.56	161.31	149.71	141.98	135.06	129.73	231.50	222.01	136.08	155.15	143.70

Movement, Approach, & Intersection Results

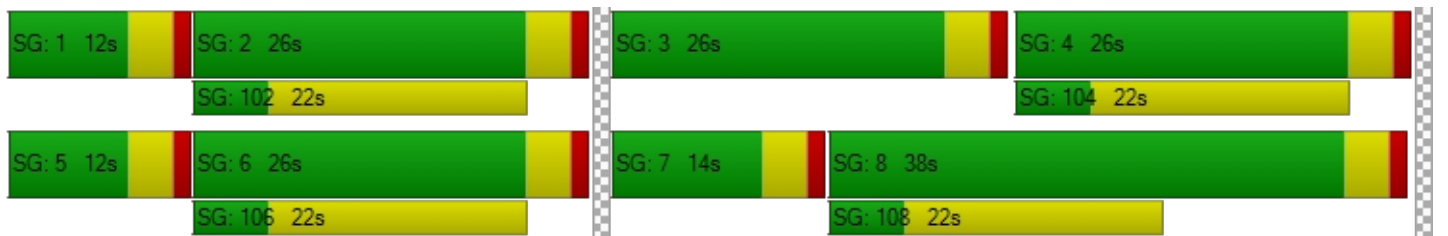
d_M, Delay for Movement [s/veh]	55.59	15.76	15.85	51.99	13.11	13.15	47.85	41.34	41.77	49.23	36.21	36.56
Movement LOS	E	B	B	D	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	19.76			20.62			42.73			39.89		
Approach LOS	B			C			D			D		
d_I, Intersection Delay [s/veh]	29.60											
Intersection LOS	C											
Intersection V/C	0.545											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.653	2.661	2.591	2.629
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	756	489
d_b, Bicycle Delay [s]	25.69	25.69	17.42	25.69
I_b,int, Bicycle LOS Score for Intersection	2.104	2.132	2.062	1.939
Bicycle LOS	B	B	B	A

Sequence





Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Beech Ave at SR-210 HOV Ramps

Control Type:	All-way stop	Delay (sec / veh):	17.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.615

Intersection Setup

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Base Volume Input [veh/h]	95	474	66	60	366	30	114	16	106	70	4	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	23	0	0	22	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	0	0	6	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	99	522	69	62	409	31	119	17	110	73	4	55
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	138	18	16	108	8	32	5	29	19	1	15
Total Analysis Volume [veh/h]	105	553	73	66	433	33	126	18	117	77	4	58
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	474	509	522	459	492	498	502	480
Degree of Utilization, x	0.22	0.61	0.60	0.14	0.47	0.47	0.52	0.29



Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.84	4.10	3.91	0.50	2.51	2.45	2.96	1.19
95th-Percentile Queue Length [ft]	20.93	102.50	97.84	12.47	62.75	61.32	74.00	29.77
Approach Delay [s/veh]	18.83			15.73			17.69	13.54
Approach LOS	C			C			C	B
Intersection Delay [s/veh]	17.22							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 3: Catawba Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	14.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.034

Intersection Setup

Name	Catawba Ave		Highland Ave		Highland Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Catawba Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	12	8	14	491	418	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	40	58	0
Site-Generated Trips [veh/h]	0	0	0	32	31	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	8	15	583	524	15
Peak Hour Factor	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	4	160	144	4
Total Analysis Volume [veh/h]	13	9	16	640	575	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	1	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.02	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	14.77	10.51	8.73	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.15	0.05	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.67	3.67	1.24	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	13.03		0.21		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.34					
Intersection LOS	B					

Intersection Level of Service Report
Intersection 4: Citrus Ave at SR-210 WB Ramps

Control Type:	Signalized	Delay (sec / veh):	44.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.983

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Base Volume Input [veh/h]	388	1433	0	0	840	484	0	0	0	509	1	545
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0000	1.0000	1.0400	1.0400	1.0000	1.0000	1.0000	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	64	95	0	0	99	33	0	0	0	78	0	55
Site-Generated Trips [veh/h]	24	13	0	0	14	0	0	0	0	27	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	107	0	0	0	0	0	62
Total Hourly Volume [veh/h]	492	1598	0	0	987	429	0	0	0	634	1	560
Peak Hour Factor	0.8940	0.8940	1.0000	1.0000	0.8940	0.8940	1.0000	1.0000	1.0000	0.8940	0.8940	0.8940
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	138	447	0	0	276	120	0	0	0	177	0	157
Total Analysis Volume [veh/h]	550	1787	0	0	1104	480	0	0	0	709	1	626
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0				0			0
v_di, Inbound Pedestrian Volume crossing in		0			0				0			0
v_co, Outbound Pedestrian Volume crossing		0			0				0			0
v_ci, Inbound Pedestrian Volume crossing mi		0			0				0			0
v_ab, Corner Pedestrian Volume [ped/h]		0			0				0			0
Bicycle Volume [bicycles/h]		0			0				0			0

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	0	0	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	0	0	0	10	0	
Maximum Green [s]	30	30	0	0	30	0	0	0	0	0	30	0	
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	
Split [s]	20	52	0	0	32	0	0	0	0	0	38	0	
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	
Walk [s]	0	5	0	0	5	0	0	0	0	0	5	0	
Pedestrian Clearance [s]	0	10	0	0	7	0	0	0	0	0	10	0	
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Rest In Walk		No			No						No		
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	
Minimum Recall	No	No			No						No		
Maximum Recall	No	No			No						No		
Pedestrian Recall	No	No			No						No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
I, Upstream Filtering 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	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R		L	C	R
C, Cycle Length [s]	90	90	90	90		90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	16	48	28	28		34	34	34
g / C, Green / Cycle	0.18	0.53	0.31	0.31		0.38	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.16	0.50	0.31	0.30		0.20	0.20	0.39
s, saturation flow rate [veh/h]	3459	3560	3560	1589		1781	1781	1589
c, Capacity [veh/h]	615	1899	1108	495		673	673	600
d1, Uniform Delay [s]	36.18	19.67	30.95	30.59		21.76	21.76	28.00
k, delay calibration	0.11	0.50	0.50	0.50		0.11	0.11	0.49
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	4.88	10.77	26.22	33.79		0.64	0.64	47.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.94	1.00	0.97		0.53	0.53	1.04
d, Delay for Lane Group [s/veh]	41.05	30.44	57.17	64.38		22.40	22.40	75.83
Lane Group LOS	D	C	E	E		C	C	F
Critical Lane Group	No	Yes	No	No		No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.97	17.37	14.96	14.03		5.74	5.74	20.21
50th-Percentile Queue Length [ft/ln]	149.31	434.31	374.02	350.81		143.46	143.46	505.14
95th-Percentile Queue Length [veh/ln]	9.98	24.21	21.30	20.18		9.67	9.67	28.38
95th-Percentile Queue Length [ft/ln]	249.51	605.20	532.61	504.39		241.68	241.67	709.62

Movement, Approach, & Intersection Results

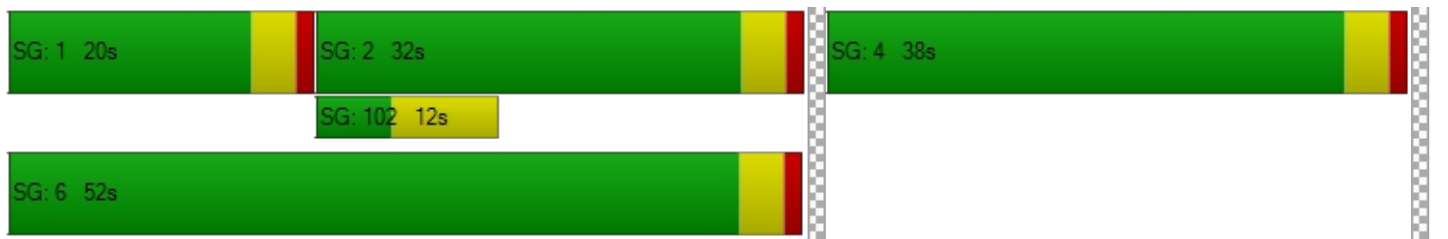
d_M, Delay for Movement [s/veh]	41.05	30.44	0.00	0.00	57.17	64.38	0.00	0.00	0.00	22.40	22.40	75.83
Movement LOS	D	C			E	E				C	C	F
d_A, Approach Delay [s/veh]	32.94		59.36		0.00		47.43					
Approach LOS	C		E		A		D					
d_I, Intersection Delay [s/veh]	44.58											
Intersection LOS	D											
Intersection V/C	0.983											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.271	0.000
Crosswalk LOS	F	F	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1067	622	0	756
d_b, Bicycle Delay [s]	9.80	21.36	45.00	17.42
I_b,int, Bicycle LOS Score for Intersection	3.488	2.955	4.132	3.866
Bicycle LOS	C	C	D	D

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Citrus Ave at SR-210 EB Ramps

Control Type:	Signalized	Delay (sec / veh):	47.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.004

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↑↑			↑↑↑			↑↑↑↑					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Base Volume Input [veh/h]	0	1144	422	269	1066	0	675	4	427	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400	1.0400	1.0400	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	124	64	33	132	0	41	0	78	0	0	0
Site-Generated Trips [veh/h]	0	37	25	0	41	0	0	0	27	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	106	0	0	0	0	0	55	0	0	0
Total Hourly Volume [veh/h]	0	1351	422	313	1282	0	743	4	494	0	0	0
Peak Hour Factor	1.0000	0.9450	0.9450	0.9450	0.9450	1.0000	0.9450	0.9450	0.9450	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	357	112	83	339	0	197	1	131	0	0	0
Total Analysis Volume [veh/h]	0	1430	447	331	1357	0	786	4	523	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss
Signal Group	0	6	0	5	2	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	5	10	0	0	10	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	50	0	12	62	0	0	28	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No				
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No			No				
Maximum Recall		No		No	No			No				
Pedestrian Recall		No		No	No			No				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C	R	
C, Cycle Length [s]	90	90	90	90	90	90	90	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	46	46	8	58	24	24	24	
g / C, Green / Cycle	0.51	0.51	0.09	0.64	0.27	0.27	0.27	
(v / s)_i Volume / Saturation Flow Rate	0.50	0.54	0.10	0.38	0.25	0.25	0.28	
s, saturation flow rate [veh/h]	1870	1725	3459	3560	1781	1741	1589	
c, Capacity [veh/h]	956	882	307	2295	475	464	424	
d1, Uniform Delay [s]	21.59	22.00	41.00	9.19	32.08	32.33	33.00	
k, delay calibration	0.50	0.50	0.11	0.50	0.26	0.27	0.32	
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	25.07	48.98	47.43	1.13	15.85	19.62	43.78	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.98	1.06	1.08	0.59	0.92	0.94	1.03	
d, Delay for Lane Group [s/veh]	46.66	70.98	88.43	10.32	47.94	51.94	76.78	
Lane Group LOS	D	F	F	B	D	D	F	
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	
50th-Percentile Queue Length [veh/ln]	22.97	27.61	5.27	6.20	11.06	11.56	14.08	
50th-Percentile Queue Length [ft/ln]	574.15	690.18	131.66	154.91	276.39	289.05	352.12	
95th-Percentile Queue Length [veh/ln]	30.83	38.03	9.26	10.28	16.51	17.14	20.63	
95th-Percentile Queue Length [ft/ln]	770.63	950.80	231.44	256.97	412.72	428.46	515.69	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	55.02	70.98	88.43	10.32	0.00	49.71	51.94	72.73	0.00	0.00	0.00
Movement LOS		E	E	F	B		D	D	E			
d_A, Approach Delay [s/veh]		58.82		25.64			58.89			0.00		
Approach LOS		E		C			E			A		
d_I, Intersection Delay [s/veh]	47.35											
Intersection LOS	D											
Intersection V/C	1.004											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0		0.0		9.0		0.0	
M_corner, Corner Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		0.00		36.45		0.00	
I_p,int, Pedestrian LOS Score for Intersection	0.000		0.000		2.544		0.000	
Crosswalk LOS	F		F		B		F	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	1022		1289		533		0	
d_b, Bicycle Delay [s]	10.76		5.69		24.20		45.00	
I_b,int, Bicycle LOS Score for Intersection	3.196		2.952		3.817		4.132	
Bicycle LOS	C		C		D		D	

Sequence




Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Citrus Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	49.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.990

Intersection Setup

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	57	1012	97	277	981	230	216	256	53	72	167	335
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	10	81	15	74	110	29	17	24	7	16	30	88
Site-Generated Trips [veh/h]	20	0	0	0	0	68	62	13	19	0	14	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	25	-22	-3	-5	-13	18	21	4	12	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	114	1111	113	357	1117	354	325	307	93	91	218	436
Peak Hour Factor	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	289	29	93	290	92	84	80	24	24	57	113
Total Analysis Volume [veh/h]	119	1155	117	371	1161	368	338	319	97	95	227	453
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	31	0	13	34	0	13	30	0	16	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	24	0	0	21	0	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	29	29	9	32	32	9	30	30	6	27	27
g / C, Green / Cycle	0.07	0.32	0.32	0.10	0.35	0.35	0.10	0.34	0.34	0.07	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.07	0.32	0.07	0.11	0.33	0.23	0.10	0.09	0.06	0.05	0.06	0.28
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	3560	1589	1781	3560	1589
c, Capacity [veh/h]	119	1130	504	346	1249	557	346	1192	532	125	1086	485
d1, Uniform Delay [s]	42.00	30.72	22.64	40.50	28.15	24.69	40.40	21.86	21.20	41.12	23.22	30.41
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.34
l, Upstream Filtering 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
d2, Incremental Delay [s]	38.95	32.53	1.07	44.82	13.41	6.04	17.71	0.12	0.16	9.21	0.09	21.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	1.00	1.02	0.23	1.07	0.93	0.66	0.98	0.27	0.18	0.76	0.21	0.93
d, Delay for Lane Group [s/veh]	80.95	63.25	23.71	85.32	41.57	30.73	58.10	21.98	21.36	50.33	23.32	51.68
Lane Group LOS	F	F	C	F	D	C	E	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.80	16.28	1.86	5.79	13.24	7.00	4.40	2.30	1.37	2.30	1.69	11.61
50th-Percentile Queue Length [ft/ln]	94.99	406.94	46.39	144.78	330.93	175.01	109.93	57.62	34.29	57.41	42.22	290.37
95th-Percentile Queue Length [veh/ln]	6.84	23.22	3.34	9.99	19.20	11.34	7.84	4.15	2.47	4.13	3.04	17.20
95th-Percentile Queue Length [ft/ln]	170.97	580.54	83.50	249.64	480.10	283.49	195.90	103.72	61.72	103.34	76.00	430.10

Movement, Approach, & Intersection Results

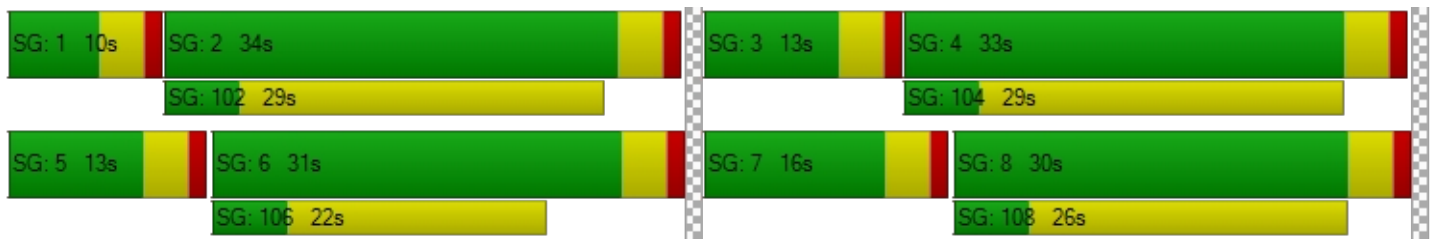
d_M, Delay for Movement [s/veh]	80.95	63.25	23.71	85.32	41.57	30.73	58.10	21.98	21.36	50.33	23.32	51.68
Movement LOS	F	F	C	F	D	C	E	C	C	D	C	D
d_A, Approach Delay [s/veh]	61.44			48.01			38.10			43.21		
Approach LOS	E			D			D			D		
d_I, Intersection Delay [s/veh]	49.56											
Intersection LOS	D											
Intersection V/C	0.990											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.123	3.399	2.995	2.840
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	667	578	644
d_b, Bicycle Delay [s]	22.05	20.00	22.76	20.67
I_b,int, Bicycle LOS Score for Intersection	2.707	3.127	2.182	2.199
Bicycle LOS	B	C	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Citrus Ave at Walnut St**

Control Type:	Signalized	Delay (sec / veh):	13.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.557

Intersection Setup

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Base Volume Input [veh/h]	45	1149	83	37	906	94	73	49	37	31	39	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	5	104	5	3	137	14	10	5	7	5	5	2
Site-Generated Trips [veh/h]	0	14	0	6	13	0	0	0	0	0	0	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	52	1313	91	47	1092	112	86	56	45	37	46	46
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	343	24	12	286	29	22	15	12	10	12	12
Total Analysis Volume [veh/h]	54	1373	95	49	1142	117	90	59	47	39	48	48
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	41	51	0	9	19	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	21	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	59	59	4	59	59	15	15	15	15
g / C, Green / Cycle	0.04	0.66	0.66	0.04	0.66	0.66	0.17	0.17	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.03	0.39	0.06	0.03	0.34	0.34	0.07	0.06	0.03	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1810	1299	1734	1288	1718
c, Capacity [veh/h]	75	2347	1048	70	1228	1188	199	292	191	289
d1, Uniform Delay [s]	42.60	8.51	5.56	42.71	8.06	8.07	39.91	33.16	38.73	32.98
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.44	1.07	0.17	11.96	1.58	1.64	1.61	0.76	0.52	0.67
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.72	0.58	0.09	0.70	0.52	0.52	0.45	0.36	0.20	0.33
d, Delay for Lane Group [s/veh]	55.04	9.58	5.73	54.67	9.64	9.72	41.52	33.92	39.25	33.65
Lane Group LOS	E	A	A	D	A	A	D	C	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	1.39	5.90	0.55	1.26	5.41	5.28	1.98	2.06	0.82	1.85
50th-Percentile Queue Length [ft/ln]	34.84	147.42	13.78	31.57	135.16	132.03	49.59	51.43	20.52	46.27
95th-Percentile Queue Length [veh/ln]	2.51	9.88	0.99	2.27	9.22	9.05	3.57	3.70	1.48	3.33
95th-Percentile Queue Length [ft/ln]	62.71	246.98	24.81	56.83	230.49	226.25	89.26	92.57	36.93	83.29

Movement, Approach, & Intersection Results

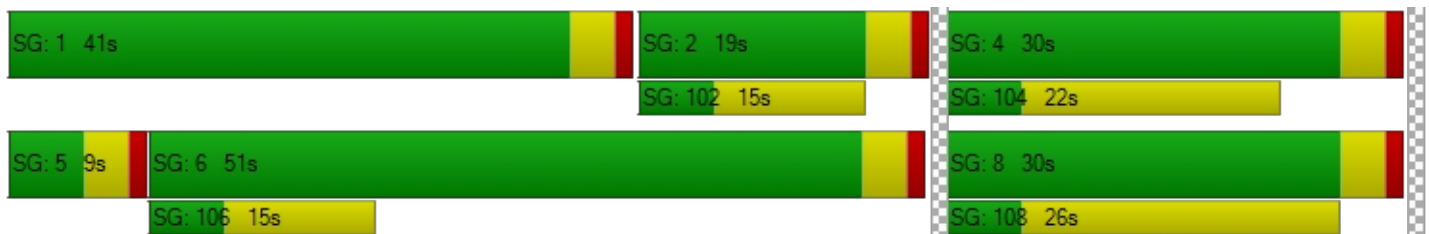
d_M, Delay for Movement [s/veh]	55.04	9.58	5.73	54.67	9.67	9.72	41.52	33.92	33.92	39.25	33.65	33.65
Movement LOS	E	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	10.95			11.36			37.41			35.27		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	13.80											
Intersection LOS	B											
Intersection V/C	0.557											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.180	3.254	2.099	2.070
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1044	333	578	578
d_b, Bicycle Delay [s]	10.27	31.25	22.76	22.76
I_b,int, Bicycle LOS Score for Intersection	2.815	2.639	1.883	1.782
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Driveway 1/Jacaranda Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	22.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.090

Intersection Setup

Name	Jacaranda Ave			Driveway 1			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	Jacaranda Ave			Driveway 1			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	7	0	0	0	0	503	0	11	431	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	40	0	0	58	0
Site-Generated Trips [veh/h]	0	0	0	19	0	6	5	27	0	0	25	17
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	7	19	0	6	5	590	0	11	531	17
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	2	5	0	2	1	155	0	3	140	4
Total Analysis Volume [veh/h]	0	0	7	20	0	6	5	621	0	12	559	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.09	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	21.79	25.95	10.31	22.63	27.11	11.56	8.65	0.00	0.00	8.81	0.00	0.00
Movement LOS	C	D	B	C	D	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.32	0.32	0.32	0.02	0.00	0.00	0.04	0.02	0.00
95th-Percentile Queue Length [ft/ln]	0.77	0.77	0.77	8.08	8.08	8.08	0.38	0.00	0.00	0.95	0.48	0.00
d_A, Approach Delay [s/veh]	10.31			20.08			0.07			0.18		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	0.60											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 9: Driveway 2/Tokay Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	9.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.270

Intersection Setup

Name	Tokay Ave			Driveway 2			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Tokay Ave			Driveway 2			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	7	0	0	0	0	510	0	12	442	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	40	0	0	58	0
Site-Generated Trips [veh/h]	0	0	0	75	0	15	27	19	0	0	27	50
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	37	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	7	112	0	15	27	589	0	12	545	50
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	2	29	0	4	7	155	0	3	143	13
Total Analysis Volume [veh/h]	0	0	7	118	0	16	28	620	0	13	574	53
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	45	19	0	45	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	7	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	3	67	67	1	66	66
g / C, Green / Cycle	0.11	0.11	0.11	0.03	0.74	0.74	0.02	0.73	0.73
(v / s)_i Volume / Saturation Flow Rate	0.00	0.08	0.01	0.02	0.17	0.17	0.01	0.17	0.17
s, saturation flow rate [veh/h]	1589	1408	1589	1781	1870	1870	1781	1870	1815
c, Capacity [veh/h]	211	196	171	51	1389	1389	29	1366	1326
d1, Uniform Delay [s]	36.01	39.21	36.21	43.12	3.57	3.57	43.87	3.94	3.94
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.06	2.95	0.24	8.74	0.37	0.37	10.47	0.40	0.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.60	0.09	0.55	0.22	0.22	0.45	0.23	0.23
d, Delay for Lane Group [s/veh]	36.07	42.16	36.45	51.86	3.94	3.94	54.34	4.34	4.36
Lane Group LOS	D	D	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.14	2.70	0.33	0.71	1.20	1.20	0.36	1.36	1.33
50th-Percentile Queue Length [ft/ln]	3.55	67.40	8.22	17.85	30.05	30.05	9.00	34.03	33.28
95th-Percentile Queue Length [veh/ln]	0.26	4.85	0.59	1.29	2.16	2.16	0.65	2.45	2.40
95th-Percentile Queue Length [ft/ln]	6.39	121.33	14.80	32.13	54.08	54.08	16.19	61.25	59.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.07	36.07	36.07	42.16	36.45	36.45	51.86	3.94	3.94	54.34	4.35	4.36
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	36.07			41.48			6.01			5.36		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	9.19											
Intersection LOS	A											
Intersection V/C	0.270											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	1.724	2.000	2.756	2.874
Crosswalk LOS	A	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	333	333
d_b, Bicycle Delay [s]	25.69	25.69	31.25	31.25
I_b,int, Bicycle LOS Score for Intersection	1.571	1.781	2.094	2.088
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report**Intersection 10: Driveway 3/Cherimoya Ave at Highland Ave**

Control Type:	Two-way stop	Delay (sec / veh):	10.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

Intersection Setup

Name	Cherimoya Ave			Driveway 3			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↶			↶			↶↷			↶↷		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	Cherimoya Ave			Driveway 3			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	8	0	0	0	0	517	0	0	454	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0400	1.0000	1.0000	1.0400	1.0000	1.0400	1.0400	1.0000	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	40	0	0	58	0
Site-Generated Trips [veh/h]	0	0	0	0	0	10	0	94	0	0	67	35
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	37	0	0	0	43
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	8	0	0	10	0	709	0	0	597	78
Peak Hour Factor	1.0000	1.0000	0.9500	1.0000	1.0000	0.9500	1.0000	0.9500	0.9500	1.0000	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	2	0	0	3	0	187	0	0	157	21
Total Analysis Volume [veh/h]	0	0	8	0	0	11	0	746	0	0	628	82
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	10.84	0.00	0.00	10.71	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			B			B		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.04	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.97	0.00	0.00	1.31	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.84			10.71			0.00			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.14											
Intersection LOS	B											

Fontana Square Project

Vistro File: K:\...\Fontana Square AM.vistro

Scenario 5 HY AM

Report File: K:\...\5 HY AM.pdf

12/6/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Beech Ave at Highland Ave	Signalized	HCM 6th Edition	SB Left	0.394	26.2	C
2	Beech Ave at SR-210 HOV Ramps	All-way stop	HCM 6th Edition	NB Thru	0.775	24.7	C
3	Catawba Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.007	13.1	B
4	Citrus Ave at SR-210 WB Ramps	Signalized	HCM 6th Edition	WB Right	0.744	23.9	C
5	Citrus Ave at SR-210 EB Ramps	Signalized	HCM 6th Edition	SB Left	0.735	22.6	C
6	Citrus Ave at Highland Ave	Signalized	HCM 6th Edition	NB Left	0.739	27.4	C
7	Citrus Ave at Walnut St	Signalized	HCM 6th Edition	SB Left	0.443	13.8	B
8	Driveway 1/Jacaranda Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.020	11.1	B
9	Driveway 2/Tokay Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.016	9.8	A
10	Driveway 3/Cherimoya Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.017	9.8	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Beech Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	26.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.394

Intersection Setup

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↵ ↑			↵ ↑			↵ ↑			↵ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	78	417	104	44	346	56	84	135	63	81	258	68
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	417	104	44	346	56	84	135	63	81	258	68
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	110	27	12	91	15	22	36	17	21	68	18
Total Analysis Volume [veh/h]	82	439	109	46	364	59	88	142	66	85	272	72
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	34	0	11	34	0	19	26	0	19	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	54	54	3	52	52	6	11	11	6	11	11
g / C, Green / Cycle	0.06	0.60	0.60	0.04	0.58	0.58	0.06	0.13	0.13	0.06	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.05	0.15	0.15	0.03	0.12	0.12	0.05	0.06	0.06	0.05	0.09	0.10
s, saturation flow rate [veh/h]	1781	1870	1744	1781	1870	1781	1781	1870	1677	1781	1870	1738
c, Capacity [veh/h]	105	1113	1038	68	1074	1023	115	236	212	111	232	216
d1, Uniform Delay [s]	41.76	8.68	8.69	42.72	9.21	9.22	41.44	36.45	36.56	41.55	38.12	38.21
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	11.63	0.55	0.59	11.01	0.42	0.45	10.16	1.36	1.67	10.40	5.07	5.93
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.78	0.25	0.26	0.67	0.20	0.20	0.77	0.45	0.48	0.77	0.76	0.78
d, Delay for Lane Group [s/veh]	53.38	9.23	9.28	53.74	9.63	9.67	51.60	37.81	38.23	51.94	43.19	44.14
Lane Group LOS	D	A	A	D	A	A	D	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.08	2.42	2.29	1.19	1.90	1.84	2.16	2.16	2.06	2.10	3.90	3.76
50th-Percentile Queue Length [ft/ln]	51.88	60.46	57.24	29.66	47.44	45.99	54.00	54.11	51.58	52.39	97.44	93.94
95th-Percentile Queue Length [veh/ln]	3.74	4.35	4.12	2.14	3.42	3.31	3.89	3.90	3.71	3.77	7.02	6.76
95th-Percentile Queue Length [ft/ln]	93.39	108.83	103.03	53.39	85.39	82.79	97.19	97.41	92.84	94.30	175.39	169.09

Movement, Approach, & Intersection Results

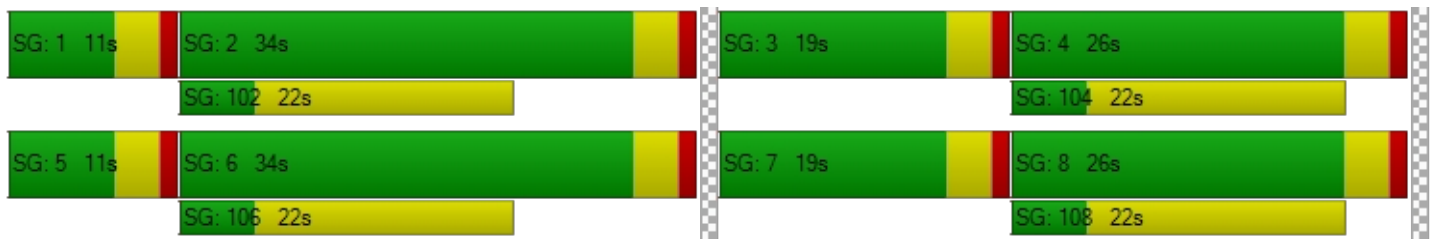
d_M, Delay for Movement [s/veh]	53.38	9.25	9.28	53.74	9.64	9.67	51.60	37.91	38.23	51.94	43.52	44.14
Movement LOS	D	A	A	D	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	15.00			13.97			42.05			45.29		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	26.25											
Intersection LOS	C											
Intersection V/C	0.394											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.599	2.579	2.509	2.514
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	667	667	489	489
d_b, Bicycle Delay [s]	20.00	20.00	25.69	25.69
I_b,int, Bicycle LOS Score for Intersection	2.079	1.947	1.804	1.914
Bicycle LOS	B	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Beech Ave at SR-210 HOV Ramps

Control Type:	All-way stop	Delay (sec / veh):	24.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.775

Intersection Setup

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Base Volume Input [veh/h]	180	655	61	38	556	79	29	2	48	161	2	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	180	655	61	38	556	79	29	2	48	161	2	46
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	179	17	10	152	22	8	1	13	44	1	13
Total Analysis Volume [veh/h]	197	715	67	41	607	86	32	2	52	176	2	50
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	470	505	513	454	485	497	441	448
Degree of Utilization, x	0.42	0.78	0.76	0.09	0.72	0.70	0.20	0.51

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.04	6.95	6.68	0.30	5.67	5.38	0.72	2.82
95th-Percentile Queue Length [ft]	51.00	173.71	167.06	7.42	141.70	134.61	17.89	70.40
Approach Delay [s/veh]	26.79			25.03			13.13	19.04
Approach LOS	D			D			B	C
Intersection Delay [s/veh]	24.70							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 3: Catawba Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	13.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	Catawba Ave		Highland Ave		Highland Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Catawba Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	3	1	0	435	380	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	1	0	435	380	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	114	100	1
Total Analysis Volume [veh/h]	3	1	0	458	400	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	1	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.10	10.61	8.12	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.62	0.62	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.48		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.06					
Intersection LOS	B					

Intersection Level of Service Report
Intersection 4: Citrus Ave at SR-210 WB Ramps

Control Type:	Signalized	Delay (sec / veh):	23.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.744

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐ ↑			↓ ⇐						⇐ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Base Volume Input [veh/h]	514	934	0	0	675	533	0	0	0	302	1	402
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	107	0	0	0	0	0	40
Total Hourly Volume [veh/h]	514	934	0	0	675	426	0	0	0	302	1	362
Peak Hour Factor	0.9500	0.9500	1.0000	1.0000	0.9500	0.9500	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	135	246	0	0	178	112	0	0	0	79	0	95
Total Analysis Volume [veh/h]	541	983	0	0	711	448	0	0	0	318	1	381
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	0	0	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	0	0	0	0	10	0
Maximum Green [s]	30	30	0	0	30	0	0	0	0	0	0	30	0
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Split [s]	21	52	0	0	31	0	0	0	0	0	0	38	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	0	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	7	0	0	0	0	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No							No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No			No							No	
Maximum Recall	No	No			No							No	
Pedestrian Recall	No	No			No							No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R		L	C	R
C, Cycle Length [s]	90	90	90	90		90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	16	58	38	38		24	24	24
g / C, Green / Cycle	0.18	0.64	0.42	0.42		0.27	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.16	0.28	0.20	0.28		0.09	0.09	0.24
s, saturation flow rate [veh/h]	3459	3560	3560	1589		1781	1781	1589
c, Capacity [veh/h]	615	2281	1490	665		482	482	430
d1, Uniform Delay [s]	36.06	8.03	19.02	21.20		26.31	26.31	31.50
k, delay calibration	0.11	0.50	0.50	0.50		0.11	0.11	0.19
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	4.28	0.60	1.10	5.39		0.40	0.40	10.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	0.43	0.48	0.67		0.33	0.33	0.89
d, Delay for Lane Group [s/veh]	40.33	8.62	20.12	26.59		26.71	26.71	41.64
Lane Group LOS	D	A	C	C		C	C	D
Critical Lane Group	Yes	No	No	Yes		No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.81	3.86	5.10	7.84		2.74	2.75	8.91
50th-Percentile Queue Length [ft/ln]	145.34	96.53	127.44	195.88		68.62	68.63	222.73
95th-Percentile Queue Length [veh/ln]	9.77	6.95	8.80	12.43		4.94	4.94	13.80
95th-Percentile Queue Length [ft/ln]	244.20	173.75	220.00	310.65		123.51	123.54	345.10

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.33	8.62	0.00	0.00	20.12	26.59	0.00	0.00	0.00	26.71	26.71	41.64
Movement LOS	D	A			C	C				C	C	D
d_A, Approach Delay [s/veh]	19.88				22.62		0.00		34.83			
Approach LOS	B				C		A		C			
d_I, Intersection Delay [s/veh]	23.91											
Intersection LOS	C											
Intersection V/C	0.744											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0		0.0		9.0		0.0	
M_corner, Corner Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		0.00		36.45		0.00	
I_p,int, Pedestrian LOS Score for Intersection	0.000		0.000		2.251		0.000	
Crosswalk LOS	F		F		B		F	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	1067		600		0		756	
d_b, Bicycle Delay [s]	9.80		22.05		45.00		17.42	
I_b,int, Bicycle LOS Score for Intersection	2.817		2.604		4.132		2.781	
Bicycle LOS	C		B		D		C	

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Citrus Ave at SR-210 EB Ramps

Control Type:	Signalized	Delay (sec / veh):	22.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.735

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↑↑			↑↑↑			↑↑↑					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Base Volume Input [veh/h]	0	910	516	272	803	0	381	79	391	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	103	0	0	0	0	0	39	0	0	0
Total Hourly Volume [veh/h]	0	910	413	272	803	0	381	79	352	0	0	0
Peak Hour Factor	1.0000	0.9500	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500	0.9500	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	239	109	72	211	0	100	21	93	0	0	0
Total Analysis Volume [veh/h]	0	958	435	286	845	0	401	83	371	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss
Signal Group	0	6	0	5	2	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	5	10	0	0	10	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	43	0	13	56	0	0	34	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No				
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No			No				
Maximum Recall		No		No	No			No				
Pedestrian Recall		No		No	No			No				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C	R	
C, Cycle Length [s]	90	90	90	90	90	90	90	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	50	50	9	63	19	19	19	
g / C, Green / Cycle	0.56	0.56	0.10	0.70	0.21	0.21	0.21	
(v / s)_i Volume / Saturation Flow Rate	0.37	0.41	0.08	0.24	0.16	0.17	0.17	
s, saturation flow rate [veh/h]	1870	1684	3459	3560	1781	1736	1589	
c, Capacity [veh/h]	1038	935	346	2490	377	368	337	
d1, Uniform Delay [s]	14.21	15.20	39.74	5.34	33.41	33.51	33.84	
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11	0.11	
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	3.46	5.38	5.05	0.37	3.37	3.66	4.98	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.67	0.75	0.83	0.34	0.77	0.78	0.82	
d, Delay for Lane Group [s/veh]	17.67	20.59	44.78	5.71	36.78	37.17	38.82	
Lane Group LOS	B	C	D	A	D	D	D	
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	
50th-Percentile Queue Length [veh/ln]	9.37	10.36	3.19	2.31	6.21	6.18	6.10	
50th-Percentile Queue Length [ft/ln]	234.30	258.94	79.85	57.69	155.22	154.52	152.48	
95th-Percentile Queue Length [veh/ln]	14.39	15.64	5.75	4.15	10.30	10.26	10.15	
95th-Percentile Queue Length [ft/ln]	359.81	390.89	143.74	103.84	257.38	256.46	253.74	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	18.47	20.59	44.78	5.71	0.00	36.89	37.17	38.43	0.00	0.00	0.00
Movement LOS		B	C	D	A		D	D	D			
d_A, Approach Delay [s/veh]		19.13		15.59			37.57			0.00		
Approach LOS		B		B			D			A		
d_I, Intersection Delay [s/veh]	22.61											
Intersection LOS	C											
Intersection V/C	0.735											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0		0.0			9.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00		0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00		0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00		0.00			36.45			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000		0.000			2.406			0.000		
Crosswalk LOS	F		F			B			F		
s_b, Saturation Flow Rate of the bicycle lane	2000		2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	867		1156			667			0		
d_b, Bicycle Delay [s]	14.45		8.02			20.00			45.00		
I_b,int, Bicycle LOS Score for Intersection	2.794		2.493			3.035			4.132		
Bicycle LOS	C		B			C			D		

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Citrus Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	27.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.739

Intersection Setup

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	[Diagram]			[Diagram]			[Diagram]			[Diagram]		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	57	956	92	290	796	163	269	188	48	49	171	234
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	956	92	290	796	163	269	188	48	49	171	234
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	252	24	76	209	43	71	49	13	13	45	62
Total Analysis Volume [veh/h]	60	1006	97	305	838	172	283	198	51	52	180	246
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	29	0	14	33	0	14	33	0	14	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	24	0	0	21	0	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	39	39	10	44	44	9	22	22	4	16	16
g / C, Green / Cycle	0.04	0.43	0.43	0.11	0.49	0.49	0.10	0.24	0.24	0.04	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.03	0.28	0.06	0.09	0.24	0.11	0.08	0.06	0.03	0.03	0.10	0.15
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	3560	1589	1781	1870	1589
c, Capacity [veh/h]	78	1523	680	376	1755	783	356	870	388	74	342	291
d1, Uniform Delay [s]	42.60	20.54	15.69	39.21	15.13	12.98	39.44	27.22	26.55	42.58	33.25	35.55
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	14.92	2.27	0.44	4.24	0.93	0.65	4.05	0.13	0.15	11.48	1.26	6.73
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.77	0.66	0.14	0.81	0.48	0.22	0.79	0.23	0.13	0.70	0.53	0.85
d, Delay for Lane Group [s/veh]	57.52	22.80	16.13	43.45	16.07	13.62	43.49	27.35	26.71	54.06	34.51	42.29
Lane Group LOS	E	C	B	D	B	B	D	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.59	8.00	1.19	3.35	5.21	1.90	3.11	1.62	0.82	1.33	3.48	5.45
50th-Percentile Queue Length [ft/ln]	39.63	200.04	29.79	83.80	130.32	47.38	77.68	40.56	20.60	33.23	87.01	136.37
95th-Percentile Queue Length [veh/ln]	2.85	12.64	2.14	6.03	8.96	3.41	5.59	2.92	1.48	2.39	6.26	9.29
95th-Percentile Queue Length [ft/ln]	71.33	316.02	53.62	150.84	223.93	85.28	139.82	73.01	37.07	59.81	156.62	232.13

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.52	22.80	16.13	43.45	16.07	13.62	43.49	27.35	26.71	54.06	34.51	42.29
Movement LOS	E	C	B	D	B	B	D	C	C	D	C	D
d_A, Approach Delay [s/veh]	24.04			22.10			35.87			40.64		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	27.39											
Intersection LOS	C											
Intersection V/C	0.739											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.967	3.191	2.793	2.617
Crosswalk LOS	C	C	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	556	644	644	644
d_b, Bicycle Delay [s]	23.47	20.67	20.67	20.67
I_b,int, Bicycle LOS Score for Intersection	2.519	2.644	1.999	2.348
Bicycle LOS	B	B	A	B

Sequence





Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: Citrus Ave at Walnut St

Control Type:	Signalized	Delay (sec / veh):	13.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.443

Intersection Setup

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Base Volume Input [veh/h]	16	893	93	53	717	52	108	56	36	34	49	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	893	93	53	717	52	108	56	36	34	49	49
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	235	24	14	189	14	28	15	9	9	13	13
Total Analysis Volume [veh/h]	17	940	98	56	755	55	114	59	38	36	52	52
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	32	19	0	41	28	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	21	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	57	57	4	59	59	17	17	17	17
g / C, Green / Cycle	0.02	0.63	0.63	0.04	0.66	0.66	0.19	0.19	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.01	0.26	0.06	0.03	0.22	0.22	0.09	0.06	0.03	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1826	1290	1749	1298	1718
c, Capacity [veh/h]	35	2256	1007	76	1228	1199	224	333	231	327
d1, Uniform Delay [s]	43.65	8.20	6.43	42.59	6.80	6.80	38.97	31.23	36.16	31.40
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.84	0.57	0.19	13.04	0.73	0.75	1.79	0.48	0.31	0.55
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.42	0.10	0.74	0.33	0.33	0.51	0.29	0.16	0.32
d, Delay for Lane Group [s/veh]	53.50	8.77	6.62	55.63	7.53	7.55	40.76	31.71	36.47	31.95
Lane Group LOS	D	A	A	E	A	A	D	C	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.46	3.74	0.64	1.45	2.88	2.82	2.50	1.80	0.72	1.95
50th-Percentile Queue Length [ft/ln]	11.40	93.48	15.91	36.32	71.96	70.43	62.52	45.11	18.08	48.68
95th-Percentile Queue Length [veh/ln]	0.82	6.73	1.15	2.62	5.18	5.07	4.50	3.25	1.30	3.51
95th-Percentile Queue Length [ft/ln]	20.52	168.26	28.63	65.38	129.53	126.78	112.54	81.19	32.54	87.63

Movement, Approach, & Intersection Results

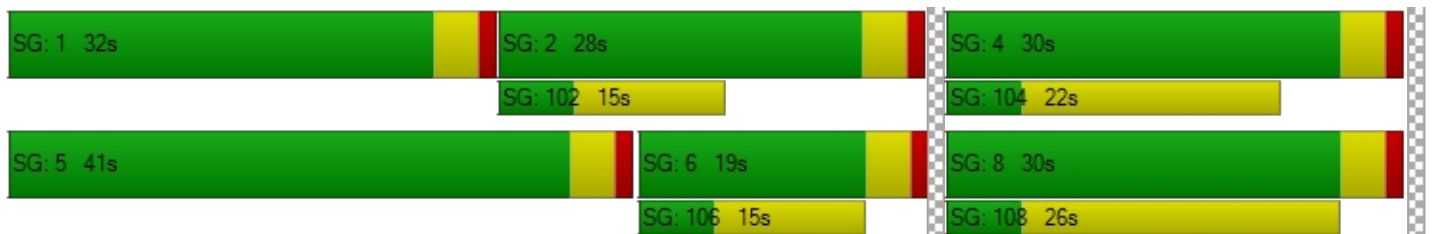
d_M, Delay for Movement [s/veh]	53.50	8.77	6.62	55.63	7.54	7.55	40.76	31.71	31.71	36.47	31.95	31.95
Movement LOS	D	A	A	E	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	9.29			10.65			36.60			33.12		
Approach LOS	A			B			D			C		
d_I, Intersection Delay [s/veh]	13.81											
Intersection LOS	B											
Intersection V/C	0.443											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersection	2.965			3.040			2.069			2.076		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	333			533			578			578		
d_b, Bicycle Delay [s]	31.25			24.20			22.76			22.76		
I_b,int, Bicycle LOS Score for Intersection	2.430			2.274			1.908			1.791		
Bicycle LOS	B			B			A			A		

Sequence


Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Driveway 1/Jacaranda Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	11.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

Intersection Setup

Name	Jacaranda Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Jacaranda Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	11	438	0	3	384
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	11	438	0	3	384
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	3	115	0	1	101
Total Analysis Volume [veh/h]	0	12	461	0	3	404
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0


Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.36	11.12	0.00	0.00	8.28	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	1.53	1.53	0.00	0.00	0.21	0.21
d_A, Approach Delay [s/veh]	11.12		0.00		0.06	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.18					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 9: Driveway 2/Tokay Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	9.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.016

Intersection Setup

Name	Tokay Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Tokay Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	11	449	0	4	387
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	11	449	0	4	387
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	3	118	0	1	102
Total Analysis Volume [veh/h]	0	12	473	0	4	407
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.53	9.78	0.00	0.00	8.33	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	0.01	0.00
95th-Percentile Queue Length [ft/ln]	1.19	1.19	0.00	0.00	0.28	0.00
d_A, Approach Delay [s/veh]	9.78		0.00		0.08	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.17					
Intersection LOS	A					

Intersection Level Of Service Report**Intersection 10: Driveway 3/Cherimoya Ave at Highland Ave**

Control Type:	Two-way stop	Delay (sec / veh):	9.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.017

Intersection Setup

Name	Cherimoya Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↻		↻		↑	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Cherimoya Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	12	460	0	0	391
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	12	460	0	0	391
Peak Hour Factor	1.0000	0.9500	0.9500	0.9500	1.0000	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	3	121	0	0	103
Total Analysis Volume [veh/h]	0	13	484	0	0	412
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	9.83	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.05	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	1.31	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.83		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.14					
Intersection LOS	A					

Fontana Square Project

Vistro File: K:\...\Fontana Square PM.vistro

Scenario 5 HY PM

Report File: K:\...\5 HY PM.pdf

12/6/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Beech Ave at Highland Ave	Signalized	HCM 6th Edition	NB Left	0.690	30.6	C
2	Beech Ave at SR-210 HOV Ramps	All-way stop	HCM 6th Edition	NB Thru	0.807	25.2	D
3	Catawba Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.046	18.4	C
4	Citrus Ave at SR-210 WB Ramps	Signalized	HCM 6th Edition	WB Right	0.921	35.4	D
5	Citrus Ave at SR-210 EB Ramps	Signalized	HCM 6th Edition	SB Left	1.032	67.0	E
6	Citrus Ave at Highland Ave	Signalized	HCM 6th Edition	SB Left	0.980	48.7	D
7	Citrus Ave at Walnut St	Signalized	HCM 6th Edition	SB Left	0.596	16.6	B
8	Driveway 1/Jacaranda Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.018	14.5	B
9	Driveway 2/Tokay Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.012	11.1	B
10	Driveway 3/Cherimoya Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.014	11.2	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Beech Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	30.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.690

Intersection Setup

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↵ ↑ ↶			↵ ↑ ↶			↵ ↑ ↶			↵ ↑ ↶		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	72	615	183	124	563	92	119	442	162	160	261	104
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	615	183	124	563	92	119	442	162	160	261	104
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	158	47	32	145	24	31	114	42	41	67	27
Total Analysis Volume [veh/h]	74	633	188	128	580	95	123	455	167	165	269	107
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	26	0	12	26	0	26	38	0	14	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	37	37	8	41	41	8	19	19	10	21	21
g / C, Green / Cycle	0.05	0.42	0.42	0.09	0.45	0.45	0.09	0.21	0.21	0.11	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.04	0.23	0.23	0.07	0.18	0.19	0.07	0.17	0.17	0.09	0.10	0.11
s, saturation flow rate [veh/h]	1781	1870	1725	1781	1870	1779	1781	1870	1701	1781	1870	1693
c, Capacity [veh/h]	96	778	717	158	843	802	159	386	351	198	427	386
d1, Uniform Delay [s]	42.02	19.89	19.89	40.25	16.64	16.65	40.09	34.31	34.35	39.19	29.95	30.01
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	12.14	2.78	3.01	9.36	1.47	1.55	7.76	5.03	5.66	8.82	0.77	0.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.77	0.55	0.55	0.81	0.41	0.41	0.77	0.84	0.85	0.83	0.46	0.47
d, Delay for Lane Group [s/veh]	54.16	22.67	22.91	49.61	18.12	18.20	47.85	39.35	40.00	48.01	30.72	30.89
Lane Group LOS	D	C	C	D	B	B	D	D	D	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.89	6.83	6.35	3.09	4.74	4.54	2.88	6.94	6.41	3.88	3.53	3.27
50th-Percentile Queue Length [ft/ln]	47.32	170.67	158.68	77.31	118.60	113.48	72.07	173.62	160.35	96.94	88.13	81.73
95th-Percentile Queue Length [veh/ln]	3.41	11.11	10.48	5.57	8.32	8.03	5.19	11.27	10.57	6.98	6.35	5.88
95th-Percentile Queue Length [ft/ln]	85.18	277.80	261.97	139.17	207.90	200.83	129.73	281.67	264.18	174.49	158.63	147.12

Movement, Approach, & Intersection Results

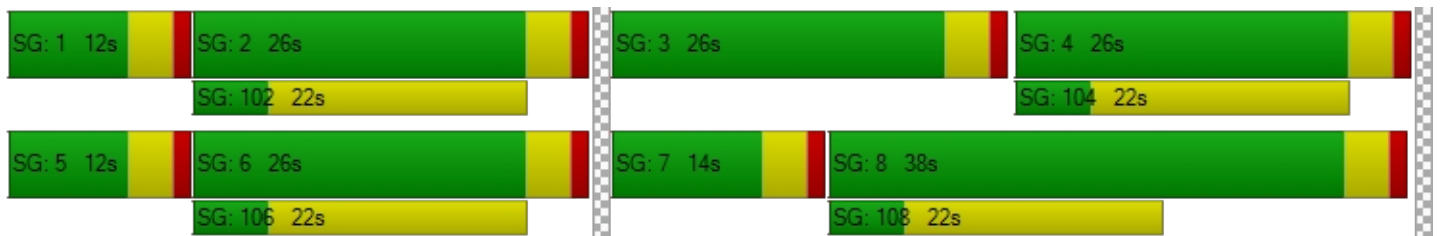
d_M, Delay for Movement [s/veh]	54.16	22.75	22.91	49.61	18.15	18.20	47.85	39.54	40.00	48.01	30.76	30.89
Movement LOS	D	C	C	D	B	B	D	D	D	D	C	C
d_A, Approach Delay [s/veh]	25.38			23.17			41.01			36.05		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	30.62											
Intersection LOS	C											
Intersection V/C	0.690											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.771	2.735	2.647	2.685
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	756	489
d_b, Bicycle Delay [s]	25.69	25.69	17.42	25.69
I_b,int, Bicycle LOS Score for Intersection	2.298	2.222	2.174	2.006
Bicycle LOS	B	B	B	B

Sequence





Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Beech Ave at SR-210 HOV Ramps

Control Type:	All-way stop	Delay (sec / veh):	25.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.807

Intersection Setup

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Base Volume Input [veh/h]	109	649	78	70	465	34	141	17	124	70	4	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	109	649	78	70	465	34	141	17	124	70	4	53
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	172	21	19	123	9	37	5	33	19	1	14
Total Analysis Volume [veh/h]	115	688	83	74	493	36	149	18	131	74	4	56
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	447	478	488	429	456	462	466	440
Degree of Utilization, x	0.26	0.81	0.79	0.17	0.58	0.57	0.64	0.30

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.02	7.58	7.23	0.62	3.60	3.51	4.40	1.27
95th-Percentile Queue Length [ft]	25.38	189.46	180.77	15.45	89.89	87.84	109.90	31.81
Approach Delay [s/veh]	31.10			19.69			23.41	14.73
Approach LOS	D			C			C	B
Intersection Delay [s/veh]	25.18							
Intersection LOS	D							

Intersection Level Of Service Report
Intersection 3: Catawba Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	18.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.046

Intersection Setup

Name	Catawba Ave		Highland Ave		Highland Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Catawba Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	12	8	15	750	569	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	8	15	750	569	15
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	4	197	150	4
Total Analysis Volume [veh/h]	13	8	16	789	599	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	1	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.02	0.02	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	18.42	12.96	8.79	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.20	0.20	0.05	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.94	4.94	1.26	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	16.34		0.17		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.34					
Intersection LOS	C					

Intersection Level of Service Report
Intersection 4: Citrus Ave at SR-210 WB Ramps

Control Type:	Signalized	Delay (sec / veh):	35.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.921

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐ ↑			↓ ⇐						⇐ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Base Volume Input [veh/h]	468	1585	0	0	973	550	0	0	0	607	1	622
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	110	0	0	0	0	0	62
Total Hourly Volume [veh/h]	468	1585	0	0	973	440	0	0	0	607	1	560
Peak Hour Factor	0.9500	0.9500	1.0000	1.0000	0.9500	0.9500	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	123	417	0	0	256	116	0	0	0	160	0	147
Total Analysis Volume [veh/h]	493	1668	0	0	1024	463	0	0	0	639	1	589
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	0	0	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	0	0	0	0	10	0
Maximum Green [s]	30	30	0	0	30	0	0	0	0	0	0	30	0
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Split [s]	20	52	0	0	32	0	0	0	0	0	0	38	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	0	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	7	0	0	0	0	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No							No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No			No							No	
Maximum Recall	No	No			No							No	
Pedestrian Recall	No	No			No							No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R		L	C	R
C, Cycle Length [s]	90	90	90	90		90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	15	48	29	29		34	34	34
g / C, Green / Cycle	0.16	0.53	0.32	0.32		0.38	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.14	0.47	0.29	0.29		0.18	0.18	0.37
s, saturation flow rate [veh/h]	3459	3560	3560	1589		1781	1781	1589
c, Capacity [veh/h]	572	1899	1152	514		673	673	600
d1, Uniform Delay [s]	36.56	18.44	28.90	29.05		21.24	21.24	27.68
k, delay calibration	0.11	0.50	0.50	0.50		0.11	0.11	0.44
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	4.00	6.16	10.35	21.39		0.52	0.52	30.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.88	0.89	0.90		0.48	0.48	0.98
d, Delay for Lane Group [s/veh]	40.56	24.59	39.25	50.44		21.76	21.76	57.86
Lane Group LOS	D	C	D	D		C	C	E
Critical Lane Group	No	Yes	No	No		No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.30	14.34	11.24	11.76		5.04	5.04	16.89
50th-Percentile Queue Length [ft/ln]	132.40	358.39	280.91	294.10		126.02	126.01	422.29
95th-Percentile Queue Length [veh/ln]	9.07	20.54	16.73	17.39		8.72	8.72	23.63
95th-Percentile Queue Length [ft/ln]	226.76	513.62	418.35	434.73		218.07	218.06	590.80

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.56	24.59	0.00	0.00	39.25	50.44	0.00	0.00	0.00	21.76	21.76	57.86
Movement LOS	D	C			D	D				C	C	E
d_A, Approach Delay [s/veh]	28.24				42.74		0.00		39.06			
Approach LOS	C				D		A		D			
d_I, Intersection Delay [s/veh]	35.39											
Intersection LOS	D											
Intersection V/C	0.921											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.237	0.000
Crosswalk LOS	F	F	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1067	622	0	756
d_b, Bicycle Delay [s]	9.80	21.36	45.00	17.42
I_b,int, Bicycle LOS Score for Intersection	3.342	2.877	4.132	3.690
Bicycle LOS	C	C	D	D

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Citrus Ave at SR-210 EB Ramps

Control Type:	Signalized	Delay (sec / veh):	67.0
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.032

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↑↑			↑↑↑			↑↑↑↑					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Base Volume Input [veh/h]	0	1314	503	349	1241	0	760	282	522	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	101	0	0	0	0	0	52	0	0	0
Total Hourly Volume [veh/h]	0	1314	402	349	1241	0	760	282	470	0	0	0
Peak Hour Factor	1.0000	0.9500	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500	0.9500	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	346	106	92	327	0	200	74	124	0	0	0
Total Analysis Volume [veh/h]	0	1383	423	367	1306	0	800	297	495	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss
Signal Group	0	6	0	5	2	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	5	10	0	0	10	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	50	0	12	62	0	0	28	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No				
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No			No				
Maximum Recall		No		No	No			No				
Pedestrian Recall		No		No	No			No				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C	R	
C, Cycle Length [s]	90	90	90	90	90	90	90	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	46	46	8	58	24	24	24	
g / C, Green / Cycle	0.51	0.51	0.09	0.64	0.27	0.27	0.27	
(v / s)_i Volume / Saturation Flow Rate	0.48	0.52	0.11	0.37	0.30	0.31	0.31	
s, saturation flow rate [veh/h]	1870	1727	3459	3560	1781	1827	1589	
c, Capacity [veh/h]	956	883	307	2295	475	487	424	
d1, Uniform Delay [s]	20.80	22.00	41.00	8.98	33.00	33.00	33.00	
k, delay calibration	0.50	0.50	0.11	0.50	0.37	0.40	0.40	
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	18.48	36.22	94.40	1.03	72.45	90.33	94.54	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.94	1.02	1.19	0.57	1.12	1.16	1.17	
d, Delay for Lane Group [s/veh]	39.28	58.22	135.40	10.02	105.45	123.33	127.54	
Lane Group LOS	D	F	F	B	F	F	F	
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	
50th-Percentile Queue Length [veh/ln]	20.02	24.51	7.27	5.82	19.56	22.48	20.06	
50th-Percentile Queue Length [ft/ln]	500.60	612.83	181.80	145.47	489.07	562.08	501.51	
95th-Percentile Queue Length [veh/ln]	27.36	33.23	12.40	9.77	28.60	32.99	29.90	
95th-Percentile Queue Length [ft/ln]	684.07	830.67	310.12	244.37	715.12	824.68	747.60	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	45.85	58.22	135.40	10.02	0.00	111.33	123.33	127.54	0.00	0.00	0.00
Movement LOS		D	E	F	B		F	F	F			
d_A, Approach Delay [s/veh]	48.75			37.52			118.68			0.00		
Approach LOS	D			D			F			A		
d_I, Intersection Delay [s/veh]	67.00											
Intersection LOS	E											
Intersection V/C	1.032											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			9.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			36.45			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			2.607			0.000		
Crosswalk LOS	F			F			B			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	1022			1289			533			0		
d_b, Bicycle Delay [s]	10.76			5.69			24.20			45.00		
I_b,int, Bicycle LOS Score for Intersection	3.133			2.940			4.272			4.132		
Bicycle LOS	C			C			E			D		

Sequence





Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Citrus Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	48.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.980

Intersection Setup

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	74	1133	126	362	1130	268	269	430	85	120	292	436
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	74	1133	126	362	1130	268	269	430	85	120	292	436
Peak Hour Factor	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	294	33	94	294	70	70	112	22	31	76	113
Total Analysis Volume [veh/h]	77	1178	131	376	1175	279	280	447	88	125	304	453
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	31	0	13	34	0	13	30	0	16	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	24	0	0	21	0	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	29	29	9	33	33	9	29	29	8	27	27
g / C, Green / Cycle	0.06	0.32	0.32	0.10	0.36	0.36	0.10	0.32	0.32	0.09	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.04	0.33	0.08	0.11	0.33	0.18	0.08	0.13	0.06	0.07	0.16	0.28
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	3560	1589	1781	1870	1589
c, Capacity [veh/h]	99	1128	503	346	1285	574	346	1127	503	158	571	486
d1, Uniform Delay [s]	41.94	30.75	22.89	40.50	27.42	22.29	39.66	24.03	22.25	40.18	25.92	30.36
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.34
l, Upstream Filtering 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
d2, Incremental Delay [s]	12.10	39.19	1.25	50.18	11.49	2.93	4.54	0.23	0.16	8.48	0.77	20.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.78	1.04	0.26	1.09	0.91	0.49	0.81	0.40	0.17	0.79	0.53	0.93
d, Delay for Lane Group [s/veh]	54.03	69.93	24.15	90.68	38.92	25.22	44.20	24.26	22.41	48.66	26.69	51.33
Lane Group LOS	D	F	C	F	D	C	D	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.95	17.29	2.10	6.05	12.93	4.66	3.10	3.49	1.28	2.96	5.13	11.57
50th-Percentile Queue Length [ft/ln]	48.67	432.30	52.62	151.22	323.23	116.62	77.56	87.20	32.03	73.94	128.30	289.28
95th-Percentile Queue Length [veh/ln]	3.50	24.79	3.79	10.39	18.83	8.21	5.58	6.28	2.31	5.32	8.85	17.15
95th-Percentile Queue Length [ft/ln]	87.60	619.82	94.71	259.70	470.65	205.18	139.61	156.95	57.65	133.10	221.18	428.74

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	54.03	69.93	24.15	90.68	38.92	25.22	44.20	24.26	22.41	48.66	26.69	51.33
Movement LOS	D	F	C	F	D	C	D	C	C	D	C	D
d_A, Approach Delay [s/veh]	64.72			47.46			30.91			42.46		
Approach LOS	E			D			C			D		
d_I, Intersection Delay [s/veh]	48.69											
Intersection LOS	D											
Intersection V/C	0.980											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.131	3.377	2.904	2.838
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	667	578	644
d_b, Bicycle Delay [s]	22.05	20.00	22.76	20.67
I_b,int, Bicycle LOS Score for Intersection	2.703	3.069	2.232	3.015
Bicycle LOS	B	C	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Citrus Ave at Walnut St**

Control Type:	Signalized	Delay (sec / veh):	16.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.596

Intersection Setup

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Base Volume Input [veh/h]	52	1299	150	57	1079	112	86	82	45	82	89	78
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	52	1299	150	57	1079	112	86	82	45	82	89	78
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	340	39	15	282	29	22	21	12	21	23	20
Total Analysis Volume [veh/h]	54	1359	157	60	1129	117	90	86	47	86	93	82
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	41	51	0	9	19	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	21	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	55	55	4	56	56	19	19	19	19
g / C, Green / Cycle	0.04	0.62	0.62	0.04	0.62	0.62	0.21	0.21	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.03	0.38	0.10	0.03	0.34	0.34	0.07	0.08	0.07	0.10
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1809	1209	1760	1256	1727
c, Capacity [veh/h]	73	2189	977	77	1154	1116	199	367	234	360
d1, Uniform Delay [s]	42.66	10.79	7.41	42.63	9.98	10.00	39.52	30.49	37.16	31.36
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.29	1.34	0.35	15.52	1.87	1.95	1.60	0.60	0.96	1.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.74	0.62	0.16	0.78	0.55	0.55	0.45	0.36	0.37	0.49
d, Delay for Lane Group [s/veh]	55.95	12.13	7.76	58.15	11.85	11.95	41.12	31.09	38.12	32.38
Lane Group LOS	E	B	A	E	B	B	D	C	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.41	7.06	1.15	1.60	6.33	6.18	1.98	2.46	1.80	3.35
50th-Percentile Queue Length [ft/ln]	35.18	176.40	28.74	39.88	158.27	154.54	49.47	61.55	45.02	83.77
95th-Percentile Queue Length [veh/ln]	2.53	11.41	2.07	2.87	10.46	10.26	3.56	4.43	3.24	6.03
95th-Percentile Queue Length [ft/ln]	63.32	285.31	51.74	71.79	261.44	256.47	89.05	110.78	81.03	150.79

Movement, Approach, & Intersection Results

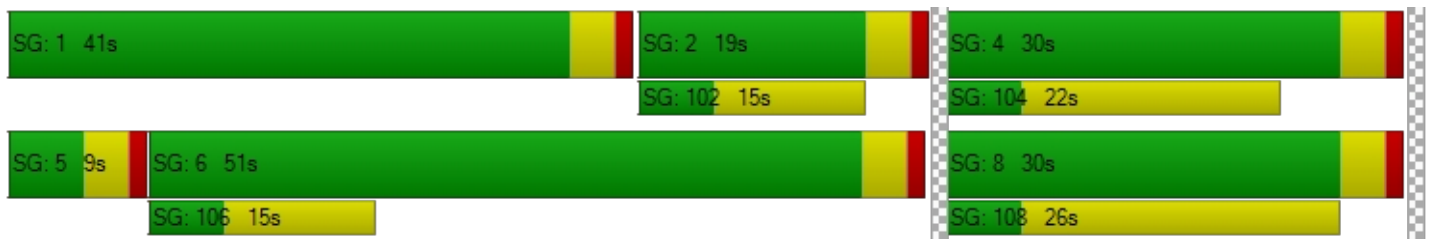
d_M, Delay for Movement [s/veh]	55.95	12.13	7.76	58.15	11.90	11.95	41.12	31.09	31.09	38.12	32.38	32.38
Movement LOS	E	B	A	E	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	13.20			14.03			35.14			34.27		
Approach LOS	B			B			D			C		
d_I, Intersection Delay [s/veh]	16.61											
Intersection LOS	B											
Intersection V/C	0.596											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.267	3.259	2.126	2.156
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1044	333	578	578
d_b, Bicycle Delay [s]	10.27	31.25	22.76	22.76
I_b,int, Bicycle LOS Score for Intersection	2.855	2.637	1.928	1.990
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Driveway 1/Jacaranda Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	14.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.018

Intersection Setup

Name	Jacaranda Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Jacaranda Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	7	762	0	11	582
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	7	762	0	11	582
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	201	0	3	153
Total Analysis Volume [veh/h]	0	7	802	0	12	613
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0



Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.01	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	30.31	14.55	0.00	0.00	9.45	0.00
Movement LOS	D	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.00	0.00	0.04	0.04
95th-Percentile Queue Length [ft/ln]	1.39	1.39	0.00	0.00	1.11	1.11
d_A, Approach Delay [s/veh]	14.55		0.00		0.18	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.15					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 9: Driveway 2/Tokay Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	11.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Tokay Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Tokay Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	7	769	0	12	593
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	7	769	0	12	593
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	202	0	3	156
Total Analysis Volume [veh/h]	0	7	809	0	13	624
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	24.08	11.12	0.00	0.00	9.50	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.05	0.00
95th-Percentile Queue Length [ft/ln]	0.89	0.89	0.00	0.00	1.22	0.00
d_A, Approach Delay [s/veh]	11.12		0.00		0.19	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.14					
Intersection LOS	B					

Intersection Level Of Service Report**Intersection 10: Driveway 3/Cherimoya Ave at Highland Ave**

Control Type:	Two-way stop	Delay (sec / veh):	11.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.014

Intersection Setup

Name	Cherimoya Ave		Highland Ave		Highland Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↻		↻		↑	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Cherimoya Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	0	8	776	0	0	605
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	8	776	0	0	605
Peak Hour Factor	1.0000	0.9500	0.9500	0.9500	1.0000	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	204	0	0	159
Total Analysis Volume [veh/h]	0	8	817	0	0	637
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	11.16	0.00	0.00	0.00	0.00
Movement LOS		B	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	1.03	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.16		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.06					
Intersection LOS	B					

Fontana Square Project

Vistro File: K:\...\Fontana Square AM.vistro

Scenario 6 HY WP AM

Report File: K:\...\6 HY WP AM.pdf

12/6/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Beech Ave at Highland Ave	Signalized	HCM 6th Edition	SB Left	0.413	26.8	C
2	Beech Ave at SR-210 HOV Ramps	All-way stop	HCM 6th Edition	NB Thru	0.785	25.3	D
3	Catawba Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.006	12.5	B
4	Citrus Ave at SR-210 WB Ramps	Signalized	HCM 6th Edition	WB Right	0.752	24.3	C
5	Citrus Ave at SR-210 EB Ramps	Signalized	HCM 6th Edition	SB Left	0.761	23.2	C
6	Citrus Ave at Highland Ave	Signalized	HCM 6th Edition	NB Left	0.759	29.4	C
7	Citrus Ave at Walnut St	Signalized	HCM 6th Edition	SB Left	0.453	14.2	B
8	Driveway 1/Jacaranda Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.029	16.7	C
9	Driveway 2/Tokay Ave at Highland Ave	Signalized	HCM 6th Edition	WB Left	0.237	10.0	A
10	Driveway 3/Cherimoya Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.019	10.3	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Beech Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	26.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.413

Intersection Setup

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↵ ↑			↵ ↑			↵ ↑			↵ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	78	417	104	44	346	56	84	135	63	81	258	68
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	23	7	0	0	0	7	0	17	6	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	417	127	51	346	56	84	142	63	98	264	74
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	110	33	13	91	15	22	37	17	26	69	19
Total Analysis Volume [veh/h]	82	439	134	54	364	59	88	149	66	103	278	78
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	34	0	11	34	0	19	26	0	19	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	53	53	4	51	51	6	11	11	7	11	11
g / C, Green / Cycle	0.06	0.59	0.59	0.04	0.57	0.57	0.06	0.12	0.12	0.07	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.05	0.16	0.16	0.03	0.12	0.12	0.05	0.06	0.06	0.06	0.10	0.10
s, saturation flow rate [veh/h]	1781	1870	1722	1781	1870	1781	1781	1870	1682	1781	1870	1732
c, Capacity [veh/h]	105	1101	1014	74	1068	1017	115	220	198	133	239	221
d1, Uniform Delay [s]	41.76	9.05	9.07	42.64	9.36	9.38	41.44	37.24	37.35	40.91	37.95	38.04
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	11.63	0.60	0.66	12.98	0.43	0.45	10.16	1.77	2.17	9.29	5.08	5.94
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.78	0.27	0.27	0.73	0.20	0.20	0.77	0.50	0.53	0.78	0.77	0.78
d, Delay for Lane Group [s/veh]	53.38	9.66	9.73	55.62	9.79	9.83	51.60	39.01	39.53	50.19	43.03	43.98
Lane Group LOS	D	A	A	E	A	A	D	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.08	2.63	2.46	1.41	1.92	1.86	2.16	2.28	2.18	2.48	4.04	3.87
50th-Percentile Queue Length [ft/ln]	51.88	65.80	61.59	35.37	48.03	46.54	54.00	57.06	54.49	62.07	100.95	96.83
95th-Percentile Queue Length [veh/ln]	3.74	4.74	4.43	2.55	3.46	3.35	3.89	4.11	3.92	4.47	7.27	6.97
95th-Percentile Queue Length [ft/ln]	93.39	118.44	110.87	63.67	86.45	83.78	97.19	102.71	98.08	111.72	181.70	174.30

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.38	9.68	9.73	55.62	9.81	9.83	51.60	39.14	39.53	50.19	43.36	43.98
Movement LOS	D	A	A	E	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	15.16			15.00			42.84			45.00		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	26.78											
Intersection LOS	C											
Intersection V/C	0.413											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.610	2.583	2.513	2.534
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	667	667	489	489
d_b, Bicycle Delay [s]	20.00	20.00	25.69	25.69
I_b,int, Bicycle LOS Score for Intersection	2.100	1.953	1.810	1.938
Bicycle LOS	B	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Beech Ave at SR-210 HOV Ramps

Control Type:	All-way stop	Delay (sec / veh):	25.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.785

Intersection Setup

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Base Volume Input [veh/h]	180	655	61	38	556	79	29	2	48	161	2	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	0	0	7	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	180	661	61	38	563	79	29	2	48	161	2	46
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	180	17	10	154	22	8	1	13	44	1	13
Total Analysis Volume [veh/h]	197	722	67	41	615	86	32	2	52	176	2	50
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	469	503	511	452	483	495	439	446
Degree of Utilization, x	0.42	0.78	0.77	0.09	0.73	0.71	0.20	0.51

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.05	7.15	6.88	0.30	5.86	5.56	0.72	2.84
95th-Percentile Queue Length [ft]	51.23	178.87	172.07	7.44	146.38	139.10	18.00	71.04
Approach Delay [s/veh]	27.53			25.73			13.20	19.21
Approach LOS	D			D			B	C
Intersection Delay [s/veh]	25.34							
Intersection LOS	D							

Intersection Level Of Service Report
Intersection 3: Catawba Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	12.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	Catawba Ave		Highland Ave		Highland Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Catawba Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	3	1	0	435	380	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	37	29	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	1	0	472	409	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	124	108	1
Total Analysis Volume [veh/h]	3	1	0	497	431	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	1	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.48	9.63	8.21	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.56	0.56	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.77		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.05					
Intersection LOS	B					

Intersection Level of Service Report
Intersection 4: Citrus Ave at SR-210 WB Ramps

Control Type:	Signalized	Delay (sec / veh):	24.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.752

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Base Volume Input [veh/h]	514	934	0	0	675	533	0	0	0	302	1	402
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	11	0	0	16	0	0	0	0	30	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	107	0	0	0	0	0	40
Total Hourly Volume [veh/h]	537	945	0	0	691	426	0	0	0	332	1	362
Peak Hour Factor	0.9500	0.9500	1.0000	1.0000	0.9500	0.9500	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	141	249	0	0	182	112	0	0	0	87	0	95
Total Analysis Volume [veh/h]	565	995	0	0	727	448	0	0	0	349	1	381
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	0	0	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	0	0	0	0	10	0
Maximum Green [s]	30	30	0	0	30	0	0	0	0	0	0	30	0
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Split [s]	21	52	0	0	31	0	0	0	0	0	0	38	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	0	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	7	0	0	0	0	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No							No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No			No							No	
Maximum Recall	No	No			No							No	
Pedestrian Recall	No	No			No							No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R		L	C	R
C, Cycle Length [s]	90	90	90	90		90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	17	58	37	37		24	24	24
g / C, Green / Cycle	0.18	0.64	0.41	0.41		0.27	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.16	0.28	0.20	0.28		0.10	0.10	0.24
s, saturation flow rate [veh/h]	3459	3560	3560	1589		1781	1781	1589
c, Capacity [veh/h]	634	2279	1468	655		483	483	431
d1, Uniform Delay [s]	35.86	8.09	19.54	21.65		26.52	26.52	31.45
k, delay calibration	0.11	0.50	0.50	0.50		0.11	0.11	0.19
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	4.57	0.61	1.20	5.71		0.46	0.46	9.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.44	0.50	0.68		0.36	0.36	0.88
d, Delay for Lane Group [s/veh]	40.43	8.70	20.74	27.36		26.98	26.97	41.42
Lane Group LOS	D	A	C	C		C	C	D
Critical Lane Group	Yes	No	No	Yes		No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.09	3.94	5.32	7.98		3.04	3.04	8.88
50th-Percentile Queue Length [ft/ln]	152.30	98.46	133.08	199.41		75.99	76.01	222.12
95th-Percentile Queue Length [veh/ln]	10.14	7.09	9.11	12.61		5.47	5.47	13.77
95th-Percentile Queue Length [ft/ln]	253.49	177.22	227.68	315.20		136.79	136.82	344.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.43	8.70	0.00	0.00	20.74	27.36	0.00	0.00	0.00	26.98	26.97	41.42
Movement LOS	D	A			C	C				C	C	D
d_A, Approach Delay [s/veh]	20.19				23.26		0.00				34.50	
Approach LOS	C				C		A				C	
d_I, Intersection Delay [s/veh]	24.25											
Intersection LOS	C											
Intersection V/C	0.752											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0		0.0		9.0		0.0	
M_corner, Corner Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		0.00		36.45		0.00	
I_p,int, Pedestrian LOS Score for Intersection	0.000		0.000		2.263		0.000	
Crosswalk LOS	F		F		B		F	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	1067		600		0		756	
d_b, Bicycle Delay [s]	9.80		22.05		45.00		17.42	
I_b,int, Bicycle LOS Score for Intersection	2.847		2.617		4.132		2.832	
Bicycle LOS	C		B		D		C	

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Citrus Ave at SR-210 EB Ramps

Control Type:	Signalized	Delay (sec / veh):	23.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.761

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↑↑			↑↑↑			↑↑↑					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Base Volume Input [veh/h]	0	910	516	272	803	0	381	79	391	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	34	23	0	46	0	0	0	30	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	108	0	0	0	0	0	42	0	0	0
Total Hourly Volume [veh/h]	0	944	431	272	849	0	381	79	379	0	0	0
Peak Hour Factor	1.0000	0.9500	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500	0.9500	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	248	113	72	223	0	100	21	100	0	0	0
Total Analysis Volume [veh/h]	0	994	454	286	894	0	401	83	399	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss
Signal Group	0	6	0	5	2	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	5	10	0	0	10	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	43	0	13	56	0	0	34	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No				
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No			No				
Maximum Recall		No		No	No			No				
Pedestrian Recall		No		No	No			No				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C	R	
C, Cycle Length [s]	90	90	90	90	90	90	90	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	49	49	9	62	20	20	20	
g / C, Green / Cycle	0.55	0.55	0.10	0.69	0.22	0.22	0.22	
(v / s)_i Volume / Saturation Flow Rate	0.39	0.43	0.08	0.25	0.17	0.17	0.18	
s, saturation flow rate [veh/h]	1870	1684	3459	3560	1781	1726	1589	
c, Capacity [veh/h]	1024	922	346	2465	390	378	348	
d1, Uniform Delay [s]	15.01	16.14	39.74	5.69	33.01	33.15	33.52	
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11	0.11	
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	4.11	6.66	5.05	0.41	3.21	3.61	5.30	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.71	0.78	0.83	0.36	0.77	0.78	0.83	
d, Delay for Lane Group [s/veh]	19.12	22.80	44.78	6.10	36.22	36.76	38.82	
Lane Group LOS	B	C	D	A	D	D	D	
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	
50th-Percentile Queue Length [veh/ln]	10.29	11.52	3.19	2.60	6.35	6.34	6.36	
50th-Percentile Queue Length [ft/ln]	257.27	287.88	79.85	64.89	158.63	158.38	158.95	
95th-Percentile Queue Length [veh/ln]	15.55	17.08	5.75	4.67	10.48	10.46	10.49	
95th-Percentile Queue Length [ft/ln]	388.80	427.01	143.74	116.80	261.91	261.58	262.34	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	20.12	22.80	44.78	6.10	0.00	36.37	36.76	38.27	0.00	0.00	0.00
Movement LOS		C	C	D	A		D	D	D			
d_A, Approach Delay [s/veh]		20.96		15.48			37.25			0.00		
Approach LOS		C		B			D			A		
d_I, Intersection Delay [s/veh]	23.21											
Intersection LOS	C											
Intersection V/C	0.761											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0		0.0			9.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00		0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00		0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00		0.00			36.45			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000		0.000			2.418			0.000		
Crosswalk LOS	F		F			B			F		
s_b, Saturation Flow Rate of the bicycle lane	2000		2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	867		1156			667			0		
d_b, Bicycle Delay [s]	14.45		8.02			20.00			45.00		
I_b,int, Bicycle LOS Score for Intersection	2.843		2.533			3.086			4.132		
Bicycle LOS	C		B			C			D		

Sequence




Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Citrus Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	29.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.759

Intersection Setup

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	57	956	92	290	796	163	269	188	48	49	171	234
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	0	0	0	0	76	57	11	17	0	16	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	22	-20	-2	-4	-12	16	20	4	12	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	102	936	90	286	784	255	346	203	77	49	187	234
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	246	24	75	206	67	91	53	20	13	49	62
Total Analysis Volume [veh/h]	107	985	95	301	825	268	364	214	81	52	197	246
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	29	0	14	33	0	14	33	0	14	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	24	0	0	21	0	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	38	38	10	42	42	10	23	23	4	16	16
g / C, Green / Cycle	0.07	0.42	0.42	0.11	0.46	0.46	0.11	0.25	0.25	0.04	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.06	0.28	0.06	0.09	0.23	0.17	0.11	0.06	0.05	0.03	0.06	0.15
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	3560	1589	1781	3560	1589
c, Capacity [veh/h]	119	1495	667	372	1641	732	384	898	401	76	654	292
d1, Uniform Delay [s]	41.71	20.94	16.11	39.25	17.03	15.74	39.74	26.78	26.52	42.49	31.75	35.48
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	20.46	2.29	0.45	4.19	1.10	1.41	12.05	0.14	0.25	10.38	0.26	6.53
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.90	0.66	0.14	0.81	0.50	0.37	0.95	0.24	0.20	0.69	0.30	0.84
d, Delay for Lane Group [s/veh]	62.17	23.24	16.56	43.44	18.13	17.15	51.79	26.91	26.77	52.87	32.00	42.01
Lane Group LOS	E	C	B	D	B	B	D	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.93	7.91	1.19	3.31	5.56	3.48	4.44	1.74	1.32	1.31	1.78	5.44
50th-Percentile Queue Length [ft/ln]	73.13	197.71	29.65	82.67	139.06	86.89	110.95	43.48	32.96	32.79	44.55	135.98
95th-Percentile Queue Length [veh/ln]	5.27	12.52	2.13	5.95	9.43	6.26	7.89	3.13	2.37	2.36	3.21	9.26
95th-Percentile Queue Length [ft/ln]	131.64	313.01	53.36	148.81	235.75	156.40	197.33	78.26	59.33	59.02	80.19	231.60

Movement, Approach, & Intersection Results

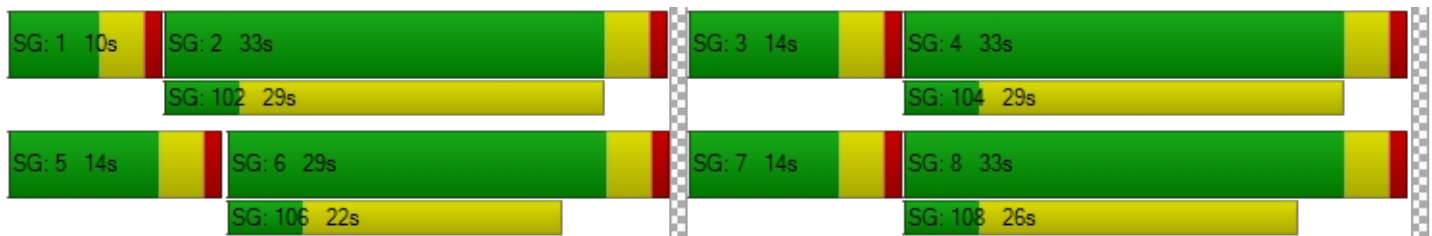
d_M, Delay for Movement [s/veh]	62.17	23.24	16.56	43.44	18.13	17.15	51.79	26.91	26.77	52.87	32.00	42.01
Movement LOS	E	C	B	D	B	B	D	C	C	D	C	D
d_A, Approach Delay [s/veh]	26.21			23.41			40.63			39.17		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	29.43											
Intersection LOS	C											
Intersection V/C	0.759											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.977	3.220	2.952	2.724
Crosswalk LOS	C	C	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	556	644	644	644
d_b, Bicycle Delay [s]	23.47	20.67	20.67	20.67
I_b,int, Bicycle LOS Score for Intersection	2.539	2.710	2.103	1.968
Bicycle LOS	B	B	B	A

Sequence





Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Citrus Ave at Walnut St**

Control Type:	Signalized	Delay (sec / veh):	14.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.453

Intersection Setup

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Base Volume Input [veh/h]	16	893	93	53	717	52	108	56	36	34	49	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	16	0	6	11	0	0	0	0	0	0	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	909	93	59	728	52	108	56	36	34	49	56
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	239	24	16	192	14	28	15	9	9	13	15
Total Analysis Volume [veh/h]	17	957	98	62	766	55	114	59	38	36	52	59
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	32	19	0	41	28	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	21	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	56	56	4	59	59	17	17	17	17
g / C, Green / Cycle	0.02	0.63	0.63	0.05	0.65	0.65	0.19	0.19	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.01	0.27	0.06	0.03	0.22	0.22	0.09	0.06	0.03	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1826	1282	1749	1298	1710
c, Capacity [veh/h]	35	2228	995	82	1220	1191	224	340	237	333
d1, Uniform Delay [s]	43.65	8.61	6.71	42.42	7.00	7.00	38.94	30.90	35.78	31.22
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.84	0.61	0.20	12.99	0.76	0.78	1.79	0.45	0.29	0.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.43	0.10	0.75	0.34	0.34	0.51	0.28	0.15	0.33
d, Delay for Lane Group [s/veh]	53.50	9.22	6.91	55.40	7.76	7.77	40.73	31.36	36.07	31.80
Lane Group LOS	D	A	A	E	A	A	D	C	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.46	3.96	0.66	1.60	2.99	2.92	2.50	1.79	0.72	2.08
50th-Percentile Queue Length [ft/ln]	11.40	99.12	16.44	40.00	74.69	73.11	62.52	44.80	17.96	51.90
95th-Percentile Queue Length [veh/ln]	0.82	7.14	1.18	2.88	5.38	5.26	4.50	3.23	1.29	3.74
95th-Percentile Queue Length [ft/ln]	20.52	178.42	29.58	71.99	134.44	131.60	112.53	80.64	32.32	93.41

Movement, Approach, & Intersection Results

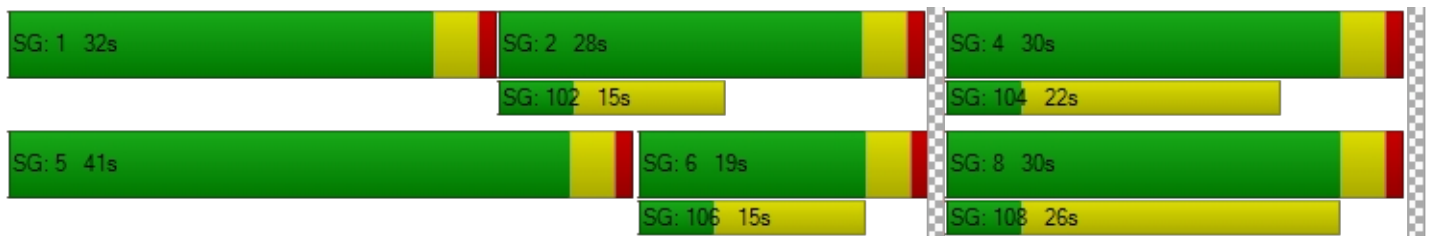
d_M, Delay for Movement [s/veh]	53.50	9.22	6.91	55.40	7.76	7.77	40.73	31.36	31.36	36.07	31.80	31.80
Movement LOS	D	A	A	E	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	9.71			11.11			36.42			32.85		
Approach LOS	A			B			D			C		
d_I, Intersection Delay [s/veh]	14.15											
Intersection LOS	B											
Intersection V/C	0.453											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersection	2.972			3.052			2.069			2.080		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	333			533			578			578		
d_b, Bicycle Delay [s]	31.25			24.20			22.76			22.76		
I_b,int, Bicycle LOS Score for Intersection	2.444			2.288			1.908			1.802		
Bicycle LOS	B			B			A			A		

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Driveway 1/Jacaranda Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	16.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.029

Intersection Setup

Name	Jacaranda Ave			Driveway 1			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	Jacaranda Ave			Driveway 1			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	11	0	0	0	0	438	0	3	384	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	9	0	4	6	31	0	0	25	20
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	11	9	0	4	6	469	0	3	409	20
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	3	2	0	1	2	123	0	1	108	5
Total Analysis Volume [veh/h]	0	0	12	9	0	4	6	494	0	3	431	21
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.03	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.77	19.39	9.86	16.74	19.43	9.96	8.28	0.00	0.00	8.39	0.00	0.00
Movement LOS	C	C	A	C	C	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.10	0.10	0.10	0.02	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.21	1.21	1.21	2.61	2.61	2.61	0.41	0.00	0.00	0.21	0.11	0.00
d_A, Approach Delay [s/veh]	9.86			14.66			0.10			0.06		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	0.39											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 9: Driveway 2/Tokay Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	10.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.237

Intersection Setup

Name	Tokay Ave			Driveway 2			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Tokay Ave			Driveway 2			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	11	0	0	0	0	449	0	4	387	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	76	0	10	31	9	0	0	35	45
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	36	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	11	112	0	10	31	458	0	4	422	45
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	3	29	0	3	8	121	0	1	111	12
Total Analysis Volume [veh/h]	0	0	12	118	0	11	33	482	0	4	444	47
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	43	0	0	43	0	15	20	0	27	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	3	68	68	0	66	66
g / C, Green / Cycle	0.11	0.11	0.11	0.03	0.75	0.75	0.01	0.73	0.73
(v / s)_i Volume / Saturation Flow Rate	0.01	0.08	0.01	0.02	0.13	0.13	0.00	0.13	0.13
s, saturation flow rate [veh/h]	1589	1402	1589	1781	1870	1870	1781	1870	1808
c, Capacity [veh/h]	211	193	171	56	1409	1409	10	1361	1316
d1, Uniform Delay [s]	36.13	39.25	36.11	43.02	3.14	3.14	44.58	3.84	3.85
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	3.11	0.16	9.53	0.26	0.26	22.26	0.30	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.61	0.06	0.59	0.17	0.17	0.39	0.18	0.18
d, Delay for Lane Group [s/veh]	36.24	42.35	36.27	52.55	3.40	3.40	66.84	4.14	4.15
Lane Group LOS	D	D	D	D	A	A	E	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.24	2.70	0.23	0.84	0.82	0.82	0.15	1.04	1.02
50th-Percentile Queue Length [ft/ln]	6.11	67.62	5.63	21.06	20.43	20.43	3.72	25.92	25.39
95th-Percentile Queue Length [veh/ln]	0.44	4.87	0.41	1.52	1.47	1.47	0.27	1.87	1.83
95th-Percentile Queue Length [ft/ln]	10.99	121.71	10.14	37.91	36.78	36.78	6.70	46.66	45.70

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.24	36.24	36.24	42.35	36.27	36.27	52.55	3.40	3.40	66.84	4.14	4.15
Movement LOS	D	D	D	D	D	D	D	A	A	E	A	A
d_A, Approach Delay [s/veh]	36.24			41.84			6.55			4.65		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	10.00											
Intersection LOS	A											
Intersection V/C	0.237											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	1.723	1.998	2.691	2.793
Crosswalk LOS	A	A	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	867	867	356	622
d_b, Bicycle Delay [s]	14.45	14.45	30.42	21.36
I_b,int, Bicycle LOS Score for Intersection	1.579	1.772	1.984	1.968
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Driveway 3/Cherimoya Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.019

Intersection Setup

Name	Cherimoya Ave			Driveway 3			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↶			↶			⊥			⊥		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	Cherimoya Ave			Driveway 3			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	12	0	0	0	0	460	0	0	391	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	15	0	85	0	0	65	50
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	36	0	0	0	38
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	12	0	0	15	0	581	0	0	456	88
Peak Hour Factor	1.0000	1.0000	0.9500	1.0000	1.0000	0.9500	1.0000	0.9500	0.9500	1.0000	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	3	0	0	4	0	153	0	0	120	23
Total Analysis Volume [veh/h]	0	0	13	0	0	16	0	612	0	0	480	93
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	10.32	0.00	0.00	10.19	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			B			B		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.06	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.44	0.00	0.00	1.73	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.32			10.19			0.00			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.24											
Intersection LOS	B											

Fontana Square Project

Vistro File: K:\...\Fontana Square PM.vistro

Scenario 6 HY WP PM

Report File: K:\...\6 HY WP PM.pdf

12/6/2021

Intersection Analysis Summary





ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Beech Ave at Highland Ave	Signalized	HCM 6th Edition	WB Left	0.717	31.5	C
2	Beech Ave at SR-210 HOV Ramps	All-way stop	HCM 6th Edition	NB Thru	0.816	25.7	D
3	Catawba Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.038	16.1	C
4	Citrus Ave at SR-210 WB Ramps	Signalized	HCM 6th Edition	WB Right	0.925	36.6	D
5	Citrus Ave at SR-210 EB Ramps	Signalized	HCM 6th Edition	SB Left	1.057	66.5	E
6	Citrus Ave at Highland Ave	Signalized	HCM 6th Edition	NB Left	1.000	50.5	D
7	Citrus Ave at Walnut St	Signalized	HCM 6th Edition	SB Left	0.609	17.2	B
8	Driveway 1/Jacaranda Ave at Highland Ave	Two-way stop	HCM 6th Edition	SB Left	0.123	29.9	D
9	Driveway 2/Tokay Ave at Highland Ave	Signalized	HCM 6th Edition	WB Left	0.313	8.6	A
10	Driveway 3/Cherimoya Ave at Highland Ave	Two-way stop	HCM 6th Edition	NB Right	0.015	11.8	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Beech Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	31.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.717

Intersection Setup

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	72	615	183	124	563	92	119	442	162	160	261	104
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	20	6	0	0	0	6	0	19	6	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	615	203	130	563	92	119	448	162	179	267	110
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	158	52	33	145	24	31	115	42	46	69	28
Total Analysis Volume [veh/h]	74	633	209	134	580	95	123	461	167	184	275	113
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	26	0	12	26	0	26	38	0	14	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	37	37	8	40	40	8	19	19	10	21	21
g / C, Green / Cycle	0.05	0.41	0.41	0.09	0.45	0.45	0.09	0.21	0.21	0.11	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.04	0.23	0.24	0.08	0.18	0.19	0.07	0.18	0.18	0.10	0.11	0.11
s, saturation flow rate [veh/h]	1781	1870	1713	1781	1870	1779	1781	1870	1703	1781	1870	1689
c, Capacity [veh/h]	96	775	710	158	840	799	159	389	354	198	430	388
d1, Uniform Delay [s]	42.02	20.18	20.18	40.39	16.74	16.75	40.09	34.24	34.28	39.65	29.94	30.00
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	12.14	3.00	3.27	11.60	1.49	1.57	7.76	5.04	5.65	16.95	0.80	0.92
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.77	0.57	0.57	0.85	0.41	0.41	0.77	0.84	0.85	0.93	0.47	0.48
d, Delay for Lane Group [s/veh]	54.16	23.17	23.45	51.99	18.23	18.32	47.85	39.28	39.92	56.60	30.74	30.92
Lane Group LOS	D	C	C	D	B	B	D	D	D	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.89	7.13	6.59	3.33	4.76	4.56	2.88	7.01	6.47	4.76	3.65	3.37
50th-Percentile Queue Length [ft/ln]	47.32	178.28	164.72	83.17	119.09	113.94	72.07	175.16	161.82	119.00	91.31	84.28
95th-Percentile Queue Length [veh/ln]	3.41	11.51	10.80	5.99	8.34	8.06	5.19	11.35	10.65	8.34	6.57	6.07
95th-Percentile Queue Length [ft/ln]	85.18	287.77	269.96	149.71	208.57	201.46	129.73	283.68	266.13	208.46	164.36	151.70

Movement, Approach, & Intersection Results

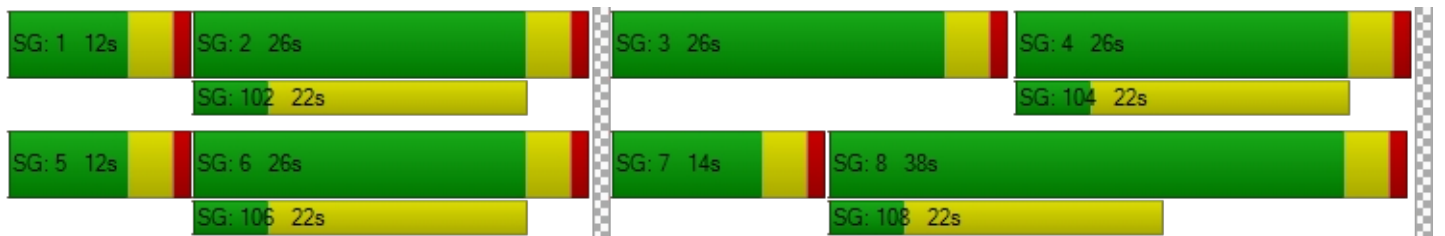
d_M, Delay for Movement [s/veh]	54.16	23.26	23.45	51.99	18.27	18.32	47.85	39.47	39.92	56.60	30.79	30.92
Movement LOS	D	C	C	D	B	B	D	D	D	E	C	C
d_A, Approach Delay [s/veh]	25.80			23.86			40.94			39.12		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	31.51											
Intersection LOS	C											
Intersection V/C	0.717											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.782	2.738	2.651	2.704
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	756	489
d_b, Bicycle Delay [s]	25.69	25.69	17.42	25.69
I_b,int, Bicycle LOS Score for Intersection	2.315	2.227	2.179	2.032
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Beech Ave at SR-210 HOV Ramps

Control Type:	All-way stop	Delay (sec / veh):	25.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.816

Intersection Setup

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Beech Ave			Beech Ave			SR-210 HOV Ramps			SR-210 HOV Ramps		
Base Volume Input [veh/h]	109	649	78	70	465	34	141	17	124	70	4	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	0	0	6	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	109	655	78	70	471	34	141	17	124	70	4	53
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	173	21	19	125	9	37	5	33	19	1	14
Total Analysis Volume [veh/h]	115	694	83	74	499	36	149	18	131	74	4	56
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	446	476	486	428	455	461	464	438
Degree of Utilization, x	0.26	0.82	0.80	0.17	0.59	0.58	0.64	0.31

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.02	7.77	7.42	0.62	3.69	3.61	4.43	1.28
95th-Percentile Queue Length [ft]	25.46	194.35	185.49	15.49	92.28	90.19	110.80	32.00
Approach Delay [s/veh]	31.95			20.01			23.62	14.81
Approach LOS	D			C			C	B
Intersection Delay [s/veh]	25.71							
Intersection LOS	D							

Intersection Level Of Service Report
Intersection 3: Catawba Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	16.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.038

Intersection Setup

Name	Catawba Ave		Highland Ave		Highland Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Catawba Ave		Highland Ave		Highland Ave	
Base Volume Input [veh/h]	12	8	15	750	569	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	32	31	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	8	15	782	600	15
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	4	206	158	4
Total Analysis Volume [veh/h]	13	8	16	823	632	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	1	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.01	0.02	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	16.07	10.81	8.92	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.16	0.16	0.05	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.95	3.95	1.31	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.07		0.17		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.29					
Intersection LOS	C					

Intersection Level of Service Report
Intersection 4: Citrus Ave at SR-210 WB Ramps

Control Type:	Signalized	Delay (sec / veh):	36.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.925

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 WB Ramps			SR-210 WB Ramps		
Base Volume Input [veh/h]	468	1585	0	0	973	550	0	0	0	607	1	622
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	24	13	0	0	14	0	0	0	0	27	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	110	0	0	0	0	0	62
Total Hourly Volume [veh/h]	492	1598	0	0	987	440	0	0	0	634	1	560
Peak Hour Factor	0.9500	0.9500	1.0000	1.0000	0.9500	0.9500	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	129	421	0	0	260	116	0	0	0	167	0	147
Total Analysis Volume [veh/h]	518	1682	0	0	1039	463	0	0	0	667	1	589
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	0	0	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	0	0	0	10	0	
Maximum Green [s]	30	30	0	0	30	0	0	0	0	0	30	0	
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	
Split [s]	20	52	0	0	32	0	0	0	0	0	38	0	
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	
Walk [s]	0	5	0	0	5	0	0	0	0	0	5	0	
Pedestrian Clearance [s]	0	10	0	0	7	0	0	0	0	0	10	0	
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Rest In Walk		No			No						No		
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	
Minimum Recall	No	No			No						No		
Maximum Recall	No	No			No						No		
Pedestrian Recall	No	No			No						No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
I, Upstream Filtering 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	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R		L	C	R
C, Cycle Length [s]	90	90	90	90		90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	15	48	29	29		34	34	34
g / C, Green / Cycle	0.17	0.53	0.32	0.32		0.38	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.15	0.47	0.29	0.29		0.19	0.19	0.37
s, saturation flow rate [veh/h]	3459	3560	3560	1589		1781	1781	1589
c, Capacity [veh/h]	594	1899	1129	504		673	673	600
d1, Uniform Delay [s]	36.31	18.58	29.62	29.60		21.44	21.44	27.68
k, delay calibration	0.11	0.50	0.50	0.50		0.11	0.11	0.44
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	4.17	6.52	13.36	24.20		0.57	0.57	30.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.89	0.92	0.92		0.50	0.50	0.98
d, Delay for Lane Group [s/veh]	40.49	25.10	42.99	53.80		22.01	22.01	57.86
Lane Group LOS	D	C	D	D		C	C	E
Critical Lane Group	No	Yes	No	No		No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.57	14.63	11.99	12.20		5.32	5.32	16.89
50th-Percentile Queue Length [ft/ln]	139.31	365.87	299.71	304.98		132.89	132.88	422.29
95th-Percentile Queue Length [veh/ln]	9.44	20.91	17.67	17.93		9.10	9.10	23.63
95th-Percentile Queue Length [ft/ln]	236.09	522.71	441.67	448.18		227.41	227.40	590.80

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.49	25.10	0.00	0.00	42.99	53.80	0.00	0.00	0.00	22.01	22.01	57.86
Movement LOS	D	C			D	D				C	C	E
d_A, Approach Delay [s/veh]	28.72				46.32		0.00		38.81			
Approach LOS	C				D		A		D			
d_I, Intersection Delay [s/veh]	36.61											
Intersection LOS	D											
Intersection V/C	0.925											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.249	0.000
Crosswalk LOS	F	F	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1067	622	0	756
d_b, Bicycle Delay [s]	9.80	21.36	45.00	17.42
I_b,int, Bicycle LOS Score for Intersection	3.375	2.890	4.132	3.736
Bicycle LOS	C	C	D	D

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Citrus Ave at SR-210 EB Ramps

Control Type:	Signalized	Delay (sec / veh):	66.5
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.057

Intersection Setup

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↑↑			↑↑↑			↑↑↑					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			No		

Volumes

Name	Citrus Ave			Citrus Ave			SR-210 EB Ramps			SR-210 EB Ramps		
Base Volume Input [veh/h]	0	1314	503	349	1241	0	760	282	522	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	37	25	0	41	0	0	0	27	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	106	0	0	0	0	0	110	0	0	0
Total Hourly Volume [veh/h]	0	1351	422	349	1282	0	760	282	439	0	0	0
Peak Hour Factor	1.0000	0.9500	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500	0.9500	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	356	111	92	337	0	200	74	116	0	0	0
Total Analysis Volume [veh/h]	0	1422	444	367	1349	0	800	297	462	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss
Signal Group	0	6	0	5	2	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	5	10	0	0	10	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	50	0	12	62	0	0	28	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No				
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No			No				
Maximum Recall		No		No	No			No				
Pedestrian Recall		No		No	No			No				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C	R	
C, Cycle Length [s]	90	90	90	90	90	90	90	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	46	46	8	58	24	24	24	
g / C, Green / Cycle	0.51	0.51	0.09	0.64	0.27	0.27	0.27	
(v / s)_i Volume / Saturation Flow Rate	0.50	0.54	0.11	0.38	0.29	0.32	0.29	
s, saturation flow rate [veh/h]	1870	1725	3459	3560	1781	1826	1589	
c, Capacity [veh/h]	956	882	307	2295	475	487	424	
d1, Uniform Delay [s]	21.47	22.00	41.00	9.16	33.00	33.00	33.00	
k, delay calibration	0.50	0.50	0.11	0.50	0.36	0.41	0.36	
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	23.90	46.90	94.40	1.11	63.52	99.96	63.80	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.98	1.06	1.19	0.59	1.09	1.19	1.09	
d, Delay for Lane Group [s/veh]	45.36	68.90	135.40	10.27	96.52	132.96	96.80	
Lane Group LOS	D	F	F	B	F	F	F	
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	
50th-Percentile Queue Length [veh/ln]	22.46	27.10	7.27	6.14	18.39	23.77	16.44	
50th-Percentile Queue Length [ft/ln]	561.62	677.50	181.80	153.40	459.63	594.36	411.02	
95th-Percentile Queue Length [veh/ln]	30.24	37.25	12.40	10.20	26.80	34.99	24.27	
95th-Percentile Queue Length [ft/ln]	755.94	931.21	310.12	254.96	669.91	874.87	606.83	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	53.46	68.90	135.40	10.27	0.00	108.82	132.96	96.80	0.00	0.00	0.00
Movement LOS		D	E	F	B		F	F	F			
d_A, Approach Delay [s/veh]	57.13			37.03			110.10			0.00		
Approach LOS	E			D			F			A		
d_I, Intersection Delay [s/veh]	66.48											
Intersection LOS	E											
Intersection V/C	1.057											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			9.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			36.45			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			2.696			0.000		
Crosswalk LOS	F			F			B			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	1022			1289			533			0		
d_b, Bicycle Delay [s]	10.76			5.69			24.20			45.00		
I_b,int, Bicycle LOS Score for Intersection	3.187			2.975			4.313			4.132		
Bicycle LOS	C			C			E			D		

Sequence





Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Citrus Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	50.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.000

Intersection Setup

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	74	1133	126	362	1130	268	269	430	85	120	292	436
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	20	0	0	0	0	68	62	13	19	0	14	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	25	-22	-3	-5	-13	18	21	4	12	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	119	1111	123	357	1117	354	352	447	116	120	306	436
Peak Hour Factor	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	289	32	93	290	92	91	116	30	31	80	113
Total Analysis Volume [veh/h]	124	1155	128	371	1161	368	366	465	121	125	318	453
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	31	0	13	34	0	13	30	0	16	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	24	0	0	21	0	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	29	29	9	32	32	9	29	29	8	27	27
g / C, Green / Cycle	0.07	0.32	0.32	0.10	0.35	0.35	0.10	0.32	0.32	0.09	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.07	0.32	0.08	0.11	0.33	0.23	0.11	0.13	0.08	0.07	0.09	0.28
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	3560	1589	1781	3560	1589
c, Capacity [veh/h]	119	1128	503	346	1246	556	346	1127	503	158	1088	486
d1, Uniform Delay [s]	42.00	30.75	22.85	40.50	28.20	24.73	40.50	24.17	22.75	40.18	23.84	30.36
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.34
l, Upstream Filtering 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
d2, Incremental Delay [s]	50.48	33.08	1.21	44.82	13.61	6.07	39.70	0.24	0.24	8.48	0.15	20.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	1.04	1.02	0.25	1.07	0.93	0.66	1.06	0.41	0.24	0.79	0.29	0.93
d, Delay for Lane Group [s/veh]	92.48	63.83	24.06	85.32	41.81	30.81	80.20	24.41	22.99	48.66	23.98	51.33
Lane Group LOS	F	F	C	F	D	C	F	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.18	16.34	2.05	5.79	13.28	7.01	5.55	3.65	1.80	2.96	2.43	11.57
50th-Percentile Queue Length [ft/ln]	104.49	408.40	51.28	144.78	331.99	175.29	138.63	91.26	45.08	73.94	60.79	289.30
95th-Percentile Queue Length [veh/ln]	7.52	23.32	3.69	9.99	19.26	11.35	9.60	6.57	3.25	5.32	4.38	17.15
95th-Percentile Queue Length [ft/ln]	188.07	583.01	92.30	249.64	481.40	283.85	239.99	164.26	81.15	133.10	109.42	428.77

Movement, Approach, & Intersection Results

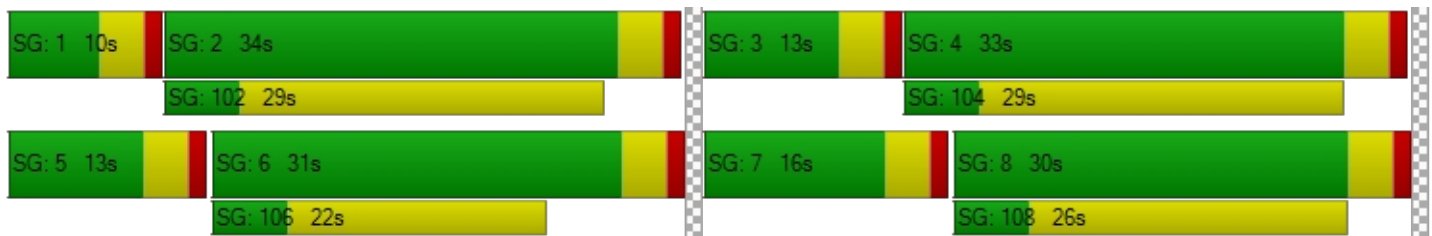
d_M, Delay for Movement [s/veh]	92.48	63.83	24.06	85.32	41.81	30.81	80.20	24.41	22.99	48.66	23.98	51.33
Movement LOS	F	F	C	F	D	C	F	C	C	D	C	D
d_A, Approach Delay [s/veh]	62.74			48.18			45.68			41.25		
Approach LOS	E			D			D			D		
d_I, Intersection Delay [s/veh]	50.49											
Intersection LOS	D											
Intersection V/C	1.000											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.140	3.405	3.049	2.908
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	667	578	644
d_b, Bicycle Delay [s]	22.05	20.00	22.76	20.67
I_b,int, Bicycle LOS Score for Intersection	2.720	3.127	2.345	2.299
Bicycle LOS	B	C	B	B

Sequence





Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Citrus Ave at Walnut St**

Control Type:	Signalized	Delay (sec / veh):	17.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.609

Intersection Setup

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Citrus Ave			Citrus Ave			Walnut St			Walnut St		
Base Volume Input [veh/h]	52	1299	150	57	1079	112	86	82	45	82	89	78
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	14	0	6	13	0	0	0	0	0	0	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	52	1313	150	63	1092	112	86	82	45	82	89	84
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	343	39	16	286	29	22	21	12	21	23	22
Total Analysis Volume [veh/h]	54	1373	157	66	1142	117	90	86	47	86	93	88
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	41	51	0	9	19	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	21	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	54	54	4	55	55	20	20	20	20
g / C, Green / Cycle	0.04	0.60	0.60	0.05	0.61	0.61	0.22	0.22	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.03	0.39	0.10	0.04	0.34	0.34	0.07	0.08	0.07	0.11
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1810	1203	1760	1256	1722
c, Capacity [veh/h]	76	2145	957	85	1136	1099	195	382	236	373
d1, Uniform Delay [s]	42.54	11.58	7.90	42.39	10.54	10.56	39.76	29.86	37.05	30.85
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.62	1.48	0.37	14.13	2.01	2.10	1.69	0.54	0.94	0.98
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.64	0.16	0.78	0.56	0.56	0.46	0.35	0.36	0.48
d, Delay for Lane Group [s/veh]	54.16	13.06	8.26	56.52	12.55	12.66	41.45	30.41	38.00	31.83
Lane Group LOS	D	B	A	E	B	B	D	C	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.38	7.59	1.21	1.72	6.70	6.55	1.99	2.42	1.79	3.43
50th-Percentile Queue Length [ft/ln]	34.51	189.81	30.32	43.01	167.55	163.76	49.64	60.60	44.84	85.69
95th-Percentile Queue Length [veh/ln]	2.48	12.11	2.18	3.10	10.95	10.75	3.57	4.36	3.23	6.17
95th-Percentile Queue Length [ft/ln]	62.11	302.78	54.58	77.42	273.69	268.69	89.35	109.08	80.72	154.25

Movement, Approach, & Intersection Results

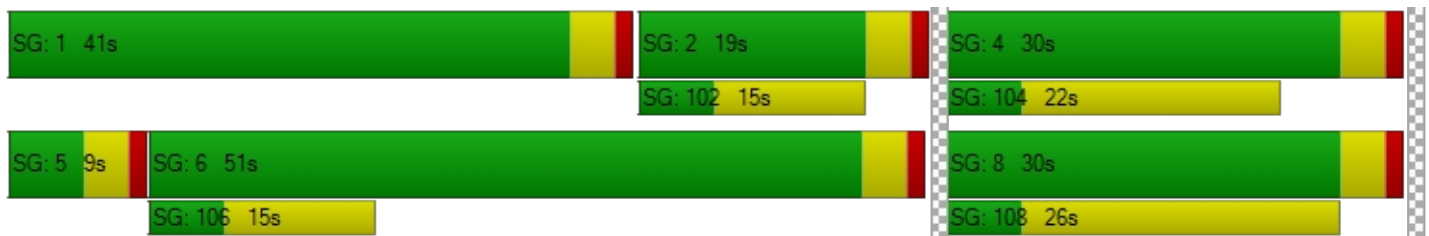
d_M, Delay for Movement [s/veh]	54.16	13.06	8.26	56.52	12.60	12.66	41.45	30.41	30.41	38.00	31.83	31.83
Movement LOS	D	B	A	E	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	13.99			14.79			34.86			33.81		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	17.23											
Intersection LOS	B											
Intersection V/C	0.609											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.274	3.271	2.126	2.160
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1044	333	578	578
d_b, Bicycle Delay [s]	10.27	31.25	22.76	22.76
I_b,int, Bicycle LOS Score for Intersection	2.866	2.653	1.928	2.000
Bicycle LOS	C	B	A	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Driveway 1/Jacaranda Ave at Highland Ave

Control Type:	Two-way stop	Delay (sec / veh):	29.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.123

Intersection Setup

Name	Jacaranda Ave			Driveway 1			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	Jacaranda Ave			Driveway 1			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	7	0	0	0	0	762	0	11	582	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	19	0	6	5	27	0	0	25	17
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	7	19	0	6	5	789	0	11	607	17
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	2	5	0	2	1	208	0	3	160	4
Total Analysis Volume [veh/h]	0	0	7	20	0	6	5	831	0	12	639	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.12	0.00	0.01	0.01	0.01	0.00	0.02	0.01	0.00
d_M, Delay for Movement [s/veh]	30.68	36.52	11.22	29.93	38.81	13.16	8.91	0.00	0.00	9.59	0.00	0.00
Movement LOS	D	E	B	D	E	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.04	0.45	0.45	0.45	0.02	0.00	0.00	0.05	0.02	0.00
95th-Percentile Queue Length [ft/ln]	0.91	0.91	0.91	11.18	11.18	11.18	0.41	0.00	0.00	1.15	0.57	0.00
d_A, Approach Delay [s/veh]	11.22			26.06			0.05			0.17		
Approach LOS	B			D			A			A		
d_I, Intersection Delay [s/veh]	0.60											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 9: Driveway 2/Tokay Ave at Highland Ave

Control Type:	Signalized	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.313

Intersection Setup

Name	Tokay Ave			Driveway 2			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Tokay Ave			Driveway 2			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	7	0	0	0	0	769	0	12	593	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	75	0	15	27	19	0	0	27	50
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	37	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	7	112	0	15	27	788	0	12	620	50
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	2	29	0	4	7	207	0	3	163	13
Total Analysis Volume [veh/h]	0	0	7	118	0	16	28	829	0	13	653	53
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	45	19	0	45	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	7	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	3	67	67	1	66	66
g / C, Green / Cycle	0.11	0.11	0.11	0.03	0.74	0.74	0.02	0.73	0.73
(v / s)_i Volume / Saturation Flow Rate	0.00	0.08	0.01	0.02	0.22	0.22	0.01	0.19	0.19
s, saturation flow rate [veh/h]	1589	1408	1589	1781	1870	1870	1781	1870	1821
c, Capacity [veh/h]	211	196	171	51	1389	1389	29	1366	1330
d1, Uniform Delay [s]	36.01	39.21	36.21	43.12	3.82	3.82	43.87	4.04	4.05
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.06	2.95	0.24	8.74	0.55	0.55	10.47	0.47	0.48
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.60	0.09	0.55	0.30	0.30	0.45	0.26	0.26
d, Delay for Lane Group [s/veh]	36.07	42.16	36.45	51.86	4.37	4.37	54.34	4.51	4.53
Lane Group LOS	D	D	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.14	2.70	0.33	0.71	1.73	1.73	0.36	1.57	1.54
50th-Percentile Queue Length [ft/ln]	3.55	67.40	8.22	17.85	43.22	43.22	9.00	39.34	38.51
95th-Percentile Queue Length [veh/ln]	0.26	4.85	0.59	1.29	3.11	3.11	0.65	2.83	2.77
95th-Percentile Queue Length [ft/ln]	6.39	121.33	14.80	32.13	77.80	77.80	16.19	70.81	69.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.07	36.07	36.07	42.16	36.45	36.45	51.86	4.37	4.37	54.34	4.52	4.53
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	36.07			41.48			5.92			5.42		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	8.61											
Intersection LOS	A											
Intersection V/C	0.313											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	1.724	2.000	2.826	2.959
Crosswalk LOS	A	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	333	333
d_b, Bicycle Delay [s]	25.69	25.69	31.25	31.25
I_b,int, Bicycle LOS Score for Intersection	1.571	1.781	2.267	2.153
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report**Intersection 10: Driveway 3/Cherimoya Ave at Highland Ave**

Control Type:	Two-way stop	Delay (sec / veh):	11.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Cherimoya Ave			Driveway 3			Highland Ave			Highland Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↶			↶			↶↷			↶↷		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	Cherimoya Ave			Driveway 3			Highland Ave			Highland Ave		
Base Volume Input [veh/h]	0	0	8	0	0	0	0	776	0	0	605	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	10	0	94	0	0	67	35
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	37	0	0	0	43
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	8	0	0	10	0	907	0	0	672	78
Peak Hour Factor	1.0000	1.0000	0.9500	1.0000	1.0000	0.9500	1.0000	0.9500	0.9500	1.0000	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	2	0	0	3	0	239	0	0	177	21
Total Analysis Volume [veh/h]	0	0	8	0	0	11	0	955	0	0	707	82
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	11.84	0.00	0.00	11.06	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			B			B		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.14	0.00	0.00	1.39	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.84			11.06			0.00			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.12											
Intersection LOS	B											

APPENDIX D

INTERNAL CAPTURE
WORKSHEETS

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Fontana Square	Organization:	
Project Location:	NWC of Citrus/Highland in Fontana	Performed By:	JMC
Scenario Description:		Date:	4/8/2021
Analysis Year:		Checked By:	
Analysis Period:	AM Street Peak Hour	Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				0		
Restaurant				228	119	109
Cinema/Entertainment				0		
Residential				0		
Hotel				118	69	49
All Other Land Uses ²				0		
				346	188	158

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	0	3
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	4	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	346	188	158
Internal Capture Percentage	4%	4%	4%
External Vehicle-Trips ⁵	332	181	151
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	3%	3%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	4%	8%

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:			Organization:		
Project Location:			Performed By:		
Scenario Description:			Date:		
Analysis Year:			Checked By:		
Analysis Period:	PM Street Peak Hour			Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				0		
Restaurant				200	100	100
Cinema/Entertainment				0		
Residential				0		
Hotel				200	100	100
All Other Land Uses ²				0		
				400	200	200

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail	0					
Restaurant	0	0				7
Cinema/Entertainment	0	0	0			0
Residential	0	0	0	0		0
Hotel	0	0	5	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	400	200	200
Internal Capture Percentage	6%	6%	6%
External Vehicle-Trips ⁵	376	188	188
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	5%	7%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	7%	5%

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

APPENDIX E

CUMULATIVE PROJECTS
INFORMATION

Enter only in blue cells Yellow cells calculate

Int. #: 1 Beech Avenue at S. Highland Avenue

Mirror distribution? Y Entire Intersection

Mirror distribution?

TOTAL CUMULATIVE PROJECTS TRAFFIC													
Pk Hr		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		10	2	4	4	0	9	0	0	0	0	7	0
AM Out		0	0	0	0	7	0	26	22	31	2	0	2
AM Tot		10	2	4	4	7	9	26	22	31	2	7	2
PM In		33	7	8	8	0	29	0	0	0	0	24	0
PM Out		0	0	0	0	4	0	17	14	20	10	0	10
PM Tot		33	7	8	8	4	29	17	14	20	10	24	10

Zone # 1 Shady Trails PA 13 & 14

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		5%										
Y	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	5%	0%	0%	0%	0%	0%	0%	0%		0%	0%
PM Out	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	19	0	1	0	0	0	0	0	0	0	0	0	0
AM Out	56	0	0	0	0	3	0	0	0	0	0	0	0
PM In	63	0	3	0	0	0	0	0	0	0	0	0	0
PM Out	37	0	0	0	0	2	0	0	0	0	0	0	0

Zone # 2 Shady Trail Spa 16

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		10%										
Y	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	13	0	1	0	0	0	0	0	0	0	0	0	0
AM Out	37	0	0	0	0	4	0	0	0	0	0	0	0
PM In	37	0	4	0	0	0	0	0	0	0	0	0	0
PM Out	24	0	0	0	0	2	0	0	0	0	0	0	0

Zone # 3 Casa Grande Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	25	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	7	0	0	0	0	0	0	0	0	0	0	0	0
PM In	10	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	26	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 4 Sierra/Summit Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	12	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	0	0	0	0	0	0	0	0
PM In	5	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	13	0	0	0	0	0	0	0	0	0	0	0	0

Int. #: 1 Beech Avenue at S. Highland Avenue

Zone # 5 Mango Avenue Industrial

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	15	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	0	0	0	0	0	0	0	0
PM In	6	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	16	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 6 Sierra Lakes & Mango Convenience Store and Pumps

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	83	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	83	0	0	0	0	0	0	0	0	0	0	0	0
PM In	92	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	92	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 7 Smile Studio Dental Building

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	8	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	2	0	0	0	0	0	0	0	0	0	0	0	0
PM In	4	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	10	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 8 Costco Fuel Facility Expansion

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	21	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	21	0	0	0	0	0	0	0	0	0	0	0	0
PM In	28	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	28	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 9 The Retreat

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	35%					30%				25%		
Y	0%	0%	0%	0%	0%	0%	30%	25%	35%	0%	0%	0%
AM Out												
PM In	35%	0%	0%	0%	0%	30%	0%	0%	0%	0%	25%	0%
PM Out	0%	0%	0%	0%	0%	0%	30%	25%	35%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	29	10	0	0	0	0	9	0	0	0	0	7	0
AM Out	88	0	0	0	0	0	0	26	22	31	0	0	0
PM In	95	33	0	0	0	0	29	0	0	0	0	24	0
PM Out	56	0	0	0	0	0	0	17	14	20	0	0	0

Int. #: 1 Beech Avenue at S. Highland Avenue

Zone # 10 Citrus Crossroads

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In			10%	10%								
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	10%
AM Out												
PM In	0%	0%	10%	10%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	10%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	23	0	0	2	2	0	0	0	0	0	0	0	0
AM Out	14	0	0	0	0	0	0	0	0	0	1	0	1
PM In	73	0	0	7	7	0	0	0	0	0	0	0	0
PM Out	79	0	0	0	0	0	0	0	0	0	8	0	8

Zone # 11 Fontana Hyundai

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In			5%	5%								
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	5%
AM Out												
PM In	0%	0%	5%	5%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	5%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	36	0	0	2	2	0	0	0	0	0	0	0	0
AM Out	13	0	0	0	0	0	0	0	0	0	1	0	1
PM In	25	0	0	1	1	0	0	0	0	0	0	0	0
PM Out	38	0	0	0	0	0	0	0	0	0	2	0	2

Zone # 12 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	61	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	23	0	0	0	0	0	0	0	0	0	0	0	0
PM In	43	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	65	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 13 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	24	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	14	0	0	0	0	0	0	0	0	0	0	0	0
PM In	29	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	29	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 14 Walnut Village Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	7	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	15	0	0	0	0	0	0	0	0	0	0	0	0
PM In	17	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	11	0	0	0	0	0	0	0	0	0	0	0	0

Int. #: 1 Beech Avenue at S. Highland Avenue

Zone # 15 Providence II Amendment

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	18	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	53	0	0	0	0	0	0	0	0	0	0	0	0
PM In	60	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	35	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 16 Kingston Meadow

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	4	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	11	0	0	0	0	0	0	0	0	0	0	0	0
PM In	12	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	7	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 17 Baseline Apartments

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	19	0	0	0	0	0	0	0	0	0	0	0	0
PM In	19	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	11	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 18 Multi-Family Project

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	16	0	0	0	0	0	0	0	0	0	0	0	0
PM In	16	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	10	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 19 Mango Villas

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	3	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	8	0	0	0	0	0	0	0	0	0	0	0	0
PM In	9	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	5	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 20 Almeria Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0

		Int. #:	Beech Avenue at S. Highland Avenue																			
Y		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
AM Out																						
PM In		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
PM Out		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
AM Out	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM In	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Enter only in blue cells Yellow cells calculate

Int. #: 2 Beech Avenue at I-210 HOV Ramps

Y

TOTAL CUMULATIVE PROJECTS TRAFFIC													
Pk Hr		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		0	2	0	0	7	0	0	0	0	0	0	0
AM Out		0	11	0	0	7	0	0	0	0	0	0	0
AM Tot		0	13	0	0	14	0	0	0	0	0	0	0
PM In		0	7	0	0	18	0	0	0	0	0	0	0
PM Out		0	16	0	0	4	0	0	0	0	0	0	0
PM Tot		0	23	0	0	22	0	0	0	0	0	0	0

Zone # 1 Shady Trails PA 13 & 14

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		5%										
Y	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	19	0	1	0	0	0	0	0	0	0	0	0	0
AM Out	56	0	0	0	0	3	0	0	0	0	0	0	0
PM In	63	0	3	0	0	0	0	0	0	0	0	0	0
PM Out	37	0	0	0	0	2	0	0	0	0	0	0	0

Zone # 2 Shady Trail Spa 16

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		10%										
Y	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	13	0	1	0	0	0	0	0	0	0	0	0	0
AM Out	37	0	0	0	0	4	0	0	0	0	0	0	0
PM In	37	0	4	0	0	0	0	0	0	0	0	0	0
PM Out	24	0	0	0	0	2	0	0	0	0	0	0	0

Zone # 3 Casa Grande Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	25	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	7	0	0	0	0	0	0	0	0	0	0	0	0
PM In	10	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	26	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 4 Sierra/Summit Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	12	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	0	0	0	0	0	0	0	0
PM In	5	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	13	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 5 Mango Avenue Industrial

Int. #: 2 Beech Avenue at I-210 HOV Ramps

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	15	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	0	0	0	0	0	0	0	0
PM In	6	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	16	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 6 Sierra Lakes & Mango Convenience Store and Pumps

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	83	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	83	0	0	0	0	0	0	0	0	0	0	0	0
PM In	92	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	92	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 7 Smile Studio Dental Building

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	8	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	2	0	0	0	0	0	0	0	0	0	0	0	0
PM In	4	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	10	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 8 Costco Fuel Facility Expansion

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	21	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	21	0	0	0	0	0	0	0	0	0	0	0	0
PM In	28	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	28	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 9 The Retreat

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					10%							
Y	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	29	0	0	0	0	3	0	0	0	0	0	0	0
AM Out	88	0	9	0	0	0	0	0	0	0	0	0	0
PM In	95	0	0	0	0	10	0	0	0	0	0	0	0
PM Out	56	0	6	0	0	0	0	0	0	0	0	0	0

Zone # 10 Citrus Crossroads

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					10%							
Y	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	23	0	0	0	0	2	0	0	0	0	0	0	0

Int. #: 2 Beech Avenue at I-210 HOV Ramps

AM Out												
PM In	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

AM Out	14	0	1	0	0	0	0	0	0	0	0	0
PM In	73	0	0	0	0	7	0	0	0	0	0	0
PM Out	79	0	8	0	0	0	0	0	0	0	0	0

Zone # 11 Fontana Hyundai

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					5%							
Y	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	36	0	0	0	0	2	0	0	0	0	0	0	0
AM Out	13	0	1	0	0	0	0	0	0	0	0	0	0
PM In	25	0	0	0	0	1	0	0	0	0	0	0	0
PM Out	38	0	2	0	0	0	0	0	0	0	0	0	0

Zone # 12 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	61	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	23	0	0	0	0	0	0	0	0	0	0	0	0
PM In	43	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	65	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 13 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	24	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	14	0	0	0	0	0	0	0	0	0	0	0	0
PM In	29	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	29	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 14 Walnut Village Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	7	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	15	0	0	0	0	0	0	0	0	0	0	0	0
PM In	17	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	11	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 15 Providence II Amendment

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	18	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	53	0	0	0	0	0	0	0	0	0	0	0	0
PM In	60	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	35	0	0	0	0	0	0	0	0	0	0	0	0

Int. #: 2 Beech Avenue at I-210 HOV Ramps

Zone # 16 Kingston Meadow

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	4	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	11	0	0	0	0	0	0	0	0	0	0	0	0
PM In	12	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	7	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 17 Baseline Apartments

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	19	0	0	0	0	0	0	0	0	0	0	0	0
PM In	19	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	11	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 18 Multi-Family Project

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	16	0	0	0	0	0	0	0	0	0	0	0	0
PM In	16	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	10	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 19 Mango Villas

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	3	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	8	0	0	0	0	0	0	0	0	0	0	0	0
PM In	9	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	5	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 20 Almeria Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	12	0	0	0	0	0	0	0	0	0	0	0	0
PM In	13	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	8	0	0	0	0	0	0	0	0	0	0	0	0

Int. #: 3 Catawba Avenue at S. Highland Avenue

Y

TOTAL CUMULATIVE PROJECTS TRAFFIC													
Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
AM In	0	0	0	0	0	0	0	9	0	0	12	0	
AM Out	0	0	0	0	0	0	0	35	0	0	4	0	
AM Tot	0	0	0	0	0	0	0	44	0	0	16	0	
PM In	0	0	0	0	0	0	0	18	0	0	38	0	
PM Out	0	0	0	0	0	0	0	22	0	0	20	0	
PM Tot	0	0	0	0	0	0	0	40	0	0	58	0	

Zone # 1 Shady Trails PA 13 & 14

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	19	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	56	0	0	0	0	0	0	0	0	0	0	0	0
PM In	63	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	37	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 2 Shady Trail Spa 16

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	13	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	37	0	0	0	0	0	0	0	0	0	0	0	0
PM In	37	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	24	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 3 Casa Grande Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	25	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	7	0	0	0	0	0	0	0	0	0	0	0	0
PM In	10	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	26	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 4 Sierra/Summit Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	12	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	0	0	0	0	0	0	0	0
PM In	5	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	13	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 5 Mango Avenue Industrial

Int. #: 3 Catawba Avenue at S. Highland Avenue

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	15	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	0	0	0	0	0	0	0	0
PM In	6	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	16	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 6 Sierra Lakes & Mango Convenience Store and Pumps

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	83	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	83	0	0	0	0	0	0	0	0	0	0	0	0
PM In	92	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	92	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 7 Smile Studio Dental Building

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	8	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	2	0	0	0	0	0	0	0	0	0	0	0	0
PM In	4	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	10	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 8 Costco Fuel Facility Expansion

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	21	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	21	0	0	0	0	0	0	0	0	0	0	0	0
PM In	28	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	28	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 9 The Retreat

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In											40%	
Y	0%	0%	0%	0%	0%	0%	0%	40%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	40%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	40%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	29	0	0	0	0	0	0	0	0	0	0	12	0
AM Out	88	0	0	0	0	0	0	0	35	0	0	0	0
PM In	95	0	0	0	0	0	0	0	0	0	0	38	0
PM Out	56	0	0	0	0	0	0	0	22	0	0	0	0

Zone # 10 Citrus Crossroads

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In								20%				
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%
AM Out												

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	23	0	0	0	0	0	0	0	5	0	0	0	0
AM Out	14	0	0	0	0	0	0	0	0	0	0	3	0

Int. #: 3 Catawba Avenue at S. Highland Avenue

PM In	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%

PM In	73	0	0	0	0	0	0	0	0	15	0	0	0	0
PM Out	79	0	0	0	0	0	0	0	0	0	0	0	16	0

Zone # 11 Fontana Hyundai

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In								10%				
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	36	0	0	0	0	0	0	0	4	0	0	0	0
AM Out	13	0	0	0	0	0	0	0	0	0	0	1	0
PM In	25	0	0	0	0	0	0	0	3	0	0	0	0
PM Out	38	0	0	0	0	0	0	0	0	0	0	4	0

Zone # 12 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	61	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	23	0	0	0	0	0	0	0	0	0	0	0	0
PM In	43	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	65	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 13 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	24	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	14	0	0	0	0	0	0	0	0	0	0	0	0
PM In	29	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	29	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 14 Walnut Village Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	7	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	15	0	0	0	0	0	0	0	0	0	0	0	0
PM In	17	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	11	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 15 Providence II Amendment

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	18	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	53	0	0	0	0	0	0	0	0	0	0	0	0
PM In	60	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	35	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 16 Kingston Meadow

Int. #: 3 Catawba Avenue at S. Highland Avenue

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	4	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	11	0	0	0	0	0	0	0	0	0	0	0	0
PM In	12	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	7	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 17 Baseline Apartments

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	19	0	0	0	0	0	0	0	0	0	0	0	0
PM In	19	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	11	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 18 Multi-Family Project

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	16	0	0	0	0	0	0	0	0	0	0	0	0
PM In	16	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	10	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 19 Mango Villas

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	3	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	8	0	0	0	0	0	0	0	0	0	0	0	0
PM In	9	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	5	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 20 Almeria Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	12	0	0	0	0	0	0	0	0	0	0	0	0
PM In	13	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	8	0	0	0	0	0	0	0	0	0	0	0	0

Enter only in blue cells Yellow cells calculate

Int. #: 4 Citrus Avenue at I-210 WB Ramps

N

TOTAL CUMULATIVE PROJECTS TRAFFIC													
Pk Hr		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		0	50	0	0	14	0	0	0	0	37	0	28
AM Out		55	26	0	0	68	35	0	0	0	0	0	0
AM Tot		55	76	0	0	82	35	0	0	0	37	0	28
PM In		0	63	0	0	28	0	0	0	0	78	0	55
PM Out		64	32	0	0	71	33	0	0	0	0	0	0
PM Tot		64	95	0	0	99	33	0	0	0	78	0	55

Zone # 1 Shady Trails PA 13 & 14

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		25%										45%
N	0%	0%	0%	0%	45%	25%	0%	0%	0%	0%	0%	0%
AM Out					45%	25%						
PM In	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	45%
PM Out	0%	0%	0%	0%	45%	25%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	19	0	5	0	0	0	0	0	0	0	0	0	9
AM Out	56	0	0	0	0	25	14	0	0	0	0	0	0
PM In	63	0	16	0	0	0	0	0	0	0	0	0	28
PM Out	37	0	0	0	0	17	9	0	0	0	0	0	0

Zone # 2 Shady Trail Spa 16

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		25%										30%
N	0%	25%	0%	0%	30%	25%	0%	0%	0%	0%	0%	0%
AM Out					30%	25%						
PM In	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%
PM Out	0%	25%	0%	0%	30%	25%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	13	0	3	0	0	0	0	0	0	0	0	0	4
AM Out	37	0	9	0	0	11	9	0	0	0	0	0	0
PM In	37	0	9	0	0	0	0	0	0	0	0	0	11
PM Out	24	0	6	0	0	7	6	0	0	0	0	0	0

Zone # 3 Casa Grande Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		25%										
N	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%
AM Out					25%							
PM In	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	25	0	6	0	0	0	0	0	0	0	0	0	0
AM Out	7	0	0	0	0	2	0	0	0	0	0	0	0
PM In	10	0	3	0	0	0	0	0	0	0	0	0	0
PM Out	26	0	0	0	0	7	0	0	0	0	0	0	0

Zone # 4 Sierra/Summit Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		25%										
N	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%
AM Out					25%							
PM In	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	12	0	3	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	1	0	0	0	0	0	0	0
PM In	5	0	1	0	0	0	0	0	0	0	0	0	0
PM Out	13	0	0	0	0	3	0	0	0	0	0	0	0

Zone # 5 Mango Avenue Industrial

Int. #: 4 Citrus Avenue at I-210 WB Ramps

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		20%										10%
N	0%	0%	0%	0%	20%	10%	0%	0%	0%	0%	0%	0%
AM Out					20%	10%						
PM In	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%
PM Out	0%	0%	0%	0%	20%	10%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	15	0	3	0	0	0	0	0	0	0	0	0	2
AM Out	4	0	0	0	0	1	0	0	0	0	0	0	0
PM In	6	0	1	0	0	0	0	0	0	0	0	0	1
PM Out	16	0	0	0	0	3	2	0	0	0	0	0	0

Zone # 6 Sierra Lakes & Mango Convenience Store and Pumps

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		20%										10%
N	0%	0%	0%	0%	20%	10%	0%	0%	0%	0%	0%	0%
AM Out					20%	10%						
PM In	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%
PM Out	0%	0%	0%	0%	20%	10%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	83	0	17	0	0	0	0	0	0	0	0	0	8
AM Out	83	0	0	0	0	17	8	0	0	0	0	0	0
PM In	92	0	18	0	0	0	0	0	0	0	0	0	9
PM Out	92	0	0	0	0	18	9	0	0	0	0	0	0

Zone # 7 Smile Studio Dental Building

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		20%										10%
N	0%	0%	0%	0%	20%	10%	0%	0%	0%	0%	0%	0%
AM Out					20%	10%						
PM In	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%
PM Out	0%	0%	0%	0%	20%	10%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	8	0	2	0	0	0	0	0	0	0	0	0	1
AM Out	2	0	0	0	0	0	0	0	0	0	0	0	0
PM In	4	0	1	0	0	0	0	0	0	0	0	0	0
PM Out	10	0	0	0	0	2	1	0	0	0	0	0	0

Zone # 8 Costco Fuel Facility Expansion

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		50%										20%
N	0%	0%	0%	0%	50%	20%	0%	0%	0%	0%	0%	0%
AM Out					50%	20%						
PM In	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%
PM Out	0%	0%	0%	0%	50%	20%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	21	0	11	0	0	0	0	0	0	0	0	0	4
AM Out	21	0	0	0	0	11	4	0	0	0	0	0	0
PM In	28	0	14	0	0	0	0	0	0	0	0	0	6
PM Out	28	0	0	0	0	14	6	0	0	0	0	0	0

Zone # 9 The Retreat

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					15%					15%		
N	15%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out	15%	15%										
PM In	0%	0%	0%	0%	15%	0%	0%	0%	0%	15%	0%	0%
PM Out	15%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	29	0	0	0	0	4	0	0	0	0	4	0	0
AM Out	88	13	13	0	0	0	0	0	0	0	0	0	0
PM In	95	0	0	0	0	14	0	0	0	0	14	0	0
PM Out	56	8	8	0	0	0	0	0	0	0	0	0	0

Zone # 10 Citrus Crossroads

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					10%					20%		
N	20%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	23	0	0	0	0	2	0	0	0	0	5	0	0

Int. #:	4	Citrus Avenue at I-210 WB Ramps										
AM Out	20%	10%										
PM In	0%	0%	0%	0%	10%	0%	0%	0%	0%	20%	0%	0%
PM Out	20%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

AM Out	14	3	1	0	0	0	0	0	0	0	0	0
PM In	73	0	0	0	0	7	0	0	0	0	15	0
PM Out	79	16	8	0	0	0	0	0	0	0	0	0

Zone # 11 Fontana Hyundai

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
N	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	36	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	13	0	0	0	0	0	0	0	0	0	0	0	0
PM In	25	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	38	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 12 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					10%					20%		
N	20%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out	20%	10%										
PM In	0%	0%	0%	0%	10%	0%	0%	0%	0%	20%	0%	0%
PM Out	20%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	61	0	0	0	0	6	0	0	0	0	12	0	0
AM Out	23	5	2	0	0	0	0	0	0	0	0	0	0
PM In	43	0	0	0	0	4	0	0	0	0	9	0	0
PM Out	65	13	7	0	0	0	0	0	0	0	0	0	0

Zone # 13 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					10%					20%		
N	20%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out	20%	10%										
PM In	0%	0%	0%	0%	10%	0%	0%	0%	0%	20%	0%	0%
PM Out	20%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	24	0	0	0	0	2	0	0	0	0	5	0	0
AM Out	14	3	1	0	0	0	0	0	0	0	0	0	0
PM In	29	0	0	0	0	3	0	0	0	0	6	0	0
PM Out	29	6	3	0	0	0	0	0	0	0	0	0	0

Zone # 14 Walnut Village Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In										10%		
N	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out	10%											
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%
PM Out	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	7	0	0	0	0	0	0	0	0	0	1	0	0
AM Out	15	2	0	0	0	0	0	0	0	0	0	0	0
PM In	17	0	0	0	0	0	0	0	0	0	2	0	0
PM Out	11	1	0	0	0	0	0	0	0	0	0	0	0

Zone # 15 Providence II Amendment

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In										30%		
N	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out	30%											
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	0%	0%
PM Out	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	18	0	0	0	0	0	0	0	0	0	5	0	0
AM Out	53	16	0	0	0	0	0	0	0	0	0	0	0
PM In	60	0	0	0	0	0	0	0	0	0	18	0	0
PM Out	35	11	0	0	0	0	0	0	0	0	0	0	0

Int. #: 4 Citrus Avenue at I-210 WB Ramps

Zone # 16 Kingston Meadow

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In										30%		
N	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out	30%											
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	0%	0%
PM Out	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	4	0	0	0	0	0	0	0	0	0	1	0	0
AM Out	11	3	0	0	0	0	0	0	0	0	0	0	0
PM In	12	0	0	0	0	0	0	0	0	0	4	0	0
PM Out	7	2	0	0	0	0	0	0	0	0	0	0	0

Zone # 17 Baseline Apartments

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In										20%		
N	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out	20%											
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%
PM Out	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	1	0	0
AM Out	19	4	0	0	0	0	0	0	0	0	0	0	0
PM In	19	0	0	0	0	0	0	0	0	0	4	0	0
PM Out	11	2	0	0	0	0	0	0	0	0	0	0	0

Zone # 18 Multi-Family Project

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In										15%		
N	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out	15%											
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%
PM Out	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	1	0	0
AM Out	16	2	0	0	0	0	0	0	0	0	0	0	0
PM In	16	0	0	0	0	0	0	0	0	0	2	0	0
PM Out	10	2	0	0	0	0	0	0	0	0	0	0	0

Zone # 19 Mango Villas

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In										10%		
N	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out	10%											
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%
PM Out	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	3	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	8	1	0	0	0	0	0	0	0	0	0	0	0
PM In	9	0	0	0	0	0	0	0	0	0	1	0	0
PM Out	5	1	0	0	0	0	0	0	0	0	0	0	0

Zone # 20 Almeria Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In										25%		
N	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out	25%											
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%
PM Out	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	2	0	0
AM Out	12	3	0	0	0	0	0	0	0	0	0	0	0
PM In	13	0	0	0	0	0	0	0	0	0	3	0	0
PM Out	8	2	0	0	0	0	0	0	0	0	0	0	0

Enter only in blue cells Yellow cells calculate

Int. #: 5 Citrus Avenue at I-210 EB Ramps

N

TOTAL CUMULATIVE PROJECTS TRAFFIC													
Pk Hr		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		0	33	0	0	47	0	23	0	37	0	0	0
AM Out		0	59	55	35	33	0	0	0	0	0	0	0
AM Tot		0	92	55	35	80	0	23	0	37	0	0	0
PM In		0	42	0	0	92	0	41	0	78	0	0	0
PM Out		0	82	64	33	40	0	0	0	0	0	0	0
PM Tot		0	124	64	33	132	0	41	0	78	0	0	0

Zone # 1 Shady Trails PA 13 & 14

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		20%					25%					
N	0%	0%	0%	25%	20%	0%	0%	0%	0%	0%	0%	0%
AM Out				25%	20%							
PM In	0%	20%	0%	0%	0%	0%	25%	0%	0%		0%	0%
PM Out	0%	0%	0%	25%	20%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	19	0	4	0	0	0	0	5	0	0	0	0	0
AM Out	56	0	0	0	14	11	0	0	0	0	0	0	0
PM In	63	0	13	0	0	0	0	16	0	0	0	0	0
PM Out	37	0	0	0	9	7	0	0	0	0	0	0	0

Zone # 2 Shady Trail Spa 16

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		20%					25%					
N	0%	0%	0%	25%	20%	0%	0%	0%	0%	0%	0%	0%
AM Out				25%	20%							
PM In	0%	20%	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	25%	20%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	13	0	3	0	0	0	0	3	0	0	0	0	0
AM Out	37	0	0	0	9	7	0	0	0	0	0	0	0
PM In	37	0	7	0	0	0	0	9	0	0	0	0	0
PM Out	24	0	0	0	6	5	0	0	0	0	0	0	0

Zone # 3 Casa Grande Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		25%										
N	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%
AM Out					25%							
PM In	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	25	0	6	0	0	0	0	0	0	0	0	0	0
AM Out	7	0	0	0	0	2	0	0	0	0	0	0	0
PM In	10	0	3	0	0	0	0	0	0	0	0	0	0
PM Out	26	0	0	0	0	7	0	0	0	0	0	0	0

Zone # 4 Sierra/Summit Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		25%										
N	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%
AM Out					25%							
PM In	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	12	0	3	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	1	0	0	0	0	0	0	0
PM In	5	0	1	0	0	0	0	0	0	0	0	0	0
PM Out	13	0	0	0	0	3	0	0	0	0	0	0	0

Zone # 5 Mango Avenue Industrial

Int. #: 5 Citrus Avenue at I-210 EB Ramps

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		10%					10%					
N	0%	0%	0%	10%	10%	0%	0%	0%	0%	0%	0%	0%
AM Out				10%	10%							
PM In	0%	10%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	10%	10%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	15	0	2	0	0	0	0	2	0	0	0	0	0
AM Out	4	0	0	0	0	0	0	0	0	0	0	0	0
PM In	6	0	1	0	0	0	0	1	0	0	0	0	0
PM Out	16	0	0	0	2	2	0	0	0	0	0	0	0

Zone # 6 Sierra Lakes & Mango Convenience Store and Pumps

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		10%					10%					
N	0%	0%	0%	10%	10%	0%	0%	0%	0%	0%	0%	0%
AM Out				10%	10%							
PM In	0%	10%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	10%	10%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	83	0	8	0	0	0	0	8	0	0	0	0	0
AM Out	83	0	0	0	8	8	0	0	0	0	0	0	0
PM In	92	0	9	0	0	0	0	9	0	0	0	0	0
PM Out	92	0	0	0	9	9	0	0	0	0	0	0	0

Zone # 7 Smile Studio Dental Building

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		10%					10%					
N	0%	0%	0%	10%	10%	0%	0%	0%	0%	0%	0%	0%
AM Out				10%	10%							
PM In	0%	10%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	10%	10%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	8	0	1	0	0	0	0	1	0	0	0	0	0
AM Out	2	0	0	0	0	0	0	0	0	0	0	0	0
PM In	4	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	10	0	0	0	1	1	0	0	0	0	0	0	0

Zone # 8 Costco Fuel Facility Expansion

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		30%					20%					
N	0%	0%	0%	20%	20%	0%	0%	0%	0%	0%	0%	0%
AM Out				20%	20%							
PM In	0%	30%	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	20%	20%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	21	0	6	0	0	0	0	4	0	0	0	0	0
AM Out	21	0	0	0	4	4	0	0	0	0	0	0	0
PM In	28	0	8	0	0	0	0	6	0	0	0	0	0
PM Out	28	0	0	0	6	6	0	0	0	0	0	0	0

Zone # 9 The Retreat

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					15%				15%			
N	0%	15%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out		15%	15%									
PM In	0%	0%	0%	0%	15%	0%	0%	0%	15%	0%	0%	0%
PM Out	0%	15%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	29	0	0	0	0	4	0	0	0	4	0	0	0
AM Out	88	0	13	13	0	0	0	0	0	0	0	0	0
PM In	95	0	0	0	0	14	0	0	0	14	0	0	0
PM Out	56	0	8	8	0	0	0	0	0	0	0	0	0

Zone # 10 Citrus Crossroads

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					30%				20%			
N	0%	30%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	23	0	0	0	0	7	0	0	0	5	0	0	0

Int. #:	5	Citrus Avenue at I-210 EB Ramps										
AM Out	30%	20%										
PM In	0%	0%	0%	0%	30%	0%	0%	0%	20%	0%	0%	0%
PM Out	0%	30%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%

AM Out	14	0	4	3	0	0	0	0	0	0	0	0
PM In	73	0	0	0	0	22	0	0	0	15	0	0
PM Out	79	0	24	16	0	0	0	0	0	0	0	0

Zone # 11 Fontana Hyundai

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
N	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	36	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	13	0	0	0	0	0	0	0	0	0	0	0	0
PM In	25	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	38	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 12 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					30%				20%			
N	0%	30%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out		30%	20%									
PM In	0%	0%	0%	0%	30%	0%	0%	0%	20%	0%	0%	0%
PM Out	0%	30%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	61	0	0	0	0	18	0	0	0	12	0	0	0
AM Out	23	0	7	5	0	0	0	0	0	0	0	0	0
PM In	43	0	0	0	0	13	0	0	0	9	0	0	0
PM Out	65	0	20	13	0	0	0	0	0	0	0	0	0

Zone # 13 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					30%				20%			
N	0%	30%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out		30%	20%									
PM In	0%	0%	0%	0%	30%	0%	0%	0%	20%	0%	0%	0%
PM Out	0%	30%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	24	0	0	0	0	7	0	0	0	5	0	0	0
AM Out	14	0	4	3	0	0	0	0	0	0	0	0	0
PM In	29	0	0	0	0	9	0	0	0	6	0	0	0
PM Out	29	0	9	6	0	0	0	0	0	0	0	0	0

Zone # 14 Walnut Village Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					10%				10%			
N	0%	10%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out		10%	10%									
PM In	0%	0%	0%	0%	10%	0%	0%	0%	10%	0%	0%	0%
PM Out	0%	10%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	7	0	0	0	0	1	0	0	0	1	0	0	0
AM Out	15	0	2	2	0	0	0	0	0	0	0	0	0
PM In	17	0	0	0	0	2	0	0	0	2	0	0	0
PM Out	11	0	1	1	0	0	0	0	0	0	0	0	0

Zone # 15 Providence II Amendment

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					30%				30%			
N	0%	30%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out		30%	30%									
PM In	0%	0%	0%	0%	30%	0%	0%	0%	30%	0%	0%	0%
PM Out	0%	30%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	18	0	0	0	0	5	0	0	0	5	0	0	0
AM Out	53	0	16	16	0	0	0	0	0	0	0	0	0
PM In	60	0	0	0	0	18	0	0	0	18	0	0	0
PM Out	35	0	11	11	0	0	0	0	0	0	0	0	0

Int. #: 5 Citrus Avenue at I-210 EB Ramps

Zone # 16 Kingston Meadow

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					30%				30%			
N	0%	30%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out		30%	30%									
PM In	0%	0%	0%	0%	30%	0%	0%	0%	30%	0%	0%	0%
PM Out	0%	30%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	4	0	0	0	0	1	0	0	0	1	0	0	0
AM Out	11	0	3	3	0	0	0	0	0	0	0	0	0
PM In	12	0	0	0	0	4	0	0	0	4	0	0	0
PM Out	7	0	2	2	0	0	0	0	0	0	0	0	0

Zone # 17 Baseline Apartments

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					20%				20%			
N	0%	20%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out		20%	20%									
PM In	0%	0%	0%	0%	20%	0%	0%	0%	20%	0%	0%	0%
PM Out	0%	20%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	1	0	0	0	1	0	0	0
AM Out	19	0	4	4	0	0	0	0	0	0	0	0	0
PM In	19	0	0	0	0	4	0	0	0	4	0	0	0
PM Out	11	0	2	2	0	0	0	0	0	0	0	0	0

Zone # 18 Multi-Family Project

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					15%				15%			
N	0%	15%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out		15%	15%									
PM In	0%	0%	0%	0%	15%	0%	0%	0%	15%	0%	0%	0%
PM Out	0%	15%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	1	0	0	0	1	0	0	0
AM Out	16	0	2	2	0	0	0	0	0	0	0	0	0
PM In	16	0	0	0	0	2	0	0	0	2	0	0	0
PM Out	10	0	2	2	0	0	0	0	0	0	0	0	0

Zone # 19 Mango Villas

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					10%				10%			
N	0%	10%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out		10%	10%									
PM In	0%	0%	0%	0%	10%	0%	0%	0%	10%	0%	0%	0%
PM Out	0%	10%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	3	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	8	0	1	1	0	0	0	0	0	0	0	0	0
PM In	9	0	0	0	0	1	0	0	0	1	0	0	0
PM Out	5	0	1	1	0	0	0	0	0	0	0	0	0

Zone # 20 Almeria Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					25%				25%			
N	0%	25%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out		25%	25%									
PM In	0%	0%	0%	0%	25%	0%	0%	0%	25%	0%	0%	0%
PM Out	0%	25%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	2	0	0	0	2	0	0	0
AM Out	12	0	3	3	0	0	0	0	0	0	0	0	0
PM In	13	0	0	0	0	3	0	0	0	3	0	0	0
PM Out	8	0	2	2	0	0	0	0	0	0	0	0	0

Zone # 21 Single Family Residences

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		20%					25%					

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	1	0	0	0	0	0	0	0	0	0	0	0	0

		Int. #:	Citrus Avenue at I-210 EB Ramps																							
N		0%	0%	0%	25%	20%	0%	0%	0%	0%	0%	0%														
AM Out					25%	20%																				
PM In		0%	20%	0%	0%	0%	0%	25%	0%	0%																
PM Out		0%	0%	0%	25%	20%	0%	0%	0%	0%	0%	0%														
AM Out		3	0	0	0	1	1	0	0	0	0	0														
PM In		3	0	1	0	0	0	0	1	0	0	0														
PM Out		2	0	0	0	1	0	0	0	0	0	0														

Enter only in blue cells Yellow cells calculate

Int. #: 6 Citrus Avenue at S. Highland Avenue

Y

TOTAL CUMULATIVE PROJECTS TRAFFIC												
Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	0	33	5	55	22	9	0	9	8	0	3	0
AM Out	3	63	0	0	35	0	26	9	0	3	4	26
AM Tot	3	96	5	55	57	9	26	18	8	3	7	26
PM In	0	42	15	74	68	29	0	18	7	0	10	0
PM Out	10	39	0	0	42	0	17	6	0	16	20	88
PM Tot	10	81	15	74	110	29	17	24	7	16	30	88

Zone # 1 Shady Trails PA 13 & 14

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		20%										
Y	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	19	0	4	0	0	0	0	0	0	0	0	0	0
AM Out	56	0	0	0	0	11	0	0	0	0	0	0	0
PM In	63	0	13	0	0	0	0	0	0	0	0	0	0
PM Out	37	0	0	0	0	7	0	0	0	0	0	0	0

Zone # 2 Shady Trail Spa 16

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		20%										
Y	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	13	0	3	0	0	0	0	0	0	0	0	0	0
AM Out	37	0	0	0	0	7	0	0	0	0	0	0	0
PM In	37	0	7	0	0	0	0	0	0	0	0	0	0
PM Out	24	0	0	0	0	5	0	0	0	0	0	0	0

Zone # 3 Casa Grande Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		25%										
Y	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	25	0	6	0	0	0	0	0	0	0	0	0	0
AM Out	7	0	0	0	0	2	0	0	0	0	0	0	0
PM In	10	0	3	0	0	0	0	0	0	0	0	0	0
PM Out	26	0	0	0	0	7	0	0	0	0	0	0	0

Zone # 4 Sierra/Summit Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		25%										
Y	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	12	0	3	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	1	0	0	0	0	0	0	0
PM In	5	0	1	0	0	0	0	0	0	0	0	0	0
PM Out	13	0	0	0	0	3	0	0	0	0	0	0	0

Zone # 5 Mango Avenue Industrial

Int. #: 6 Citrus Avenue at S. Highland Avenue

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		10%										
Y	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	15	0	2	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	0	0	0	0	0	0	0	0
PM In	6	0	1	0	0	0	0	0	0	0	0	0	0
PM Out	16	0	0	0	0	2	0	0	0	0	0	0	0

Zone # 6 Sierra Lakes & Mango Convenience Store and Pumps

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		10%										
Y	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	83	0	8	0	0	0	0	0	0	0	0	0	0
AM Out	83	0	0	0	0	8	0	0	0	0	0	0	0
PM In	92	0	9	0	0	0	0	0	0	0	0	0	0
PM Out	92	0	0	0	0	9	0	0	0	0	0	0	0

Zone # 7 Smile Studio Dental Building

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		10%										
Y	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	8	0	1	0	0	0	0	0	0	0	0	0	0
AM Out	2	0	0	0	0	0	0	0	0	0	0	0	0
PM In	4	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	10	0	0	0	0	1	0	0	0	0	0	0	0

Zone # 8 Costco Fuel Facility Expansion

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		30%										
Y	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	21	0	6	0	0	0	0	0	0	0	0	0	0
AM Out	21	0	0	0	0	6	0	0	0	0	0	0	0
PM In	28	0	8	0	0	0	0	0	0	0	0	0	0
PM Out	28	0	0	0	0	8	0	0	0	0	0	0	0

Zone # 9 The Retreat

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In						30%					10%	
Y	0%	0%	0%	0%	0%	0%	30%	10%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	30%	0%	0%	0%	0%	10%	0%
PM Out	0%	0%	0%	0%	0%	0%	30%	10%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	29	0	0	0	0	0	9	0	0	0	0	3	0
AM Out	88	0	0	0	0	0	0	26	9	0	0	0	0
PM In	95	0	0	0	0	0	29	0	0	0	0	10	0
PM Out	56	0	0	0	0	0	0	17	6	0	0	0	0

Zone # 10 Citrus Crossroads

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In			20%	50%				20%				
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	20%	50%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	23	0	0	5	12	0	0	0	5	0	0	0	0

Int. #:	6	Citrus Avenue at S. Highland Avenue										
AM Out												
PM In	0%	0%	20%	50%	0%	0%	0%	20%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	20%	50%

AM Out	14	0	0	0	0	0	0	0	0	0	0	3	3	7
PM In	73	0	0	15	37	0	0	0	15	0	0	0	0	0
PM Out	79	0	0	0	0	0	0	0	0	0	0	16	16	40

Zone # 11 Fontana Hyundai

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In								10%				
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	36	0	0	0	0	0	0	0	4	0	0	0	0
AM Out	13	0	0	0	0	0	0	0	0	0	0	1	0
PM In	25	0	0	0	0	0	0	0	3	0	0	0	0
PM Out	38	0	0	0	0	0	0	0	0	0	0	4	0

Zone # 12 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In				50%					10%			
Y	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%
AM Out												
PM In	0%	0%	0%	50%	0%	0%	0%	0%	10%	0%	0%	0%
PM Out	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	61	0	0	0	31	0	0	0	0	6	0	0	0
AM Out	23	2	0	0	0	0	0	0	0	0	0	0	12
PM In	43	0	0	0	22	0	0	0	0	4	0	0	0
PM Out	65	7	0	0	0	0	0	0	0	0	0	0	33

Zone # 13 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In				50%					10%			
Y	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%
AM Out												
PM In	0%	0%	0%	50%	0%	0%	0%	0%	10%	0%	0%	0%
PM Out	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	24	0	0	0	12	0	0	0	0	2	0	0	0
AM Out	14	1	0	0	0	0	0	0	0	0	0	0	7
PM In	29	0	0	0	15	0	0	0	0	3	0	0	0
PM Out	29	3	0	0	0	0	0	0	0	0	0	0	15

Zone # 14 Walnut Village Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					20%							
Y	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	7	0	0	0	0	1	0	0	0	0	0	0	0
AM Out	15	0	3	0	0	0	0	0	0	0	0	0	0
PM In	17	0	0	0	0	3	0	0	0	0	0	0	0
PM Out	11	0	2	0	0	0	0	0	0	0	0	0	0

Zone # 15 Providence II Amendment

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					60%							
Y	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	60%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	18	0	0	0	0	11	0	0	0	0	0	0	0
AM Out	53	0	32	0	0	0	0	0	0	0	0	0	0
PM In	60	0	0	0	0	36	0	0	0	0	0	0	0
PM Out	35	0	21	0	0	0	0	0	0	0	0	0	0

Int. #: 6 Citrus Avenue at S. Highland Avenue

Zone # 16 Kingston Meadow

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					60%							
Y	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	60%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	4	0	0	0	0	2	0	0	0	0	0	0	0
AM Out	11	0	7	0	0	0	0	0	0	0	0	0	0
PM In	12	0	0	0	0	7	0	0	0	0	0	0	0
PM Out	7	0	4	0	0	0	0	0	0	0	0	0	0

Zone # 17 Baseline Apartments

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					40%							
Y	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	40%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	2	0	0	0	0	0	0	0
AM Out	19	0	8	0	0	0	0	0	0	0	0	0	0
PM In	19	0	0	0	0	8	0	0	0	0	0	0	0
PM Out	11	0	4	0	0	0	0	0	0	0	0	0	0

Zone # 18 Multi-Family Project

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					30%							
Y	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	2	0	0	0	0	0	0	0
AM Out	16	0	5	0	0	0	0	0	0	0	0	0	0
PM In	16	0	0	0	0	5	0	0	0	0	0	0	0
PM Out	10	0	3	0	0	0	0	0	0	0	0	0	0

Zone # 19 Mango Villas

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					20%							
Y	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	3	0	0	0	0	1	0	0	0	0	0	0	0
AM Out	8	0	2	0	0	0	0	0	0	0	0	0	0
PM In	9	0	0	0	0	2	0	0	0	0	0	0	0
PM Out	5	0	1	0	0	0	0	0	0	0	0	0	0

Zone # 20 Almeria Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					50%							
Y	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	3	0	0	0	0	0	0	0
AM Out	12	0	6	0	0	0	0	0	0	0	0	0	0
PM In	13	0	0	0	0	7	0	0	0	0	0	0	0
PM Out	8	0	4	0	0	0	0	0	0	0	0	0	0

Zone # 21 Single Family Residences

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		20%										

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	1	0	0	0	0	0	0	0	0	0	0	0	0

		Int. #:	Citrus Avenue at S. Highland Avenue																			
Y		0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%										
AM Out																						
PM In		0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
PM Out		0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%										
AM Out		3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM In		3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Out		2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Enter only in blue cells Yellow cells calculate

Int. #: 7 Citrus Avenue at Walnut Street

Y

TOTAL CUMULATIVE PROJECTS TRAFFIC												
Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	0	51	5	1	21	0	13	5	2	0	0	0
AM Out	6	60	0	0	43	5	0	0	0	3	3	3
AM Tot	6	111	5	1	64	5	13	5	2	3	3	3
PM In	0	67	5	3	65	0	10	5	7	0	0	0
PM Out	5	37	0	0	72	14	0	0	0	5	5	2
PM Tot	5	104	5	3	137	14	10	5	7	5	5	2

Zone # 1 Shady Trails PA 13 & 14

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		20%										
Y	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	19	0	4	0	0	0	0	0	0	0	0	0	0
AM Out	56	0	0	0	0	11	0	0	0	0	0	0	0
PM In	63	0	13	0	0	0	0	0	0	0	0	0	0
PM Out	37	0	0	0	0	7	0	0	0	0	0	0	0

Zone # 2 Shady Trail Spa 16

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		20%										
Y	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	13	0	3	0	0	0	0	0	0	0	0	0	0
AM Out	37	0	0	0	0	7	0	0	0	0	0	0	0
PM In	37	0	7	0	0	0	0	0	0	0	0	0	0
PM Out	24	0	0	0	0	5	0	0	0	0	0	0	0

Zone # 3 Casa Grande Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		25%										
Y	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	25	0	6	0	0	0	0	0	0	0	0	0	0
AM Out	7	0	0	0	0	2	0	0	0	0	0	0	0
PM In	10	0	3	0	0	0	0	0	0	0	0	0	0
PM Out	26	0	0	0	0	7	0	0	0	0	0	0	0

Zone # 4 Sierra/Summit Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		25%										
Y	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	12	0	3	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	1	0	0	0	0	0	0	0
PM In	5	0	1	0	0	0	0	0	0	0	0	0	0
PM Out	13	0	0	0	0	3	0	0	0	0	0	0	0

Zone # 5 Mango Avenue Industrial

Int. #: 7 Citrus Avenue at Walnut Street

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		10%										
Y	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	15	0	2	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	0	0	0	0	0	0	0	0
PM In	6	0	1	0	0	0	0	0	0	0	0	0	0
PM Out	16	0	0	0	0	2	0	0	0	0	0	0	0

Zone # 6 Sierra Lakes & Mango Convenience Store and Pumps

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		10%										
Y	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	83	0	8	0	0	0	0	0	0	0	0	0	0
AM Out	83	0	0	0	8	0	0	0	0	0	0	0	0
PM In	92	0	9	0	0	0	0	0	0	0	0	0	0
PM Out	92	0	0	0	9	0	0	0	0	0	0	0	0

Zone # 7 Smile Studio Dental Building

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		10%										
Y	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	8	0	1	0	0	0	0	0	0	0	0	0	0
AM Out	2	0	0	0	0	0	0	0	0	0	0	0	0
PM In	4	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	10	0	0	0	0	1	0	0	0	0	0	0	0

Zone # 8 Costco Fuel Facility Expansion

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		30%										
Y	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	21	0	6	0	0	0	0	0	0	0	0	0	0
AM Out	21	0	0	0	0	6	0	0	0	0	0	0	0
PM In	28	0	8	0	0	0	0	0	0	0	0	0	0
PM Out	28	0	0	0	0	8	0	0	0	0	0	0	0

Zone # 9 The Retreat

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	29	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	88	0	0	0	0	0	0	0	0	0	0	0	0
PM In	95	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	56	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 10 Citrus Crossroads

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		20%										
Y	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	23	0	5	0	0	0	0	0	0	0	0	0	0

Int. #:	7	Citrus Avenue at Walnut Street										
AM Out												
PM In	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%

AM Out	14	0	0	0	0	3	0	0	0	0	0	0
PM In	73	0	15	0	0	0	0	0	0	0	0	0
PM Out	79	0	0	0	0	16	0	0	0	0	0	0

Zone # 11 Fontana Hyundai

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In			10%					10%				
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	10%	0%
AM Out												
PM In	0%	0%	10%	0%	0%	0%	0%	10%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	10%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	36	0	0	4	0	0	0	0	4	0	0	0	0
AM Out	13	0	0	0	0	0	0	0	0	0	1	1	0
PM In	25	0	0	3	0	0	0	0	3	0	0	0	0
PM Out	38	0	0	0	0	0	0	0	0	0	4	4	0

Zone # 12 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		15%					15%					
Y	0%	0%	0%	0%	15%	15%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	15%	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	15%	15%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	61	0	9	0	0	0	0	9	0	0	0	0	0
AM Out	23	0	0	0	0	3	3	0	0	0	0	0	0
PM In	43	0	6	0	0	0	0	6	0	0	0	0	0
PM Out	65	0	0	0	0	10	10	0	0	0	0	0	0

Zone # 13 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		15%					15%					
Y	0%	0%	0%	0%	15%	15%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	15%	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	15%	15%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	24	0	4	0	0	0	0	4	0	0	0	0	0
AM Out	14	0	0	0	0	2	2	0	0	0	0	0	0
PM In	29	0	4	0	0	0	0	4	0	0	0	0	0
PM Out	29	0	0	0	0	4	4	0	0	0	0	0	0

Zone # 14 Walnut Village Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In			10%	20%				10%				
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	10%	20%
AM Out												
PM In	0%	0%	10%	20%	0%	0%	0%	10%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	10%	20%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	7	0	0	1	1	0	0	0	1	0	0	0	0
AM Out	15	0	0	0	0	0	0	0	0	0	2	2	3
PM In	17	0	0	2	3	0	0	0	2	0	0	0	0
PM Out	11	0	0	0	0	0	0	0	0	0	1	1	2

Zone # 15 Providence II Amendment

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					60%				10%			
Y	10%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	60%	0%	0%	0%	10%	0%	0%	0%
PM Out	10%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	18	0	0	0	0	11	0	0	0	2	0	0	0
AM Out	53	5	32	0	0	0	0	0	0	0	0	0	0
PM In	60	0	0	0	0	36	0	0	0	6	0	0	0
PM Out	35	4	21	0	0	0	0	0	0	0	0	0	0

Int. #: 7 Citrus Avenue at Walnut Street

Zone # 16 Kingston Meadow

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					60%				10%			
Y	10%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	60%	0%	0%	0%	10%	0%	0%	0%
PM Out	10%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	4	0	0	0	0	2	0	0	0	0	0	0	0
AM Out	11	1	7	0	0	0	0	0	0	0	0	0	0
PM In	12	0	0	0	0	7	0	0	0	1	0	0	0
PM Out	7	1	4	0	0	0	0	0	0	0	0	0	0

Zone # 17 Baseline Apartments

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					40%							
Y	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	40%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	2	0	0	0	0	0	0	0
AM Out	19	0	8	0	0	0	0	0	0	0	0	0	0
PM In	19	0	0	0	0	8	0	0	0	0	0	0	0
PM Out	11	0	4	0	0	0	0	0	0	0	0	0	0

Zone # 18 Multi-Family Project

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					30%							
Y	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	2	0	0	0	0	0	0	0
AM Out	16	0	5	0	0	0	0	0	0	0	0	0	0
PM In	16	0	0	0	0	5	0	0	0	0	0	0	0
PM Out	10	0	3	0	0	0	0	0	0	0	0	0	0

Zone # 19 Mango Villas

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					20%							
Y	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	3	0	0	0	0	1	0	0	0	0	0	0	0
AM Out	8	0	2	0	0	0	0	0	0	0	0	0	0
PM In	9	0	0	0	0	2	0	0	0	0	0	0	0
PM Out	5	0	1	0	0	0	0	0	0	0	0	0	0

Zone # 20 Almeria Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In					50%							
Y	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	3	0	0	0	0	0	0	0
AM Out	12	0	6	0	0	0	0	0	0	0	0	0	0
PM In	13	0	0	0	0	7	0	0	0	0	0	0	0
PM Out	8	0	4	0	0	0	0	0	0	0	0	0	0

Zone # 21 Single Family Residences

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		20%										

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	1	0	0	0	0	0	0	0	0	0	0	0	0

Enter only in blue cells Yellow cells calculate

Int. #: 8 Jacaranda Avenue at S. Highland Avenue

Y

TOTAL CUMULATIVE PROJECTS TRAFFIC													
Pk Hr		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		0	0	0	0	0	0	0	9	0	0	12	0
AM Out		0	0	0	0	0	0	0	35	0	0	4	0
AM Tot		0	0	0	0	0	0	0	44	0	0	16	0
PM In		0	0	0	0	0	0	0	18	0	0	38	0
PM Out		0	0	0	0	0	0	0	22	0	0	20	0
PM Tot		0	0	0	0	0	0	0	40	0	0	58	0

Zone # 1 Shady Trails PA 13 & 14

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	19	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	56	0	0	0	0	0	0	0	0	0	0	0	0
PM In	63	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	37	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 2 Shady Trail Spa 16

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	13	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	37	0	0	0	0	0	0	0	0	0	0	0	0
PM In	37	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	24	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 3 Casa Grande Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	25	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	7	0	0	0	0	0	0	0	0	0	0	0	0
PM In	10	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	26	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 4 Sierra/Summit Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	12	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	0	0	0	0	0	0	0	0
PM In	5	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	13	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 5 Mango Avenue Industrial

Int. #: 8 Jacaranda Avenue at S. Highland Avenue

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	15	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	0	0	0	0	0	0	0	0
PM In	6	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	16	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 6 Sierra Lakes & Mango Convenience Store and Pumps

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	83	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	83	0	0	0	0	0	0	0	0	0	0	0	0
PM In	92	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	92	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 7 Smile Studio Dental Building

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	8	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	2	0	0	0	0	0	0	0	0	0	0	0	0
PM In	4	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	10	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 8 Costco Fuel Facility Expansion

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	21	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	21	0	0	0	0	0	0	0	0	0	0	0	0
PM In	28	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	28	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 9 The Retreat

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In											40%	
Y	0%	0%	0%	0%	0%	0%	0%	40%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	40%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	40%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	29	0	0	0	0	0	0	0	0	0	0	12	0
AM Out	88	0	0	0	0	0	0	0	35	0	0	0	0
PM In	95	0	0	0	0	0	0	0	0	0	0	38	0
PM Out	56	0	0	0	0	0	0	0	22	0	0	0	0

Zone # 10 Citrus Crossroads

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In								20%				
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	23	0	0	0	0	0	0	0	5	0	0	0	0

Int. #: 8 Jacaranda Avenue at S. Highland Avenue

AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%

AM Out	14	0	0	0	0	0	0	0	0	0	0	3	0
PM In	73	0	0	0	0	0	0	0	15	0	0	0	0
PM Out	79	0	0	0	0	0	0	0	0	0	0	16	0

Zone # 11 Fontana Hyundai

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In								10%				
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%
AM Out												3%
PM In	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	36	0	0	0	0	0	0	0	4	0	0	0	0
AM Out	13	0	0	0	0	0	0	0	0	0	0	1	0
PM In	25	0	0	0	0	0	0	0	3	0	0	0	0
PM Out	38	0	0	0	0	0	0	0	0	0	0	4	0

Zone # 12 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	61	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	23	0	0	0	0	0	0	0	0	0	0	0	0
PM In	43	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	65	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 13 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	24	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	14	0	0	0	0	0	0	0	0	0	0	0	0
PM In	29	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	29	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 14 Walnut Village Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	7	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	15	0	0	0	0	0	0	0	0	0	0	0	0
PM In	17	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	11	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 15 Providence II Amendment

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	18	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	53	0	0	0	0	0	0	0	0	0	0	0	0
PM In	60	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	35	0	0	0	0	0	0	0	0	0	0	0	0

Int. #: 8 Jacaranda Avenue at S. Highland Avenue

Zone # 16 Kingston Meadow

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	4	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	11	0	0	0	0	0	0	0	0	0	0	0	0
PM In	12	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	7	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 17 Baseline Apartments

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	19	0	0	0	0	0	0	0	0	0	0	0	0
PM In	19	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	11	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 18 Multi-Family Project

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	16	0	0	0	0	0	0	0	0	0	0	0	0
PM In	16	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	10	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 19 Mango Villas

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	3	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	8	0	0	0	0	0	0	0	0	0	0	0	0
PM In	9	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	5	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 20 Almeria Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	12	0	0	0	0	0	0	0	0	0	0	0	0
PM In	13	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	8	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 21 Single Family Residences

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	1	0	0	0	0	0	0	0	0	0	0	0	0

		Int. #:	8 Jacaranda Avenue at S. Highland Avenue																			
Y		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
AM Out																						
PM In		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
PM Out		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
AM Out		3	0	0	0	0	0	0	0	0	0	0										
PM In		3	0	0	0	0	0	0	0	0	0	0										
PM Out		2	0	0	0	0	0	0	0	0	0	0										

Enter only in blue cells Yellow cells calculate

Int. #: 9 Tokay Avenue at S. Highland Avenue

Y

TOTAL CUMULATIVE PROJECTS TRAFFIC													
Pk Hr		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In		0	0	0	0	0	0	0	9	0	0	12	0
AM Out		0	0	0	0	0	0	0	35	0	0	4	0
AM Tot		0	0	0	0	0	0	0	44	0	0	16	0
PM In		0	0	0	0	0	0	0	18	0	0	38	0
PM Out		0	0	0	0	0	0	0	22	0	0	20	0
PM Tot		0	0	0	0	0	0	0	40	0	0	58	0

Zone # 1 Shady Trails PA 13 & 14

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	19	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	56	0	0	0	0	0	0	0	0	0	0	0	0
PM In	63	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	37	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 2 Shady Trail Spa 16

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	13	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	37	0	0	0	0	0	0	0	0	0	0	0	0
PM In	37	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	24	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 3 Casa Grande Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	25	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	7	0	0	0	0	0	0	0	0	0	0	0	0
PM In	10	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	26	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 4 Sierra/Summit Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	12	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	0	0	0	0	0	0	0	0
PM In	5	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	13	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 5 Mango Avenue Industrial

Int. #: 9 Tokay Avenue at S. Highland Avenue

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	15	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	0	0	0	0	0	0	0	0
PM In	6	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	16	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 6 Sierra Lakes & Mango Convenience Store and Pumps

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	83	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	83	0	0	0	0	0	0	0	0	0	0	0	0
PM In	92	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	92	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 7 Smile Studio Dental Building

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	8	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	2	0	0	0	0	0	0	0	0	0	0	0	0
PM In	4	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	10	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 8 Costco Fuel Facility Expansion

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	21	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	21	0	0	0	0	0	0	0	0	0	0	0	0
PM In	28	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	28	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 9 The Retreat

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In											40%	
Y	0%	0%	0%	0%	0%	0%	0%	40%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	40%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	40%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	29	0	0	0	0	0	0	0	0	0	0	12	0
AM Out	88	0	0	0	0	0	0	0	35	0	0	0	0
PM In	95	0	0	0	0	0	0	0	0	0	0	38	0
PM Out	56	0	0	0	0	0	0	0	22	0	0	0	0

Zone # 10 Citrus Crossroads

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In								20%				
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	23	0	0	0	0	0	0	0	5	0	0	0	0

Int. #: 9 Tokay Avenue at S. Highland Avenue

AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%

AM Out	14	0	0	0	0	0	0	0	0	0	0	3	0
PM In	73	0	0	0	0	0	0	0	15	0	0	0	0
PM Out	79	0	0	0	0	0	0	0	0	0	0	16	0

Zone # 11 Fontana Hyundai

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In								10%				
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	36	0	0	0	0	0	0	0	4	0	0	0	0
AM Out	13	0	0	0	0	0	0	0	0	0	0	1	0
PM In	25	0	0	0	0	0	0	0	3	0	0	0	0
PM Out	38	0	0	0	0	0	0	0	0	0	0	4	0

Zone # 12 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	61	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	23	0	0	0	0	0	0	0	0	0	0	0	0
PM In	43	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	65	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 13 Fontana CDRJ Dealership

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	24	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	14	0	0	0	0	0	0	0	0	0	0	0	0
PM In	29	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	29	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 14 Walnut Village Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	7	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	15	0	0	0	0	0	0	0	0	0	0	0	0
PM In	17	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	11	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 15 Providence II Amendment

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	18	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	53	0	0	0	0	0	0	0	0	0	0	0	0
PM In	60	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	35	0	0	0	0	0	0	0	0	0	0	0	0

Int. #: 9 Tokay Avenue at S. Highland Avenue

Zone # 16 Kingston Meadow

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	4	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	11	0	0	0	0	0	0	0	0	0	0	0	0
PM In	12	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	7	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 17 Baseline Apartments

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	19	0	0	0	0	0	0	0	0	0	0	0	0
PM In	19	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	11	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 18 Multi-Family Project

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	16	0	0	0	0	0	0	0	0	0	0	0	0
PM In	16	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	10	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 19 Mango Villas

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	3	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	8	0	0	0	0	0	0	0	0	0	0	0	0
PM In	9	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	5	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 20 Almeria Senior Housing

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	6	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	12	0	0	0	0	0	0	0	0	0	0	0	0
PM In	13	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	8	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 21 Single Family Residences

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	1	0	0	0	0	0	0	0	0	0	0	0	0

Enter only in blue cells Yellow cells calculate

Int. #: 10 Cherimoya Avenue at S. Highland Avenue

Y

TOTAL CUMULATIVE PROJECTS TRAFFIC												
Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	0	0	0	0	0	0	0	9	0	0	12	0
AM Out	0	0	0	0	0	0	0	35	0	0	4	0
AM Tot	0	0	0	0	0	0	0	44	0	0	16	0
PM In	0	0	0	0	0	0	0	18	0	0	38	0
PM Out	0	0	0	0	0	0	0	22	0	0	20	0
PM Tot	0	0	0	0	0	0	0	40	0	0	58	0

Zone # 1 Shady Trails PA 13 & 14

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	19	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	56	0	0	0	0	0	0	0	0	0	0	0	0
PM In	63	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	37	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 2 Shady Trail Spa 16

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	13	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	37	0	0	0	0	0	0	0	0	0	0	0	0
PM In	37	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	24	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 3 Casa Grande Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	25	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	7	0	0	0	0	0	0	0	0	0	0	0	0
PM In	10	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	26	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 4 Sierra/Summit Warehouse

Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In												
Y	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AM Out												
PM In	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM In	12	0	0	0	0	0	0	0	0	0	0	0	0
AM Out	4	0	0	0	0	0	0	0	0	0	0	0	0
PM In	5	0	0	0	0	0	0	0	0	0	0	0	0
PM Out	13	0	0	0	0	0	0	0	0	0	0	0	0

Zone # 5 Mango Avenue Industrial

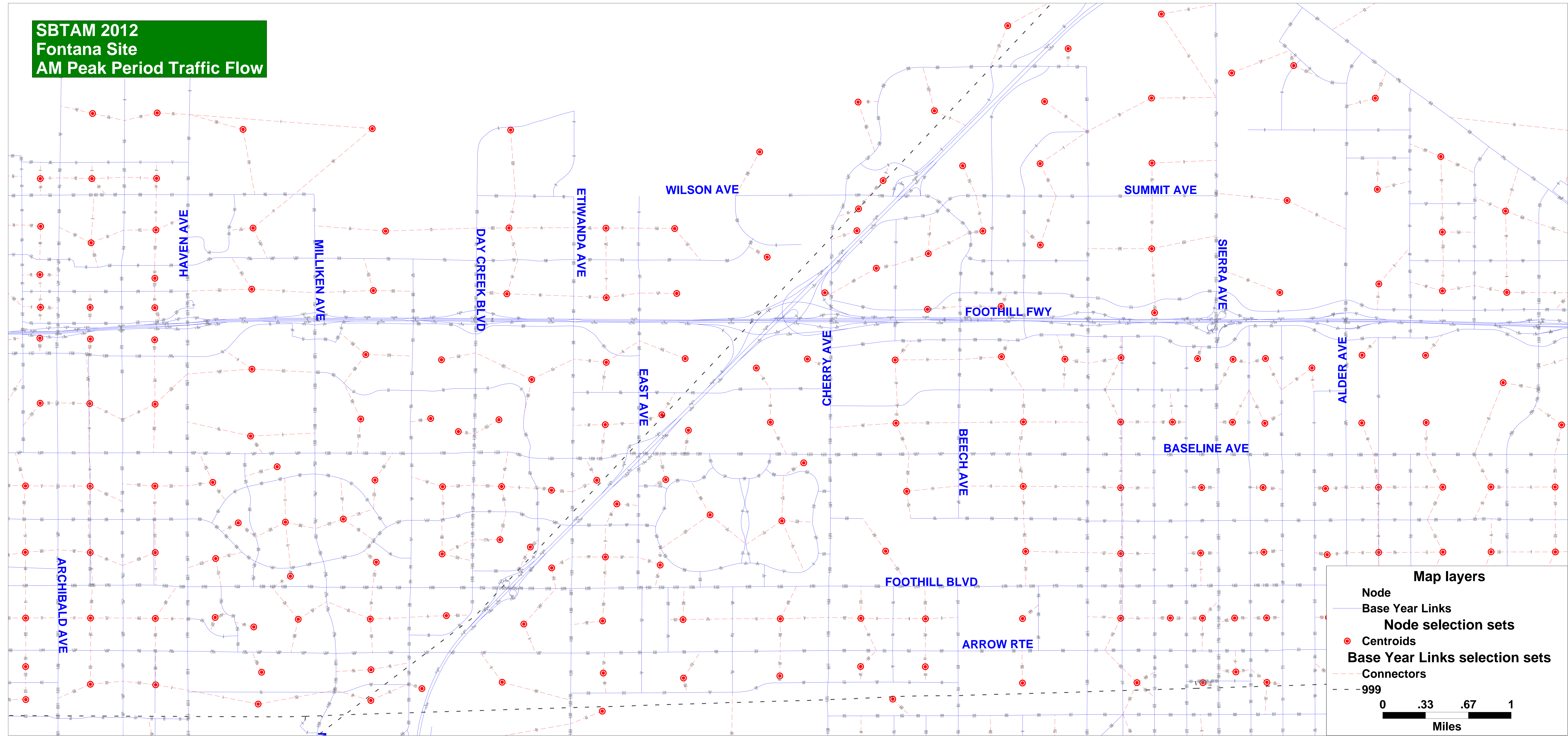
Pk Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
-------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Pk Hr	T Gen	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
-------	-------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

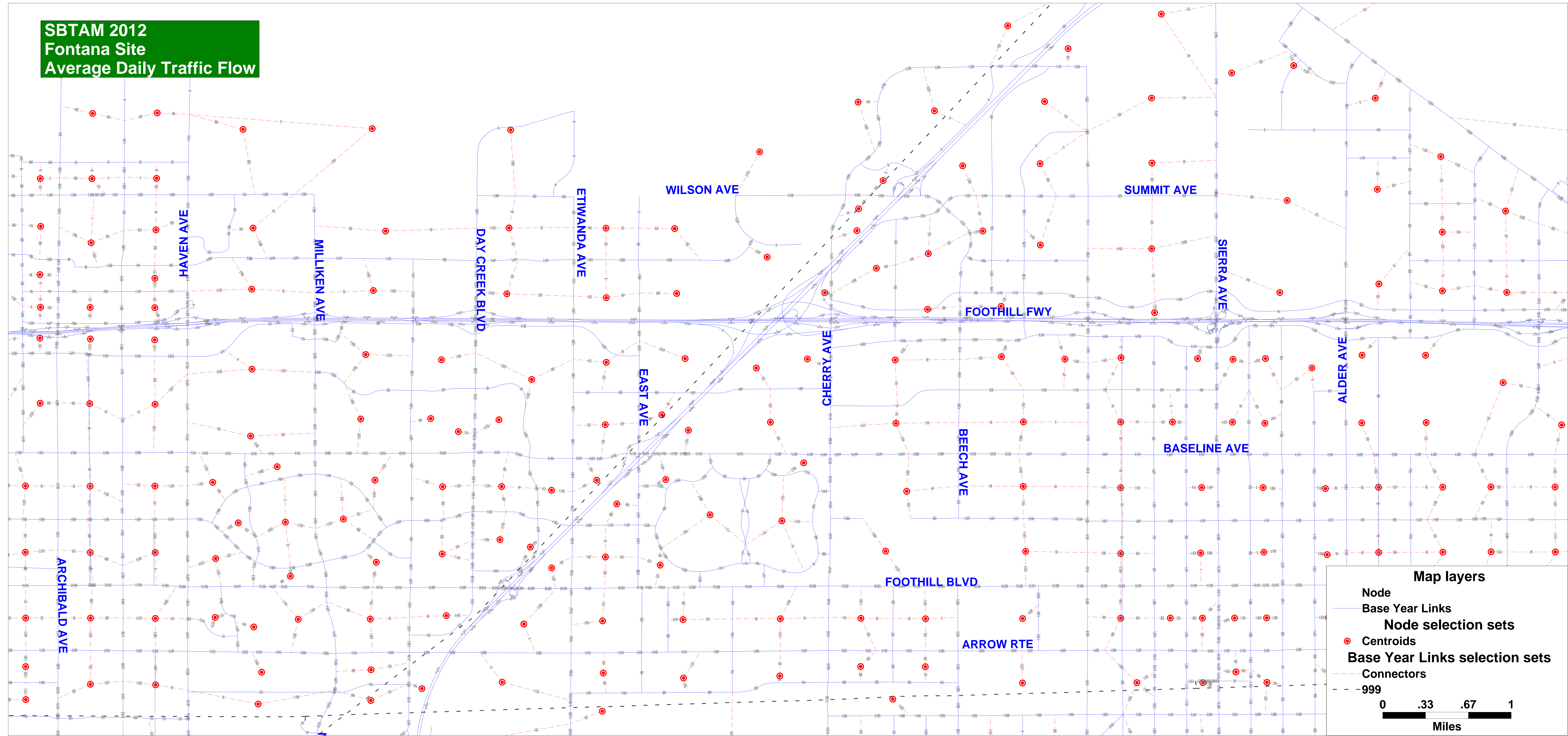
APPENDIX F

SBTAM MODEL PLOTS AND B-TURNS WORKSHEETS

**SBTAM 2012
Fontana Site
AM Peak Period Traffic Flow**



**SBTAM 2012
Fontana Site
Average Daily Traffic Flow**

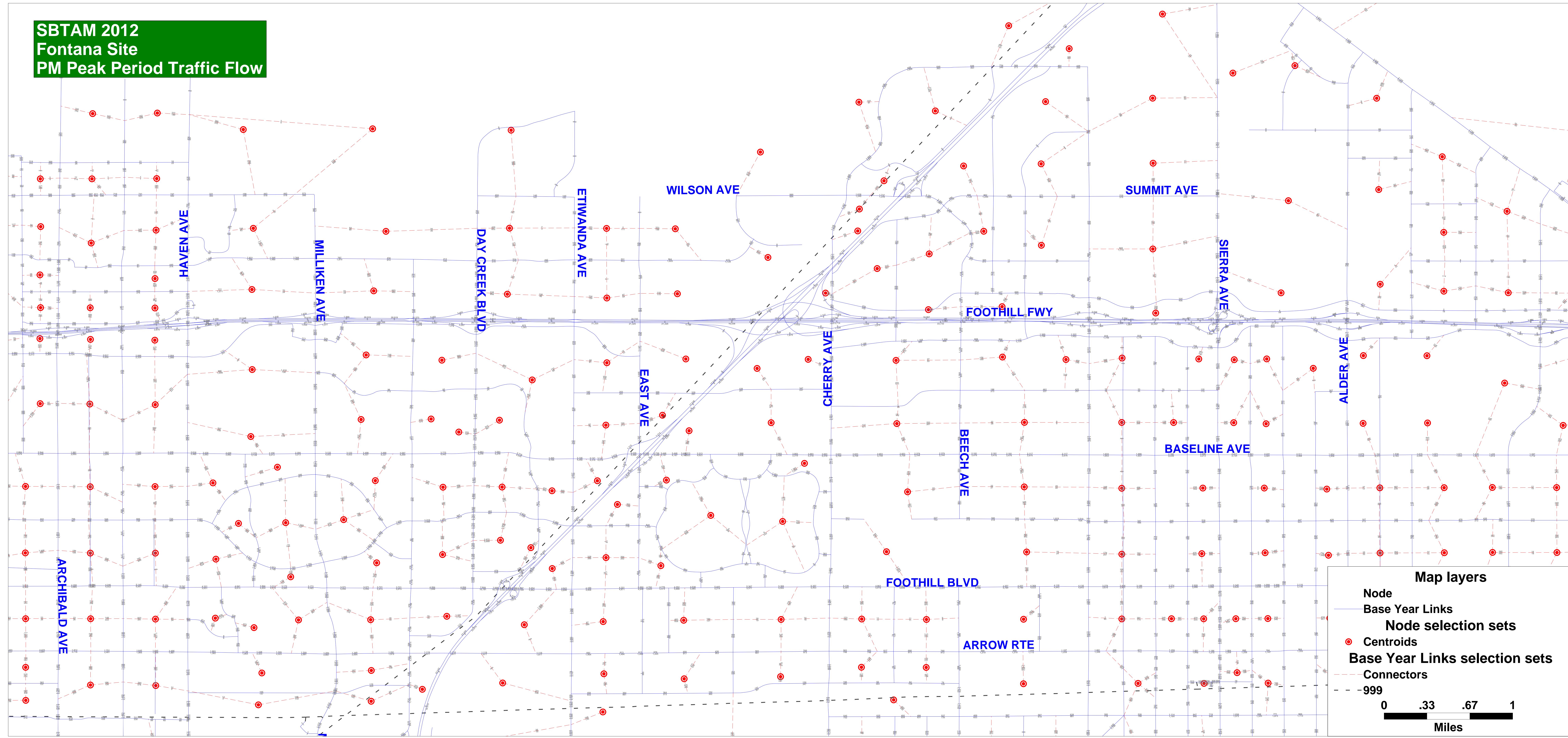


Map layers

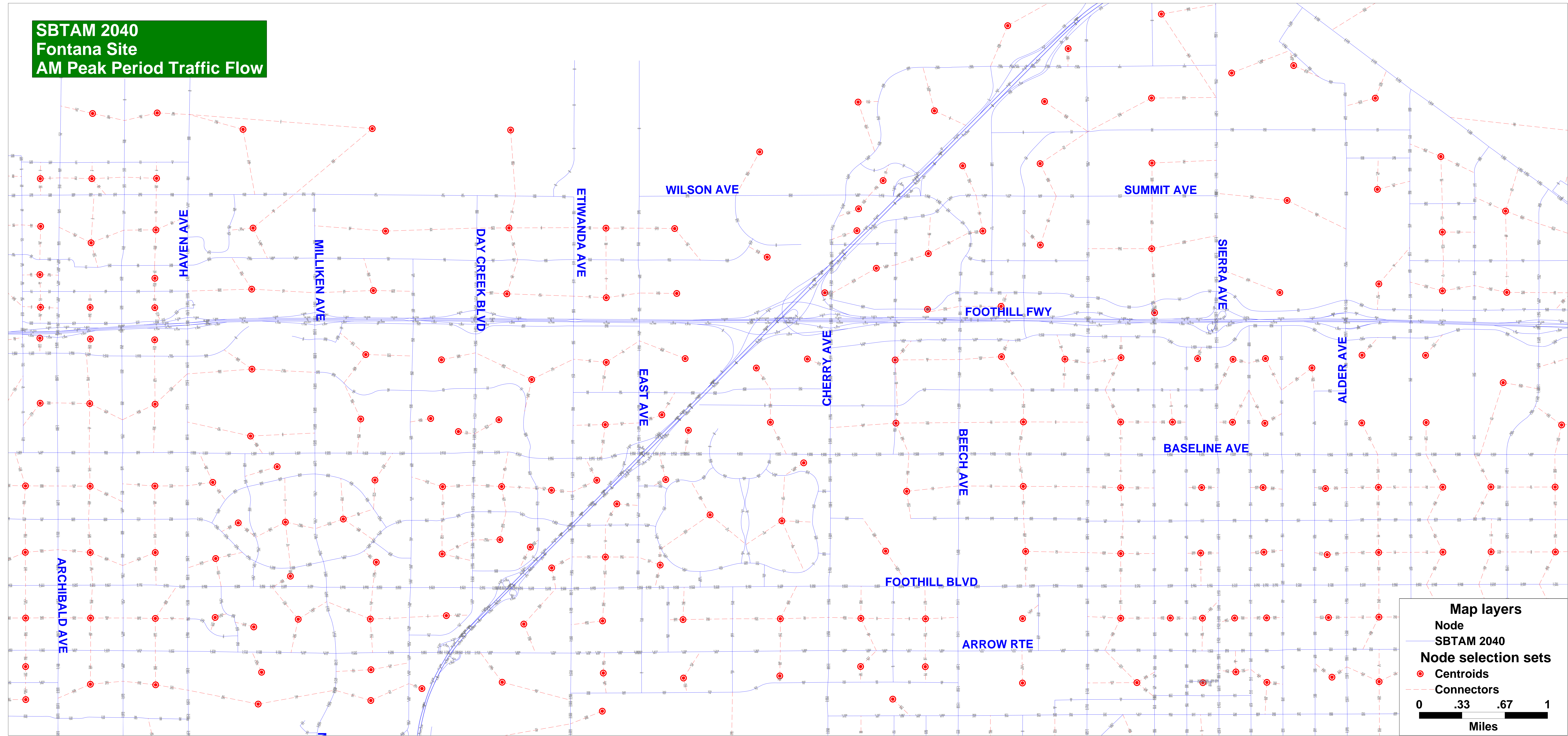
- Node
- Base Year Links
- Node selection sets**
- Centroids
- Base Year Links selection sets**
- Connectors
- 999

0 .33 .67 1
Miles

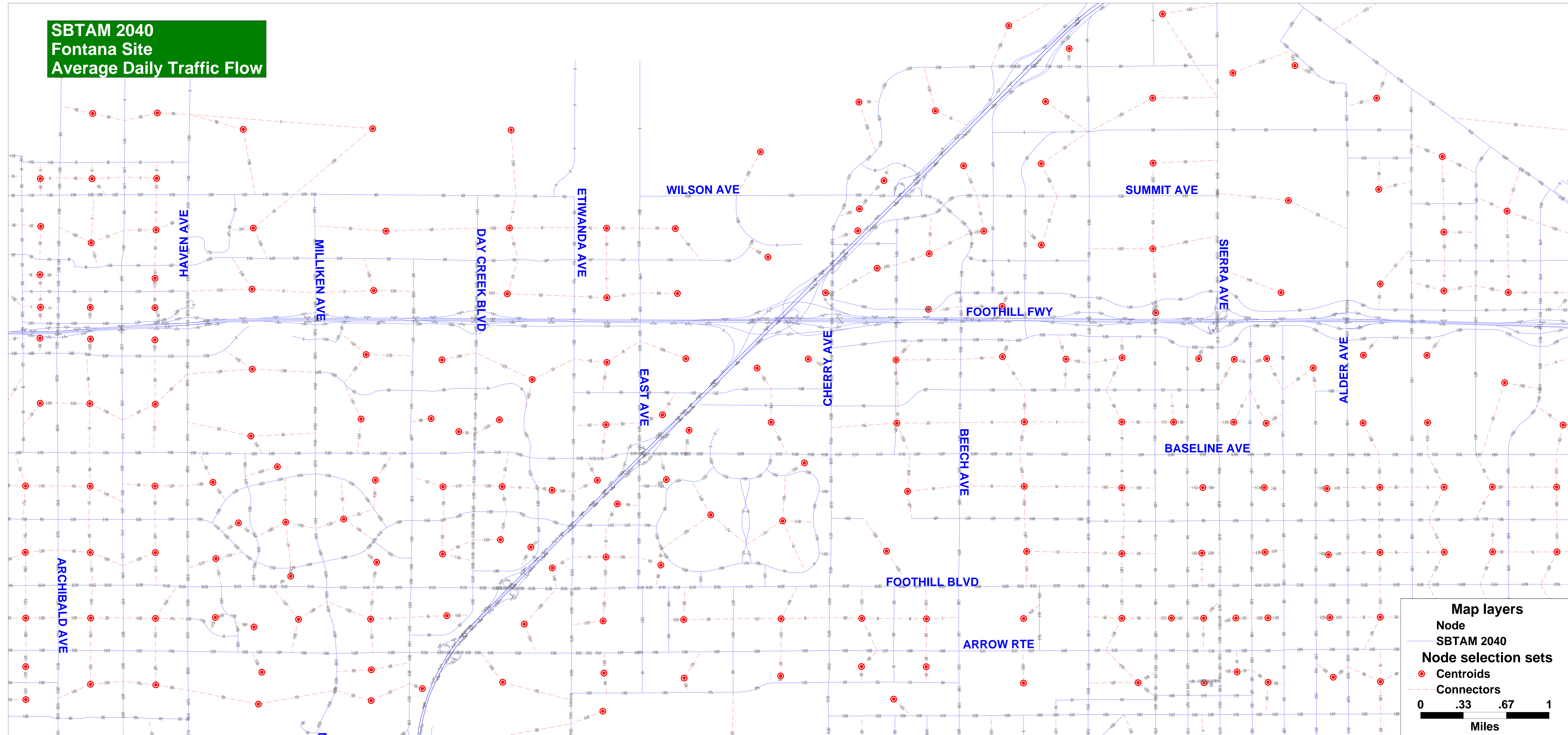
**SBTAM 2012
Fontana Site
PM Peak Period Traffic Flow**



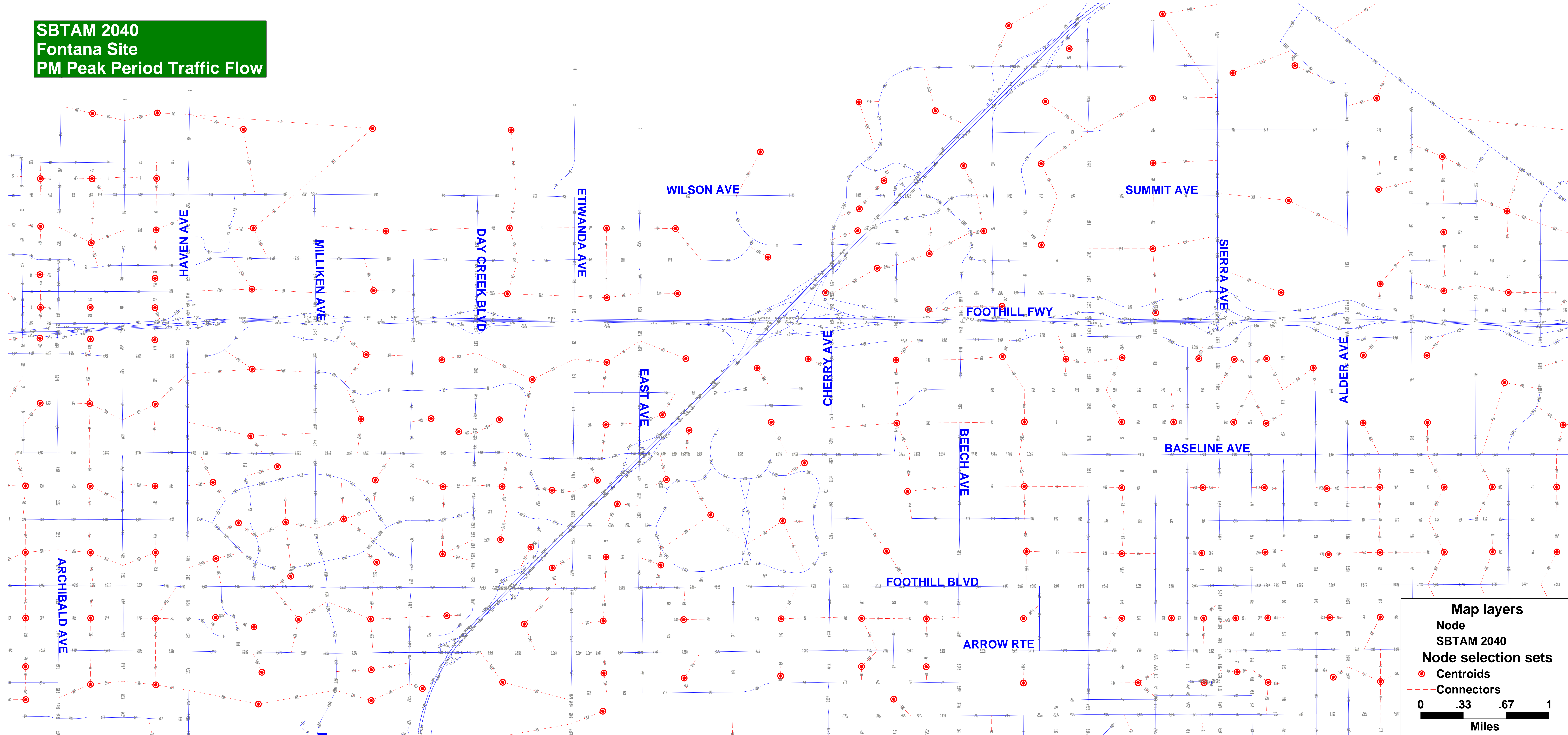
**SBTAM 2040
Fontana Site
AM Peak Period Traffic Flow**



**SBTAM 2040
Fontana Site
Average Daily Traffic Flow**



**SBTAM 2040
Fontana Site
PM Peak Period Traffic Flow**



Map layers

- Node
- SBTAM 2040

Node selection sets

- Centroids
- Connectors

0 .33 .67 1
Miles

Intersection: Beech Ave S. Highland Ave
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	31	SOUTH LEG		
	THRU	276	IN ...		602
	RIGHT	54	OUT ...		490
SOUTH BOUND	LEFT	38	NORTH LEG		
	THRU	204	IN ...		427
	RIGHT	45	OUT ...		544
EAST BOUND	LEFT	56	WEST LEG		
	THRU	102	IN ...		256
	RIGHT	24	OUT ...		388
WEST BOUND	LEFT	30	EAST LEG		
	THRU	143	IN ...		407
	RIGHT	63	OUT ...		272
		1,066			3,386

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	31	78
	THRU	276	417
	RIGHT	54	104
SOUTH BOUND	LEFT	38	33
	THRU	204	346
	RIGHT	45	51
EAST BOUND	LEFT	56	58
	THRU	102	135
	RIGHT	24	63
WEST BOUND	LEFT	30	81
	THRU	143	258
	RIGHT	63	68
		1,066	1,693

Intersection: Beech Ave S. Highland Ave
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	30	SOUTH LEG		
	THRU	416	IN ...		873
	RIGHT	105	OUT ...		885
SOUTH BOUND	LEFT	112	NORTH LEG		
	THRU	431	IN ...		715
	RIGHT	61	OUT ...		805
EAST BOUND	LEFT	98	WEST LEG		
	THRU	340	IN ...		713
	RIGHT	75	OUT ...		399
WEST BOUND	LEFT	90	EAST LEG		
	THRU	177	IN ...		502
	RIGHT	90	OUT ...		713
		2,025			5,605

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	30	72
	THRU	416	615
	RIGHT	105	183
SOUTH BOUND	LEFT	112	88
	THRU	431	563
	RIGHT	61	66
EAST BOUND	LEFT	98	108
	THRU	340	442
	RIGHT	75	162
WEST BOUND	LEFT	90	160
	THRU	177	261
	RIGHT	90	82
		2,025	2,803

Intersection: Beech Ave SR-210 HOV Ramps
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	101	SOUTH LEG		
	THRU	260	IN ...		544
	RIGHT	34	OUT ...		426
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	286	IN ...		415
	RIGHT	0	OUT ...		368
EAST BOUND	LEFT	0	WEST LEG		
	THRU	0	IN ...		(4)
	RIGHT	0	OUT ...		140
WEST BOUND	LEFT	0	EAST LEG		
	THRU	0	IN ...		14
	RIGHT	0	OUT ...		34
		681			1,938

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	101	140
	THRU	260	368
	RIGHT	34	34
SOUTH BOUND	LEFT	0	0
	THRU	286	426
	RIGHT	0	0
EAST BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
WEST BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
		681	969

Intersection: Beech Ave SR-210 HOV Ramps
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	602	IN ...		803
	RIGHT	0	OUT ...		717
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	515	IN ...		629
	RIGHT	0	OUT ...		821
EAST BOUND	LEFT	15	WEST LEG		
	THRU	0	IN ...		129
	RIGHT	68	OUT ...		18
WEST BOUND	LEFT	23	EAST LEG		
	THRU	0	IN ...		19
	RIGHT	4	OUT ...		23
		1,227			3,159

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	602	791
	RIGHT	0	0
SOUTH BOUND	LEFT	0	0
	THRU	515	604
	RIGHT	0	0
EAST BOUND	LEFT	15	27
	THRU	0	0
	RIGHT	68	98
WEST BOUND	LEFT	23	15
	THRU	0	0
	RIGHT	4	3
		1,227	1,538

Intersection: Catawba Ave S. Highland Ave
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		0
SOUTH BOUND	LEFT	3	NORTH LEG		
	THRU	0	IN ...		4
	RIGHT	1	OUT ...		4
EAST BOUND	LEFT	0	WEST LEG		
	THRU	344	IN ...		435
	RIGHT	0	OUT ...		381
WEST BOUND	LEFT	0	EAST LEG		
	THRU	196	IN ...		384
	RIGHT	4	OUT ...		438
		548			1,646

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
SOUTH BOUND	LEFT	3	3
	THRU	0	0
	RIGHT	1	1
EAST BOUND	LEFT	0	0
	THRU	344	435
	RIGHT	0	0
WEST BOUND	LEFT	0	0
	THRU	196	380
	RIGHT	4	4
		548	823

Intersection: Catawba Ave S. Highland Ave
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		0
SOUTH BOUND	LEFT	12	NORTH LEG		
	THRU	0	IN ...		20
	RIGHT	8	OUT ...		28
EAST BOUND	LEFT	14	WEST LEG		
	THRU	491	IN ...		764
	RIGHT	0	OUT ...		577
WEST BOUND	LEFT	0	EAST LEG		
	THRU	418	IN ...		583
	RIGHT	14	OUT ...		762
		957			2,734

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
SOUTH BOUND	LEFT	12	12
	THRU	0	0
	RIGHT	8	8
EAST BOUND	LEFT	14	15
	THRU	491	750
	RIGHT	0	0
WEST BOUND	LEFT	0	0
	THRU	418	569
	RIGHT	14	13
		957	1,367

Intersection: Citrus Ave SR-210 WB Ramps
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	441	SOUTH LEG		
	THRU	808	IN ...		1,343
	RIGHT	0	OUT ...		930
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	570	IN ...		1,141
	RIGHT	479	OUT ...		1,336
EAST BOUND	LEFT	0	WEST LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		922
WEST BOUND	LEFT	249	EAST LEG		
	THRU	1	IN ...		706
	RIGHT	275	OUT ...		0
		2,823			6,378

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	441	409
	THRU	808	934
	RIGHT	0	0
SOUTH BOUND	LEFT	0	0
	THRU	570	629
	RIGHT	479	512
EAST BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
WEST BOUND	LEFT	249	302
	THRU	1	1
	RIGHT	275	402
		2,823	3,189

Intersection: Citrus Ave SR-210 WB Ramps
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	388	SOUTH LEG		
	THRU	1,433	IN ...		1,992
	RIGHT	0	OUT ...		1,476
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	840	IN ...		1,515
	RIGHT	484	OUT ...		2,151
EAST BOUND	LEFT	0	WEST LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		961
WEST BOUND	LEFT	509	EAST LEG		
	THRU	1	IN ...		1,081
	RIGHT	545	OUT ...		0
		4,200			9,176

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	388	410
	THRU	1,433	1,583
	RIGHT	0	0
SOUTH BOUND	LEFT	0	0
	THRU	840	964
	RIGHT	484	550
EAST BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
WEST BOUND	LEFT	509	512
	THRU	1	1
	RIGHT	545	568
		4,200	4,588

Intersection: Citrus Ave SR-210 EB Ramps
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	787	IN ...		1,299
	RIGHT	443	OUT ...		1,154
SOUTH BOUND	LEFT	228	NORTH LEG		
	THRU	695	IN ...		1,034
	RIGHT	0	OUT ...		1,224
EAST BOUND	LEFT	343	WEST LEG		
	THRU	3	IN ...		756
	RIGHT	340	OUT ...		0
WEST BOUND	LEFT	0	EAST LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		711
		2,839			6,179

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	787	843
	RIGHT	443	457
SOUTH BOUND	LEFT	228	251
	THRU	695	783
	RIGHT	0	0
EAST BOUND	LEFT	343	381
	THRU	3	3
	RIGHT	340	371
WEST BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
		2,839	3,089

Intersection: Citrus Ave SR-210 EB Ramps
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	1,144	IN ...		1,677
	RIGHT	422	OUT ...		1,494
SOUTH BOUND	LEFT	269	NORTH LEG		
	THRU	1,066	IN ...		1,462
	RIGHT	0	OUT ...		1,990
EAST BOUND	LEFT	675	WEST LEG		
	THRU	4	IN ...		1,146
	RIGHT	427	OUT ...		0
WEST BOUND	LEFT	0	EAST LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		800
		4,007			8,570

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	1,144	1,230
	RIGHT	422	447
SOUTH BOUND	LEFT	269	349
	THRU	1,066	1,112
	RIGHT	0	0
EAST BOUND	LEFT	675	760
	THRU	4	4
	RIGHT	427	382
WEST BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
		4,007	4,285

Intersection: Citrus Ave S. Highland Ave
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	31	SOUTH LEG		
	THRU	827	IN ...		979
	RIGHT	54	OUT ...		796
SOUTH BOUND	LEFT	211	NORTH LEG		
	THRU	711	IN ...		1,150
	RIGHT	109	OUT ...		1,299
EAST BOUND	LEFT	234	WEST LEG		
	THRU	109	IN ...		472
	RIGHT	38	OUT ...		391
WEST BOUND	LEFT	29	EAST LEG		
	THRU	67	IN ...		455
	RIGHT	169	OUT ...		569
		2,589			6,111

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	31	57
	THRU	827	828
	RIGHT	54	92
SOUTH BOUND	LEFT	211	290
	THRU	711	700
	RIGHT	109	163
EAST BOUND	LEFT	234	237
	THRU	109	188
	RIGHT	38	47
WEST BOUND	LEFT	29	49
	THRU	67	171
	RIGHT	169	234
		2,589	3,055

Intersection: Citrus Ave S. Highland Ave
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	57	SOUTH LEG		
	THRU	1,012	IN ...		1,175
	RIGHT	97	OUT ...		1,172
SOUTH BOUND	LEFT	277	NORTH LEG		
	THRU	981	IN ...		1,489
	RIGHT	230	OUT ...		1,674
EAST BOUND	LEFT	216	WEST LEG		
	THRU	256	IN ...		784
	RIGHT	53	OUT ...		605
WEST BOUND	LEFT	72	EAST LEG		
	THRU	167	IN ...		844
	RIGHT	335	OUT ...		841
		3,753			8,583

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	57	74
	THRU	1,012	973
	RIGHT	97	126
SOUTH BOUND	LEFT	277	285
	THRU	981	967
	RIGHT	230	239
EAST BOUND	LEFT	216	269
	THRU	256	430
	RIGHT	53	85
WEST BOUND	LEFT	72	120
	THRU	167	292
	RIGHT	335	432
		3,753	4,291

Intersection: Citrus Ave Walnut St
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	10	SOUTH LEG		
	THRU	752	IN ...		908
	RIGHT	39	OUT ...		748
SOUTH BOUND	LEFT	29	NORTH LEG		
	THRU	628	IN ...		772
	RIGHT	45	OUT ...		919
EAST BOUND	LEFT	91	WEST LEG		
	THRU	30	IN ...		167
	RIGHT	33	OUT ...		109
WEST BOUND	LEFT	16	EAST LEG		
	THRU	24	IN ...		131
	RIGHT	31	OUT ...		202
		1,728			3,955

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	10	14
	THRU	752	795
	RIGHT	39	93
SOUTH BOUND	LEFT	29	53
	THRU	628	678
	RIGHT	45	47
EAST BOUND	LEFT	91	75
	THRU	30	56
	RIGHT	33	36
WEST BOUND	LEFT	16	34
	THRU	24	49
	RIGHT	31	49
		1,728	1,978

Intersection: Citrus Ave Walnut St
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	45	SOUTH LEG		
	THRU	1,149	IN ...		1,362
	RIGHT	83	OUT ...		1,093
SOUTH BOUND	LEFT	37	NORTH LEG		
	THRU	906	IN ...		1,106
	RIGHT	94	OUT ...		1,302
EAST BOUND	LEFT	73	WEST LEG		
	THRU	49	IN ...		192
	RIGHT	37	OUT ...		224
WEST BOUND	LEFT	31	EAST LEG		
	THRU	39	IN ...		248
	RIGHT	37	OUT ...		289
		2,580			5,817

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	45	49
	THRU	1,149	1,157
	RIGHT	83	150
SOUTH BOUND	LEFT	37	57
	THRU	906	969
	RIGHT	94	87
EAST BOUND	LEFT	73	68
	THRU	49	82
	RIGHT	37	43
WEST BOUND	LEFT	31	82
	THRU	39	89
	RIGHT	37	78
		2,580	2,909

Intersection: Jacaranda Ave S. Highland Ave
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		11
	RIGHT	11	OUT ...		3
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		0
EAST BOUND	LEFT	0	WEST LEG		
	THRU	347	IN ...		438
	RIGHT	0	OUT ...		384
WEST BOUND	LEFT	3	EAST LEG		
	THRU	200	IN ...		387
	RIGHT	0	OUT ...		449
		561			1,672

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	11	11
SOUTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
EAST BOUND	LEFT	0	0
	THRU	347	438
	RIGHT	0	0
WEST BOUND	LEFT	3	3
	THRU	200	384
	RIGHT	0	0
		561	836

Intersection: Jacaranda Ave S. Highland Ave
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		7
	RIGHT	7	OUT ...		11
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		0
EAST BOUND	LEFT	0	WEST LEG		
	THRU	503	IN ...		762
	RIGHT	0	OUT ...		582
WEST BOUND	LEFT	11	EAST LEG		
	THRU	431	IN ...		593
	RIGHT	0	OUT ...		769
		952			2,724

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	7	7
SOUTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
EAST BOUND	LEFT	0	0
	THRU	503	762
	RIGHT	0	0
WEST BOUND	LEFT	11	11
	THRU	431	582
	RIGHT	0	0
		952	1,362

Intersection: Tokay Ave S. Highland Ave
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		11
	RIGHT	11	OUT ...		4
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		0
EAST BOUND	LEFT	0	WEST LEG		
	THRU	358	IN ...		449
	RIGHT	0	OUT ...		387
WEST BOUND	LEFT	4	EAST LEG		
	THRU	203	IN ...		391
	RIGHT	0	OUT ...		460
		576			1,702

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	11	11
SOUTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
EAST BOUND	LEFT	0	0
	THRU	358	449
	RIGHT	0	0
WEST BOUND	LEFT	4	4
	THRU	203	387
	RIGHT	0	0
		576	851

Intersection: Tokay Ave S. Highland Ave
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		7
	RIGHT	7	OUT ...		12
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		0
EAST BOUND	LEFT	0	WEST LEG		
	THRU	510	IN ...		769
	RIGHT	0	OUT ...		593
WEST BOUND	LEFT	12	EAST LEG		
	THRU	442	IN ...		605
	RIGHT	0	OUT ...		776
		971			2,762

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	7	7
SOUTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
EAST BOUND	LEFT	0	0
	THRU	510	769
	RIGHT	0	0
WEST BOUND	LEFT	12	12
	THRU	442	593
	RIGHT	0	0
		971	1,381

Intersection: Cherimoya Ave S. Highland Ave
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		12
	RIGHT	12	OUT ...		0
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		0
EAST BOUND	LEFT	0	WEST LEG		
	THRU	369	IN ...		460
	RIGHT	0	OUT ...		391
WEST BOUND	LEFT	0	EAST LEG		
	THRU	207	IN ...		391
	RIGHT	0	OUT ...		472
		588			1,726

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	12	12
SOUTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
EAST BOUND	LEFT	0	0
	THRU	369	460
	RIGHT	0	0
WEST BOUND	LEFT	0	0
	THRU	207	391
	RIGHT	0	0
		588	863

Intersection: Cherimoya Ave S. Highland Ave
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		8
	RIGHT	8	OUT ...		0
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		0
EAST BOUND	LEFT	0	WEST LEG		
	THRU	517	IN ...		776
	RIGHT	0	OUT ...		605
WEST BOUND	LEFT	0	EAST LEG		
	THRU	454	IN ...		605
	RIGHT	0	OUT ...		784
		979			2,778

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	8	8
SOUTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
EAST BOUND	LEFT	0	0
	THRU	517	776
	RIGHT	0	0
WEST BOUND	LEFT	0	0
	THRU	454	605
	RIGHT	0	0
		979	1,389

APPENDIX G

TRAFFIC SIGNAL WARRANT
ANALYSIS WORKSHEETS

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2000 MUTCD)

MAJOR STREET: Highland Avenue EB WB # OF APPROACH LANES:

MINOR STREET: Jacaranda Avenue NB SB # OF APPROACH LANES:

CITY, STATE: Fontana, CA

COMMENTS: Opening Year 2023 Cumulative Plus Project
0

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N):
 85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N):

	MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2	WARRANT 3
			MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	Four-Hour	Peak Hour
THRESHOLD VALUES			350	105		525	53		280	84		420	42			
06:00 AM TO 07:00 AM	0	0														
07:00 AM TO 08:00 AM	0	0														
08:00 AM TO 09:00 AM	0	0														
09:00 AM TO 10:00 AM	714	13	Y			Y			Y			Y				
10:00 AM TO 11:00 AM	0	0														
11:00 AM TO 12:00 PM	0	0														
12:00 PM TO 01:00 PM	0	0														
01:00 PM TO 02:00 PM	0	0														
02:00 PM TO 03:00 PM	0	0														
03:00 PM TO 04:00 PM	0	0														
04:00 PM TO 05:00 PM	1,154	25	Y			Y			Y			Y				
05:00 PM TO 06:00 PM	0	0														
06:00 PM TO 07:00 PM	0	0														
07:00 PM TO 08:00 PM	0	0														
08:00 PM TO 09:00 PM	0	0														
09:00 PM TO 10:00 PM	0	0														
	1,868	38	2	0	0	2	0	0	2	0	0	2	0	0	0	
			8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
			NOT SATISFIED			NOT SATISFIED			NOT SATISFIED						NOT SATISFIED	NOT SATISFIED

12/06/21
 Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2000 MUTCD)

MAJOR STREET: Highland Avenue EB WB # OF APPROACH LANES:

MINOR STREET: Jacaranda Avenue NB SB # OF APPROACH LANES:

CITY, STATE: Fontana, CA

COMMENTS: Horizon Year 2040 Plus Project
0

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N):
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N):

	MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2	WARRANT 3
			MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	Four-Hour	Peak Hour
THRESHOLD VALUES			350	105		525	53		280	84		420	42			
06:00 AM TO 07:00 AM	0	0														
07:00 AM TO 08:00 AM	0	0														
08:00 AM TO 09:00 AM	0	0														
09:00 AM TO 10:00 AM	907	13	Y			Y			Y			Y				
10:00 AM TO 11:00 AM	0	0														
11:00 AM TO 12:00 PM	0	0														
12:00 PM TO 01:00 PM	0	0														
01:00 PM TO 02:00 PM	0	0														
02:00 PM TO 03:00 PM	0	0														
03:00 PM TO 04:00 PM	0	0														
04:00 PM TO 05:00 PM	1,429	25	Y			Y			Y			Y				
05:00 PM TO 06:00 PM	0	0														
06:00 PM TO 07:00 PM	0	0														
07:00 PM TO 08:00 PM	0	0														
08:00 PM TO 09:00 PM	0	0														
09:00 PM TO 10:00 PM	0	0														
	2,336	38	2	0	0	2	0	0	2	0	0	2	0	0	0	
			8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
			NOT SATISFIED			NOT SATISFIED			NOT SATISFIED						NOT SATISFIED	NOT SATISFIED

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2000 MUTCD)

MAJOR STREET: Beech Ave NB SB # OF APPROACH LANES:

MINOR STREET: SR-210 HOV Ramps EB WB # OF APPROACH LANES:

CITY, STATE: Fontana, CA

COMMENTS: Horizon Year 2040
0

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N):
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N):

	MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2	WARRANT 3
			MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	Four-Hour	Peak Hour
THRESHOLD VALUES			600	150		900	75		480	120		720	60			
06:00 AM TO 07:00 AM	0	0														
07:00 AM TO 08:00 AM	0	0														
08:00 AM TO 09:00 AM	0	0														
09:00 AM TO 10:00 AM	1,569	209	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
10:00 AM TO 11:00 AM	0	0														
11:00 AM TO 12:00 PM	0	0														
12:00 PM TO 01:00 PM	0	0														
01:00 PM TO 02:00 PM	0	0														
02:00 PM TO 03:00 PM	0	0														
03:00 PM TO 04:00 PM	0	0														
04:00 PM TO 05:00 PM	1,405	282	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
05:00 PM TO 06:00 PM	0	0														
06:00 PM TO 07:00 PM	0	0														
07:00 PM TO 08:00 PM	0	0														
08:00 PM TO 09:00 PM	0	0														
09:00 PM TO 10:00 PM	0	0														
	2,974	491	2	2	2	2	2	2	2	2	2	2	2	2	2	
			8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
			NOT SATISFIED			NOT SATISFIED			NOT SATISFIED						NOT SATISFIED	SATISFIED

12/06/21
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2000 MUTCD)

MAJOR STREET: Beech Ave NB SB # OF APPROACH LANES:

MINOR STREET: SR-210 HOV Ramps EB WB # OF APPROACH LANES:

CITY, STATE: Fontana, CA

COMMENTS: Horizon Year 2040 Plus Project
0

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N):
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N):

	MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2	WARRANT 3
			MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	Four-Hour	Peak Hour
THRESHOLD VALUES			600	150		900	75		480	120		720	60			
06:00 AM TO 07:00 AM	0	0														
07:00 AM TO 08:00 AM	0	0														
08:00 AM TO 09:00 AM	0	0														
09:00 AM TO 10:00 AM	1,582	209	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
10:00 AM TO 11:00 AM	0	0														
11:00 AM TO 12:00 PM	0	0														
12:00 PM TO 01:00 PM	0	0														
01:00 PM TO 02:00 PM	0	0														
02:00 PM TO 03:00 PM	0	0														
03:00 PM TO 04:00 PM	0	0														
04:00 PM TO 05:00 PM	1,417	282	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
05:00 PM TO 06:00 PM	0	0														
06:00 PM TO 07:00 PM	0	0														
07:00 PM TO 08:00 PM	0	0														
08:00 PM TO 09:00 PM	0	0														
09:00 PM TO 10:00 PM	0	0														
	2,999	491	2	2	2	2	2	2	2	2	2	2	2	2	2	
			8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
			NOT SATISFIED			NOT SATISFIED			NOT SATISFIED						NOT SATISFIED	SATISFIED

12/06/21
Kimley-Horn and Associates

APPENDIX H

QUEUING ANALYSIS
WORKSHEETS

Corona
(2305 Compton Ave, Corona, CA 92881)

Time	Corona In-N-Out							Peak
	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	
	12/2/2017	12/3/2017	12/4/2017	12/5/2017	12/6/2017	12/7/2017	12/8/2017	
10:30-10:45	7	5	6	5	6	5	6	7
10:45-11:00	14	11	14	7	12	7	8	14
11:00-11:15	7	9	17	11	12	9	10	17
11:15-11:30	9	13	14	15	12	11	17	17
11:30-11:45	9	17	14	15	15	16	16	17
11:45-12:00	11	19	17	10	14	16	15	19
12:00-12:15	13	17	12	13	18	15	23	23
12:15-12:30	16	18	17	13	18	14	24	24
12:30-12:45	20	23	20	13	16	13	23	23
12:45-1:00	22	24	15	17	13	14	17	24
1:00-1:15	22	24	14	11	13	16	14	24
1:15-1:30	23	23	11	14	16	18	15	23
1:30-1:45	24	22	11	11	15	17	16	24
1:45-2:00	23	17	10	10	13	14	15	23
2:00-2:15	22	18	15	11	16	10	15	22
2:15-2:30	23	17	17	16	16	13	13	23
2:30-2:45	24	23	18	15	12	13	13	24
2:45-3:00	20	14	12	14	10	13	15	20
3:00-3:15	20	18	18	23	17	14	16	23
3:15-3:30	17	14	15	19	18	14	18	19
3:30-3:45	17	16	18	17	11	16	17	18
3:45-4:00	15	17	16	12	15	14	15	17
4:00-4:15	18	20	12	9	12	15	17	20
4:15-4:30	16	18	16	10	9	11	11	18
4:30-4:45	16	17	17	14	10	9	11	17
4:45-5:00	16	17	14	12	16	15	13	17
5:00-5:15	23	15	16	13	23	18	13	23
5:15-5:30	24	17	23	12	18	21	16	24
5:30-5:45	24	23	16	13	16	16	23	24
5:45-6:00	23	23	15	13	17	18	15	23
6:00-6:15	18	24	12	12	18	23	19	24
6:15-6:30	23	24	15	17	23	24	17	24
6:30-6:45	23	25	23	23	23	24	18	25
6:45-7:00	20	25	24	17	17	23	15	25
7:00-7:15	23	24	23	18	14	13	17	24
7:15-7:30	15	24	16	15	16	17	18	24
7:30-7:45	14	23	12	14	13	16	23	23
7:45-8:00	16	23	14	12	13	20	24	24
8:00-8:15	15	15	14	12	14	17	23	23
8:15-8:30	16	15	15	13	12	14	17	17
8:30-8:45	17	16	14	14	10	15	16	17
8:45-9:00	14	14	14	10	14	15	13	15
9:00-9:15	17	12	14	12	11	13	15	17
9:15-9:30	12	10	15	9	11	15	15	15
9:30-9:45	16	13	11	8	8	10	16	16
9:45-10:00	12	15	9	8	11	13	11	15
10:00-10:15	13	12	14	7	12	13	12	14
10:15-10:30	12	9	9	6	11	13	15	15
10:30-10:45	14	13	11	6	7	11	15	15
10:45-11:00	19	11	9	7	8	9	14	19
11:00-11:15	20	8	8	6	6	8	13	20
11:15-11:30	16	12	6	5	5	7	11	16
11:30-11:45	14	10	7	4	4	5	11	14
11:45-12:00	12	8	5	4	5	6	11	12
12:00-12:15	11	5	5	3	4	4	11	11
12:15-12:30	11	7	4	3	3	3	11	11
12:30-12:45	13	6	3	3	2	3	11	13
12:45-1:00	13	4	2	2	2	2	11	13
Day Peak	24	25	24	23	23	24	24	25

Highland
(28009 Greenspot Rd, Highland, CA 92346)

Time	Highland In-N-Out							Peak
	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	
	12/2/2017	12/3/2017	12/4/2017	12/5/2017	12/6/2017	12/7/2017	12/8/2017	
10:30-10:45	4	6	6	5	4	4	6	6
10:45-11:00	5	7	8	7	6	7	11	11
11:00-11:15	6	9	11	9	9	10	14	14
11:15-11:30	14	11	17	10	13	14	15	17
11:30-11:45	12	16	15	14	15	14	16	16
11:45-12:00	13	18	14	14	14	14	17	18
12:00-12:15	16	18	18	17	14	18	19	19
12:15-12:30	20	20	17	17	15	18	21	21
12:30-12:45	20	20	16	19	15	17	21	21
12:45-1:00	21	19	13	18	11	18	20	21
1:00-1:15	18	19	14	17	7	18	19	19
1:15-1:30	20	19	11	13	10	14	14	20
1:30-1:45	20	18	14	13	10	13	16	20
1:45-2:00	22	17	14	18	3	13	18	22
2:00-2:15	17	15	13	15	14	16	17	17
2:15-2:30	17	17	18	16	15	19	18	19
2:30-2:45	14	18	14	13	14	16	15	18
2:45-3:00	17	15	15	12	13	18	15	18
3:00-3:15	16	16	18	14	12	16	18	18
3:15-3:30	18	19	18	12	13	14	18	19
3:30-3:45	14	19	17	10	17	19	19	19
3:45-4:00	12	16	18	11	16	18	17	18
4:00-4:15	14	14	15	14	14	15	13	15
4:15-4:30	15	14	13	16	12	16	19	19
4:30-4:45	14	16	15	14	15	14	17	17
4:45-5:00	15	18	18	15	14	17	16	18
5:00-5:15	15	19	15	14	13	19	15	19
5:15-5:30	18	20	13	13	17	19	19	20
5:30-5:45	22	19	16	19	16	18	19	22
5:45-6:00	17	18	20	19	18	21	20	21
6:00-6:15	23	21	20	18	20	21	23	23
6:15-6:30	19	21	19	17	13	19	22	22
6:30-6:45	19	20	19	17	16	18	17	20
6:45-7:00	19	19	18	15	14	17	18	19
7:00-7:15	21	17	16	14	13	16	19	21
7:15-7:30	19	18	15	15	15	21	20	21
7:30-7:45	17	18	12	16	12	19	21	21
7:45-8:00	15	19	15	17	17	19	19	19
8:00-8:15	18	20	18	13	18	14	18	20
8:15-8:30	19	17	13	16	16	14	17	19
8:30-8:45	21	15	13	13	17	12	17	21
8:45-9:00	19	14	12	13	19	14	15	19
9:00-9:15	20	16	11	14	18	15	18	20
9:15-9:30	20	16	14	15	16	19	17	20
9:30-9:45	18	17	15	12	14	18	16	18
9:45-10:00	17	16	12	11	12	16	16	17
10:00-10:15	20	13	10	10	13	15	14	20
10:15-10:30	19	12	9	10	15	14	14	19
10:30-10:45	18	12	8	8	14	11	14	18
10:45-11:00	18	13	7	7	10	11	14	18
11:00-11:15	15	15	8	7	11	10	11	15
11:15-11:30	17	16	7	8	9	9	12	17
11:30-11:45	19	12	6	6	7	8	10	19
11:45-12:00	16	9	5	5	8	9	9	16
12:00-12:15	16	8	5	6	6	7	8	16
12:15-12:30	15	7	4	4	5	5	7	15
12:30-12:45	9	5	3	3	3	4	3	9
12:45-1:00	8	4	2	2	2	2	5	8
Day Peak	23	21	20	19	20	21	23	23

Thousand Palms
(72265 Varner Rd, Thousand Palms, CA 92276)

