



MESA LINDA STREET WAREHOUSE

TRAFFIC IMPACT ANALYSIS

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1 EXECUTIVE SUMMARY

This Traffic Impact Analysis (TIA) evaluates the potential traffic and transportation impacts of the proposed 408,997 square foot Mesa Linda Street Warehouse (project). Based on the Institute of Transportation Engineers, *Trip Generation* 11th Edition vehicle trip generation rates, the project would generate 573 daily trips including 33 trips during the AM peak hour and 41 trips during the PM peak hour. Passenger Car Equivalent factors were added to truck trips to account for the fact that trucks utilize more roadway capacity due to their size, reduced maneuverability and slower acceleration. When the passenger car equivalent factors are considered, the project would generate 838 daily trips including 48 trips during the AM peak hour and 59 trips during the PM peak hour.

The study area intersections listed in Section 2.3 – Study Area and Analysis Scenarios were evaluated during the AM and PM peak hours, which are defined as the hours with the highest traffic volumes during the 7 AM to 9 AM and 4 PM to 6 PM peak commute periods. AM and PM peak hour traffic operations were evaluated for the following scenarios:

- Existing Condition
- Existing Plus Project Condition
- Opening Year 2024 Condition
- Opening Year 2024 Plus Project Condition

Existing Plus Project Intersection Level of Service Analysis Results

An LOS analysis was prepared for all existing study intersections in the Existing Plus Project scenario. All existing study area intersections are forecast to operate with satisfactory LOS in the Existing Plus Project scenario except for the 395/Poplar Street intersection which is forecast to operate at a deficient LOS F.

When compared to the Existing Baseline scenario, the project adds more than 5 seconds of delay to the deficient intersection in the Existing Plus Project scenario and therefore would have a significant effect on traffic at the intersection of US-395/Poplar Street. The following improvement is recommended to improve the deficient US-395/Poplar Street intersection.

US-395/Poplar Street Recommended Improvement: The CAMUTCD peak hour traffic signal warrant is not met for this intersection under the Existing Plus Project scenario. However, the warrant is met for the Opening Year Plus Project scenario; therefore, installing a traffic signal as an improvement would mitigate the effects of project traffic at this intersection in the Opening Year Plus Project scenario.

Opening Year Plus Project Intersection Level of Service Analysis Results

An LOS analysis was prepared for all study intersections in the Opening Year Plus Project scenario. All study area intersections are forecast to operate with satisfactory LOS in the Opening Year Plus Project scenario except for the following intersections which are forecast to operate at a deficient LOS E or F:

- US-395/Poplar Street
- Three Flags Ave-Lassen St/Poplar St
- Joshua Street/I-15 SB Off-Ramp

When compared to the Opening Year scenario, the project adds more than 5 seconds of delay to the deficient intersections and therefore would have a significant effect on traffic operations at the intersections of US-395/Poplar Street, Three Flags Avenue-Lassen Street/Poplar Street, and Joshua Street/I-15 SB Off-Ramp in the Opening Year Plus Project scenario. The following improvements are recommended to improve the deficient intersections.

US-395/Poplar Street Recommended Improvement: The CAMUTCD peak hour traffic signal warrant is met for the intersection of US-395/Poplar Street under the Opening Year Plus Project scenario; therefore, installing a traffic signal and adding a 3rd northbound through lane, northbound right-turn lane, 2nd southbound left-turn lane, and 2nd southbound through lane as an improvement would mitigate the project traffic for the intersection of US-395/Poplar Street in the Opening Year Plus Project scenario. With the implementation of this improvement, the LOS operations at the intersection of US-395/Poplar Street would be improved to a satisfactory LOS B.

Three Flags Avenue-Lassen Street/Poplar Street Recommended Improvement: The CAMUTCD multi-way stop control warrant is met for the intersection of Three Flags Avenue-Lassen Street/Poplar Street under the Opening Year Plus Project scenario; therefore, changing the Three Flags Avenue-Lassen Street/Poplar Street intersection control from Two-Way Stop Control (TWSC) to an All-Way Stop Control (AWSC) would improve the intersection's LOS to a satisfactory LOS C in the Opening Year Plus Project scenario.

Joshua Street/I-15 SB Off-Ramp Recommended Improvement: The CAMUTCD traffic signal warrant is met for the intersection of Joshua Street/I-15 SB Off-Ramp under the Opening Year Plus Project scenario; therefore, installing a traffic signal would improve the traffic conditions for the intersection of Joshua Street/I-15 SB Off-Ramp in the Opening Year Plus Project scenario. With the implementation of this improvement, the LOS operations at the intersection of Joshua Street/I-15 SB Off-Ramp would be improved to a satisfactory LOS C.

Opening Year 2024 Plus Project Intersection Queueing Analysis Results

A queueing analysis was prepared for applicable study intersections in the Opening Year Plus Project scenario. The project would cause a queueing deficiency in the Opening Year 2024 Plus Project condition at the following approach:

- US-395/Poplar Street
 - Westbound left-turn lane

US-395/Poplar Street Recommended Queueing Improvement: The LOS recommended improvement for the US-395/Poplar Street intersection also improves the queueing deficiency of the intersection in the Opening Year 2024 Plus Project condition.

Project Fair Share

Since the project effect on traffic at the intersections of US-395/Poplar Street, Three Flags Avenue-Lassen Street/Poplar Street, and Joshua Street/I-15 SB Off-Ramp are cumulative, the project would contribute to a fair share for the implementation of the aforementioned improvements. The project would be responsible for the highest peak hour fair share of 4.50% for the US-395/Poplar Street intersection, 8.66% for the Three Flags Avenue-Lassen Street/Poplar Street intersection, and 2.17% for Joshua Street/I-15 SB Off-Ramp intersection. It is to be noted that the traffic signal at the US-395/Poplar Street intersection is to be installed by the Hesperia Industrial Center project.

2 INTRODUCTION

This Traffic Impact Analysis (TIA) has been prepared by EPD Solutions, Inc. (EPD) to analyze the potential traffic and transportation impacts of the proposed Mesa Linda Street Warehouse (project). The scope of work for this TIA was reviewed and approved by the City of Hesperia (City) and is provided in Appendix A. The TIA was prepared according to the approved scope of work using methodologies and significance criteria consistent with the requirements of the City of Hesperia General Plan, City of Hesperia Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS), the San Bernardino County Transportation Impact Study Guidelines and applicable provisions of the California Environmental Quality Act (CEQA).

2.1 Project Description

The proposed project would be located on a 18.16 acres vacant site, 500 feet north of Poplar Street between Mesa Linda Street and Three Flags Avenue in the City of Hesperia. The location of the project is shown in Figure 1 - Project Location, and the project site plan is shown in Figure 2a – Project Site Plan. The project proposes to construct a total industrial building area of 408,997 SF comprising 396,997 SF of footprint and 12,000 SF of office. The site will provide 220 parking stalls comprising 213 standard stalls and 7 accessible, 54 dock loading positions, and 57 trailer parking stalls.

2.2 Access and Adjacent Roadway Improvements

Access to the project site will be provided via 2 unsignalized full-access driveways on Mesa Linda Street and 2 unsignalized full-access driveways on Lassen Street. The north driveway on Lassen Street will be used by passenger vehicles whereas both south driveways on Lassen Street and Mesa Linda Street can be used by passenger vehicles and trucks. The north driveway on Mesa Linda Street is used for emergency only. Figures 2b and 2c show truck turning movements into the truck driveways on Mesa Linda Street and Lassen Street.

Lassen Street is currently not constructed but is required for access to the project. The project would include construction of the east side of Lassen Street to its half width in compliance with the City's General Plan Circulation element. The west side of Lassen Street would be constructed as part of I-15 Industrial Park project. The project would include building the half width of Sultana Street and Mesa Linda Street along the project's frontage. In addition, the project would include constructing pedestrian facilities such as curb and gutter along project frontages. A conceptual exhibit showing site-adjacent improvements is provided in Figure 2d – Adjacent Roadway Exhibit and Appendix G.

Improvements in the vicinity of the project that would be constructed by the I-15 Industrial Park Project are shown in Figure 13 (provided in Appendix B) from the I-15 Industrial Park TIA prepared by Dudek.

Figure 1: Project Location



[illegible]

Figure 2b: Truck Turning on Mesa Linda Driveway

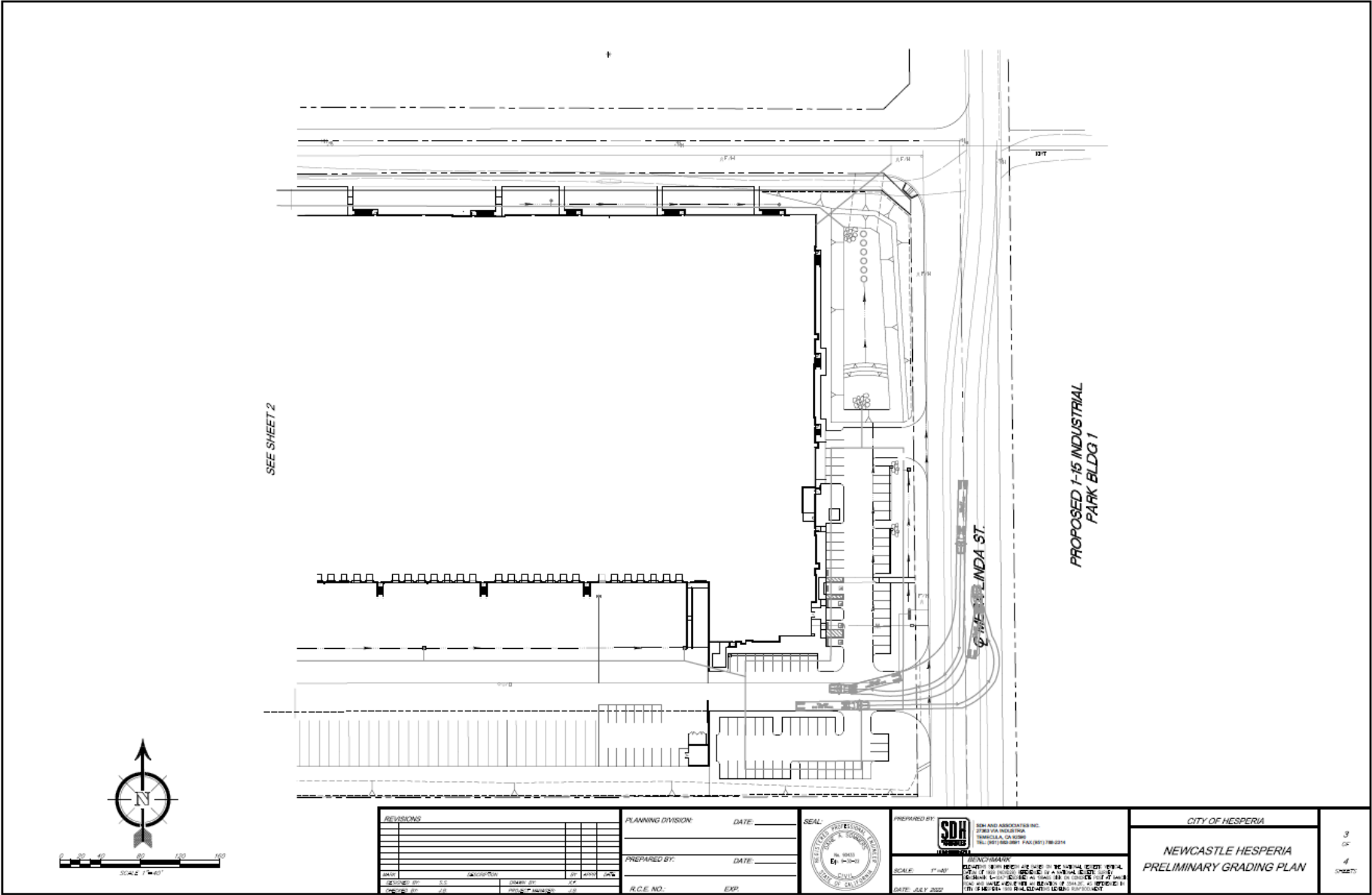


Figure 2c: Truck Turning on Lassen Driveway

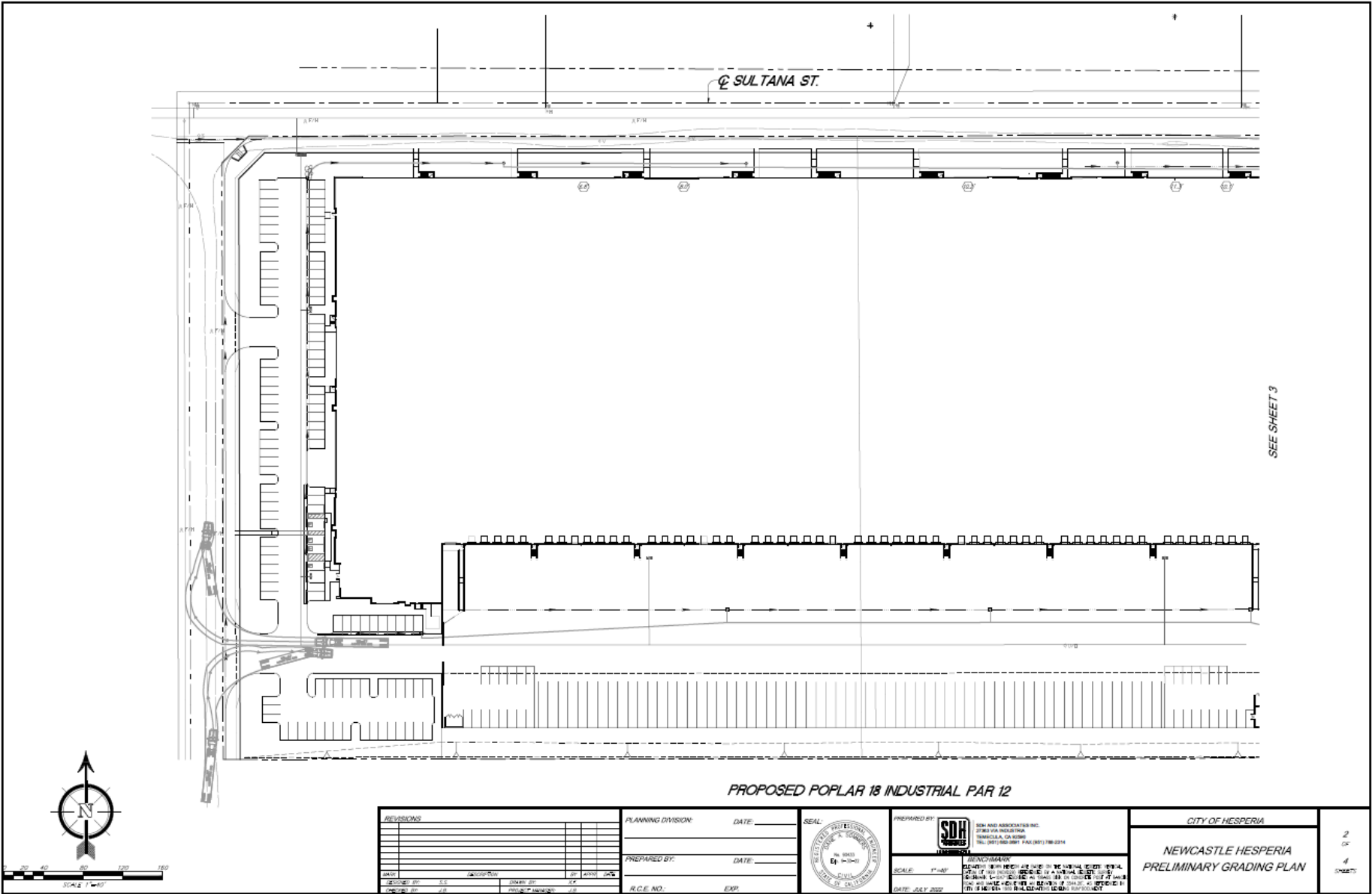
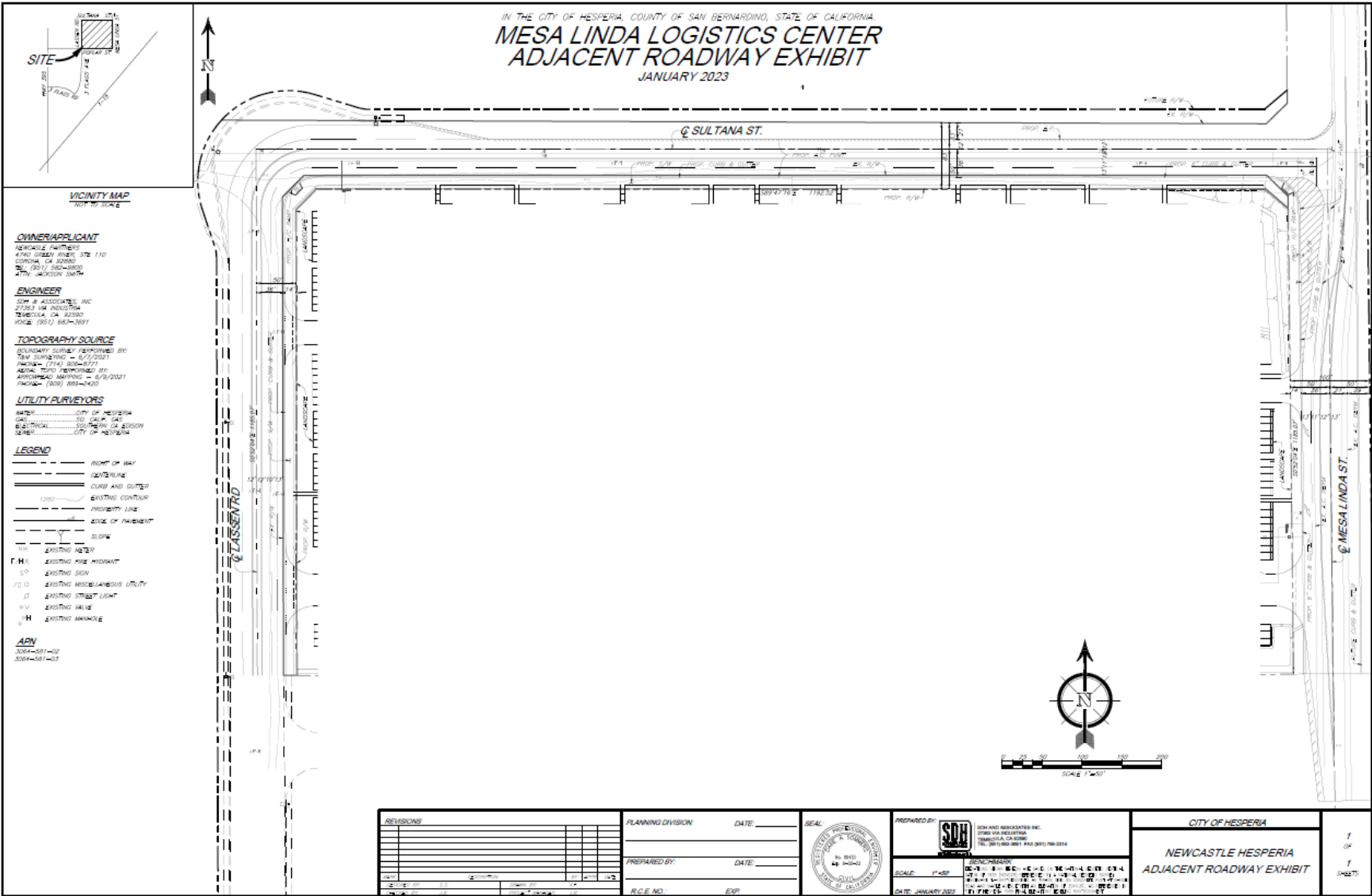


Figure 2d: Adjacent Roadway Exhibit



2.3 Study Area and Analysis Scenarios

This TIA includes all signalized and unsignalized intersections where the project has the potential to add 50 or more AM or PM peak hour trips. The four proposed driveway intersections (i.e., intersections 13, 14, 15, and 16) were also analyzed in the plus project condition to evaluate the effect on Lassen Street and Mesa Linda Street. The location of the study area intersections are shown on Figure 3 – Project Study Area. The following intersections were included in the analysis:

1. US-395/Poplar Street
2. US-395/Three Flags Road
3. US-395/Joshua Street
4. Main Street/Mesa Linda Street
5. Main Street/Key Pointe Avenue
6. Main Street/I-15 SB Off Ramp
7. Main Street/I-15 NB Ramps
8. Three Flags Avenue-Lassen Street/Poplar Street
9. Mesa Linda Street/Sultana Road
10. Joshua Road/Outpost Road
11. Joshua Street/I-15 SB Off-Ramp
12. Joshua Street/I-15 NB On-Ramp
13. Lassen Street/North Driveway
14. Lassen Street/South Driveway
15. Mesa Linda Street/North Driveway
16. Mesa Linda Street/South Driveway

Study area intersections were evaluated during the AM and PM peak hours, which are defined as the hour with the highest traffic volumes during the 7 AM to 9 AM and 4 PM to 6 PM peak commute periods. AM and PM peak hour traffic operations were evaluated for the following scenarios:

- Existing Condition
- Existing Plus Project Condition
- Opening Year 2024 Condition
- Opening Year 2024 plus Project Condition

Forecast traffic volumes for the Opening year 2024 conditions were developed by applying a growth rate of two percent per year to the 2022 traffic counts and adding traffic from nearby cumulative (approved and not yet build and those under review) development projects. The growth rate was approved by the City of Hesperia Engineering staff during the scoping process. Cumulative projects were provided by the City of Hesperia Planning Department and are included in the Opening Year 2024 scenario.

Figure 3: Project Study Area



2.4 Methodology

Intersection operations are evaluated using Level of Service (LOS), which is a measure of the delay experienced by drivers on a roadway facility. LOS A indicates free-flow traffic conditions and is generally the best operating conditions. LOS F is an extremely congested condition and is the worst operating condition from the driver's perspective. In this report, LOS at signalized and unsignalized intersections is calculated using the Highway Capacity Manual (HCM), 6th Edition methodology.

LOS at signalized intersections is defined in terms of the weighted average control delay for the intersection as a whole. Control delay is a measure of the increase in travel time that is experienced due to traffic signal control and is expressed in terms of average control delay per vehicle (in seconds). Control delay is determined based on the intersection geometry and volume, signal cycle length, phasing and coordination along the arterial corridor. Table 1 shows the relationship between control delay and LOS.

Table 1. Relationship between Control Delay and LOS at a Signalized Intersection

LOS	Delay (Seconds per Vehicle)
A	≤ 10
B	>10 – 20
C	>20 – 35
D	>35 – 55
E	>55 – 80
F	>80

Unsignalized intersections are categorized as either all-way stop control (AWSC) or two-way stop control (TWSC). LOS at AWSC intersections is determined by the weighted average control delay of the overall intersection. The HCM TWSC intersection methodology calculates LOS based on the delay experienced by drivers on the minor (stop-controlled) approaches to the intersection. For TWSC intersections, LOS is determined for each minor-street movement, as well as the major-street left-turns. The relationship between delay and LOS at Unsignalized intersections is shown in Table 2.

Table 2. Relationship between Delay and LOS an Unsignalized Intersection

LOS	Delay (seconds)
A	0-10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F	>50

2.5 Significance Criteria

The City of Hesperia utilizes a LOS standard of LOS D or better on all roadways and intersections. LOS E during peak hours is considered acceptable through freeway interchanges and major corridors (Bear Valley Road, Main Street/Phelan Road, Highway 395). An impact would occur if the project causes an intersection to deteriorate from acceptable LOS (LOS D or better) to an unacceptable LOS (LOS E or F). At an intersection already operating at LOS E or F in the

baseline condition, a project impact would occur if the project adds measurable delay (5 seconds or more) to an intersection already operating at an unacceptable LOS.

In addition to LOS, a significant queueing deficiency would occur if:

- a) The addition of project trips causes the queue to exceed the storage length.
- b) The project adds one car length (25 feet) of queue to a queue that exceeds the storage length in the baseline condition.

3 BASELINE CONDITIONS

This section discusses the baseline (without project) conditions. Baseline conditions are those conditions that exist within the study area in the Existing condition and that are forecast to occur in the future, without the proposed project.

3.1 Existing Transportation System

Access to the project site will be provided via 2 unsignalized full-access driveways on Mesa Linda Street and 2 unsignalized full-access driveways on Lassen Street. North driveways will be primarily utilized for passenger vehicles whereas south driveways will be utilized for trucks. The following roadways are the primary roadways in the City of Hesperia:

- **Interstate 15 (I-15)** is a major north-south Interstate Highway that begins near the Mexican/US border and runs through Southern California to Alberta, Canada.
- **U.S. Highway 395 (US 395)** is a north-south U.S. route that begins in the Mojave Desert at I-15 and runs through Southern California to the U.S./Canadian border.
- **Phelan Road/Main Street** is an east-west undivided roadway that ranges from two to six lanes. The City of Hesperia classifies Phelan Road/Main Street as a major arterial roadway. The roadway is named Phelan Road west of US 395 and Main Street east of US 396. Phelan Road west of US 395 is a designated truck route. The posted speed limit is 55 MPH.
- **Mesa Linda Street** is a north-south undivided roadway that ranges from two to four lanes. The City of Hesperia classifies Mesa Linda Street as an arterial roadway.
- **Poplar Street** is an east-west undivided roadway that ranges from two to four lanes. The City of Hesperia classifies Poplar Street as a secondary arterial roadway.

3.2 Existing Traffic Volumes and LOS Analysis

Traffic counts at the existing study area intersections shown in Figure 3 – Project Study Area, were collected on Wednesday, May 11, 2022. The counts were taken on typical weekdays when schools were in session. Intersection turn movement count sheets are provided in Appendix C. Existing Lane configuration is shown in Figure 4 – Existing Lane Configuration. Existing AM and PM peak hour traffic volumes are shown on Figures 5 and 6.

The existing Levels of Service at the study area intersections were determined using the HCM methodology, described previously in section 2.4. Table 3 shows the Existing AM and PM peak hour levels of service at study intersections. All LOS calculations are provided in Appendix D. As shown in Table 3, all study intersections operate at satisfactory LOS D or better during the AM and PM peak hours in the Existing (2022) condition except for the intersection of US-395/Poplar Street; which operates at a deficient LOS F in the Existing scenario.

Figure 4: Existing Lane Configuration

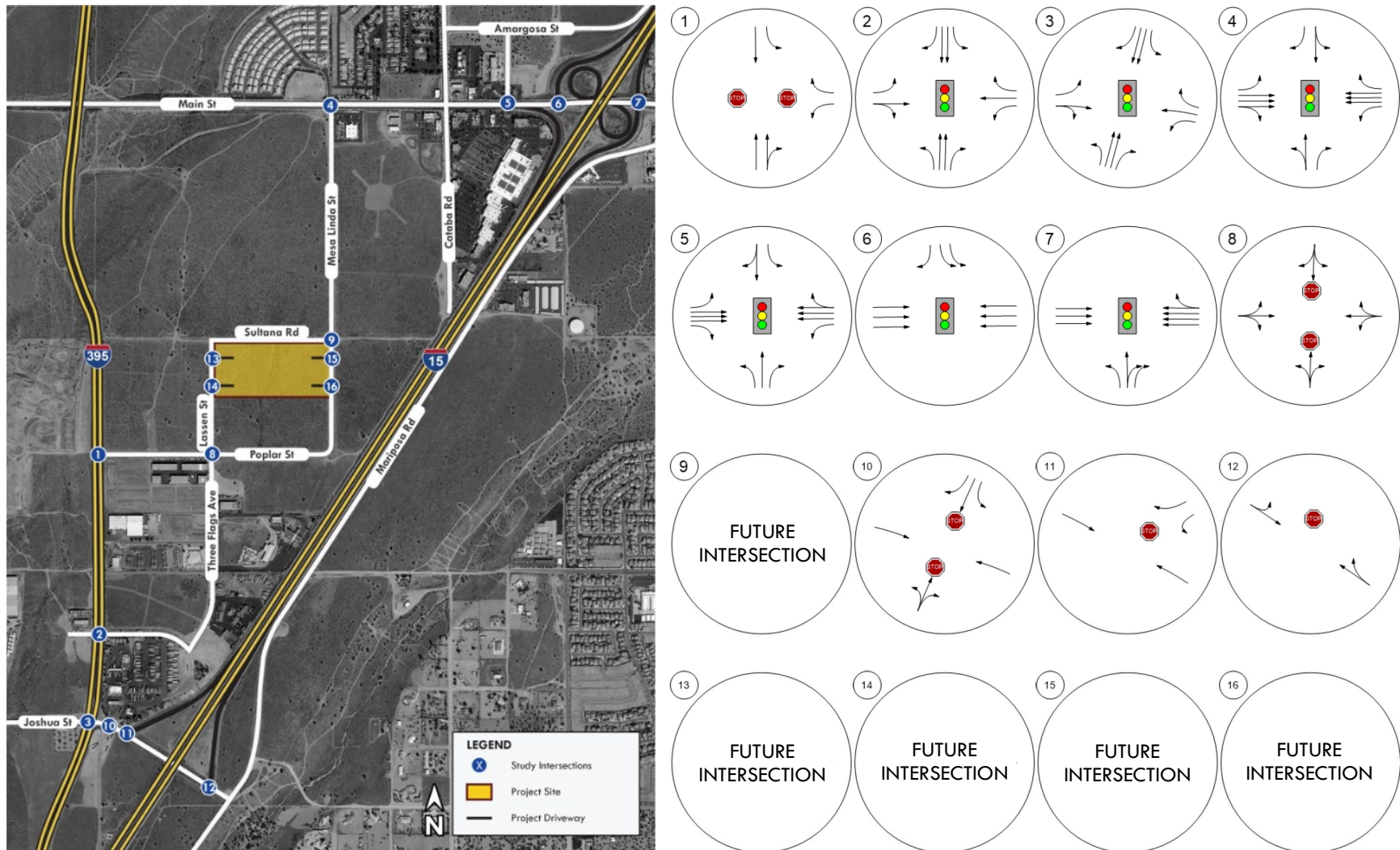


Figure 5: Existing AM Traffic Volumes

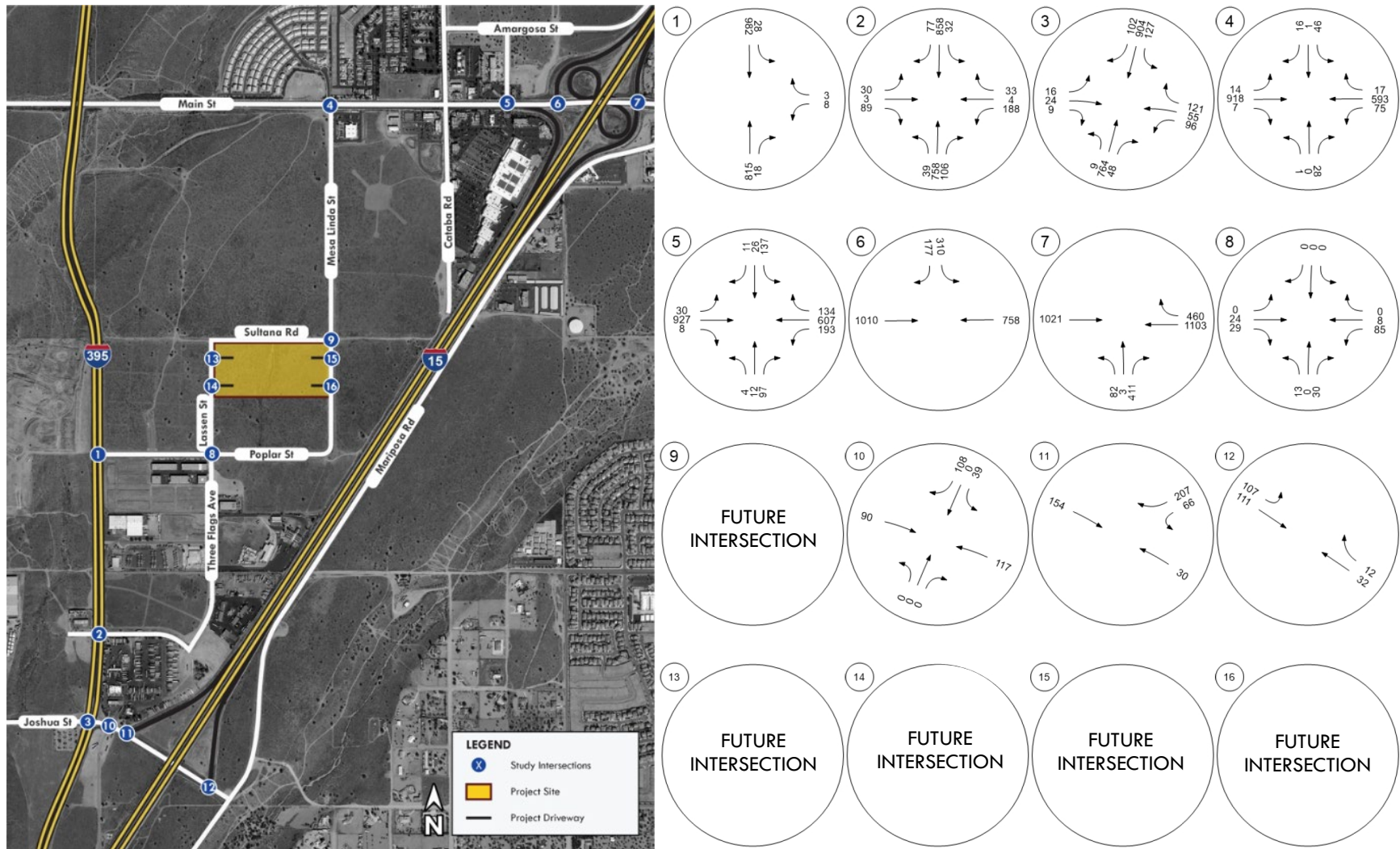


Figure 6: Existing PM Traffic Volumes

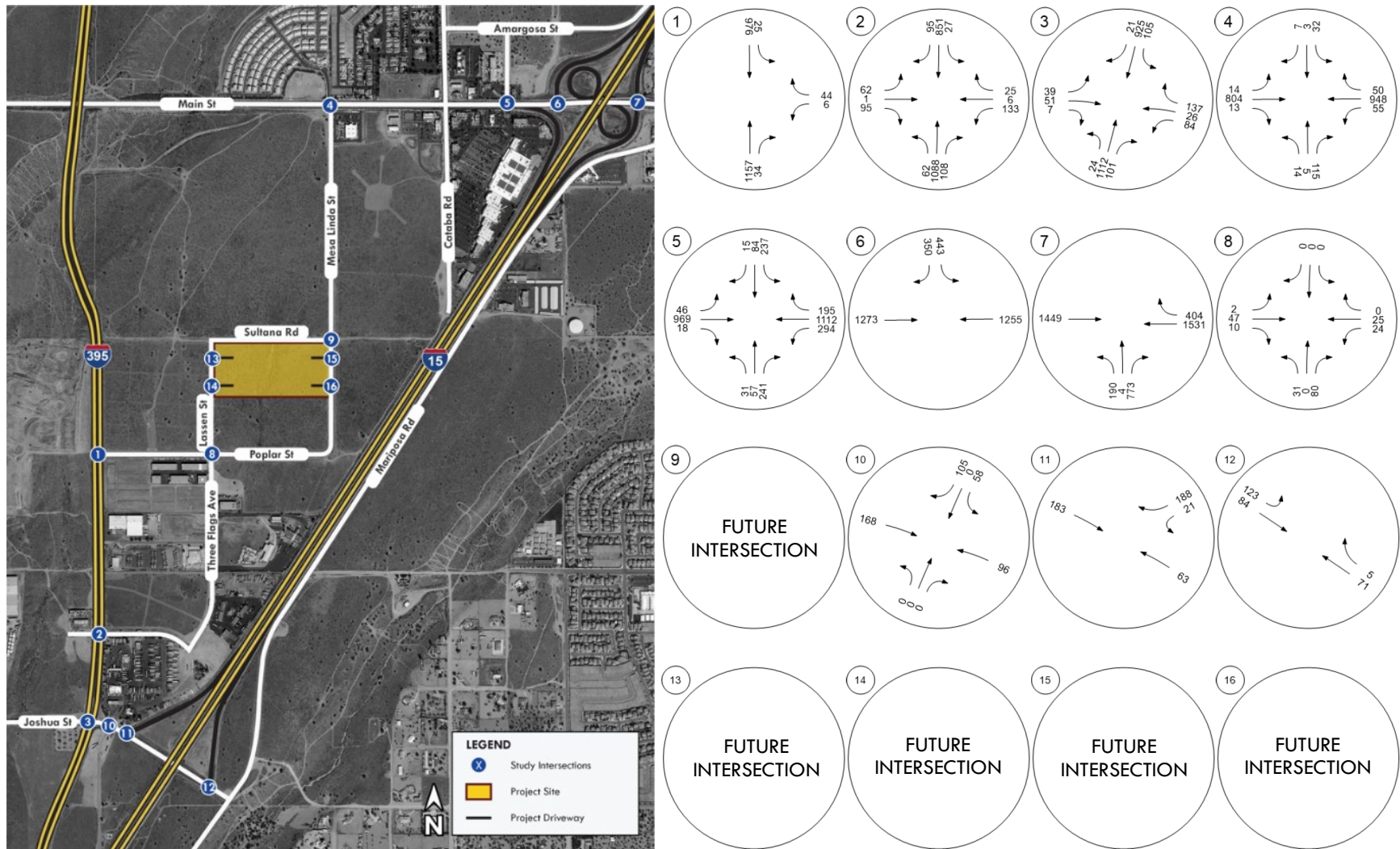


Table 3. Existing AM and PM Peak Hour Levels of Service

Intersection	Traffic Control	AM Peak		PM Peak		Acceptable LOS ³
		Delay ¹	LOS ²	Delay ¹	LOS ²	
1. US-395/Poplar St	TWSC	59.0	F	99.3	F	E
2. US-395/Three Flags Rd	Signal	14.6	B	14.4	B	E
3. US-395/Joshua St	Signal	11.8	B	13.0	B	E
4. Main St/Mesa Linda St	Signal	22.6	C	21.9	C	E
5. Main St/Key Pointe Ave	Signal	27.9	C	31.0	C	E
6. Main St/I-15 SB Off Ramp	Signal	7.9	A	9.9	A	E
7. Main St/I-15 NB Ramps	Signal	15.9	B	14.6	B	E
8. Three Flags Ave-Lassen St/Poplar St	TWSC	11.0	B	10.6	B	D
9. Mesa Linda St/Sultana Rd	TWSC	0.0	A	0.0	A	D
10. Joshua Rd/Outpost Rd	TWSC	10.6	B	11.1	B	E
11. Joshua St/I-15 SB Off-Ramp	TWSC	10.3	B	10.2	B	E
12. Joshua St/I-15 NB On-Ramp	TWSC	7.5	A	7.6	A	E
13. Lassen St/North Dwy	TWSC	-	-	-	-	D
14. Lassen St/South Dwy	TWSC	-	-	-	-	D
15. Mesa Linda St/North Dwy	TWSC	-	-	-	-	D
16. Mesa Linda St/South Dwy	TWSC	-	-	-	-	D

 =Unsatisfactory Level of Service

TWSC = Two-Way Stop Control

¹ Delay in Seconds

² Level of Service

³ Acceptable LOS per the City of Hesperia's General Plan Circulation Element - Goal C1-2.

3.3 Opening Year 2024 Baseline Traffic Volumes and LOS Analysis

Opening Year 2024 Baseline traffic volumes were developed by applying a growth rate of two percent per year to the Existing (2022) traffic volumes and adding traffic generated by other approved and pending development projects. A total of 11 projects in the City of Hesperia, were included in the Opening Year (2024) Baseline. The locations of the cumulative projects are shown in Figure 7 – Location of Cumulative Projects.

The project trip generation for each cumulative project was calculated using trip rates from the Institute of Transportation Engineers, *Trip Generation*, 11th Edition. Table 4 shows the trip generation for each cumulative project. The traffic volumes generated by the cumulative projects were distributed to the study area intersections and are illustrated in Figures 8 and 9. The Opening Year (2024) Baseline traffic volumes are illustrated in Figures 10 and 11.

The Opening Year (2024) Baseline levels of service (LOS) at the study area intersections were determined using the HCM methodology, described previously in Section 2.4 - Methodology. Table 5 shows the Opening Year (2024) Baseline AM and PM peak hour levels of service at study intersections. As shown in Table 5, all study intersections would operate at satisfactory LOS in the Opening Year (2024) Baseline condition except for the following intersections which are forecast to operate at a deficient LOS E or F:

- US-395/Poplar Street
- Three Flags Ave-Lassen St/Poplar St
- Joshua Street/I-15 SB Off-Ramp

Figure 7: Location of Cumulative Projects

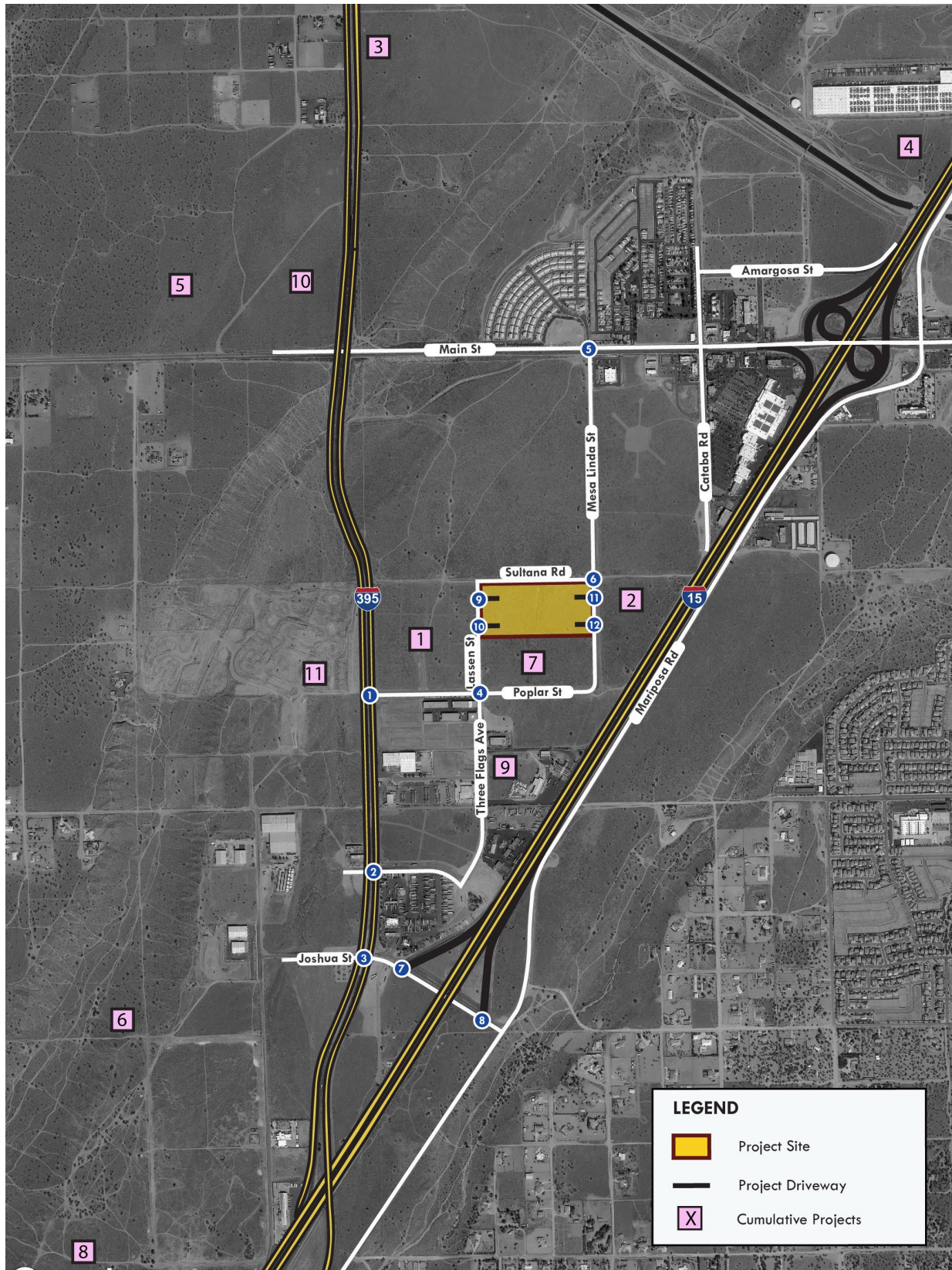


Table 4. Cumulative Projects Trip Generation

Land Use	ITE Code	Size	Units	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Trip Rates										
General Light Industrial ¹	110		TSF	4.87	0.65	0.09	0.74	0.09	0.56	0.65
Mini-Warehouse ²	151		TSF	1.45	0.05	0.04	0.09	0.07	0.08	0.15
High-Cube Transload and Short-Term Storage ³	154		TSF	1.40	0.06	0.02	0.08	0.03	0.07	0.10
High-Cube Fulfillment Center Warehouse ⁴	155		TSF	1.81	0.12	0.03	0.15	0.06	0.10	0.16
High-Cube Cold Storage Warehouse ⁵	157		TSF	2.12	0.06	0.06	0.11	0.06	0.06	0.12
1. I-15 Industrial Park A - CUP21-00005 (PCE) ⁶	110	647.5	TSF	4,003	539	75	614	77	462	539
2. I-15 Industrial Park B - CUP21-00004 (PCE) ⁶	155	1,202.50	TSF	3,277	141	43	184	66	170	236
3. U.S. Cold Storage (CUP21-00003) (PCE)	157	491	TSF	1,678	44	44	88	48	48	96
4. Pixior Warehouse (CUP20-00006) (PCE)	155	440	TSF	1,165	78	18	96	40	63	103
5. Hesperia Commerce Center II (CUP19-00010) (PCE) ⁷	110/155	3,745.43	TSF	15,152	1,357	230	1,587	274	1,296	1,570
6. Hesperia Commerce Center (CUP11-10229) (PCE)	155	3,500	TSF	9,268	622	146	768	320	500	820
7. Poplar 18 (CUP21-00010) (PCE)	155	414.7	TSF	1,098	74	17	91	38	59	97
8. CUP22-00003 (PCE)	155	750	TSF	1,986	133	31	164	68	107	175
9. CUP22-00006 (PCE)	151	428	Storage Units	908	33	23	56	44	50	94
10. KISS Logistics Center (PCE) ⁸	154	655.468	TSF	1,941	145	42	187	64	149	213
11. Hesperia/Dara Industrial Center (PCE) ⁹	155/157	750	TSF	1,718	100	34	134	51	81	132
Total Cumulative Trip Generation				42,195	3,266	703	3,969	1,090	2,985	4,075

TSF = Thousand Square Feet

PCE = Passenger Car Equivalent

DU = Dwelling Unit

¹ Trip rates from the Institute of Transportation Engineers, *Trip Generation, 11th Edition, 2021*. Land Use Code 110 - General Light Industrial.² Trip rates from the Institute of Transportation Engineers, *Trip Generation, 11th Edition, 2021*. Land Use Code 151 - Mini-Warehouse.³ Trip rates from the Institute of Transportation Engineers, *Trip Generation, 11th Edition, 2021*. Land Use Code 154 - High-Cube Transload and Short-Term Storage.⁴ Trip rates from the Institute of Transportation Engineers, *Trip Generation, 11th Edition, 2021*. Land Use Code 155 - High-Cube Fulfillment Center Warehouse.⁵ Trip rates from the Institute of Transportation Engineers, *Trip Generation, 11th Edition, 2021*. Land Use Code 157 - High-Cube Cold Storage Warehouse.⁶ Trip generation derived from I-15 Industrial Park Transportation Impact Analysis conducted by Dudek in May 2022.⁷ Trip generation derived from Hesperia Commerce Center II Traffic Impact Analysis conducted by Urban Crossroads in July 2020.⁸ Trip generation derived from KISS Warehouse Traffic Impact Analysis conducted by EPD Solutions, Inc. in January 2023.⁹ Trip generation derived from Hesperia/Dara Industrial Center Traffic Impact Analysis conducted by Urban Crossroads in November 2022.

Figure 8: Cumulative Projects AM Trip Assignment

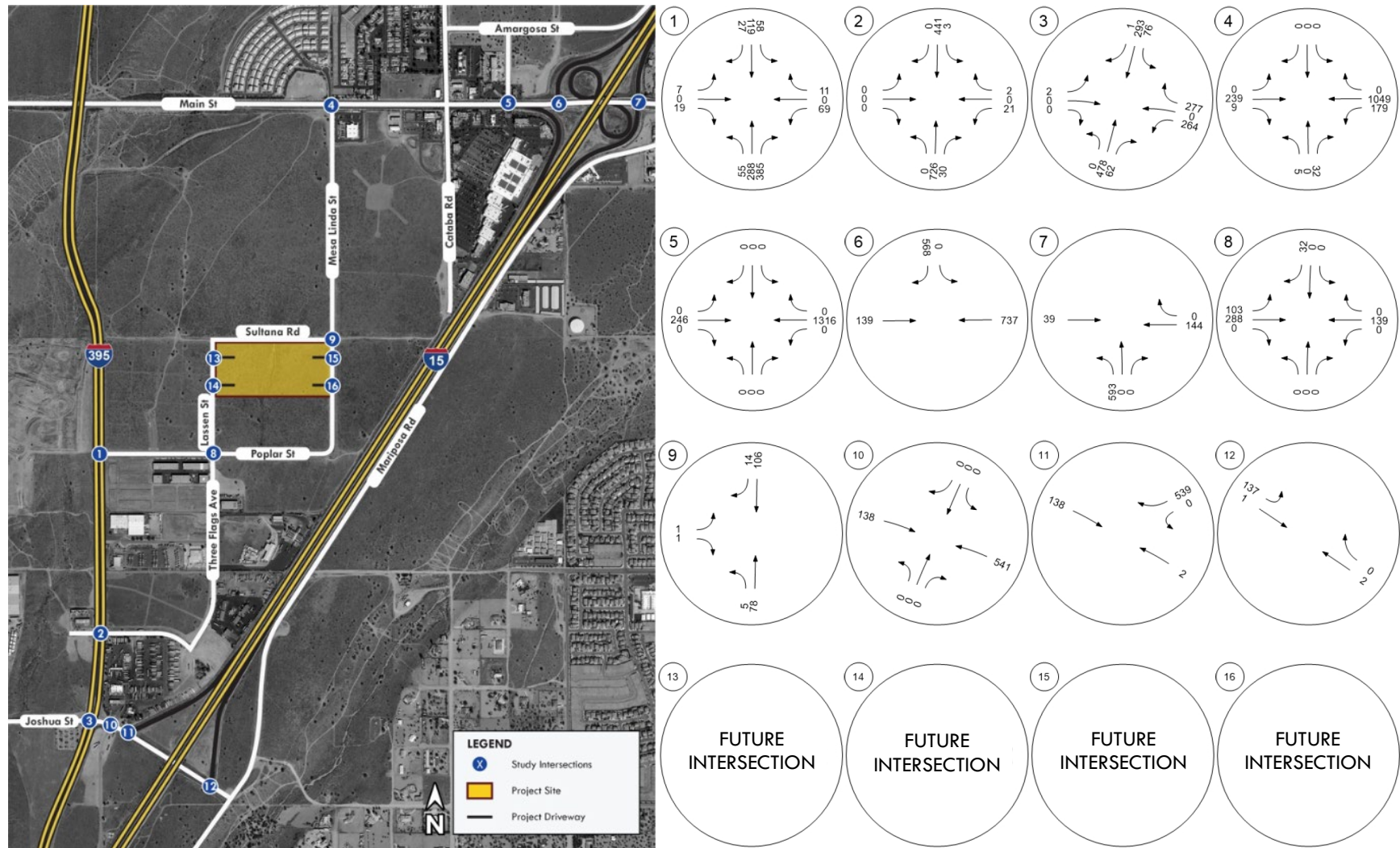


Figure 9: Cumulative Projects PM Trip Assignment

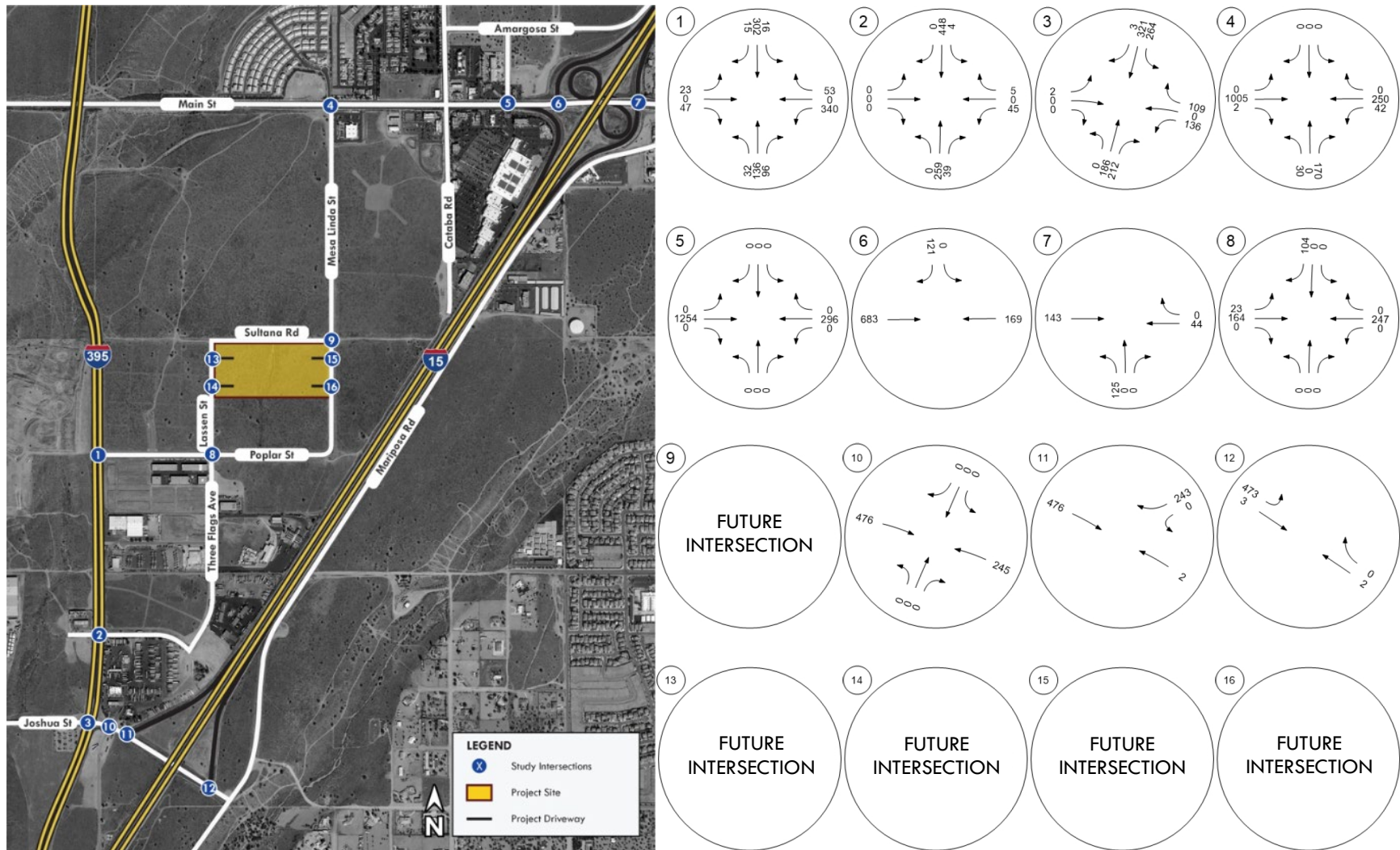


Figure 10: Opening Year 2024 AM Traffic Volumes

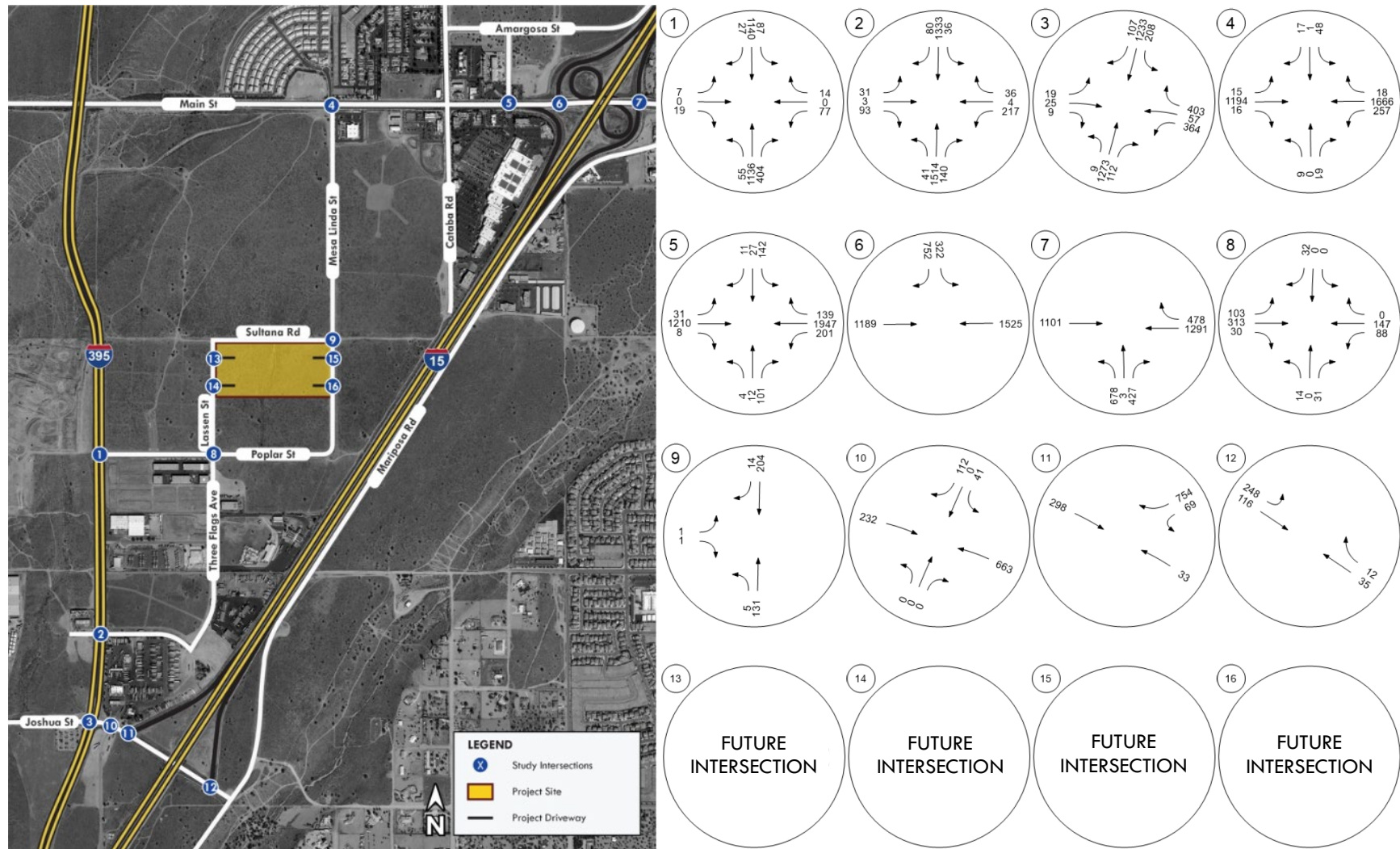


Figure 11: Opening Year 2024 PM Traffic Volumes

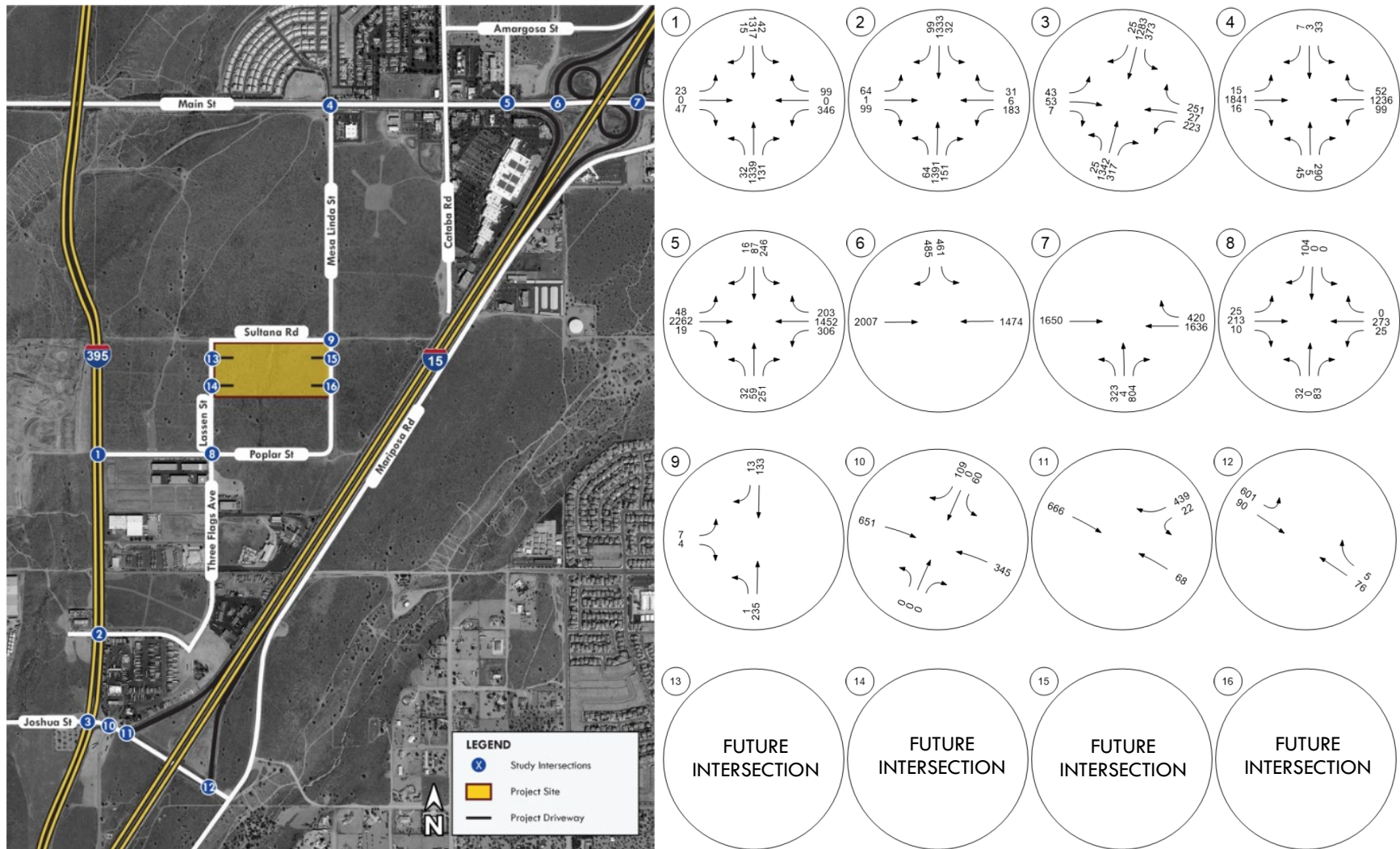


Table 5. Opening Year (2024) Baseline AM and PM Peak Hour Levels of Service

Intersection	Traffic Control	Opening Year 2024				Acceptable LOS ³
		AM Peak		PM Peak		
		Delay ¹	LOS ²	Delay ¹	LOS ²	
1. US-395/Poplar St	TWSC	>400	F	>400	F	E
2. US-395/Three Flags Rd	Signal	21.5	C	21.2	C	E
3. US-395/Joshua St	Signal	30.7	C	40.5	D	E
4. Main St/Mesa Linda St	Signal	24.2	C	19.9	B	E
5. Main St/Key Pointe Ave	Signal	36.0	D	62.8	E	E
6. Main St/I-15 SB Off Ramp	Signal	18.7	B	13.4	B	E
7. Main St/I-15 NB Ramps	Signal	17.8	B	14.7	B	E
8. Three Flags Ave-Lassen St/Poplar St	TWSC	38.7	E	31.0	D	D
9. Mesa Linda St/Sultana Rd	TWSC	12.4	B	12.7	B	D
10. Joshua Rd/Outpost Rd	TWSC	29.6	D	36.6	E	E
11. Joshua St/I-15 SB Off-Ramp	TWSC	52.4	F	15.6	C	E
12. Joshua St/I-15 NB On-Ramp	TWSC	7.9	A	9.2	A	E
13. Lassen St/North Dwy	TWSC	-	-	-	-	D
14. Lassen St/South Dwy	TWSC	-	-	-	-	D
15. Mesa Linda St/North Dwy	TWSC	-	-	-	-	D
16. Mesa Linda St/South Dwy	TWSC	-	-	-	-	D

 =Unsatisfactory Level of Service

TWSC = Two-Way Stop Control

¹ Delay in Seconds

² Level of Service

³ Acceptable LOS per the City of Hesperia's General Plan Circulation Element - Goal C1-2.

4 PROPOSED PROJECT

4.1 Project Description and Site Access

As described in Section 2.1 – Project Description, the project proposes to construct a total industrial building area of 408,997 SF comprising 396,997 SF of footprint and 12,000 SF of office. The site will provide 220 parking stalls comprising 213 standard stalls and 7 accessible, 54 dock loading positions, and 57 trailer parking stalls. Access to the project site will be provided via 2 unsignalized full-access driveways on Mesa Linda Street and 2 unsignalized full-access driveways on Lassen Street. North driveways will be primarily utilized for passenger vehicles whereas south driveways will be utilized for trucks.

4.2 Project Trip Generation

Trips were generated for the project using High Cube Transload and Short-Term Storage Warehouse (Land Use 154) trip rates from the Institute of Transportation Engineers (ITE) *Trip Generation* (11th Edition, September 2021). The trip generation for the project is shown in Table 6. The project would generate 573 daily trips including 33 trips during the AM peak hour and 41 trips during the PM peak hour. Passenger Car Equivalent factors were added to truck trips to account for the fact that trucks utilize more roadway capacity due to their size, reduced maneuverability and slower acceleration. When the passenger car equivalent factors are considered, the project would generate 838 daily trips including 48 trips during the AM peak hour and 59 trips during the PM peak hour. It should be noted that only the peak commute hours are evaluated in this report, consistent with the approved scoping agreement provided in Appendix A.

Table 6. Project Trip Generation

Land Use	Units	Daily	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
<u>Trip Rates</u>									
High Cube Transload and Short-Term Storage Warehouse ¹	TSF	1.40	0.06	0.02	0.08	0.03	0.07	0.10	
<u>Total Vehicle Trip Generation</u>									
Mesa Linda Street Development	408.997 TSF	573	25	8	33	11	29	41	
<u>Vehicle Mix²</u>		<u>Percent</u>							
Passenger Vehicles	69.00%	395	17	5	23	8	20	28	
2-Axle Trucks	6.80%	39	2	1	2	1	2	3	
3-Axle Trucks	5.50%	31	1	0	2	1	2	2	
4+-Axle Trucks	18.70%	107	5	1	6	2	6	8	
	100%	573	25	8	33	11	29	41	
<u>PCE Trip Generation³</u>		<u>PCE Factor</u>							
Passenger Vehicles	1.0	395	17	5	23	8	20	28	
2-Axle Trucks	1.5	58	3	1	3	1	3	4	
3-Axle Trucks	2.0	63	3	1	4	1	3	4	
4+-Axle Trucks	3.0	321	14	4	18	6	17	23	
Total PCE Trip Generation		838	37	11	48	17	43	59	

TSF = Thousand Square Feet

PCE = Passenger Car Equivalent

¹ Trip rates from the Institute of Transportation Engineers, *Trip Generation, 11th Edition, 2021*. Land Use Code 154 - High-Cube Transload and Short-Term Storage Warehouse.² Vehicle Mix from the SCAQMD Warehouse Truck Trip Study. July 17, 2017.³ Passenger Car Equivalent (PCE) factors from San Bernardino County CMP, Appendix B - Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County, 2016

4.3 Project Trips

Project trips were distributed to the sixteen study area intersections based on the location of the project in relation to surrounding industrial areas. The project trip distribution is shown on Figures 12 and 13. The project trip assignment is shown on Figures 14 and 15. Project trips were assigned to the study area intersections by multiplying the project trip generation by the trip distribution percent at each location.

4.4 Sight Distance

Sight distance shall be evaluated in accordance with the City of Hesperia sight distance standards at the time of preparation of grading, street improvement, and landscaping plans.

Figure 12: Project Automobile Trip Distribution



Figure 13: Project Truck Trip Distribution



Figure 14: Project AM Trip Assignment

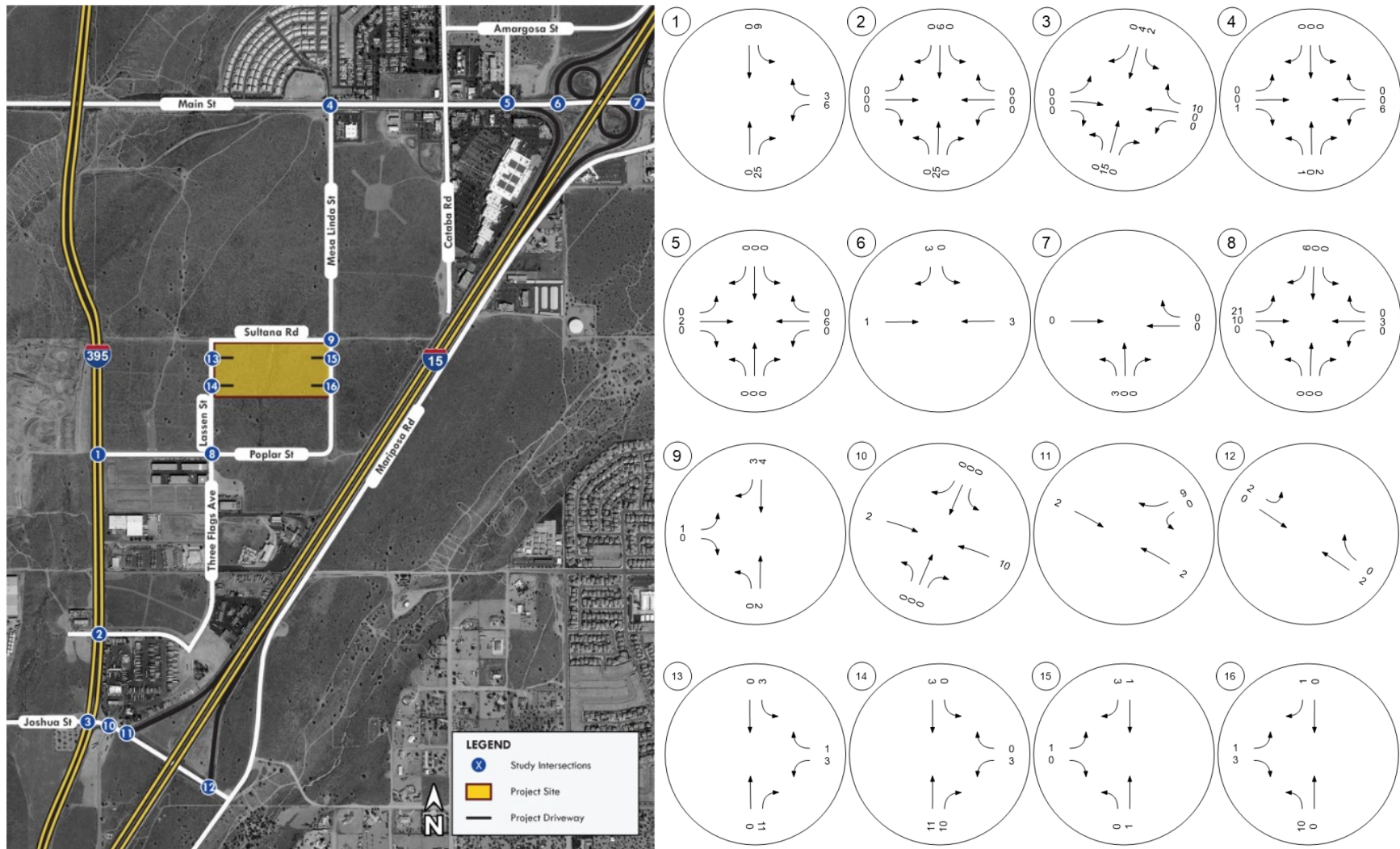
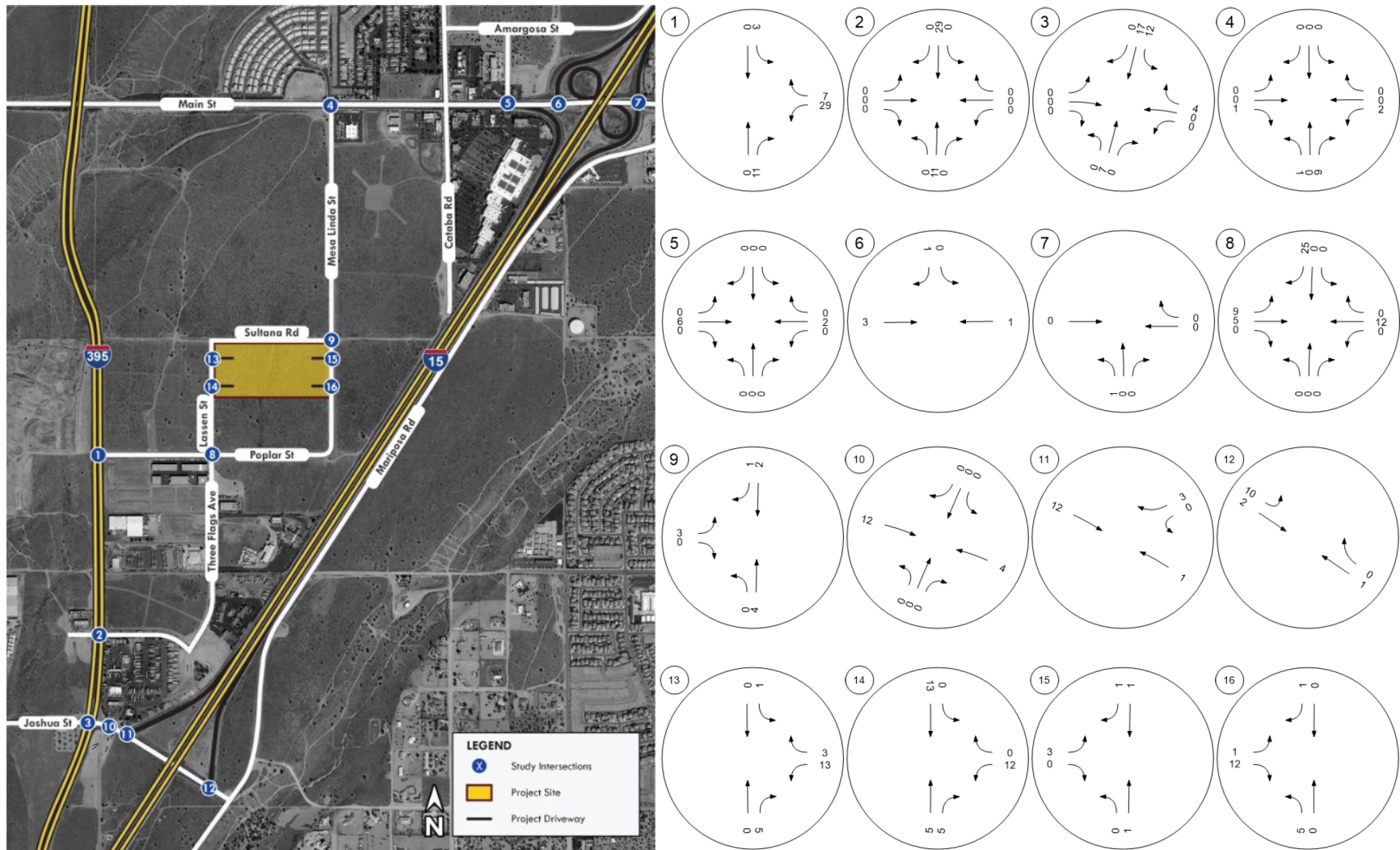


Figure 15: Project PM Trip Assignment



5 PROJECT IMPACTS

5.1 Existing Plus Project Traffic Volumes and LOS Analysis

Existing Plus Project traffic volumes were determined by adding the project trips to Existing Without Project traffic volumes. Figures 16 and 17 show the Existing Plus Project weekday AM and PM peak hour traffic volumes at the study intersections.

An intersection operations analysis was conducted for the study area to evaluate the Existing Plus Project weekday AM and PM peak hour conditions. Intersection operations were calculated using the LOS methodology described previously in Section 2.4 - Methodology. Table 7 provides a comparison between the Existing Without and With Project conditions.

As shown in Table 7, all study intersections would continue to operate at satisfactory LOS with the addition of project trips except for the following intersection which is forecast to operate at a deficient LOS F:

- US-395/Poplar Street

When compared to the Existing Baseline scenario, the project adds more than 5 seconds of delay to the deficient intersection in the Existing Plus Project scenario and therefore would have a significant effect on traffic at the intersection of US-395/Poplar Street. The following improvement is recommended to improve the deficient US-395/Poplar Street intersection. Mitigation worksheets are provided in Appendix D. Traffic signal warrants are provided in Appendix E.

US-395/Poplar Street Recommended Improvement: The CAMUTCD peak hour traffic signal warrant is not met for this intersection under the Existing Plus Project scenario. However, the warrant is met for the Opening Year Plus Project scenario; therefore, installing a traffic signal as an improvement would mitigate the effects of project traffic at this intersection in the Opening Year Plus Project scenario. Mitigation worksheets are provided in Appendix D.

Figure 16: Existing Plus Project AM Traffic Volumes

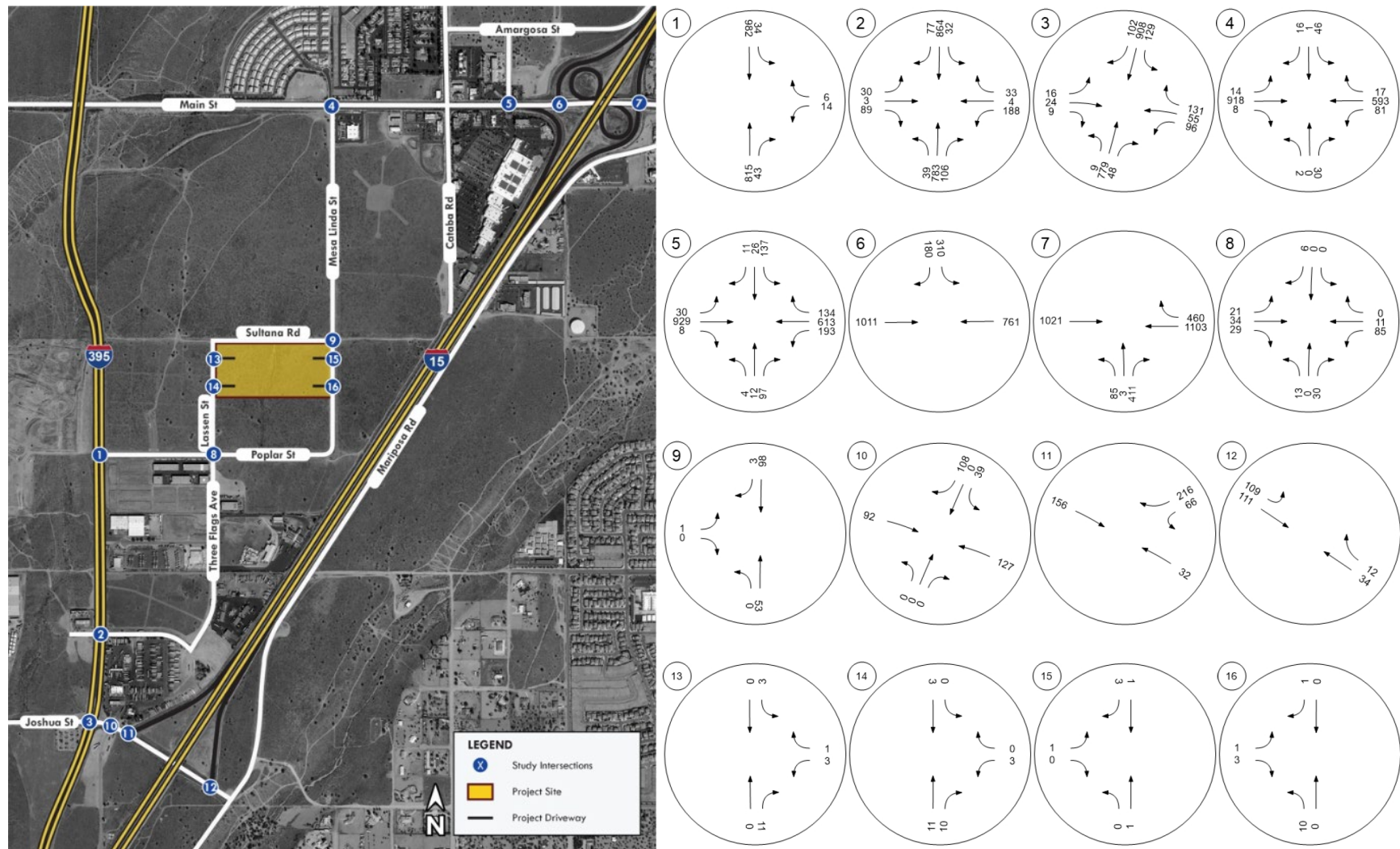


Figure 17: Existing Plus Project PM Traffic Volumes

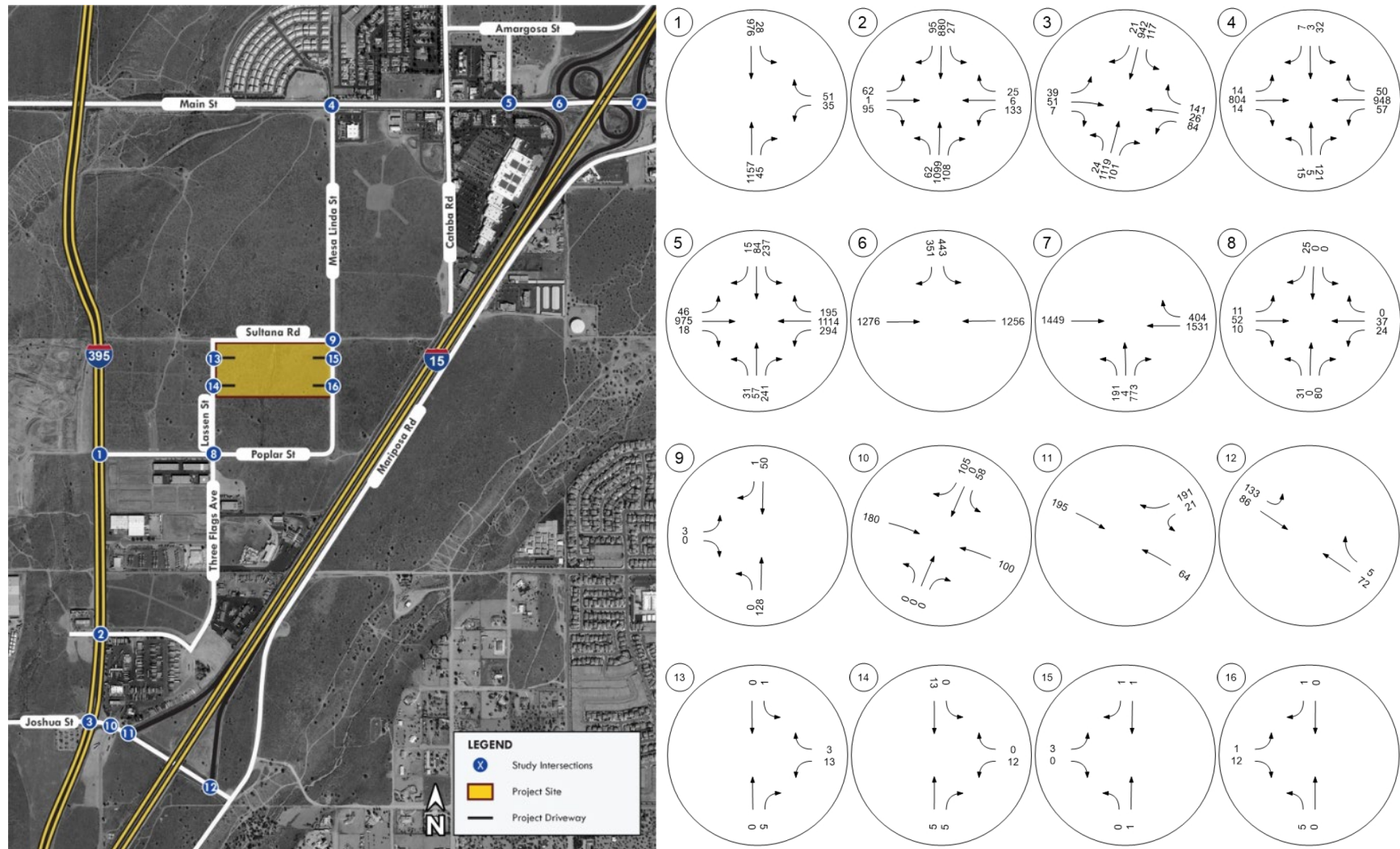


Table 7. Existing and Existing Plus Project Peak Hour Levels of Service

Intersection	Traffic Control	Existing				Existing with Project				AM Delay	PM Delay	Acceptable LOS ³	Impact ⁴	Recommended Improvements	Existing Plus Proj Imp				Impact ⁴
		AM Peak		PM Peak		AM Peak		PM Peak							AM Peak		PM Peak		
		Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²						Delay ¹	LOS ²	Delay ¹	LOS ²	
1. US-395/Poplar St	TWSC	59.0	F	99.3	F	77.6	F	288.1	F	18.6	188.8	E	Yes	Install a traffic signal.	13.0	B	12.5	B	No
2. US-395/Three Flags Rd	Signal	14.6	B	14.4	B	14.6	B	14.5	B	0.0	0.1	E	No	-	-	-	-	-	-
3. US-395/Joshua St	Signal	11.8	B	13.0	B	12.0	B	13.3	B	0.2	0.3	E	No	-	-	-	-	-	-
4. Main St/Mesa Linda St	Signal	22.6	C	21.9	C	22.7	C	21.9	C	0.1	0.0	E	No	-	-	-	-	-	-
5. Main St/Key Pointe Ave	Signal	27.9	C	31.0	C	27.9	C	31.1	C	0.0	0.1	E	No	-	-	-	-	-	-
6. Main St/I-15 SB Off Ramp	Signal	7.9	A	9.9	A	7.9	A	9.9	A	0.0	0.0	E	No	-	-	-	-	-	-
7. Main St/I-15 NB Ramps	Signal	15.9	B	14.6	B	15.9	B	14.6	B	0.0	0.0	E	No	-	-	-	-	-	-
8. Three Flags Ave-Lassen St/Poplar St	TWSC	11.0	B	10.6	B	12.0	B	11.4	B	1.0	0.8	D	No	-	-	-	-	-	-
9. Mesa Linda St/Sultana Rd	TWSC	0.0	A	0.0	A	9.8	A	10.0	B	9.8	10.0	D	No	-	-	-	-	-	-
10. Joshua Rd/Outpost Rd	TWSC	10.6	B	11.1	B	10.7	B	11.3	B	0.1	0.2	E	No	-	-	-	-	-	-
11. Joshua St/I-15 SB Off-Ramp	TWSC	10.3	B	10.2	B	10.3	B	10.2	B	0.0	0.0	E	No	-	-	-	-	-	-
12. Joshua St/I-15 NB On-Ramp	TWSC	7.5	A	7.6	A	7.5	A	7.6	A	0.0	0.0	E	No	-	-	-	-	-	-
13. Lassen St/North Dwy	TWSC	-	-	-	-	8.6	A	8.6	A	-	-	D	-	-	-	-	-	-	-
14. Lassen St/South Dwy	TWSC	-	-	-	-	8.6	A	8.6	A	-	-	D	-	-	-	-	-	-	-
15. Mesa Linda St/North Dwy	TWSC	-	-	-	-	8.5	A	8.5	A	-	-	D	-	-	-	-	-	-	-
16. Mesa Linda St/South Dwy	TWSC	-	-	-	-	8.6	A	8.6	A	-	-	D	-	-	-	-	-	-	-

 =Unsatisfactory Level of Service

TWSC = Two-Way Stop Control

¹ Delay in Seconds

² Level of Service

³ Acceptable LOS per the City of Hesperia's General Plan Circulation Element - Goal C1-2.

⁴ An impact would occur if the project causes an intersection to deteriorate from acceptable LOS (LOS D or better) to an unacceptable LOS (LOS E or F). At an intersection already operating at LOS E or F in the baseline condition, a project impact would occur if the project adds measurable delay (5 seconds or more) to an intersection already operating at an unacceptable LOS.

5.2 Opening Year 2024 Plus Project Traffic Volumes and LOS Analysis

Opening Year 2024 with-project traffic volumes were determined by adding the project trips to the Opening Year 2024 Baseline traffic volumes. Figures 18 and 19 show the Opening Year 2024 with-project weekday AM and PM peak hour traffic volumes at the study intersections.

An intersection operations analysis was conducted for the study area to evaluate the Opening Year 2024 with-Project weekday AM and PM peak hour conditions. Intersection operations were calculated using the LOS methodology described previously.

Table 8 provides a comparison between the Opening Year 2024 without and with-project conditions. As shown in Table 8, all study area intersections would continue to operate with acceptable LOS with the addition of project trips except for the following intersections which are forecast to operate at a deficient LOS E or F:

- US-395/Poplar Street
- Three Flags Avenue-Lassen Street/Poplar Street
- Joshua Street/I-15 SB Off-Ramp

When compared to the Opening Year scenario, the project adds more than 5 seconds of delay to the deficient intersections and therefore would have a significant effect on traffic operations at the intersections of US-395/Poplar Street, Three Flags Avenue-Lassen Street/Poplar Street, and Joshua Street/I-15 SB Off-Ramp in the Opening Year Plus Project scenario. The following improvements are recommended to improve the deficient intersections. Mitigation worksheets are provided in Appendix D. Traffic signal warrants and multi-way stop control warrant are provided in Appendix E and F.

US-395/Poplar Street Recommended Improvement: The CAMUTCD peak hour traffic signal warrant is met for the intersection of US-395/Poplar Street under the Opening Year Plus Project scenario; therefore, installing a traffic signal and adding a 3rd northbound through lane, northbound right-turn lane, 2nd southbound left-turn lane, and 2nd southbound through lane as an improvement would mitigate the project traffic for the intersection of US-395/Poplar Street in the Opening Year Plus Project scenario. With the implementation of this improvement, the LOS operations at the intersection of US-395/Poplar Street would be improved to a satisfactory LOS B.

Three Flags Avenue-Lassen Street/Poplar Street Recommended Improvement: The CAMUTCD multi-way stop control warrant is met for the intersection of Three Flags Avenue-Lassen Street/Poplar Street under the Opening Year Plus Project scenario; therefore, changing the Three Flags Avenue-Lassen Street/Poplar Street intersection control from Two-Way Stop Control (TWSC) to an All-Way Stop Control (AWSC) would improve the intersection's LOS to a satisfactory LOS C in the Opening Year Plus Project scenario.

Joshua Street/I-15 SB Off-Ramp Recommended Improvement: The CAMUTCD traffic signal warrant is met for the intersection of Joshua Street/I-15 SB Off-Ramp under the Opening Year Plus Project scenario; therefore, installing a traffic signal would improve the traffic conditions for the intersection of Joshua Street/I-15 SB Off-Ramp in the Opening Year Plus Project scenario. With the implementation of this improvement, the LOS operations at the intersection of Joshua Street/I-15 SB Off-Ramp would be improved to a satisfactory LOS C.

Figure 18: Opening Year 2024 Plus Project AM Traffic Volumes

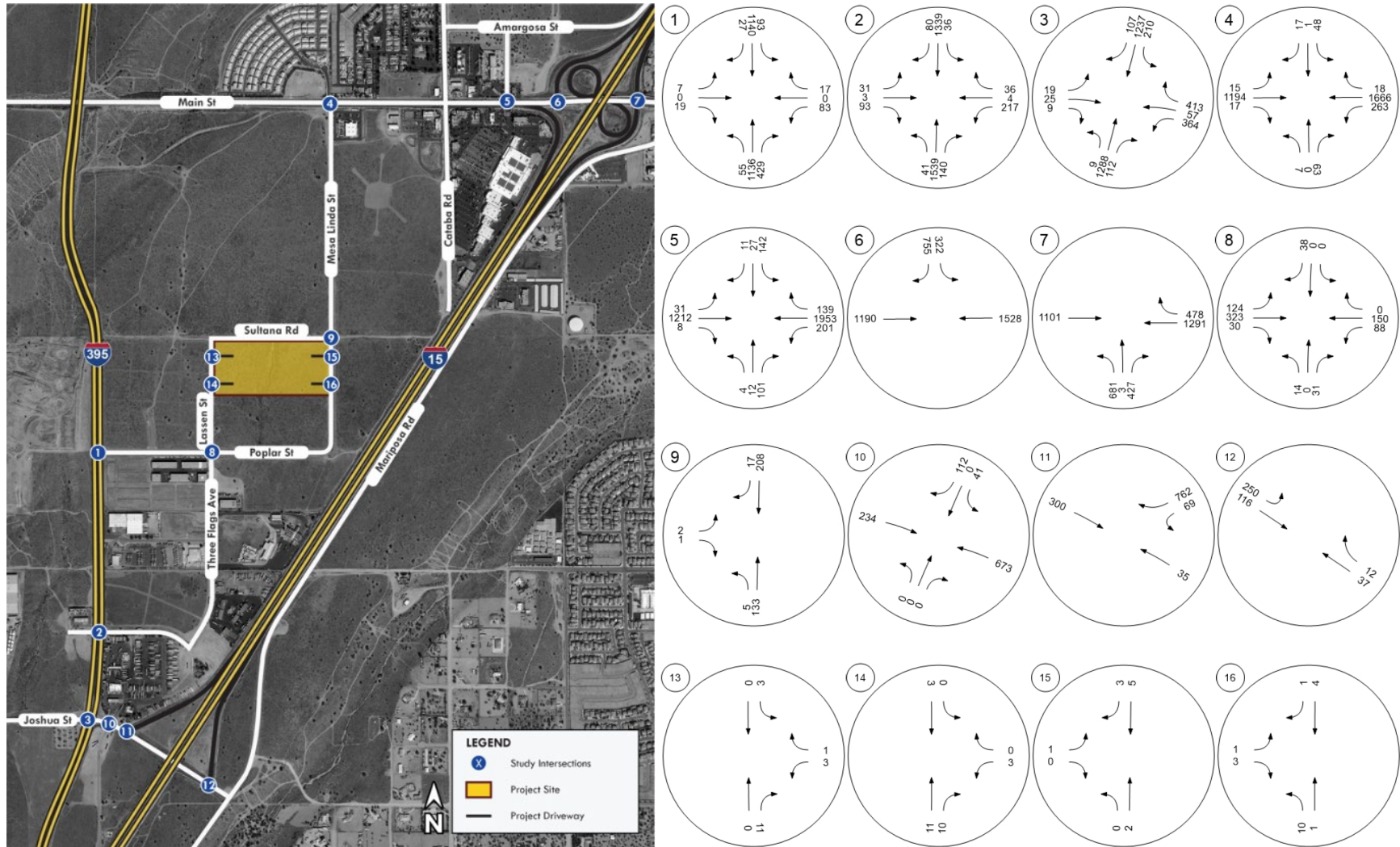


Figure 19: Opening Year 2024 Plus Project PM Traffic Volumes

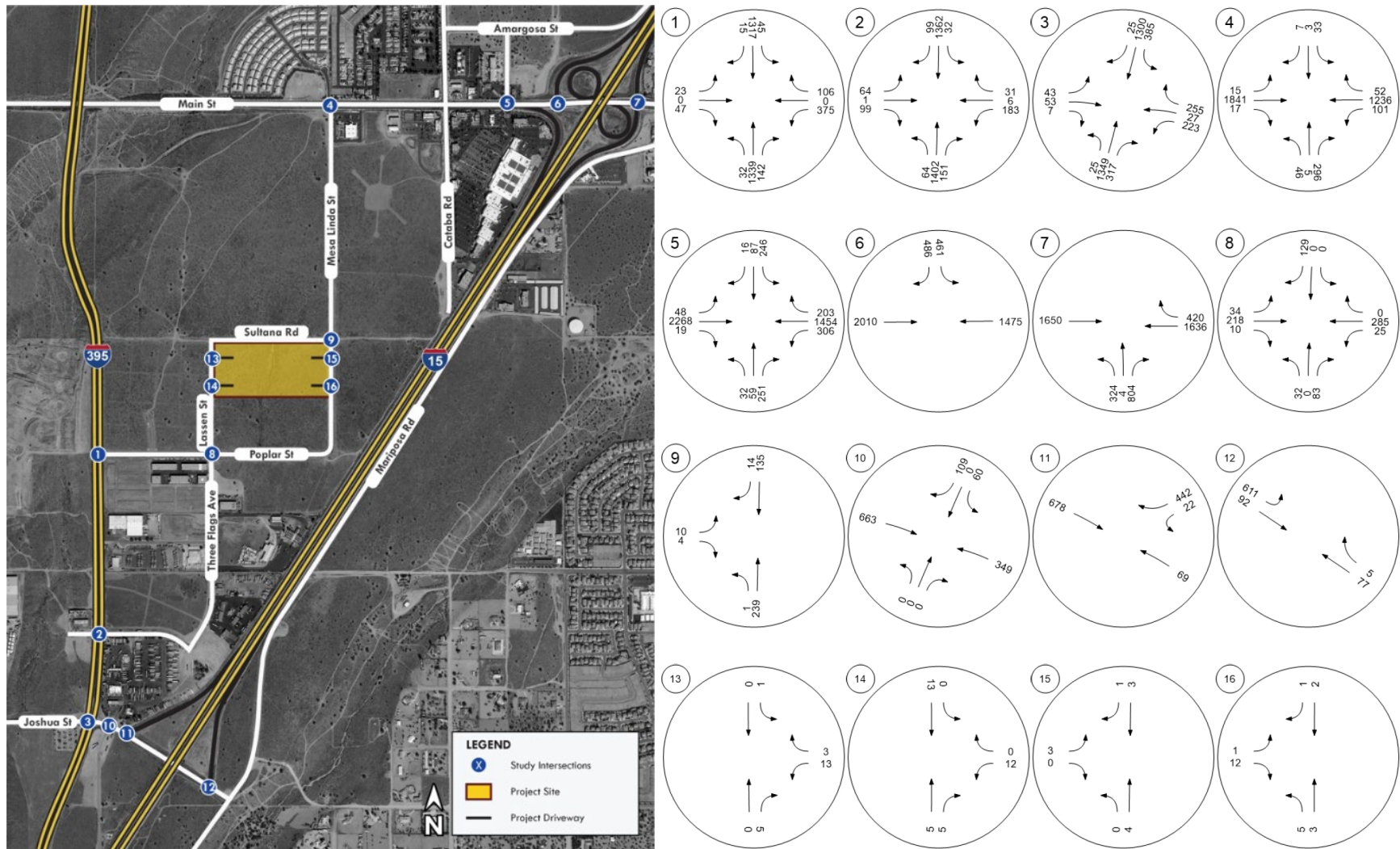


Table 8. Opening Year 2024 Without and With-Project Peak Hour Levels of Service

Intersection	Traffic Control	Opening Year 2024				Opening Year 2024 with Project				AM Delay Difference	PM Delay Difference	Acceptable LOS ³	Impact ⁴	Recommended Improvements	Opening Year Plus Project IMP				Impact ⁴
		AM Peak		PM Peak		AM Peak		PM Peak							AM Peak		PM Peak		
		Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²						Delay ¹	LOS ²	Delay ¹	LOS ²	
1. US-395/Poplar St	TWSC	>400	F	>400	F	>400	F	>400	F	>5.0	>5.0	E	Yes	Install a traffic signal, add a 3rd NBT lane, add a NBR turn lane, add a 2nd SBL turn lane, add a 2nd SBT lane.	10.4	B	19.7	B	No
2. US-395/Three Flags Rd	Signal	21.5	C	21.2	C	21.7	C	21.4	C	0.2	0.2	E	No	-	-	-	-	-	-
3. US-395/Joshua St	Signal	30.7	C	40.5	D	31.4	C	42.8	D	0.7	2.3	E	No	-	-	-	-	-	-
4. Main St/Mesa Linda St	Signal	24.2	C	19.9	B	23.9	C	20.1	C	-0.3	0.2	E	No	-	-	-	-	-	-
5. Main St/Key Pointe Ave	Signal	36.0	D	62.8	E	36.2	D	63.5	E	0.2	0.7	E	No	-	-	-	-	-	-
6. Main St/I-15 SB Off Ramp	Signal	18.7	B	13.4	B	18.8	B	13.4	B	0.1	0.0	E	No	-	-	-	-	-	-
7. Main St/I-15 NB Ramps	Signal	17.8	B	14.7	B	18.0	B	14.7	B	0.2	0.0	E	No	-	-	-	-	-	-
8. Three Flags Ave-Lassen St/Poplar St	TWSC	38.7	E	31.0	D	45.6	E	36.9	E	6.9	5.9	D	Yes	Convert to an all-way stop control.	26.4	D	19.1	C	No
9. Mesa Linda St/Sultana Rd	TWSC	12.4	B	12.7	B	12.5	B	12.8	B	0.1	0.1	D	No	-	-	-	-	-	-
10. Joshua Rd/Outpost Rd	TWSC	29.6	D	36.6	E	30.4	D	38.1	E	0.8	1.5	E	No	-	-	-	-	-	-
11. Joshua St/I-15 SB Off-Ramp	TWSC	52.4	F	15.6	C	56.5	F	15.8	C	4.1	0.2	E	Yes	Install a traffic signal.	23.2	C	22.4	C	No
12. Joshua St/I-15 NB On-Ramp	TWSC	7.9	A	9.2	A	7.9	A	9.2	A	0.0	0.0	E	No	-	-	-	-	-	-
13. Lassen St/North Dwy	TWSC	-	-	-	-	8.6	A	8.6	A	-	-	D	No	-	-	-	-	-	-
14. Lassen St/South Dwy	TWSC	-	-	-	-	8.6	A	8.6	A	-	-	D	No	-	-	-	-	-	-
15. Mesa Linda St/North Dwy	TWSC	-	-	-	-	8.5	A	8.5	A	-	-	D	No	-	-	-	-	-	-
16. Mesa Linda St/South Dwy	TWSC	-	-	-	-	8.7	A	8.6	A	-	-	D	No	-	-	-	-	-	-

■ =Unsatisfactory Level of Service

TWSC = Two-Way Stop Control

¹ Delay in Seconds

² Level of Service

³ Acceptable LOS per the City of Hesperia's General Plan Circulation Element - Goal C1-2.

⁴ The City of Hesperia utilizes a LOS standard of LOS D. An impact would occur if the project causes an intersection to deteriorate from acceptable LOS (LOS D or better) to an unacceptable LOS (LOS E or F). At an intersection already operating at LOS E or F in the baseline condition, a project impact would occur if the project adds measurable delay (5 seconds or more) to an intersection already operating at an unacceptable LOS.

5.3 Opening Year 2024 Plus Project Queueing Analysis

A queueing analysis has been conducted for all intersections on Main Street, US 395 and Joshua Street for the Opening Year 2024 Plus Project condition. The queueing analysis was prepared utilizing the 95th percentile queue length, available in the Vistro output sheets attached as Appendix D.

As shown in Table 9, the following approaches would have a deficient queue in the Opening Year 2024 Plus Project condition at the following approaches:

- US-395/Poplar Street
 - Westbound left-turn lane
- US-395/Three Flags Road
 - Westbound left-turn lane
- US-395/Joshua Street
 - Southbound left-turn lane
 - Westbound left-turn lane
 - Westbound right-turn lane
- Main Street/Mesa Linda Street
 - Northbound right-turn lane
 - Westbound left-turn lane
- Main Street/Key Pointe Avenue
 - Northbound right-turn lane
 - Southbound left-turn lane
 - Westbound left-turn lane

The project would cause a queue deficiency at the following approach in the Opening Year 2024 Plus Project condition:

- US-395/Poplar Street
 - Westbound left-turn lane

US-395/Poplar Street Recommended Queueing Improvement: The LOS recommended improvement for the US-395/Poplar Street intersection also improves the queueing deficiency of the intersection in the Opening Year 2024 Plus Project condition. The recommended improvement will improve the overall traffic queueing to 101 feet during the AM peak hour and 314 feet during the PM peak hour which is within the available queue length storage at the intersection.

Table 9. Opening Year 2024 Without and With-Project Queueing Analysis

Intersection	Turning Movement	Available Queue Length (Ft)	Opening Year Without Project		Opening Year With Project		Project Deficiency? ¹		Queue Difference		Opening Year With Project		Less than Baseline?	
			AM	PM	AM	PM			AM	PM	AM	PM		
			Required Queueing (Ft)	Required Queueing (Ft)	Required Queueing (Ft)	Required Queueing (Ft)	AM	PM	Queueing Difference (Ft)	Queueing Difference (Ft)	With Mitigation Queueing (Ft)	With Mitigation Queueing (Ft)	AM	PM
1. US-395/Poplar St	NBL ²	150	9	6	9	6	No	No	-	-	-	-	-	-
	NBR ²	100	-	-	-	-	-	-	-	-	89	10	Yes	Yes
	SBL	373	24	9	27	10	No	No	-	-	-	-	-	-
	SBR ²	100	0	0	0	0	No	No	-	-	-	-	-	-
	EBL ²	100	27	94	28	96	No	No	-	-	-	-	-	-
	WBL	507	555	1454	598	1577	Yes	Yes	43	123	101	314	Yes	Yes
2. US-395/Three Flags Rd	WBR	507	8	44	10	49	No	No	-	-	-	-	-	-
	NBL	190	61	87	61	87	No	No	-	-	-	-	-	-
	NBR	190	47	47	47	47	No	No	-	-	-	-	-	-
	SBL	224	54	48	54	48	No	No	-	-	-	-	-	-
	SBR	224	26	34	26	34	No	No	-	-	-	-	-	-
	EBL	182	36	77	36	77	No	No	-	-	-	-	-	-
3. US-395/Joshua St	WBL	274	312	305	312	305	No	No	-	-	-	-	-	-
	NBL	191	13	43	13	43	No	No	-	-	-	-	-	-
	NBR	226	50	221	50	224	No	No	-	-	-	-	-	-
	SBL	200	243	529	247	541	No	No	-	-	-	-	-	-
	SBR	223	34	8	34	8	No	No	-	-	-	-	-	-
	EBL	140	20	62	20	62	No	No	-	-	-	-	-	-
4. Main St/Mesa Linda St	WBL	100	381	334	381	334	No	No	-	-	-	-	-	-
	WBR	100	251	238	260	241	No	No	-	-	-	-	-	-
	NBR	100	67	182	70	188	No	No	-	-	-	-	-	-
	SBR	100	13	3	13	3	No	No	-	-	-	-	-	-
	EBL	340	15	11	15	11	No	No	-	-	-	-	-	-
	WBL	150	525	158	538	163	No	No	-	-	-	-	-	-
5. Main St/Key Pointe Ave	NBL	222	4	45	5	45	No	No	-	-	-	-	-	-
	NBR	100	83	256	90	256	No	No	-	-	-	-	-	-
	SBL	136	179	389	192	389	No	No	-	-	-	-	-	-
	EBL	210	41	95	41	95	No	No	-	-	-	-	-	-
	EBR	210	4	11	4	11	No	No	-	-	-	-	-	-
	WBL	177	255	506	260	506	No	No	-	-	-	-	-	-
6. Main St/I-15 SB Ramps	SBL	549	52	110	52	110	No	No	-	-	-	-	-	-
	SBR	515	296	209	297	209	No	No	-	-	-	-	-	-
7. Main St/I-15 NB Ramps	NBL	600	324	138	319	138	No	No	-	-	-	-	-	-
	NBR	615	48	134	47	134	No	No	-	-	-	-	-	-
10. Joshua Rd/Outpost Rd	SBL	100	29	40	29	42	No	No	-	-	-	-	-	-
	SBR	100	43	17	44	17	No	No	-	-	-	-	-	-
11. Joshua St/I-15 SB Off-Ramp	SBL	25	14	7	14	7	No	No	-	-	-	-	-	-
	SBR	1500	526	110	554	112	No	No	-	-	-	-	-	-
12. Joshua St/I-15 NB On-Ramp	EBLT ³	980	17	56	17	58	No	No	-	-	-	-	-	-

Indicates queueing required greater than storage available

¹ The project would cause a deficiency if: a) The addition of project trips causes the queue to exceed the storage length and b) The project adds one car length (25 feet) of queue to a queue that exceeds the storage length in the baseline condition.² Future Approaches.³ Available queue length is measured from the Joshua St/I-15 SB Off-Ramp intersection.

6 SUMMARY OF PROJECT IMPROVEMENTS AND FAIR SHARE

Existing Plus Project Condition

An LOS analysis was prepared for all existing study intersections in the Existing Plus Project scenario. All existing study area intersections are forecast to operate with satisfactory LOS in the Existing Plus Project scenario except for the following intersection which is forecast to operate at a deficient LOS F:

- US-395/Poplar Street

When compared to the Existing Baseline scenario, the project adds more than 5 seconds of delay to the deficient intersection in the Existing Plus Project scenario and therefore would have a significant effect on traffic at the intersection of US-395/Poplar Street. The following improvement is recommended to improve the deficient US-395/Poplar Street intersection.

US-395/Poplar Street Recommended Improvement: The CAMUTCD peak hour traffic signal warrant is not met for this intersection under the Existing Plus Project scenario. However, the warrant is met for the Opening Year Plus Project scenario; therefore, installing a traffic signal as an improvement would mitigate the effects of project traffic at this intersection in the Opening Year Plus Project scenario.

Opening Year Plus Project Condition

An LOS analysis was prepared for all study intersections in the Opening Year Plus Project scenario. All study area intersections are forecast to operate with satisfactory LOS in the Opening Year Plus Project scenario except for the following intersections which are forecast to operate at a deficient LOS E or F:

- US-395/Poplar Street
- Three Flags Ave-Lassen St/Poplar St
- Joshua Street/I-15 SB Off-Ramp

When compared to the Opening Year scenario, the project adds more than 5 seconds of delay to the deficient intersections and therefore would have a significant effect on traffic operations at the intersections of US-395/Poplar Street, Three Flags Avenue-Lassen Street/Poplar Street, and Joshua Street/I-15 SB Off-Ramp in the Opening Year Plus Project scenario. The following improvements are recommended to improve the deficient intersections.

US-395/Poplar Street Recommended Improvement: The CAMUTCD peak hour traffic signal warrant is met for the intersection of US-395/Poplar Street under the Opening Year Plus Project scenario; therefore, installing a traffic signal and adding a 3rd northbound through lane, northbound right-turn lane, 2nd southbound left-turn lane, and 2nd southbound through lane as an improvement would mitigate the project traffic for the intersection of US-395/Poplar Street in the Opening Year Plus Project scenario. With the implementation of this improvement, the LOS operations at the intersection of US-395/Poplar Street would be improved to a satisfactory LOS B.

Three Flags Avenue-Lassen Street/Poplar Street Recommended Improvement: The CAMUTCD multi-way stop control warrant is met for the intersection of Three Flags Avenue-Lassen Street/Poplar Street under the Opening Year Plus Project scenario; therefore, changing the Three Flags Avenue-

Lassen Street/Poplar Street intersection control from Two-Way Stop Control (TWSC) to an All-Way Stop Control (AWSC) would improve the intersection's LOS to a satisfactory LOS C in the Opening Year Plus Project scenario.

Joshua Street/I-15 SB Off-Ramp Recommended Improvement: The CAMUTCD traffic signal warrant is met for the intersection of Joshua Street/I-15 SB Off-Ramp under the Opening Year Plus Project scenario; therefore, installing a traffic signal would improve the traffic conditions for the intersection of Joshua Street/I-15 SB Off-Ramp in the Opening Year Plus Project scenario. With the implementation of this improvement, the LOS operations at the intersection of Joshua Street/I-15 SB Off-Ramp would be improved to a satisfactory LOS C.

Opening Year Plus Project Intersection Queueing Analysis Results

A queueing analysis was prepared for applicable study intersections in the Opening Year Plus Project scenario. The project would cause a queueing deficiency in the Opening Year 2024 Plus Project condition at the following approach:

- US-395/Poplar Street
 - Westbound left-turn lane

US-395/Poplar Street Recommended Queueing Improvement: The LOS recommended improvement for the US-395/Poplar Street intersection also improves the queueing deficiency of the intersection in the Opening Year 2024 Plus Project condition.

Project Fair Share

Since the project effect on traffic at the intersections of US-395/Poplar Street, Three Flags Avenue-Lassen Street/Poplar Street, and Joshua Street/I-15 SB Off-Ramp are cumulative, the project would contribute to a fair share for the implementation of the aforementioned improvements. The project would be responsible for the highest peak hour fair share of 4.50% for the US-395/Poplar Street intersection, 8.66% for the Three Flags Avenue-Lassen Street/Poplar Street intersection, and 2.17% for Joshua Street/I-15 SB Off-Ramp intersection. It is to be noted that the traffic signal at the US-395/Poplar Street intersection is to be installed by the Hesperia Industrial Center project. The project's fair share was calculated in compliance with the methodology in the City's Traffic Impact Analysis Guidelines. The project fair share is provided in Table 10.

Table 10. Project Mitigation and Fair Share

Intersection	Improvements	AM Project Trips	PM Project Trips	AM Cumulative Project Trips	PM Cumulative Project Trips	AM Fair Share Percent	PM Fair Share Percent
1 US-395/Poplar St ¹	Install a traffic signal, add a 3rd NBT lane, add a NBR turn lane, add a 2nd SBL turn lane, add a 2nd SBT lane.	40	50	1038	1060	3.71%	4.50%
8 Three Flags Ave-Lassen St/Poplar St	Convert to all-way stop control.	40	51	562	538	6.64%	8.66%
11 Joshua St/I-15 SB Off Ramp	Install a traffic signal.	13	16	679	721	1.88%	2.17%

¹ Traffic signal at the US-395/Poplar Street intersection is to be installed by the Hesperia Industrial Center Project.

APPENDIX A – TRAFFIC STUDY SCOPING AGREEMENT

ENVIRONMENT | PLANNING | DEVELOPMENT SOLUTIONS, INC.

Date: May 20, 2022
To: City of Hesperia Traffic Engineering
From: Meghan Macias, T.E.
Site: Mesa Linda Street Warehouse
EPD Project Number 21-139
Subject: Traffic Impact Analysis Scope of Work

EPD Solutions, Inc. (EPD) proposes the following scope of work to prepare a Traffic Impact Analysis (TIA) for the proposed Mesa Linda Street Warehouse development. As shown on the attached site plan, the project proposes to construct a single 40,997 square foot warehouse on vacant parcels located on the southwest corner of Mesa Linda Street and Sultana Street (future roadway). There would be 54 dock doors, 71 trailer spaces, and 211 parking stalls. The project construction will be completed in one phase. Access to the project site would be provided via driveways on Lassen Street (future roadway) and Mesa Linda Street. The project applicant is expected to build out the future roadways of Lassen Street and Sultana Street. The warehouse is expected to be a High-Cube Transload and Short-Term Storage Warehouse; therefore, the Institute of Transportation Engineers *Trip Generation*, 11th Edition, 2021 rate for High-Cube Transload and Short-Term Storage Warehouse has been utilized. The trip generation for the project is shown in Table 1 (attached).

TRAFFIC IMPACT ANALYSIS SCOPE OF WORK

Task 1: Existing Circulation System

A description of the existing circulation system of the study area will be prepared to provide an assessment of the study area and existing intersection operations.

Data Collection

Upon approval by City staff, the TIA will include analysis of the following intersections:

1. US-395/Poplar Street
2. US-395/Three Flags Road
3. US 395/Joshua Street
4. Three Flags Avenue-Lassen Street/Poplar Street
5. Main Street/Mesa Linda Street
6. Mesa Linda Street/ Sultana Road
7. Joshua Street/I-15 SB Off-Ramp
8. Joshua Street/I-15 NB On-Ramp
9. Lassen Street/North Driveway
10. Lassen Street/South Driveway
11. Mesa Linda Street/North Driveway
12. Mesa Linda Street/South Driveway

New intersection traffic counts will be collected at the existing intersections. Typical weekday AM and PM peak hour turn movement counts will be collected by a qualified traffic data collection firm. The intersection counts will be conducted on a Tuesday, Wednesday or Thursday of a non-holiday week.

Task 2: Project Traffic Analysis

A traffic analysis will be prepared to determine the impacts of the proposed project. All information provided by City staff and the new data collected as part of the existing conditions analysis will be utilized. The proposed analysis scenarios are outlined below:

- Existing Condition
- Existing plus Project Condition
- Short-Term Cumulative Baseline Condition (corresponding to the opening year of the proposed project)
- Short-Term Cumulative plus Project Condition

Forecast traffic volumes for the short-term traffic condition will be based on the application of a 2 percent annual ambient growth rate, and traffic from adjacent cumulative (approved/pending) projects to be provided by the City. The analysis will include Poplar 18 and I-15 Industrial Park projects in the cumulative scenarios. The analysis will also account for proposed changes to intersection 1 (US-395/Poplar Street) because of other project developments in the vicinity. Simultaneously, coordination with Caltrans will be conducted. It is to be noted that the intersection of Poplar Street/Lassen Avenue will be included in the study area.

Trip Distribution and Assignment

A preliminary trip distribution analysis has been prepared. The trip distribution was based on the location of the project within the Hesperia and the proximity to major trucking routes and freeways. The proposed study area is shown in Figure 1. The proposed trip distribution is shown in Figure 2.

Intersection Level of Service Analyses

Intersection analysis and impact threshold determination will be performed using the *Highway Capacity Manual 6th Edition* (HCM) methodology. For any impact found to be significant, we will determine the percent of traffic contribution from the proposed project and will provide cost estimates for any required mitigation measures. Peak Hour Traffic Signal Warrants will be analyzed for unsignalized intersections that operate at unsatisfactory LOS.

LOS Criteria and Threshold of Significance

The City of Hesperia has established LOS “D” as the minimum level of service for its roadways and intersections in Goal CI-2 of the General Plan Circulation Element, and LOS E would be acceptable during peak hours through freeway interchanges and major corridors. This is consistent with the San Bernardino County Congestion Management Program (CMP) LOS E standard.

The project will have a significant impact at a study area intersection if it causes the LOS to deteriorate from satisfactory LOS to unsatisfactory LOS. If a facility is already operating at unsatisfactory LOS and the project causes an increase in delay, it will be considered a significant cumulative impact. The LOS analysis and technical procedures will be consistent with Appendix B (Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County) of the San Bernardino County CMP.

Site Plan, Circulation, and Queuing

The current site plan will be reviewed with respect to on-site circulation, access, and driveway queuing. The project driveway analysis will include analysis of the peak periods and potential queuing issues associated with truck traffic.

Vehicle Miles Travelled (VMT) Analysis

The project does not meet any of the VMT screening criteria found in the City’s TIA guidelines. Therefore, a VMT analysis will be prepared for this project.

Special Issues

Special issues such as truck turning exhibits, fair-share analysis, conceptual design of adjacent roadways, traffic signal control and multi-way stop control warrant assessments, sight distance and any applicable Caltrans comments/issues areas will be considered and studied as applicable.

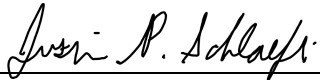
Two other industrial projects are proposed in immediate vicinity of the project, Poplar 18 and I-15 Industrial Park. EPD will review the project plans and technical studies (if available) and coordinate analysis assumptions and proposed mitigation with those other projects. Additionally, EPD will coordinate with Caltrans regarding any future improvements at Caltrans facilities, including the intersection of US-395 and Poplar Street.

Attachments: Table 1. Project Trip Generation
Figure 1. Project Site Plan
Figure 2: Project Study Area
Figure 3: Automobile Trip Distribution
Figure 4: Truck Trip Distribution

Please review the scope of work and provide your comments or approval. If you would like to discuss the scope, please contact me at (949) 533-9182 or at meghan@epdsolutions.com.

City Approval:

Name: Justin P. Schlaefli, PE TE, Contract Traffic Engineer- City of Hesperia

Signature: 

Date: 6/28/22

Please note that the signature above verifies preliminary agreement with scoping assumptions. Scoping is intended to assist the applicant in ensuring major study assumptions may be accepted by the City. However, the City reserves the right to modify assumptions or provide additional comments at any time.

Should additional information, Caltrans comments or other issues require additional analysis or alteration of assumptions, the City reserves the right to comment in any way the City deems appropriate.

Table 1. Project Trip Generation

Land Use	Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
<u>Trip Rates</u>								
High Cube Transload and Short-Term Storage Warehouse ¹	TSF	1.40	0.06	0.02	0.08	0.03	0.07	0.10
<u>Total Vehicle Trip Generation</u>								
Mesa Linda Street Development	405.997 TSF	568	25	7	32	11	29	41
<u>Vehicle Mix</u>²		<u>Percent</u>						
Passenger Vehicles	69.00%	392	17	5	22	8	20	28
2-Axle Trucks	6.80%	39	2	1	2	1	2	3
3-Axle Trucks	5.50%	31	1	0	2	1	2	2
4+-Axle Trucks	18.70%	106	5	1	6	2	5	8
	100%	568	25	7	32	11	29	41
<u>PCE Trip Generation</u>³		<u>PCE Factor</u>						
Passenger Vehicles	1.0	392	17	5	22	8	20	28
2-Axle Trucks	1.5	58	3	1	3	1	3	4
3-Axle Trucks	2.0	63	3	1	4	1	3	4
4+-Axle Trucks	3.0	319	14	4	18	6	16	23
Total PCE Trip Generation		832	37	11	48	17	43	59

TSF = Thousand Square Feet

PCE = Passenger Car Equivalent

¹ Trip rates from the Institute of Transportation Engineers, *Trip Generation, 11th Edition, 2021*. Land Use Code 154 - High-Cube Transload and Short-Term Storage Warehouse.

² Vehicle Mix from the *SCAQMD Warehouse Truck Trip Study*. July 17, 2017.

³ Passenger Car Equivalent (PCE) factors from San Bernardino County CMP, Appendix B - Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County, 2016

Figure 1. Project Site Plan

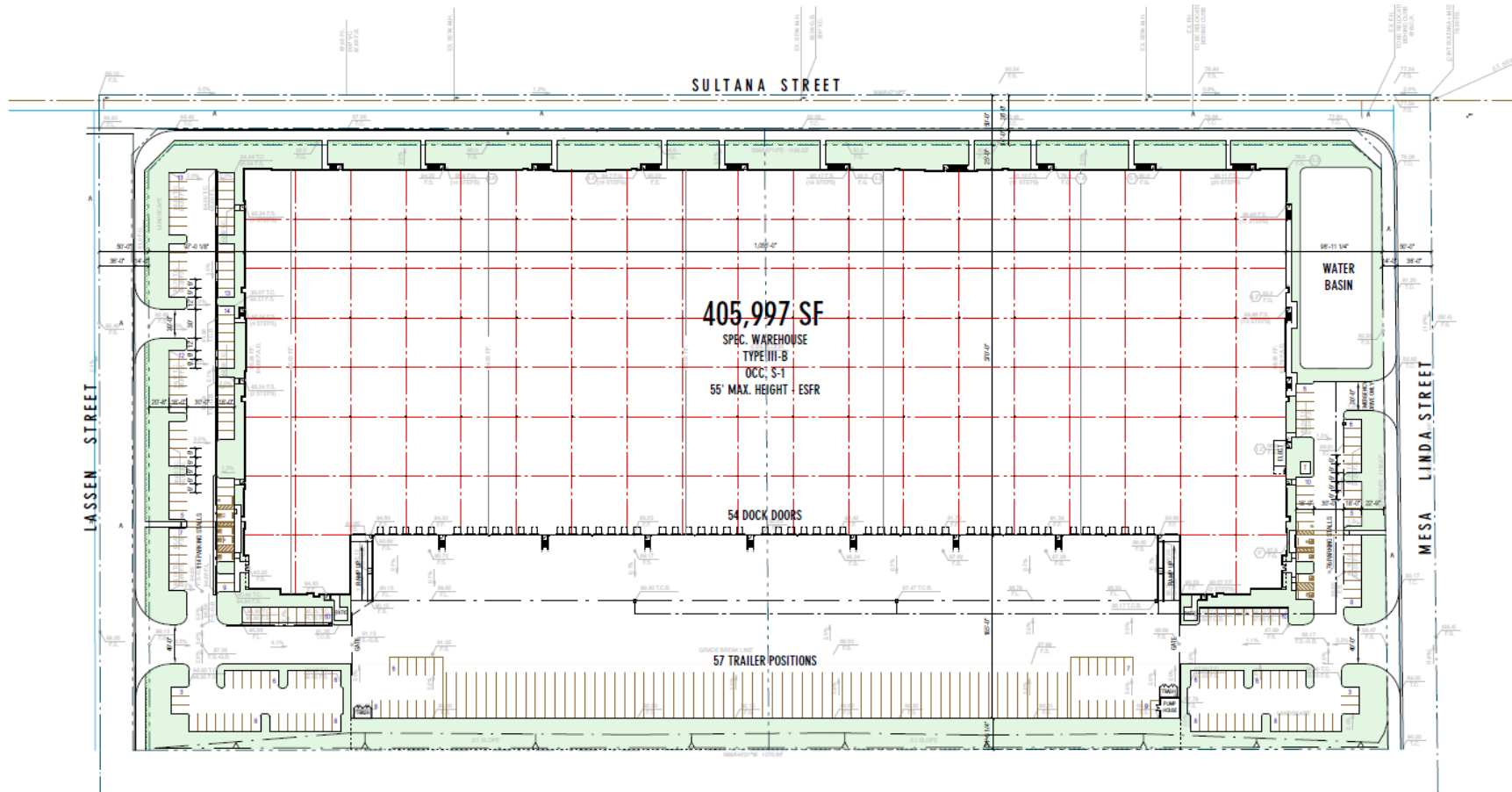


Figure 2. Project Study Area



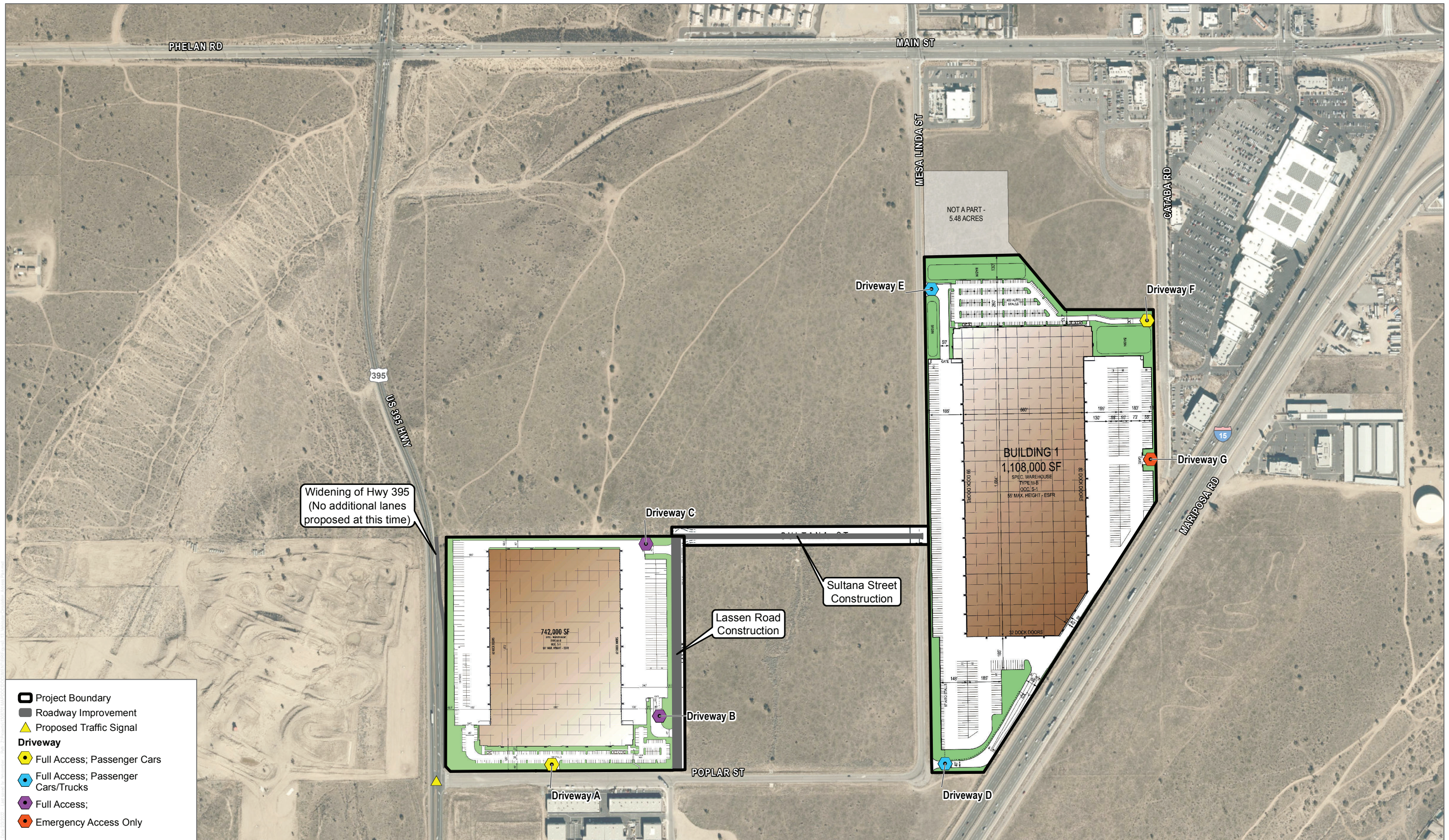
Figure 3: Automobile Trip Distribution



Figure 4: Truck Trip Distribution



*APPENDIX B – IMPROVEMENTS CONSTRUCTED BY I-15 INDUSTRIAL PARK
PROJECT*



SOURCE: Esri World Imagery 2020; County of San Bernardino 2021; RGA 2021

APPENDIX C – TRAFFIC COUNTS

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

PROJECT #: SC3422
LOCATION #: 1
CONTROL: STOP W

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

Poplar WEST SIDE	US-395 NORTH SIDE
SOUTH SIDE US-395	EAST SIDE Poplar

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

PROJECT #: SC3422
LOCATION #: 3
CONTROL: SIGNAL

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

US-395

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

PROJECT #: SC3422
LOCATION #: 2
CONTROL: SIGNAL

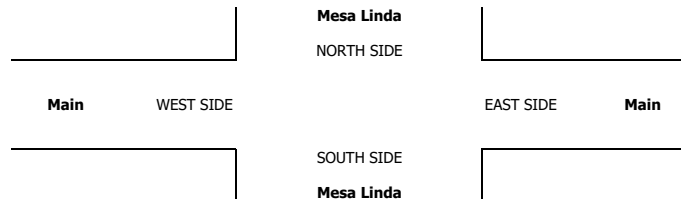
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0	0	0	0	0



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

PROJECT #: SC3422
LOCATION #: 6
CONTROL: SIGNAL

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



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/17/22 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Hesperia Key Pointe Main	PROJECT #: LOCATION #: CONTROL:	SC3470 10 SIGNAL
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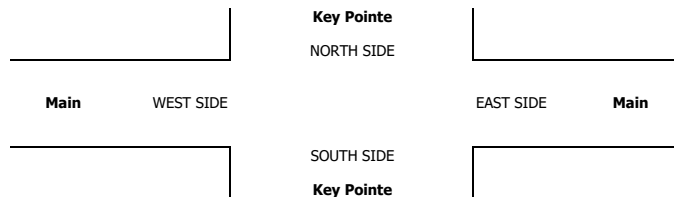
PCE Adjusted	NOTES:								AM		▲ N	
	Class	1	2	3	4	5	6		PM			
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S ▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Key Pointe			Key Pointe			Main			Main			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 0.5	SR 0.5	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	0	12	25	2	6	4	203	1	10	127	34	425
	7:15 AM	3	0	8	32	5	3	3	238	2	19	167	21	500
	7:30 AM	0	1	4	44	4	2	3	208	0	26	190	24	504
	7:45 AM	0	0	9	38	3	1	4	239	5	30	169	29	525
	8:00 AM	1	4	19	46	4	3	7	250	2	39	128	37	538
	8:15 AM	0	2	22	32	5	2	7	233	2	41	145	32	522
	8:30 AM	2	4	29	33	8	1	9	213	3	46	171	24	542
	8:45 AM	1	2	28	26	9	5	8	232	1	68	164	42	584
	VOLUMES	8	13	130	276	40	23	43	1,815	16	277	1,259	240	4,139
	APPROACH %	5%	9%	86%	81%	12%	7%	2%	97%	1%	16%	71%	14%	
	APP/DEPART	151	/	296	339	/	333	1,874	/	2,220	1,776	/	1,290	0
	BEGIN PEAK HR	8:00 AM												
PM	VOLUMES	4	12	97	137	26	11	30	927	8	193	607	134	2,185
	APPROACH %	4%	11%	86%	79%	15%	6%	3%	96%	1%	21%	65%	14%	
	PEAK HR FACTOR	0.819			0.818			0.933			0.856			0.936
	APP/DEPART	113	/	176	174	/	227	965	/	1,161	933	/	622	0
	4:00 PM	6	16	52	61	19	6	12	205	2	78	284	49	789
	4:15 PM	8	15	59	77	23	3	16	197	4	75	259	52	787
	4:30 PM	7	10	70	54	16	3	9	226	4	80	311	41	830
	4:45 PM	7	15	51	57	29	4	12	238	6	72	271	59	820
	5:00 PM	10	15	72	61	21	4	15	246	2	67	242	49	803
	5:15 PM	7	17	49	65	18	4	10	260	6	75	289	46	846
	5:30 PM	6	17	64	49	28	5	18	228	3	68	246	64	795
	5:45 PM	8	12	57	50	15	3	15	226	5	79	211	45	726
	VOLUMES	59	117	473	473	169	32	107	1,824	32	593	2,112	404	6,393
	APPROACH %	9%	18%	73%	70%	25%	5%	5%	93%	2%	19%	68%	13%	
	APP/DEPART	649	/	628	674	/	794	1,963	/	2,769	3,108	/	2,203	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	31	57	241	237	84	15	46	969	18	294	1,112	195	3,298
	APPROACH %	9%	17%	73%	70%	25%	4%	4%	94%	2%	18%	69%	12%	
	PEAK HR FACTOR	0.848			0.932			0.935			0.927			0.975
	APP/DEPART	329	/	298	336	/	396	1,033	/	1,446	1,601	/	1,158	0

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					0
					0
0	0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/17/22 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Hesperia I-15 SB Ramp Main	PROJECT #: LOCATION #: CONTROL:	SC3470 11 SIGNAL
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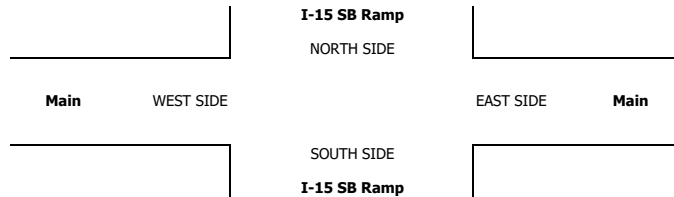
PCE Adjusted	NOTES:								AM		▲ N	
	Class	1	2	3	4	5	6		PM			
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S ▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	I-15 SB Ramp			I-15 SB Ramp			Main			Main			
LANES:	NL X	NT X	NR X	SL 2	ST X	SR 1	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	60	0	28	0	222	23	0	130	114	575
	7:15 AM	0	0	0	65	0	40	0	256	0	0	169	125	655
	7:30 AM	0	0	0	69	0	47	0	247	19	0	194	121	697
	7:45 AM	0	0	0	89	0	55	0	271	24	0	191	103	732
	8:00 AM	0	0	0	66	0	29	0	261	47	0	160	113	675
	8:15 AM	0	0	0	83	0	49	0	257	35	0	176	138	737
	8:30 AM	0	0	0	71	0	54	0	243	34	0	199	126	727
	8:45 AM	0	0	0	91	0	46	0	249	38	0	223	134	779
	VOLUMES	0	0	0	593	0	347	0	2,005	219	0	1,441	972	5,575
	APPROACH %	0%	0%	0%	63%	0%	37%	0%	90%	10%	0%	60%	40%	
PM	APP/DEPART	0	/	972	939	/	219	2,223	/	2,597	2,413	/	1,787	0
	BEGIN PEAK HR	8:00 AM												
	VOLUMES	0	0	0	310	0	177	0	1,010	153	0	758	511	2,917
	APPROACH %	0%	0%	0%	64%	0%	36%	0%	87%	13%	0%	60%	40%	
	PEAK HR FACTOR	0.000			0.894			0.947			0.889			0.936
	APP/DEPART	0	/	511	487	/	153	1,163	/	1,320	1,268	/	934	0
	4:00 PM	0	0	0	132	0	78	0	298	25	0	328	106	964
	4:15 PM	0	0	0	112	0	72	0	302	34	0	341	85	946
	4:30 PM	0	0	0	100	0	85	0	313	49	0	340	108	994
	4:45 PM	0	0	0	127	0	91	0	292	37	0	309	105	960
	5:00 PM	0	0	0	104	0	91	0	329	53	0	280	107	962
	5:15 PM	0	0	0	113	0	84	0	339	39	0	327	99	1,000
	5:30 PM	0	0	0	102	0	98	0	292	45	0	290	95	921
	5:45 PM	0	0	0	94	0	64	0	295	36	0	274	74	837
	VOLUMES	0	0	0	882	0	661	0	2,458	316	0	2,487	778	7,581
	APPROACH %	0%	0%	0%	57%	0%	43%	0%	89%	11%	0%	76%	24%	
	APP/DEPART	0	/	778	1,543	/	316	2,774	/	3,340	3,265	/	3,148	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	0	0	443	0	350	0	1,273	177	0	1,255	418	3,915
	APPROACH %	0%	0%	0%	56%	0%	44%	0%	88%	12%	0%	75%	25%	
	PEAK HR FACTOR	0.000			0.911			0.950			0.934			0.979
	APP/DEPART	0	/	418	793	/	177	1,449	/	1,716	1,673	/	1,605	0

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					0
					0
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					0
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					0
					0
0	0	0	0	0	0



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

PCE Adjusted	NOTES:								AM PM MD OTHER OTHER	◀ W ▶	▲ N ▼	◀ E ▶
	Class	1	2	3	4	5	6					
	Factor	1	1.5	2	3	2	2					

U-TURNS				
NB	SB	EB	WB	TTL

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					0
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PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC3422
LOCATION #: 4
CONTROL: STOP N

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

Three Flags

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

SC3422
5
NO CONTROL

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

		Mesa Linda	
		NORTH SIDE	
Sultana	WEST SIDE		EAST SIDE
		SOUTH SIDE	
		Mesa Linda	

INTERSECTION TURNING MOVEMENT COUNTS

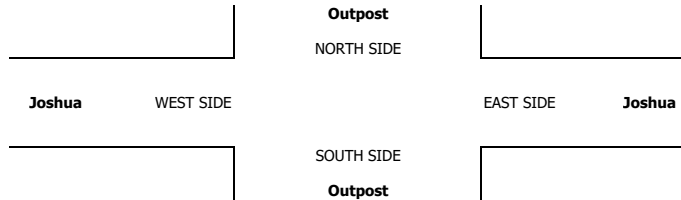
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 1/18/23 WEDNESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Hesperia Outpost Joshua	PROJECT #: LOCATION #: CONTROL:	SC3820 1 NO CONTROL
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PCE Adjusted										AM PM MD OTHER OTHER	▲ N ◀ W S ▶ E
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Outpost			Outpost			Joshua			Joshua				NB	SB	EB	WB	TTL
LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL					

AM	7:00 AM	0	0	0	6	0	19	12	23	0	0	23	14	96				0
	7:15 AM	0	0	0	8	0	24	22	29	0	0	9	22	113				0
	7:30 AM	0	0	0	12	0	35	14	27	0	0	18	8	114				0
	7:45 AM	0	0	0	10	0	28	18	21	0	0	26	34	135				0
	8:00 AM	0	0	0	9	0	23	15	22	0	0	25	37	129				0
	8:15 AM	0	0	0	5	0	20	21	25	0	0	43	11	124				0
	8:30 AM	0	0	0	16	0	37	44	23	0	0	24	27	170				0
	8:45 AM	0	0	0	7	0	38	26	1	0	0	24	24	119				0
	VOLUMES	0	0	0	71	0	224	169	169	0	0	190	175	998	0	0	0	0
	APPROACH %	0%	0%	0%	24%	0%	76%	50%	50%	0%	0%	52%	48%					
	APP/DEPART	0	/	344	295	/	0	338	/	240	365	/	414	0				
	BEGIN PEAK HR VOLUMES	0	0	0	39	0	108	96	90	0	0	117	108	557				
	APPROACH %	0%	0%	0%	26%	0%	74%	52%	48%	0%	0%	52%	48%					
PM	PEAK HR FACTOR	0.000			0.695			0.699			0.913			0.821				
	APP/DEPART	0	/	204	146	/	0	186	/	129	225	/	225	0				
	4:00 PM	0	0	0	17	0	25	24	57	0	0	22	23	166				0
	4:15 PM	0	0	0	11	0	29	24	39	0	0	24	25	151				0
	4:30 PM	0	0	0	22	0	24	35	31	0	0	26	26	163				0
	4:45 PM	0	0	0	9	0	27	26	41	0	0	25	31	159				0
	5:00 PM	0	0	0	12	0	27	40	43	0	0	31	20	171				0
	5:15 PM	0	0	0	12	0	30	19	38	0	0	26	19	144				0
	5:30 PM	0	0	0	10	0	16	19	40	0	0	17	22	123				0
	5:45 PM	0	0	0	17	0	18	18	19	0	0	20	21	112				0
	VOLUMES	0	0	0	108	0	195	203	307	0	0	190	186	1,187	0	0	0	0
	APPROACH %	0%	0%	0%	36%	0%	64%	40%	60%	0%	0%	51%	49%					
	APP/DEPART	0	/	389	303	/	0	510	/	415	375	/	384	0				
	BEGIN PEAK HR VOLUMES	0	0	0	58	0	105	108	168	0	0	96	104	638				
	APPROACH %	0%	0%	0%	36%	0%	64%	39%	61%	0%	0%	48%	52%					
	PEAK HR FACTOR	0.000			0.893			0.861			0.893			0.964				
	APP/DEPART	0	/	212	163	/	0	276	/	226	200	/	201	0				



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PROJECT #: SC3422
LOCATION #: 8
CONTROL: STOP 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	0

		I-15 SB Ramp	
		NORTH SIDE	
Joshua	WEST SIDE		EAST SIDE
		SOUTH SIDE	
		I-15 SB Ramp	

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SC3422
7
NO CONTROL

					0
					0
					0
					0
					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-15 NB Ramp	
		NORTH SIDE	
Joshua	WEST SIDE		EAST SIDE
		SOUTH SIDE	
		I-15 NB Ramp	

APPENDIX D – LEVEL OF SERVICE CALCULATIONS

Mesa Linda Street Warehouse

Vistro File: C:\...\Intersections LOS - Starting on City
comments - Copy.vistro

Scenario 1 Existing AM

Report File: C:\...\Existing AM.pdf

1/30/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	US-395/Poplar St	Two-way stop	HCM 6th Edition	WB Left	0.204	59.0	F
2	US-395/Three Flags Rd	Signalized	HCM 6th Edition	SB Left	0.464	14.6	B
3	US-395/Joshua St	Signalized	HCM 6th Edition	NB Left	0.399	11.8	B
4	Main St/Mesa Linda St	Signalized	HCM 6th Edition	SB Left	200.816	22.6	C
5	Main St/Key Pointe Ave	Signalized	HCM 6th Edition	WB Left	0.461	27.9	C
6	Main St/I-15 SB Off Ramp	Signalized	HCM 6th Edition	SB Right	0.322	7.9	A
7	Main St/I-15 NB Ramps	Signalized	HCM 6th Edition	WB Right	0.362	15.9	B
8	Three Flags Ave-Lassen St/Poplar St	Two-way stop	HCM 6th Edition	NB Left	0.031	11.0	B
9	Mesa Linda St/Sultana Rd	Two-way stop	HCM 6th Edition	SB Thru	0.001	0.0	A
10	Joshua Rd/Outpost Rd	Two-way stop	HCM 6th Edition	SB Left	0.080	10.6	B
11	Joshua St/I-15 SB Off-Ramp	Two-way stop	HCM 6th Edition	SB Left	0.119	10.3	B
12	Joshua St/I-15 NB On-Ramp	Two-way stop	HCM 6th Edition	EB Left	0.079	7.5	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: US-395/Poplar St

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 59.0
 Level Of Service: F
 Volume to Capacity (v/c): 0.204

Intersection Setup

Name	US-395			US-395						Poplar 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	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	373.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	510.00
No. of Lanes in Exit Pocket	0	0	0	0	0	2	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	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		
Crosswalk	No			No			Yes			No		

Volumes

Name	US-395			US-395						Poplar St		
Base Volume Input [veh/h]	0	815	18	28	982	0	0	0	0	8	0	3
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	815	18	28	982	0	0	0	0	8	0	3
Peak Hour Factor	0.9240	0.9240	0.9240	0.9080	0.9080	0.9080	1.0000	1.0000	1.0000	0.4580	0.4580	0.4580
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	221	5	8	270	0	0	0	0	4	0	2
Total Analysis Volume [veh/h]	0	882	19	31	1081	0	0	0	0	17	0	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.20	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	9.92	0.00	0.00	0.00	0.00	0.00	59.02	0.00	11.49
Movement LOS		A	A	A	A					F		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.71	0.00	0.04
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	3.17	0.00	0.00	0.00	0.00	0.00	17.73	0.00	0.95
d_A, Approach Delay [s/veh]	0.00			0.28			0.00			45.16		
Approach LOS	A			A			A			E		
d_I, Intersection Delay [s/veh]	0.68											
Intersection LOS	F											

Intersection Level Of Service Report

Intersection 2: US-395/Three Flags Rd

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.464

Intersection Setup

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
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	0	1	0	1
Entry Pocket Length [ft]	190.00	100.00	190.00	224.00	100.00	224.00	182.00	100.00	100.00	274.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
Base Volume Input [veh/h]	39	758	106	32	858	77	30	3	89	188	4	33
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	27	0	0	19	0	0	22	0	0	8
Total Hourly Volume [veh/h]	39	758	79	32	858	58	30	3	67	188	4	25
Peak Hour Factor	0.9280	0.9280	0.9280	0.9330	0.9330	0.9330	0.7960	0.7960	0.7960	0.8300	0.8300	0.8300
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]	11	204	21	9	230	16	9	1	21	57	1	8
Total Analysis Volume [veh/h]	42	817	85	34	920	62	38	4	84	227	5	30
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	65
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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	9	23	0	12	26	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65
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
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	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
g_i, Effective Green Time [s]	3	32	32	2	32	32	18	18	18	18	18
g / C, Green / Cycle	0.04	0.50	0.50	0.04	0.49	0.49	0.28	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.02	0.24	0.06	0.02	0.27	0.04	0.03	0.06	0.17	0.00	0.02
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1395	1541	1330	1800	1530
c, Capacity [veh/h]	70	1716	766	61	1697	758	444	430	373	502	427
d1, Uniform Delay [s]	30.64	10.64	8.58	30.84	11.32	8.63	19.34	17.91	25.28	16.94	17.23
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
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
d2, Incremental Delay [s]	7.86	0.95	0.29	7.70	1.25	0.21	0.08	0.23	1.61	0.01	0.07
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
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
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

Lane Group Results

X, volume / capacity	0.60	0.48	0.11	0.56	0.54	0.08	0.09	0.20	0.61	0.01	0.07
d, Delay for Lane Group [s/veh]	38.49	11.59	8.87	38.53	12.57	8.84	19.42	18.14	26.89	16.94	17.30
Lane Group LOS	D	B	A	D	B	A	B	B	C	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.75	3.16	0.56	0.61	3.80	0.40	0.43	0.97	3.34	0.05	0.32
50th-Percentile Queue Length [ft/ln]	18.64	79.07	13.88	15.28	94.97	10.12	10.83	24.27	83.48	1.29	7.93
95th-Percentile Queue Length [veh/ln]	1.34	5.69	1.00	1.10	6.84	0.73	0.78	1.75	6.01	0.09	0.57
95th-Percentile Queue Length [ft/ln]	33.55	142.32	24.98	27.50	170.95	18.21	19.49	43.69	150.27	2.33	14.28

Movement, Approach, & Intersection Results

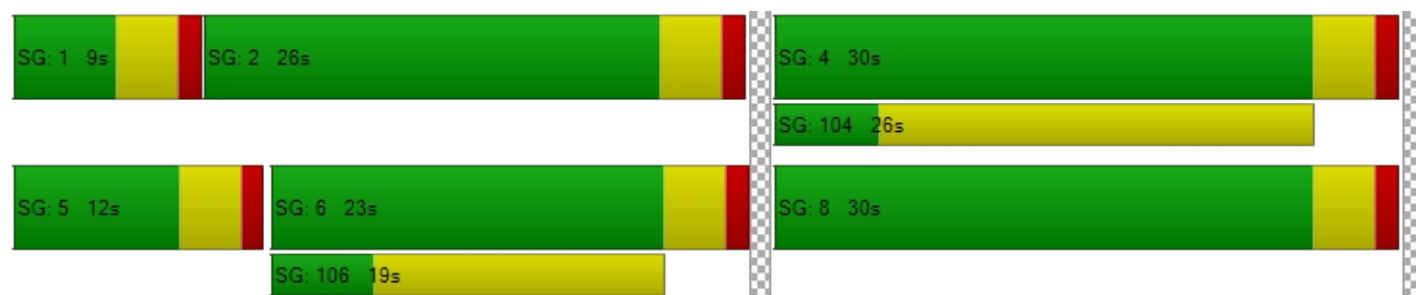
d_M, Delay for Movement [s/veh]	38.49	11.59	8.87	38.53	12.57	8.84	19.42	18.14	18.14	26.89	16.94	17.30
Movement LOS	D	B	A	D	B	A	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	12.54			13.21			18.53			25.60		
Approach LOS	B			B			B			C		
d_I, Intersection Delay [s/veh]	14.61											
Intersection LOS	B											
Intersection V/C	0.464											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			24.12			0.00			24.12		
I_p,int, Pedestrian LOS Score for Intersection	0.000			2.989			0.000			2.230		
Crosswalk LOS	F			C			F			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	585			677			800			800		
d_b, Bicycle Delay [s]	16.28			14.22			11.70			11.70		
I_b,int, Bicycle LOS Score for Intersection	2.361			2.413			1.804			2.005		
Bicycle LOS	B			B			A			B		

Sequence

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



Intersection Level Of Service Report
Intersection 3: US-395/Joshua St

Control Type: Signalized
Analysis Method: HCM 6th Edition
Analysis Period: 15 minutes

Delay (sec / veh): 11.8
Level Of Service: B
Volume to Capacity (v/c): 0.399

Intersection Setup

Name	US-395			US-395			Joshua St			Joshua 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	1	1	0	0	1	0	1
Entry Pocket Length [ft]	191.00	100.00	226.00	200.00	100.00	223.00	140.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	US-395			US-395			Joshua St			Joshua St		
Base Volume Input [veh/h]	9	764	48	127	904	102	16	24	9	96	55	121
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	12	0	0	26	0	0	2	0	0	30
Total Hourly Volume [veh/h]	9	764	36	127	904	76	16	24	7	96	55	91
Peak Hour Factor	0.9120	0.9120	0.9120	0.8980	0.8980	0.8980	0.6740	0.6740	0.6740	0.9610	0.9610	0.9610
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]	2	209	10	35	252	21	6	9	3	25	14	24
Total Analysis Volume [veh/h]	10	838	39	141	1007	85	24	36	10	100	57	95
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	65
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully 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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	10	23	0	12	25	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65
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
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	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
g_i, Effective Green Time [s]	1	36	36	7	42	42	10	10	10	10	10
g / C, Green / Cycle	0.01	0.56	0.56	0.10	0.65	0.65	0.16	0.16	0.16	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.01	0.24	0.03	0.08	0.29	0.06	0.02	0.03	0.07	0.03	0.06
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1255	1733	1381	1800	1530
c, Capacity [veh/h]	25	1911	853	179	2219	991	235	266	254	277	235
d1, Uniform Delay [s]	31.81	8.44	6.54	28.46	5.73	4.28	26.93	23.97	28.19	24.10	24.88
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
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
d2, Incremental Delay [s]	9.96	0.73	0.10	7.43	0.67	0.17	0.19	0.30	0.99	0.36	1.12
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
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
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

Lane Group Results

X, volume / capacity	0.40	0.44	0.05	0.79	0.45	0.09	0.10	0.17	0.39	0.21	0.40
d, Delay for Lane Group [s/veh]	41.77	9.17	6.64	35.89	6.40	4.45	27.12	24.27	29.18	24.46	26.00
Lane Group LOS	D	A	A	D	A	A	C	C	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.21	2.66	0.20	2.31	2.22	0.30	0.32	0.58	1.43	0.72	1.26
50th-Percentile Queue Length [ft/ln]	5.32	66.51	5.05	57.78	55.42	7.51	8.07	14.39	35.72	17.93	31.47
95th-Percentile Queue Length [veh/ln]	0.38	4.79	0.36	4.16	3.99	0.54	0.58	1.04	2.57	1.29	2.27
95th-Percentile Queue Length [ft/ln]	9.57	119.71	9.08	104.01	99.76	13.53	14.52	25.91	64.29	32.27	56.65

Movement, Approach, & Intersection Results

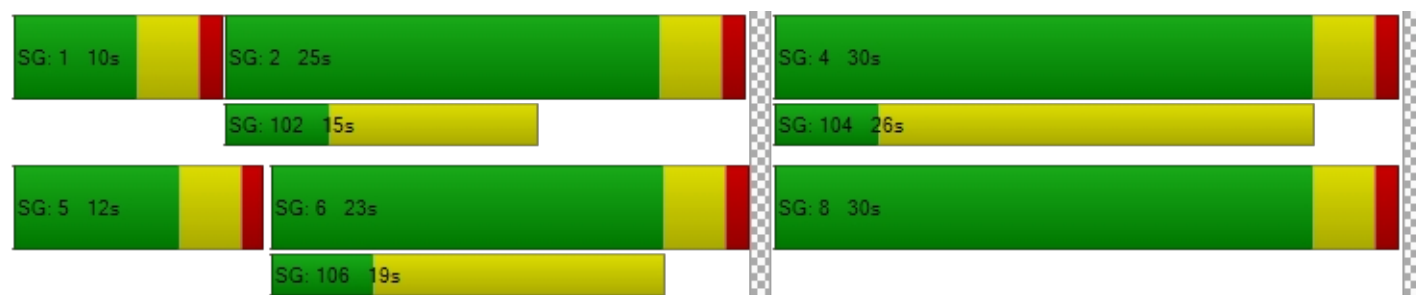
d_M, Delay for Movement [s/veh]	41.77	9.17	6.64	35.89	6.40	4.45	27.12	24.27	24.27	29.18	24.46	26.00
Movement LOS	D	A	A	D	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	9.43			9.64			25.25			26.91		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	11.79											
Intersection LOS	B											
Intersection V/C	0.399											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			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]	0.00			24.16			24.16			24.16		
I_p,int, Pedestrian LOS Score for Intersection	0.000			3.056			2.050			2.345		
Crosswalk LOS	F			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	584			645			799			799		
d_b, Bicycle Delay [s]	16.31			14.92			11.73			11.73		
I_b,int, Bicycle LOS Score for Intersection	2.301			2.598			1.678			2.025		
Bicycle LOS	B			B			A			B		

Sequence

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



Intersection Level Of Service Report

Intersection 4: Main St/Mesa Linda St

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 22.6
 Level Of Service: C
 Volume to Capacity (v/c): 200.816

Intersection Setup

Name	Mesa Linda St			Mesa Linda St			Main St			Main 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	0	0	1	0	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	340.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	2	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Mesa Linda St			Mesa Linda St			Main St			Main St		
Base Volume Input [veh/h]	1	0	28	46	1	16	14	918	7	75	593	17
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	7	0	0	4	0	0	2	0	0	4
Total Hourly Volume [veh/h]	1	0	21	46	1	12	14	918	5	75	593	13
Peak Hour Factor	0.5940	0.5940	0.5940	0.8290	0.8290	0.8290	0.9620	0.9620	0.9620	0.8380	0.8380	0.8380
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	9	14	0	4	4	239	1	22	177	4
Total Analysis Volume [veh/h]	2	0	35	55	1	14	15	954	5	89	708	16
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	39	0	0	39	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	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	27	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	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	C	R	C	R	L	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
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]	2.00	0.00	2.00	0.00	2.00	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	2.00
g_i, Effective Green Time [s]	35	35	35	35	17	17	17	17	17	17
g / C, Green / Cycle	0.58	0.58	0.58	0.58	0.28	0.28	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	200.63	0.02	29.70	0.01	0.02	0.18	0.18	0.15	0.14	0.01
s, saturation flow rate [veh/h]	0	1530	2	1530	741	3427	1795	595	4903	1530
c, Capacity [veh/h]	120	893	120	893	216	971	509	173	1389	434
d1, Uniform Delay [s]	30.00	5.33	29.32	5.26	23.23	18.87	18.88	28.42	18.01	15.57
k, delay calibration	0.50	0.50	0.50	0.50	0.50	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	1.00
d2, Incremental Delay [s]	0.25	0.08	12.47	0.03	0.62	3.34	6.27	10.55	1.34	0.16
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	0.02	0.04	0.47	0.02	0.07	0.65	0.65	0.52	0.51	0.04
d, Delay for Lane Group [s/veh]	30.25	5.41	41.79	5.29	23.85	22.22	25.15	38.97	19.35	15.73
Lane Group LOS	C	A	D	A	C	C	C	D	B	B
Critical Lane Group	Yes	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.04	0.17	1.19	0.07	0.20	3.59	4.18	1.65	2.42	0.15
50th-Percentile Queue Length [ft/ln]	0.90	4.15	29.69	1.63	5.04	89.81	104.47	41.31	60.52	3.77
95th-Percentile Queue Length [veh/ln]	0.06	0.30	2.14	0.12	0.36	6.47	7.52	2.97	4.36	0.27
95th-Percentile Queue Length [ft/ln]	1.62	7.46	53.44	2.94	9.07	161.66	188.05	74.36	108.93	6.79

Movement, Approach, & Intersection Results

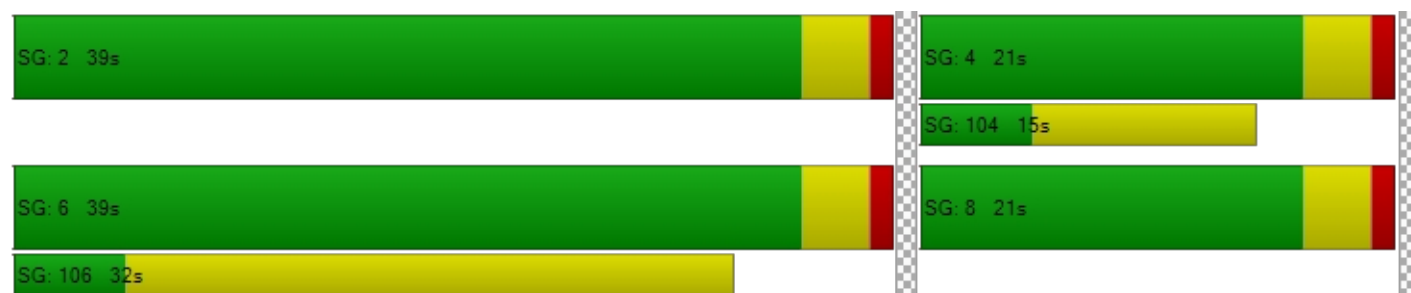
d_M, Delay for Movement [s/veh]	30.25	30.25	5.41	41.79	41.79	5.29	23.85	23.21	25.15	38.97	19.35	15.73
Movement LOS	C	C	A	D	D	A	C	C	C	D	B	B
d_A, Approach Delay [s/veh]	6.76			34.49			23.23			21.42		
Approach LOS	A			C			C			C		
d_I, Intersection Delay [s/veh]	22.55											
Intersection LOS	C											
Intersection V/C	200.816											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			21.68			0.00			21.68		
I_p,int, Pedestrian LOS Score for Intersection	0.000			1.983			0.000			3.169		
Crosswalk LOS	F			A			F			C		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	1167			1167			567			567		
d_b, Bicycle Delay [s]	5.21			5.21			15.41			15.41		
I_b,int, Bicycle LOS Score for Intersection	1.632			1.682			2.096			2.009		
Bicycle LOS	A			A			B			B		

Sequence

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



Intersection Level Of Service Report Intersection 5: Main St/Key Pointe Ave

Control Type: Signalized
Analysis Method: HCM 6th Edition
Analysis Period: 15 minutes

Delay (sec / veh): 27.9
Level Of Service: C
Volume to Capacity (v/c): 0.461

Intersection Setup

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main 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	1	1	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	140.00	100.00	100.00	200.00	100.00	200.00	200.00	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main St		
Base Volume Input [veh/h]	4	12	97	137	26	11	30	927	8	193	607	134
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	24	0	0	3	0	0	2	0	0	34
Total Hourly Volume [veh/h]	4	12	73	137	26	8	30	927	6	193	607	100
Peak Hour Factor	0.8190	0.8190	0.8190	0.8180	0.8180	0.8180	0.9330	0.9330	0.9330	0.8560	0.8560	0.8560
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]	1	4	22	42	8	2	8	248	2	56	177	29
Total Analysis Volume [veh/h]	5	15	89	167	32	10	32	994	6	225	709	117
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	75
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
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	36	0	0	36	0	9	23	0	16	30	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	24	0	0	27	0	0	14	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	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75	75
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
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	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	2.00	2.00
g_i, Effective Green Time [s]	32	32	32	32	32	5	19	19	12	26	26
g / C, Green / Cycle	0.43	0.43	0.43	0.43	0.43	0.07	0.25	0.25	0.16	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.06	0.13	0.02	0.02	0.20	0.00	0.13	0.16	0.16
s, saturation flow rate [veh/h]	1386	1800	1530	1311	1727	1714	4903	1530	1714	3427	1673
c, Capacity [veh/h]	631	768	653	614	737	114	1242	388	274	1188	580
d1, Uniform Delay [s]	14.20	12.43	13.09	15.72	12.63	33.29	26.22	20.99	30.46	19.09	19.11
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	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	1.00	1.00
d2, Incremental Delay [s]	0.02	0.05	0.43	1.09	0.15	6.01	5.47	0.07	23.27	1.32	2.71
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
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
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

Lane Group Results

X, volume / capacity	0.01	0.02	0.14	0.27	0.06	0.28	0.80	0.02	0.82	0.47	0.47
d, Delay for Lane Group [s/veh]	14.22	12.48	13.52	16.81	12.78	39.30	31.69	21.06	53.72	20.41	21.82
Lane Group LOS	B	B	B	B	B	D	C	C	D	C	C
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.05	0.15	0.94	2.05	0.42	0.70	5.52	0.08	5.32	3.46	3.63
50th-Percentile Queue Length [ft/ln]	1.34	3.68	23.38	51.14	10.51	17.53	137.94	1.97	133.07	86.54	90.63
95th-Percentile Queue Length [veh/ln]	0.10	0.26	1.68	3.68	0.76	1.26	9.37	0.14	9.11	6.23	6.53
95th-Percentile Queue Length [ft/ln]	2.42	6.62	42.08	92.06	18.91	31.56	234.25	3.54	227.66	155.77	163.13

Movement, Approach, & Intersection Results

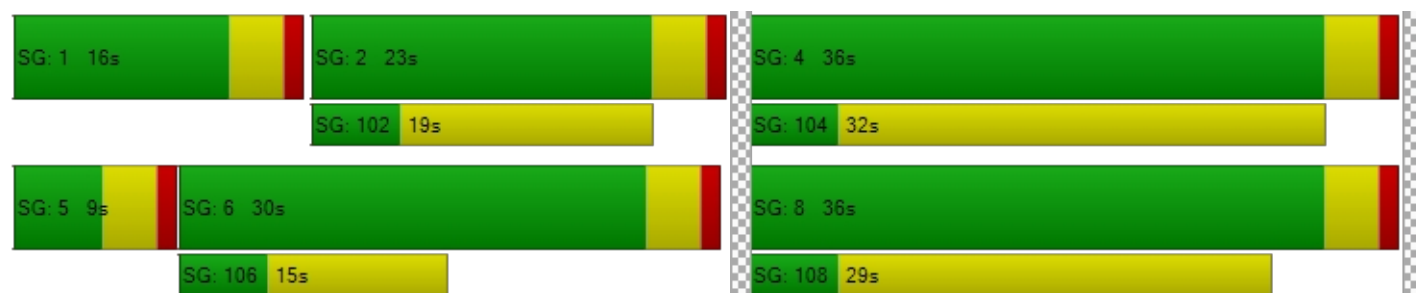
d_M, Delay for Movement [s/veh]	14.22	12.48	13.52	16.81	12.78	12.78	39.30	31.69	21.06	53.72	20.72	21.82
Movement LOS	B	B	B	B	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	13.41			16.00			31.87			27.91		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	27.92											
Intersection LOS	C											
Intersection V/C	0.461											

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]	29.04			29.04			29.04			29.04		
I_p,int, Pedestrian LOS Score for Intersection	2.255			2.070			3.086			3.420		
Crosswalk LOS	B			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	853			853			507			693		
d_b, Bicycle Delay [s]	12.33			12.33			20.91			16.01		
I_b,int, Bicycle LOS Score for Intersection	1.779			1.909			2.128			2.156		
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 6: Main St/I-15 SB Off Ramp

Control Type:	Signalized	Delay (sec / veh):	7.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.322

Intersection Setup

Name	I-15 SB Off Ramp		Main St		Main St	
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	1	1	0	0	0	0
Entry Pocket Length [ft]	1100.00	530.00	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]	40.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-15 SB Off Ramp		Main St		Main St	
Base Volume Input [veh/h]	310	177	0	1010	758	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0400	1.0000	1.0000	1.0400
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
Right Turn on Red Volume [veh/h]	0	44	0	0	0	0
Total Hourly Volume [veh/h]	310	133	0	1010	758	0
Peak Hour Factor	0.8940	0.8940	1.0000	0.9470	0.8890	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	87	37	0	267	213	0
Total Analysis Volume [veh/h]	347	149	0	1067	853	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
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	Split	Split	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	0	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	0	10	10	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	37	0	0	23	23	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Delayed Vehicle Green [s]	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	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	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
I, Upstream Filtering Factor	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	R	C	C
C, Cycle Length [s]	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	43	43
g / C, Green / Cycle	0.16	0.16	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.10	0.10	0.22	0.17
s, saturation flow rate [veh/h]	3329	1530	4903	4903
c, Capacity [veh/h]	525	241	3477	3477
d1, Uniform Delay [s]	23.77	23.59	3.25	3.07
k, delay calibration	0.11	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.43	2.57	0.23	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.66	0.62	0.31	0.25
d, Delay for Lane Group [s/veh]	25.20	26.16	3.47	3.24
Lane Group LOS	C	C	A	A
Critical Lane Group	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.18	1.94	0.54	0.41
50th-Percentile Queue Length [ft/ln]	54.57	48.59	13.53	10.20
95th-Percentile Queue Length [veh/ln]	3.93	3.50	0.97	0.73
95th-Percentile Queue Length [ft/ln]	98.23	87.46	24.35	18.36

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.20	26.16	0.00	3.47	3.24	0.00
Movement LOS	C	C		A	A	
d_A, Approach Delay [s/veh]	25.49		3.47		3.24	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	7.91					
Intersection LOS	A					
Intersection V/C	0.322					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1100	633	633
d_b, Bicycle Delay [s]	6.08	14.01	14.01
I_b,int, Bicycle LOS Score for Intersection	1.560	2.146	2.029
Bicycle LOS	A	B	B

Sequence

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



Intersection Level Of Service Report

Intersection 7: Main St/I-15 NB Ramps

Control Type:	Signalized	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.362

Intersection Setup

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main 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	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	1790.0	100.00	615.00	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]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main St		
Base Volume Input [veh/h]	82	3	411	0	0	0	0	1021	0	0	1103	460
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400	1.0400	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	0	0	0	115
Total Hourly Volume [veh/h]	82	3	308	0	0	0	0	1021	0	0	1103	345
Peak Hour Factor	0.9300	0.9300	0.9300	1.0000	1.0000	1.0000	1.0000	0.9190	1.0000	1.0000	0.9300	0.9300
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	1	83	0	0	0	0	278	0	0	297	93
Total Analysis Volume [veh/h]	88	3	331	0	0	0	0	1111	0	0	1186	371
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	60
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	Split	Split	Split	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	14	0	0	0	0	0	46	0	0	46	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	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	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		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		C	C	C
C, Cycle Length [s]	60	60	60		60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31		21	21	21
g / C, Green / Cycle	0.52	0.52	0.52		0.35	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.05	0.11	0.11		0.23	0.24	0.25
s, saturation flow rate [veh/h]	1714	1534	1530		4903	4903	1541
c, Capacity [veh/h]	883	790	788		1723	1723	542
d1, Uniform Delay [s]	7.43	7.91	7.91		16.31	16.56	16.88
k, delay calibration	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
d2, Incremental Delay [s]	0.23	0.61	0.61		0.41	0.47	1.81
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.21	0.21		0.64	0.68	0.72
d, Delay for Lane Group [s/veh]	7.66	8.52	8.53		16.72	17.04	18.69
Lane Group LOS	A	A	A		B	B	B
Critical Lane Group	No	No	Yes		No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.49	1.02	1.02		3.43	3.67	3.94
50th-Percentile Queue Length [ft/ln]	12.34	25.52	25.46		85.82	91.72	98.38
95th-Percentile Queue Length [veh/ln]	0.89	1.84	1.83		6.18	6.60	7.08
95th-Percentile Queue Length [ft/ln]	22.21	45.94	45.83		154.47	165.09	177.08

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	7.66	8.52	8.52	0.00	0.00	0.00	0.00	16.72	0.00	0.00	17.06	18.69
Movement LOS	A	A	A					B			B	B
d_A, Approach Delay [s/veh]	8.34			0.00			16.72			17.45		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	15.94											
Intersection LOS	B											
Intersection V/C	0.362											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			0.0			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]	21.68			21.68			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	2.429			1.881			0.000			0.000		
Crosswalk LOS	B			A			F			F		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	333			0			1400			1400		
d_b, Bicycle Delay [s]	20.83			30.00			2.70			2.70		
I_b,int, Bicycle LOS Score for Intersection	2.426			4.132			2.171			2.249		
Bicycle LOS	B			D			B			B		

Sequence

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



Intersection Level Of Service Report
Intersection 8: Three Flags Ave-Lassen St/Poplar St

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):	0.031

Intersection Setup

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda 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	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda St		
Base Volume Input [veh/h]	13	0	30	0	0	0	0	24	29	85	8	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	13	0	30	0	0	0	0	24	29	85	8	0
Peak Hour Factor	0.6360	0.6360	0.6360	1.0000	1.0000	1.0000	0.6790	0.6790	0.6790	0.7840	0.7840	0.7840
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	0	12	0	0	0	0	9	11	27	3	0
Total Analysis Volume [veh/h]	20	0	47	0	0	0	0	35	43	108	10	0
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	0.03	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00
d_M, Delay for Movement [s/veh]	11.00	11.50	8.90	11.14	11.33	8.34	7.22	0.00	0.00	7.53	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.25	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.23	0.23
95th-Percentile Queue Length [ft/ln]	6.30	6.30	6.30	0.00	0.00	0.00	0.00	0.00	0.00	5.68	5.68	5.68
d_A, Approach Delay [s/veh]	9.52			10.27			0.00			6.89		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	5.52											
Intersection LOS	B											

Intersection Level Of Service Report

Intersection 9: Mesa Linda St/Sultana Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 0.0
 Level Of Service: A
 Volume to Capacity (v/c): 0.001

Intersection Setup

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
Base Volume Input [veh/h]	0	51	2	0	94	0	0	0	0	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	51	2	0	94	0	0	0	0	0	0	0
Peak Hour Factor	0.6310	0.6310	0.6310	0.7920	0.7920	0.7920	1.0000	1.0000	1.0000	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	20	1	0	30	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	81	3	0	119	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.43	0.00	0.00	0.00	0.00	0.00	9.72	0.00	8.84	0.00	0.00	0.00
Movement LOS	A	A			A	A	A		A			
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			9.28			0.00		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.00											
Intersection LOS	A											

Intersection Level Of Service Report

Intersection 10: Joshua Rd/Outpost Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10.6
 Level Of Service: B
 Volume to Capacity (v/c): 0.080

Intersection Setup

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua 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	0	0	0	1	0	1	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]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua St		
Base Volume Input [veh/h]	0	0	0	39	0	108	0	90	0	0	117	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0400	1.0000	1.0400	1.0400	1.0000	1.0400
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]	0	0	0	39	0	108	0	90	0	0	117	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.6950	0.6950	0.6950	1.0000	0.6990	1.0000	1.0000	0.9130	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	0	0	14	0	39	0	32	0	0	32	0
Total Analysis Volume [veh/h]	0	0	0	56	0	155	0	129	0	0	128	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	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	0.00	0.08	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.94	10.53	8.89	10.59	10.53	9.66	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	B	B	A	B	B	A		A			A	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.26	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	6.50	0.00	14.96	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.45			9.91			0.00			0.00		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	4.47											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 11: Joshua St/I-15 SB Off-Ramp

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):	0.119

Intersection Setup

Name	Joshua St		Joshua St		Joshua St	
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	1	0	0	0	0
Entry Pocket Length [ft]	100.00	1500.00	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]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Joshua St		Joshua St		Joshua St	
Base Volume Input [veh/h]	66	207	0	154	30	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0400	1.0000	1.0000	1.0400
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]	66	207	0	154	30	0
Peak Hour Factor	0.7150	0.7150	1.0000	0.8560	0.8190	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	72	0	45	9	0
Total Analysis Volume [veh/h]	92	290	0	180	37	0
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	0.12	0.28	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.26	9.79	0.00	0.00	0.00	0.00
Movement LOS	B	A		A	A	
95th-Percentile Queue Length [veh/ln]	0.40	1.14	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	10.04	28.61	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.90		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.32					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 12: Joshua St/I-15 NB On-Ramp

Control Type:	Two-way stop	Delay (sec / veh):	7.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.079

Intersection Setup

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
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	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
Base Volume Input [veh/h]	0	0	107	111	32	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	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	0	107	111	32	12
Peak Hour Factor	1.0000	1.0000	0.8720	0.8720	0.6800	0.6800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	31	32	12	4
Total Analysis Volume [veh/h]	0	0	123	127	47	18
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			
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.08	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.52	0.00	0.00	0.00
Movement LOS			A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.26	0.26	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	6.46	6.46	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.70		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.94					
Intersection LOS	A					

Mesa Linda Street Warehouse

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1/30/2023

Turning Movement Volume: Summary

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
1	US-395/Poplar St	815	18	28	982	8	3	1854

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	US-395/Three Flags Rd	39	758	106	32	858	77	30	3	89	188	4	33	2217

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	US-395/Joshua St	9	764	48	127	904	102	16	24	9	96	55	121	2275

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	Main St/Mesa Linda St	1	0	28	46	1	16	14	918	7	75	593	17	1716

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	Main St/Key Pointe Ave	4	12	97	137	26	11	30	927	8	193	607	134	2186

ID	Intersection Name	Southbound		Eastbound		Total Volume
		Left	Right	Thru	Thru	
6	Main St/I-15 SB Off Ramp	310	177	1010	758	2255

ID	Intersection Name	Northbound			Eastbound	Westbound		Total Volume
		Left	Thru	Right	Thru	Thru	Right	
7	Main St/I-15 NB Ramps	82	3	411	1021	1103	460	3080

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
8	Three Flags Ave-Lassen St/Poplar St	13	0	30	0	0	0	0	24	29	85	8	0	189

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
9	Mesa Linda St/Sultana Rd	0	51	94	0	0	0	145

ID	Intersection Name	Northbound			Southbound			Eastbound	Westbound	Total Volume
		Left	Thru	Right	Left	Thru	Right	Thru	Thru	
10	Joshua Rd/Outpost Rd	0	0	0	39	0	108	90	117	354

ID	Intersection Name	Southbound		Eastbound	Westbound	Total Volume
		Left	Right	Thru	Thru	
11	Joshua St/I-15 SB Off-Ramp	66	207	154	30	457

ID	Intersection Name	Eastbound		Westbound		Total Volume
		Left	Thru	Thru	Right	
12	Joshua St/I-15 NB On-Ramp	107	111	32	12	262

Mesa Linda Street Warehouse

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1/30/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	US-395/Poplar St	Two-way stop	HCM 6th Edition	WB Left	0.174	99.3	F
2	US-395/Three Flags Rd	Signalized	HCM 6th Edition	NB Left	0.482	14.4	B
3	US-395/Joshua St	Signalized	HCM 6th Edition	NB Left	0.494	13.0	B
4	Main St/Mesa Linda St	Signalized	HCM 6th Edition	SB Left	4.071	21.9	C
5	Main St/Key Pointe Ave	Signalized	HCM 6th Edition	WB Left	0.624	31.0	C
6	Main St/I-15 SB Off Ramp	Signalized	HCM 6th Edition	SB Right	0.462	9.9	A
7	Main St/I-15 NB Ramps	Signalized	HCM 6th Edition	WB Right	0.504	14.6	B
8	Three Flags Ave-Lassen St/Poplar St	Two-way stop	HCM 6th Edition	NB Left	0.054	10.6	B
9	Mesa Linda St/Sultana Rd	Two-way stop	HCM 6th Edition	NB Thru	0.002	0.0	A
10	Joshua Rd/Outpost Rd	Two-way stop	HCM 6th Edition	SB Left	0.099	11.1	B
11	Joshua St/I-15 SB Off-Ramp	Two-way stop	HCM 6th Edition	SB Left	0.040	10.2	B
12	Joshua St/I-15 NB On-Ramp	Two-way stop	HCM 6th Edition	EB Left	0.088	7.6	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: US-395/Poplar St**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 99.3
 Level Of Service: F
 Volume to Capacity (v/c): 0.174

Intersection Setup

Name	US-395			US-395						Poplar 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	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	373.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	510.00
No. of Lanes in Exit Pocket	0	0	0	0	0	2	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	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		
Crosswalk	No			No			Yes			No		

Volumes

Name	US-395			US-395						Poplar St		
Base Volume Input [veh/h]	0	1157	34	25	976	0	0	0	0	6	0	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	1157	34	25	976	0	0	0	0	6	0	44
Peak Hour Factor	0.9430	0.9430	0.9430	0.9110	0.9110	0.9110	1.0000	1.0000	1.0000	0.7580	0.7580	0.7580
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	307	9	7	268	0	0	0	0	2	0	15
Total Analysis Volume [veh/h]	0	1227	36	27	1071	0	0	0	0	8	0	58
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.14
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	11.79	0.00	0.00	0.00	0.00	0.00	99.25	0.00	14.72	
Movement LOS		A	A	B	A					F		B	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.57	0.00	0.47	
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	3.81	0.00	0.00	0.00	0.00	0.00	14.14	0.00	11.63	
d_A, Approach Delay [s/veh]	0.00			0.29			0.00			24.96			
Approach LOS	A			A			A			C			
d_I, Intersection Delay [s/veh]	0.81												
Intersection LOS	F												

Intersection Level Of Service Report
Intersection 2: US-395/Three Flags Rd

Control Type:	Signalized	Delay (sec / veh):	14.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.482

Intersection Setup

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
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	0	1	0	1
Entry Pocket Length [ft]	190.00	100.00	190.00	224.00	100.00	224.00	182.00	100.00	100.00	274.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
Base Volume Input [veh/h]	62	1088	108	27	851	95	62	1	95	133	6	25
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	27	0	0	24	0	0	24	0	0	6
Total Hourly Volume [veh/h]	62	1088	81	27	851	71	62	1	71	133	6	19
Peak Hour Factor	0.9790	0.9790	0.9790	0.9230	0.9230	0.9230	0.8040	0.8040	0.8040	0.7130	0.7130	0.7130
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	278	21	7	230	19	19	0	22	47	2	7
Total Analysis Volume [veh/h]	63	1111	83	29	922	77	77	1	88	187	8	27
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	65
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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	21	26	0	9	14	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65
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
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	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
g_i, Effective Green Time [s]	3	35	35	2	33	33	16	16	16	16	16
g / C, Green / Cycle	0.05	0.53	0.53	0.03	0.51	0.51	0.25	0.25	0.25	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.04	0.32	0.05	0.02	0.27	0.05	0.06	0.06	0.14	0.00	0.02
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1395	1533	1329	1800	1530
c, Capacity [veh/h]	90	1822	813	54	1749	781	407	387	336	454	386
d1, Uniform Delay [s]	30.28	10.55	7.54	31.01	10.66	8.21	21.33	19.29	26.09	18.25	18.49
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
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
d2, Incremental Delay [s]	9.31	1.53	0.25	8.09	1.14	0.25	0.22	0.30	1.44	0.02	0.08
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
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
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

Lane Group Results

X, volume / capacity	0.70	0.61	0.10	0.54	0.53	0.10	0.19	0.23	0.56	0.02	0.07
d, Delay for Lane Group [s/veh]	39.59	12.08	7.79	39.10	11.80	8.46	21.55	19.59	27.54	18.26	18.57
Lane Group LOS	D	B	A	D	B	A	C	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.12	4.40	0.48	0.53	3.59	0.48	0.95	1.04	2.77	0.09	0.30
50th-Percentile Queue Length [ft/ln]	27.98	109.91	12.12	13.30	89.83	12.02	23.75	25.91	69.35	2.18	7.51
95th-Percentile Queue Length [veh/ln]	2.01	7.84	0.87	0.96	6.47	0.87	1.71	1.87	4.99	0.16	0.54
95th-Percentile Queue Length [ft/ln]	50.36	195.88	21.82	23.93	161.69	21.64	42.75	46.65	124.82	3.93	13.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.59	12.08	7.79	39.10	11.80	8.46	21.55	19.59	19.59	27.54	18.26	18.57
Movement LOS	D	B	A	D	B	A	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	13.18			12.32			20.50			26.11		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	14.38											
Intersection LOS	B											
Intersection V/C	0.482											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			24.12			0.00			24.12		
I_p,int, Pedestrian LOS Score for Intersection	0.000			3.136			0.000			2.214		
Crosswalk LOS	F			C			F			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	677			308			800			800		
d_b, Bicycle Delay [s]	14.22			23.27			11.70			11.70		
I_b,int, Bicycle LOS Score for Intersection	2.619			2.428			1.873			1.936		
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 3: US-395/Joshua St

Control Type:	Signalized	Delay (sec / veh):	13.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.494

Intersection Setup

Name	US-395			US-395			Joshua St			Joshua 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	1	1	0	0	1	0	1
Entry Pocket Length [ft]	191.00	100.00	226.00	200.00	100.00	223.00	140.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	US-395			US-395			Joshua St			Joshua St		
Base Volume Input [veh/h]	24	1112	101	105	925	21	39	51	7	84	26	137
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	25	0	0	5	0	0	2	0	0	34
Total Hourly Volume [veh/h]	24	1112	76	105	925	16	39	51	5	84	26	103
Peak Hour Factor	0.9210	0.9210	0.9210	0.9020	0.9020	0.9020	0.7780	0.7780	0.7780	0.9060	0.9060	0.9060
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]	7	302	21	29	256	4	13	16	2	23	7	28
Total Analysis Volume [veh/h]	26	1207	83	116	1025	18	50	66	6	93	29	114
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	65
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully 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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	14	23	0	12	21	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65
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
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	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
g_i, Effective Green Time [s]	2	36	36	6	40	40	11	11	11	11	11
g / C, Green / Cycle	0.03	0.56	0.56	0.09	0.62	0.62	0.17	0.17	0.17	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.02	0.35	0.05	0.07	0.30	0.01	0.04	0.04	0.07	0.02	0.07
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1265	1774	1349	1800	1530
c, Capacity [veh/h]	50	1922	858	147	2116	945	266	300	247	304	258
d1, Uniform Delay [s]	31.12	9.69	6.63	29.14	6.79	4.81	26.07	23.40	28.24	22.82	24.26
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
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
d2, Incremental Delay [s]	8.19	1.57	0.22	8.98	0.80	0.04	0.34	0.41	0.95	0.13	1.18
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
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
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

Lane Group Results

X, volume / capacity	0.52	0.63	0.10	0.79	0.48	0.02	0.19	0.24	0.38	0.10	0.44
d, Delay for Lane Group [s/veh]	39.31	11.25	6.86	38.12	7.58	4.85	26.41	23.81	29.19	22.96	25.44
Lane Group LOS	D	B	A	D	A	A	C	C	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.48	4.50	0.44	1.98	2.69	0.07	0.66	0.89	1.33	0.35	1.49
50th-Percentile Queue Length [ft/ln]	12.06	112.47	10.95	49.45	67.18	1.77	16.59	22.30	33.25	8.71	37.32
95th-Percentile Queue Length [veh/ln]	0.87	7.98	0.79	3.56	4.84	0.13	1.19	1.61	2.39	0.63	2.69
95th-Percentile Queue Length [ft/ln]	21.70	199.44	19.71	89.00	120.92	3.19	29.87	40.13	59.84	15.67	67.17

Movement, Approach, & Intersection Results

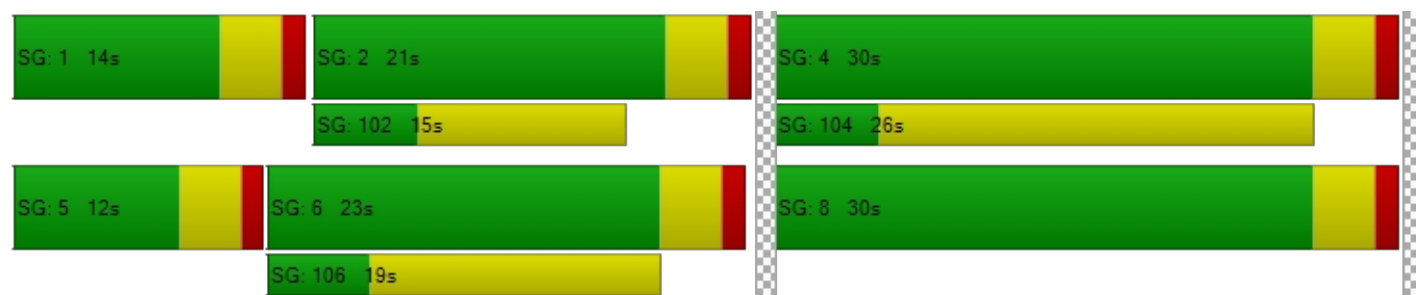
d_M, Delay for Movement [s/veh]	39.31	11.25	6.86	38.12	7.58	4.85	26.41	23.81	23.81	29.19	22.96	25.44
Movement LOS	D	B	A	D	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	11.53			10.60			24.88			26.61		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	12.98											
Intersection LOS	B											
Intersection V/C	0.494											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			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]	0.00			24.13			24.13			24.13		
I_p,int, Pedestrian LOS Score for Intersection	0.000			3.142			2.026			2.369		
Crosswalk LOS	F			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	585			523			800			800		
d_b, Bicycle Delay [s]	16.28			17.73			11.70			11.70		
I_b,int, Bicycle LOS Score for Intersection	2.666			2.520			1.764			2.005		
Bicycle LOS	B			B			A			B		

Sequence

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



Intersection Level Of Service Report

Intersection 4: Main St/Mesa Linda St

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	4.071

Intersection Setup

Name	Mesa Linda St			Mesa Linda St			Main St			Main 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	0	0	1	0	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	340.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	2	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Mesa Linda St			Mesa Linda St			Main St			Main St		
Base Volume Input [veh/h]	14	5	115	32	3	7	14	804	13	55	948	50
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	29	0	0	2	0	0	3	0	0	13
Total Hourly Volume [veh/h]	14	5	86	32	3	5	14	804	10	55	948	37
Peak Hour Factor	0.8450	0.8450	0.8450	0.8400	0.8400	0.8400	0.9320	0.9320	0.9320	0.9310	0.9310	0.9310
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	1	25	10	1	1	4	216	3	15	255	10
Total Analysis Volume [veh/h]	17	6	102	38	4	6	15	863	11	59	1018	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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	39	0	0	39	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	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	27	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	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	C	R	C	R	L	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
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]	2.00	0.00	2.00	0.00	2.00	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	2.00
g_i, Effective Green Time [s]	35	35	35	35	17	17	17	17	17	17
g / C, Green / Cycle	0.58	0.58	0.58	0.58	0.28	0.28	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.63	0.07	3.86	0.00	0.03	0.17	0.17	0.09	0.21	0.03
s, saturation flow rate [veh/h]	36	1530	11	1530	542	3427	1788	644	4903	1530
c, Capacity [veh/h]	126	893	121	893	154	971	507	188	1389	434
d1, Uniform Delay [s]	15.08	5.58	24.75	5.23	27.13	18.51	18.51	26.42	19.45	15.82
k, delay calibration	0.50	0.50	0.50	0.50	0.50	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	1.00
d2, Incremental Delay [s]	3.19	0.26	7.77	0.01	1.26	2.64	5.01	4.32	3.45	0.42
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	0.18	0.11	0.35	0.01	0.10	0.59	0.59	0.31	0.73	0.09
d, Delay for Lane Group [s/veh]	18.26	5.84	32.52	5.24	28.40	21.15	23.53	30.73	22.90	16.24
Lane Group LOS	B	A	C	A	C	C	C	C	C	B
Critical Lane Group	No	No	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.33	0.51	0.84	0.03	0.24	3.17	3.64	0.95	3.94	0.39
50th-Percentile Queue Length [ft/ln]	8.26	12.71	20.98	0.70	5.91	79.18	91.07	23.68	98.38	9.64
95th-Percentile Queue Length [veh/ln]	0.59	0.91	1.51	0.05	0.43	5.70	6.56	1.71	7.08	0.69
95th-Percentile Queue Length [ft/ln]	14.86	22.87	37.76	1.25	10.64	142.53	163.92	42.63	177.08	17.35

Movement, Approach, & Intersection Results

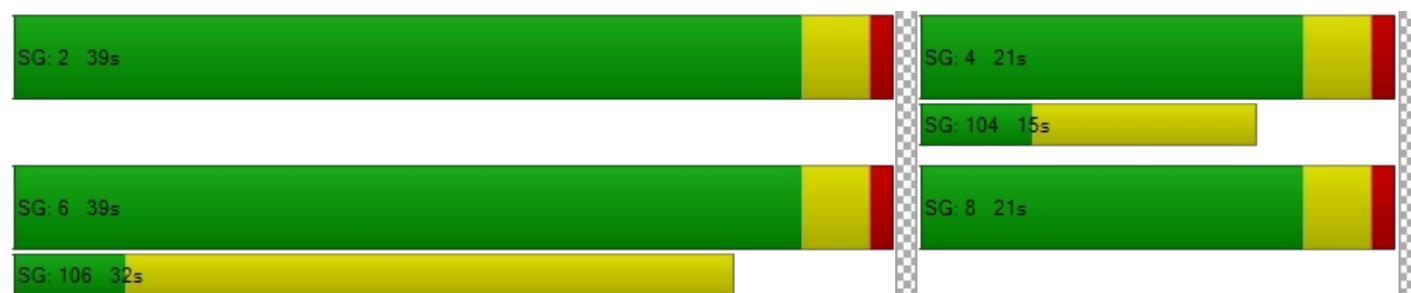
d_M, Delay for Movement [s/veh]	18.26	18.26	5.84	32.52	32.52	5.24	28.40	21.95	23.53	30.73	22.90	16.24
Movement LOS	B	B	A	C	C	A	C	C	C	C	C	B
d_A, Approach Delay [s/veh]	8.13			29.11			22.08			23.07		
Approach LOS	A			C			C			C		
d_I, Intersection Delay [s/veh]	21.94											
Intersection LOS	C											
Intersection V/C	4.071											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			21.68			0.00			21.68		
I_p,int, Pedestrian LOS Score for Intersection	0.000			1.985			0.000			3.218		
Crosswalk LOS	F			A			F			C		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	1167			1167			567			567		
d_b, Bicycle Delay [s]	5.21			5.21			15.41			15.41		
I_b,int, Bicycle LOS Score for Intersection	1.814			1.642			2.050			2.181		
Bicycle LOS	A			A			B			B		

Sequence

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



Intersection Level Of Service Report

Intersection 5: Main St/Key Pointe Ave

Control Type:	Signalized	Delay (sec / veh):	31.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.624

Intersection Setup

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main 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	1	1	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	140.00	100.00	100.00	200.00	100.00	200.00	200.00	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main St		
Base Volume Input [veh/h]	31	57	241	237	84	15	46	969	18	294	1112	195
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	60	0	0	4	0	0	5	0	0	49
Total Hourly Volume [veh/h]	31	57	181	237	84	11	46	969	13	294	1112	146
Peak Hour Factor	0.8480	0.8480	0.8480	0.9320	0.9320	0.9320	0.9350	0.9350	0.9350	0.9270	0.9270	0.9270
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	17	53	64	23	3	12	259	3	79	300	39
Total Analysis Volume [veh/h]	37	67	213	254	90	12	49	1036	14	317	1200	157
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
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	36	0	0	36	0	14	27	0	27	40	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	24	0	0	27	0	0	14	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	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	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
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	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	2.00	2.00
g_i, Effective Green Time [s]	32	32	32	32	32	10	23	23	23	36	36
g / C, Green / Cycle	0.36	0.36	0.36	0.36	0.36	0.11	0.26	0.26	0.26	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.14	0.23	0.06	0.03	0.21	0.01	0.18	0.26	0.27
s, saturation flow rate [veh/h]	1313	1800	1530	1117	1763	1714	4903	1530	1714	3427	1695
c, Capacity [veh/h]	466	640	544	424	627	190	1253	391	438	1371	678
d1, Uniform Delay [s]	23.10	19.41	21.71	27.86	19.84	36.60	31.62	25.17	30.60	22.03	22.04
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	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	1.00	1.00
d2, Incremental Delay [s]	0.33	0.33	2.11	6.12	0.56	3.24	6.34	0.17	9.96	2.53	5.05
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
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
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

Lane Group Results

X, volume / capacity	0.08	0.10	0.39	0.60	0.16	0.26	0.83	0.04	0.72	0.66	0.66
d, Delay for Lane Group [s/veh]	23.43	19.74	23.82	33.98	20.39	39.84	37.96	25.34	40.56	24.56	27.09
Lane Group LOS	C	B	C	C	C	D	D	C	D	C	C
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.61	0.98	3.59	5.46	1.53	1.10	7.22	0.23	6.97	7.40	7.81
50th-Percentile Queue Length [ft/ln]	15.14	24.47	89.81	136.43	38.22	27.53	180.60	5.70	174.37	184.96	195.16
95th-Percentile Queue Length [veh/ln]	1.09	1.76	6.47	9.29	2.75	1.98	11.63	0.41	11.31	11.86	12.39
95th-Percentile Queue Length [ft/ln]	27.25	44.05	161.65	232.21	68.80	49.55	290.79	10.26	282.66	296.47	309.72

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.43	19.74	23.82	33.98	20.39	20.39	39.84	37.96	25.34	40.56	25.18	27.09
Movement LOS	C	B	C	C	C	C	D	D	C	D	C	C
d_A, Approach Delay [s/veh]	22.91			30.08			37.88			28.27		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	31.03											
Intersection LOS	C											
Intersection V/C	0.624											

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	2.414			2.169			3.265			3.789		
Crosswalk LOS	B			B			C			D		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	711			711			511			800		
d_b, Bicycle Delay [s]	18.69			18.69			24.94			16.20		
I_b,int, Bicycle LOS Score for Intersection	2.182			2.154			2.167			2.507		
Bicycle LOS	B			B			B			B		

Sequence

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



Intersection Level Of Service Report

Intersection 6: Main St/I-15 SB Off Ramp

Control Type:	Signalized	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.462

Intersection Setup

Name	I-15 SB Off Ramp		Main St		Main St	
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	1	1	0	0	0	0
Entry Pocket Length [ft]	1100.00	530.00	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]	40.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-15 SB Off Ramp		Main St		Main St	
Base Volume Input [veh/h]	443	350	0	1273	1255	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0400	1.0000	1.0000	1.0400
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
Right Turn on Red Volume [veh/h]	0	88	0	0	0	0
Total Hourly Volume [veh/h]	443	262	0	1273	1255	0
Peak Hour Factor	0.9110	0.9110	1.0000	0.9500	0.9340	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	122	72	0	335	336	0
Total Analysis Volume [veh/h]	486	288	0	1340	1344	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
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	Split	Split	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	0	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	0	10	10	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	37	0	0	23	23	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Delayed Vehicle Green [s]	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	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	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
I, Upstream Filtering Factor	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	R	C	C
C, Cycle Length [s]	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	37	37
g / C, Green / Cycle	0.25	0.25	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.15	0.19	0.27	0.27
s, saturation flow rate [veh/h]	3329	1530	4903	4903
c, Capacity [veh/h]	825	379	3035	3035
d1, Uniform Delay [s]	19.88	20.91	6.00	6.00
k, delay calibration	0.11	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.67	3.15	0.47	0.47
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.59	0.76	0.44	0.44
d, Delay for Lane Group [s/veh]	20.55	24.06	6.46	6.47
Lane Group LOS	C	C	A	A
Critical Lane Group	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	2.70	3.61	1.69	1.70
50th-Percentile Queue Length [ft/ln]	67.56	90.13	42.20	42.38
95th-Percentile Queue Length [veh/ln]	4.86	6.49	3.04	3.05
95th-Percentile Queue Length [ft/ln]	121.60	162.23	75.97	76.29

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	20.55	24.06	0.00	6.46	6.47	0.00
Movement LOS	C	C		A	A	
d_A, Approach Delay [s/veh]	21.86		6.46		6.47	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	9.91					
Intersection LOS	A					
Intersection V/C	0.462					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1100	633	633
d_b, Bicycle Delay [s]	6.08	14.01	14.01
I_b,int, Bicycle LOS Score for Intersection	1.560	2.297	2.299
Bicycle LOS	A	B	B

Sequence

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



Intersection Level Of Service Report

Intersection 7: Main St/I-15 NB Ramps

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.504

Intersection Setup

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main 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	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	1790.0	100.00	615.00	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]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main St		
Base Volume Input [veh/h]	190	4	773	0	0	0	0	1449	0	0	1531	404
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400	1.0400	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	193	0	0	0	0	0	0	0	0	101
Total Hourly Volume [veh/h]	190	4	580	0	0	0	0	1449	0	0	1531	303
Peak Hour Factor	0.9480	0.9480	0.9480	1.0000	1.0000	1.0000	1.0000	0.9760	1.0000	1.0000	0.9690	0.9690
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]	50	1	153	0	0	0	0	371	0	0	395	78
Total Analysis Volume [veh/h]	200	4	612	0	0	0	0	1485	0	0	1580	313
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	60
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	Split	Split	Split	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	14	0	0	0	0	0	46	0	0	46	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	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	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		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		C	C	C
C, Cycle Length [s]	60	60	60		60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	27		25	25	25
g / C, Green / Cycle	0.45	0.45	0.45		0.42	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.12	0.20	0.20		0.30	0.29	0.29
s, saturation flow rate [veh/h]	1714	1533	1530		4903	4903	1612
c, Capacity [veh/h]	769	688	686		2050	2050	674
d1, Uniform Delay [s]	10.33	11.42	11.42		14.57	14.30	14.38
k, delay calibration	0.50	0.50	0.50		0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	0.82	2.11	2.12		0.50	0.43	1.35
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.26	0.45	0.45		0.72	0.69	0.70
d, Delay for Lane Group [s/veh]	11.15	13.53	13.54		15.07	14.72	15.73
Lane Group LOS	B	B	B		B	B	B
Critical Lane Group	No	No	Yes		Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.50	2.66	2.66		4.29	4.02	4.21
50th-Percentile Queue Length [ft/ln]	37.46	66.42	66.38		107.34	100.52	105.36
95th-Percentile Queue Length [veh/ln]	2.70	4.78	4.78		7.69	7.24	7.58
95th-Percentile Queue Length [ft/ln]	67.43	119.56	119.49		192.30	180.93	189.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	11.15	13.53	13.53	0.00	0.00	0.00	0.00	15.07	0.00	0.00	14.82	15.73
Movement LOS	B	B	B					B			B	B
d_A, Approach Delay [s/veh]	12.95			0.00			15.07			14.97		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	14.61											
Intersection LOS	B											
Intersection V/C	0.504											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	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]	21.68	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.714	1.812	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	333	0	1400	1400
d_b, Bicycle Delay [s]	20.83	30.00	2.70	2.70
I_b,int, Bicycle LOS Score for Intersection	3.224	4.132	2.376	2.382
Bicycle LOS	C	D	B	B

Sequence

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



Intersection Level Of Service Report

Intersection 8: Three Flags Ave-Lassen St/Poplar St

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):	0.054

Intersection Setup

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda 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	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda St		
Base Volume Input [veh/h]	31	0	80	0	0	0	2	47	10	24	25	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	31	0	80	0	0	0	2	47	10	24	25	0
Peak Hour Factor	0.7750	0.7750	0.7750	1.0000	1.0000	1.0000	0.6500	0.6500	0.6500	0.6130	0.6130	0.6130
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	0	26	0	0	0	1	18	4	10	10	0
Total Analysis Volume [veh/h]	40	0	103	0	0	0	3	72	15	39	41	0
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	0.05	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
d_M, Delay for Movement [s/veh]	10.60	11.07	9.40	10.86	10.38	8.48	7.28	0.00	0.00	7.43	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.56	0.56	0.56	0.00	0.00	0.00	0.01	0.01	0.01	0.08	0.08	0.08
95th-Percentile Queue Length [ft/ln]	14.03	14.03	14.03	0.00	0.00	0.00	0.14	0.14	0.14	1.97	1.97	1.97
d_A, Approach Delay [s/veh]	9.74			9.90			0.24			3.62		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.44											
Intersection LOS	B											

Intersection Level Of Service Report

Intersection 9: Mesa Linda St/Sultana Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 0.0
 Level Of Service: A
 Volume to Capacity (v/c): 0.002

Intersection Setup

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
Base Volume Input [veh/h]	0	124	1	0	48	0	0	0	0	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	124	1	0	48	0	0	0	0	0	0	0
Peak Hour Factor	0.8220	0.8220	0.8220	0.6320	0.6320	0.6320	1.0000	1.0000	1.0000	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	38	0	0	19	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	151	1	0	76	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.34	0.00	0.00	0.00	0.00	0.00	9.91	0.00	8.63	0.00	0.00	0.00
Movement LOS	A	A			A	A	A		A			
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			9.27			0.00		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.00											
Intersection LOS	A											

Intersection Level Of Service Report

Intersection 10: Joshua Rd/Outpost Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.1
 Level Of Service: B
 Volume to Capacity (v/c): 0.099

Intersection Setup

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua 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	0	0	0	1	0	1	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]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua St		
Base Volume Input [veh/h]	0	0	0	58	0	105	0	168	0	0	96	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0400	1.0000	1.0400	1.0400	1.0000	1.0400
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]	0	0	0	58	0	105	0	168	0	0	96	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.8930	0.8930	0.8930	1.0000	0.8610	1.0000	1.0000	0.8930	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	0	0	16	0	29	0	49	0	0	27	0
Total Analysis Volume [veh/h]	0	0	0	65	0	118	0	195	0	0	108	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	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	0.00	0.10	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.88	10.87	9.23	11.12	10.87	9.32	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	B	B	A	B	B	A		A			A	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.33	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	8.25	0.00	10.58	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.66			9.96			0.00			0.00		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	3.75											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 11: Joshua St/I-15 SB Off-Ramp

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):	0.040

Intersection Setup

Name	Joshua St		Joshua St		Joshua St	
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	1	0	0	0	0
Entry Pocket Length [ft]	100.00	1500.00	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]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Joshua St		Joshua St		Joshua St	
Base Volume Input [veh/h]	21	188	0	183	63	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0400	1.0000	1.0000	1.0400
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]	21	188	0	183	63	0
Peak Hour Factor	0.7240	0.7240	1.0000	0.9630	0.8290	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	65	0	48	19	0
Total Analysis Volume [veh/h]	29	260	0	190	76	0
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	0.04	0.26	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.15	9.92	0.00	0.00	0.00	0.00
Movement LOS	B	A		A	A	
95th-Percentile Queue Length [veh/ln]	0.12	1.06	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.11	26.38	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.94		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.18					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 12: Joshua St/I-15 NB On-Ramp

Control Type:	Two-way stop	Delay (sec / veh):	7.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.088

Intersection Setup

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
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	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
Base Volume Input [veh/h]	0	0	123	84	71	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	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	0	123	84	71	5
Peak Hour Factor	1.0000	1.0000	0.9120	0.9120	0.9050	0.9050
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	34	23	20	1
Total Analysis Volume [veh/h]	0	0	135	92	78	6
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			
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.09	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.59	0.00	0.00	0.00
Movement LOS			A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.29	0.29	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	7.27	7.27	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		4.51		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.29					
Intersection LOS	A					

Mesa Linda Street Warehouse

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Scenario 2 Existing PM

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1/30/2023

Turning Movement Volume: Summary

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
1	US-395/Poplar St	1157	34	25	976	6	44	2242

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	US-395/Three Flags Rd	62	1088	108	27	851	95	62	1	95	133	6	25	2553

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	US-395/Joshua St	24	1112	101	105	925	21	39	51	7	84	26	137	2632

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	Main St/Mesa Linda St	14	5	115	32	3	7	14	804	13	55	948	50	2060

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	Main St/Key Pointe Ave	31	57	241	237	84	15	46	969	18	294	1112	195	3299

ID	Intersection Name	Southbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Thru	Thru	Thru	
6	Main St/I-15 SB Off Ramp	443	350	1273		1255		3321

ID	Intersection Name	Northbound			Eastbound		Westbound		Total Volume
		Left	Thru	Right	Thru	Thru	Thru	Right	
7	Main St/I-15 NB Ramps	190	4	773	1449	1531		404	4351

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
8	Three Flags Ave-Lassen St/Poplar St	31	0	80	0	0	0	2	47	10	24	25	0	219

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
9	Mesa Linda St/Sultana Rd	0	124	48	0	0	0	172

ID	Intersection Name	Northbound			Southbound			Eastbound	Westbound	Total Volume
		Left	Thru	Right	Left	Thru	Right	Thru	Thru	
10	Joshua Rd/Outpost Rd	0	0	0	58	0	105	168	96	427

ID	Intersection Name	Southbound		Eastbound	Westbound	Total Volume
		Left	Right	Thru	Thru	
11	Joshua St/I-15 SB Off-Ramp	21	188	183	63	455

ID	Intersection Name	Eastbound		Westbound		Total Volume
		Left	Thru	Thru	Right	
12	Joshua St/I-15 NB On-Ramp	123	84	71	5	283

Mesa Linda Street Warehouse

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Scenario 9 Existing Plus Project AM

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1/30/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	US-395/Poplar St	Two-way stop	HCM 6th Edition	WB Left	0.393	77.6	F
2	US-395/Three Flags Rd	Signalized	HCM 6th Edition	SB Left	0.465	14.6	B
3	US-395/Joshua St	Signalized	HCM 6th Edition	NB Left	0.406	12.0	B
4	Main St/Mesa Linda St	Signalized	HCM 6th Edition	SB Left	332.993	22.7	C
5	Main St/Key Pointe Ave	Signalized	HCM 6th Edition	WB Left	0.462	27.9	C
6	Main St/I-15 SB Off Ramp	Signalized	HCM 6th Edition	SB Right	0.322	7.9	A
7	Main St/I-15 NB Ramps	Signalized	HCM 6th Edition	WB Right	0.362	15.9	B
8	Three Flags Ave-Lassen St/Poplar St	Two-way stop	HCM 6th Edition	NB Left	0.036	12.0	B
9	Mesa Linda St/Sultana Rd	Two-way stop	HCM 6th Edition	EB Left	0.001	9.8	A
10	Joshua Rd/Outpost Rd	Two-way stop	HCM 6th Edition	SB Left	0.082	10.7	B
11	Joshua St/I-15 SB Off-Ramp	Two-way stop	HCM 6th Edition	SB Left	0.119	10.3	B
12	Joshua St/I-15 NB On-Ramp	Two-way stop	HCM 6th Edition	EB Left	0.081	7.5	A
13	Lassen St/North Dwy	Two-way stop	HCM 6th Edition	WB Left	0.003	8.6	A
14	Lassen St/South Dwy	Two-way stop	HCM 6th Edition	WB Left	0.003	8.6	A
15	Mesa Linda St/North Dwy	Two-way stop	HCM 6th Edition	EB Left	0.001	8.5	A
16	Mesa Linda St/South Dwy	Two-way stop	HCM 6th Edition	EB Left	0.001	8.6	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: US-395/Poplar St**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 77.6
 Level Of Service: F
 Volume to Capacity (v/c): 0.393

Intersection Setup

Name	US-395			US-395						Poplar 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	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	373.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	510.00
No. of Lanes in Exit Pocket	0	0	0	0	0	2	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	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		
Crosswalk	No			No			Yes			No		

Volumes

Name	US-395			US-395						Poplar St		
Base Volume Input [veh/h]	0	815	18	28	982	0	0	0	0	8	0	3
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	25	6	0	0	0	0	0	6	0	3
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	815	43	34	982	0	0	0	0	14	0	6
Peak Hour Factor	0.9240	0.9240	0.9240	0.9080	0.9080	0.9080	1.0000	1.0000	1.0000	0.4580	0.4580	0.4580
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	221	12	9	270	0	0	0	0	8	0	3
Total Analysis Volume [veh/h]	0	882	47	37	1081	0	0	0	0	31	0	13
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	10.09	0.00	0.00	0.00	0.00	0.00	0.00	77.56	0.00	11.70
Movement LOS		A	A	B	A						F		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	1.54	0.00	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	3.92	0.00	0.00	0.00	0.00	0.00	0.00	38.61	0.00	1.81
d_A, Approach Delay [s/veh]	0.00			0.33			0.00			58.10			
Approach LOS	A			A			A			F			
d_I, Intersection Delay [s/veh]	1.40												
Intersection LOS	F												

Intersection Level Of Service Report

Intersection 2: US-395/Three Flags Rd

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.465

Intersection Setup

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
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	0	1	0	1
Entry Pocket Length [ft]	190.00	100.00	190.00	224.00	100.00	224.00	182.00	100.00	100.00	274.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
Base Volume Input [veh/h]	39	758	106	32	858	77	30	3	89	188	4	33
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	25	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
Right Turn on Red Volume [veh/h]	0	0	27	0	0	19	0	0	22	0	0	8
Total Hourly Volume [veh/h]	39	783	79	32	864	58	30	3	67	188	4	25
Peak Hour Factor	0.9280	0.9280	0.9280	0.9330	0.9330	0.9330	0.7960	0.7960	0.7960	0.8300	0.8300	0.8300
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]	11	211	21	9	232	16	9	1	21	57	1	8
Total Analysis Volume [veh/h]	42	844	85	34	926	62	38	4	84	227	5	30
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	65
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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	9	23	0	12	26	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65
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
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	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
g_i, Effective Green Time [s]	3	32	32	2	32	32	18	18	18	18	18
g / C, Green / Cycle	0.04	0.50	0.50	0.04	0.49	0.49	0.28	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.02	0.25	0.06	0.02	0.27	0.04	0.03	0.06	0.17	0.00	0.02
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1395	1541	1330	1800	1530
c, Capacity [veh/h]	70	1716	766	61	1697	758	444	430	373	502	427
d1, Uniform Delay [s]	30.64	10.75	8.58	30.84	11.35	8.63	19.34	17.91	25.28	16.94	17.23
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
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
d2, Incremental Delay [s]	7.86	1.01	0.29	7.70	1.27	0.21	0.08	0.23	1.61	0.01	0.07
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
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
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

Lane Group Results

X, volume / capacity	0.60	0.49	0.11	0.56	0.55	0.08	0.09	0.20	0.61	0.01	0.07
d, Delay for Lane Group [s/veh]	38.49	11.76	8.87	38.53	12.61	8.84	19.42	18.14	26.89	16.94	17.30
Lane Group LOS	D	B	A	D	B	A	B	B	C	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.75	3.31	0.56	0.61	3.83	0.40	0.43	0.97	3.34	0.05	0.32
50th-Percentile Queue Length [ft/ln]	18.64	82.65	13.88	15.28	95.86	10.12	10.83	24.27	83.48	1.29	7.93
95th-Percentile Queue Length [veh/ln]	1.34	5.95	1.00	1.10	6.90	0.73	0.78	1.75	6.01	0.09	0.57
95th-Percentile Queue Length [ft/ln]	33.55	148.77	24.98	27.50	172.55	18.21	19.49	43.69	150.27	2.33	14.28

Movement, Approach, & Intersection Results

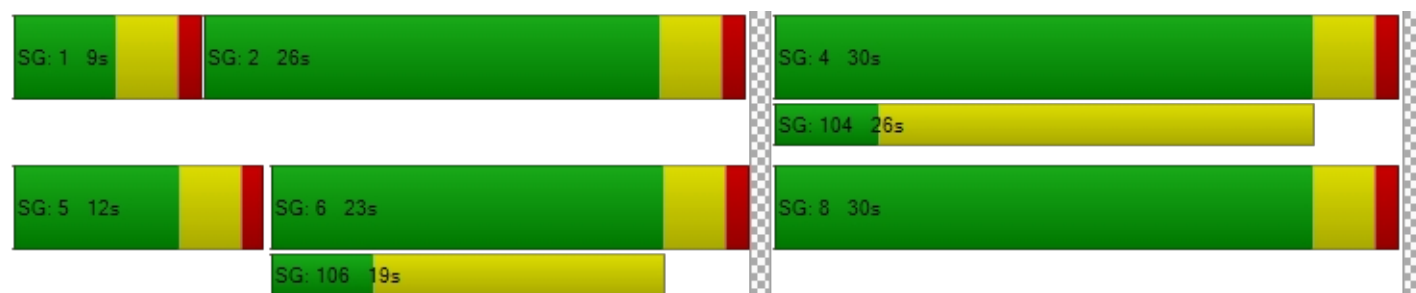
d_M, Delay for Movement [s/veh]	38.49	11.76	8.87	38.53	12.61	8.84	19.42	18.14	18.14	26.89	16.94	17.30
Movement LOS	D	B	A	D	B	A	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	12.67			13.25			18.53			25.60		
Approach LOS	B			B			B			C		
d_I, Intersection Delay [s/veh]	14.65											
Intersection LOS	B											
Intersection V/C	0.465											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			24.12			0.00			24.12		
I_p,int, Pedestrian LOS Score for Intersection	0.000			2.997			0.000			2.230		
Crosswalk LOS	F			C			F			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	585			677			800			800		
d_b, Bicycle Delay [s]	16.28			14.22			11.70			11.70		
I_b,int, Bicycle LOS Score for Intersection	2.383			2.418			1.804			2.005		
Bicycle LOS	B			B			A			B		

Sequence

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



Intersection Level Of Service Report
Intersection 3: US-395/Joshua St

Control Type: Signalized
Analysis Method: HCM 6th Edition
Analysis Period: 15 minutes

Delay (sec / veh): 12.0
Level Of Service: B
Volume to Capacity (v/c): 0.406

Intersection Setup

Name	US-395			US-395			Joshua St			Joshua 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	1	1	0	0	1	0	1
Entry Pocket Length [ft]	191.00	100.00	226.00	200.00	100.00	223.00	140.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	US-395			US-395			Joshua St			Joshua St		
Base Volume Input [veh/h]	9	764	48	127	904	102	16	24	9	96	55	121
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	15	0	2	4	0	0	0	0	0	0	10
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	12	0	0	26	0	0	2	0	0	33
Total Hourly Volume [veh/h]	9	779	36	129	908	76	16	24	7	96	55	98
Peak Hour Factor	0.9120	0.9120	0.9120	0.8980	0.8980	0.8980	0.6740	0.6740	0.6740	0.9610	0.9610	0.9610
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]	2	214	10	36	253	21	6	9	3	25	14	25
Total Analysis Volume [veh/h]	10	854	39	144	1011	85	24	36	10	100	57	102
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	65
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully 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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	9	23	0	12	26	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65
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
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	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
g_i, Effective Green Time [s]	1	36	36	7	42	42	10	10	10	10	10
g / C, Green / Cycle	0.01	0.55	0.55	0.10	0.64	0.64	0.16	0.16	0.16	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.01	0.25	0.03	0.08	0.29	0.06	0.02	0.03	0.07	0.03	0.07
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1247	1733	1381	1800	1530
c, Capacity [veh/h]	22	1888	843	180	2204	984	235	277	255	287	244
d1, Uniform Delay [s]	31.86	8.73	6.73	28.43	5.88	4.39	26.85	23.59	28.09	23.72	24.60
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
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
d2, Incremental Delay [s]	13.60	0.78	0.10	7.95	0.69	0.17	0.19	0.28	0.98	0.34	1.14
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
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
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

Lane Group Results

X, volume / capacity	0.45	0.45	0.05	0.80	0.46	0.09	0.10	0.17	0.39	0.20	0.42
d, Delay for Lane Group [s/veh]	45.45	9.52	6.83	36.37	6.57	4.56	27.03	23.87	29.07	24.05	25.74
Lane Group LOS	D	A	A	D	A	A	C	C	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.23	2.80	0.21	2.38	2.29	0.31	0.32	0.57	1.43	0.71	1.34
50th-Percentile Queue Length [ft/ln]	5.68	70.04	5.17	59.45	57.31	7.71	8.05	14.23	35.64	17.73	33.60
95th-Percentile Queue Length [veh/ln]	0.41	5.04	0.37	4.28	4.13	0.56	0.58	1.02	2.57	1.28	2.42
95th-Percentile Queue Length [ft/ln]	10.23	126.07	9.31	107.00	103.16	13.88	14.50	25.62	64.15	31.91	60.48

Movement, Approach, & Intersection Results

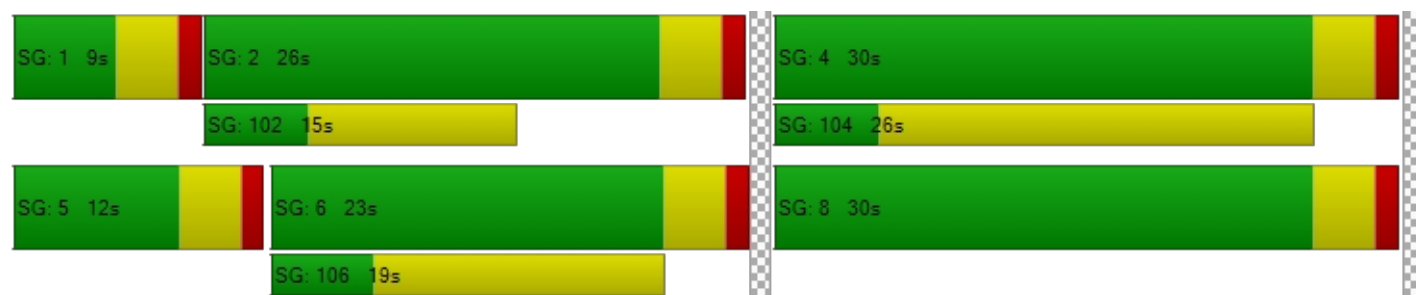
d_M, Delay for Movement [s/veh]	45.45	9.52	6.83	36.37	6.57	4.56	27.03	23.87	23.87	29.07	24.05	25.74
Movement LOS	D	A	A	D	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	9.80			9.89			24.96			26.66		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	12.04											
Intersection LOS	B											
Intersection V/C	0.406											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			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]	0.00			24.13			24.13			24.13		
I_p,int, Pedestrian LOS Score for Intersection	0.000			3.064			2.050			2.354		
Crosswalk LOS	F			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	585			677			800			800		
d_b, Bicycle Delay [s]	16.28			14.23			11.70			11.70		
I_b,int, Bicycle LOS Score for Intersection	2.314			2.604			1.678			2.041		
Bicycle LOS	B			B			A			B		

Sequence

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



Intersection Level Of Service Report

Intersection 4: Main St/Mesa Linda St

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 22.7
 Level Of Service: C
 Volume to Capacity (v/c): 332.993

Intersection Setup

Name	Mesa Linda St			Mesa Linda St			Main St			Main 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	0	0	1	0	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	340.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	2	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Mesa Linda St			Mesa Linda St			Main St			Main St		
Base Volume Input [veh/h]	1	0	28	46	1	16	14	918	7	75	593	17
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	1	0	2	0	0	0	0	0	1	6	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	8	0	0	4	0	0	2	0	0	4
Total Hourly Volume [veh/h]	2	0	22	46	1	12	14	918	6	81	593	13
Peak Hour Factor	0.5940	0.5940	0.5940	0.8290	0.8290	0.8290	0.9620	0.9620	0.9620	0.8380	0.8380	0.8380
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]	1	0	9	14	0	4	4	239	2	24	177	4
Total Analysis Volume [veh/h]	3	0	37	55	1	14	15	954	6	97	708	16
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	39	0	0	39	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	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	27	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	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	C	R	C	R	L	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
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]	2.00	0.00	2.00	0.00	2.00	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	2.00
g_i, Effective Green Time [s]	35	35	35	35	17	17	17	17	17	17
g / C, Green / Cycle	0.58	0.58	0.58	0.58	0.28	0.28	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	332.81	0.02	29.72	0.01	0.02	0.18	0.18	0.16	0.14	0.01
s, saturation flow rate [veh/h]	0	1530	2	1530	741	3427	1794	594	4903	1530
c, Capacity [veh/h]	120	893	120	893	216	971	508	173	1389	434
d1, Uniform Delay [s]	30.00	5.34	29.32	5.26	23.23	18.88	18.88	28.56	18.01	15.57
k, delay calibration	0.50	0.50	0.50	0.50	0.50	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	1.00
d2, Incremental Delay [s]	0.38	0.09	12.47	0.03	0.62	3.35	6.30	12.58	1.34	0.16
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	0.02	0.04	0.47	0.02	0.07	0.65	0.65	0.56	0.51	0.04
d, Delay for Lane Group [s/veh]	30.38	5.42	41.79	5.29	23.85	22.23	25.18	41.14	19.35	15.73
Lane Group LOS	C	A	D	A	C	C	C	D	B	B
Critical Lane Group	Yes	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.05	0.18	1.19	0.07	0.20	3.60	4.19	1.85	2.42	0.15
50th-Percentile Queue Length [ft/ln]	1.35	4.39	29.69	1.63	5.04	89.97	104.63	46.30	60.52	3.77
95th-Percentile Queue Length [veh/ln]	0.10	0.32	2.14	0.12	0.36	6.48	7.53	3.33	4.36	0.27
95th-Percentile Queue Length [ft/ln]	2.44	7.90	53.44	2.94	9.07	161.94	188.33	83.33	108.93	6.79

Movement, Approach, & Intersection Results

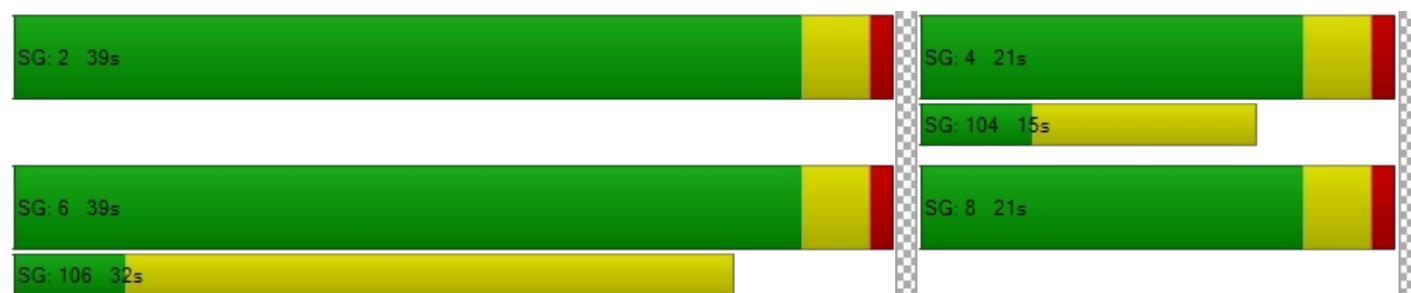
d_M, Delay for Movement [s/veh]	30.38	30.38	5.42	41.79	41.79	5.29	23.85	23.23	25.18	41.14	19.35	15.73
Movement LOS	C	C	A	D	D	A	C	C	C	D	B	B
d_A, Approach Delay [s/veh]	7.30			34.49			23.25			21.85		
Approach LOS	A			C			C			C		
d_I, Intersection Delay [s/veh]	22.73											
Intersection LOS	C											
Intersection V/C	332.993											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			21.68			0.00			21.68		
I_p,int, Pedestrian LOS Score for Intersection	0.000			1.983			0.000			3.172		
Crosswalk LOS	F			A			F			C		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	1167			1167			567			567		
d_b, Bicycle Delay [s]	5.21			5.21			15.41			15.41		
I_b,int, Bicycle LOS Score for Intersection	1.639			1.682			2.097			2.013		
Bicycle LOS	A			A			B			B		

Sequence

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



Intersection Level Of Service Report Intersection 5: Main St/Key Pointe Ave

Control Type:	Signalized	Delay (sec / veh):	27.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.462

Intersection Setup

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main 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	1	1	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	140.00	100.00	100.00	200.00	100.00	200.00	200.00	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main St		
Base Volume Input [veh/h]	4	12	97	137	26	11	30	927	8	193	607	134
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	2	0	0	6	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	24	0	0	3	0	0	2	0	0	34
Total Hourly Volume [veh/h]	4	12	73	137	26	8	30	929	6	193	613	100
Peak Hour Factor	0.8190	0.8190	0.8190	0.8180	0.8180	0.8180	0.9330	0.9330	0.9330	0.8560	0.8560	0.8560
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]	1	4	22	42	8	2	8	249	2	56	179	29
Total Analysis Volume [veh/h]	5	15	89	167	32	10	32	996	6	225	716	117
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	75
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
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	36	0	0	36	0	9	23	0	16	30	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	24	0	0	27	0	0	14	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	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75	75
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
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	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	2.00	2.00
g_i, Effective Green Time [s]	32	32	32	32	32	5	19	19	12	26	26
g / C, Green / Cycle	0.43	0.43	0.43	0.43	0.43	0.07	0.25	0.25	0.16	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.06	0.13	0.02	0.02	0.20	0.00	0.13	0.16	0.16
s, saturation flow rate [veh/h]	1386	1800	1530	1311	1727	1714	4903	1530	1714	3427	1674
c, Capacity [veh/h]	631	768	653	614	737	114	1242	388	274	1188	580
d1, Uniform Delay [s]	14.20	12.43	13.09	15.72	12.63	33.29	26.24	20.99	30.46	19.12	19.14
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	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	1.00	1.00
d2, Incremental Delay [s]	0.02	0.05	0.43	1.09	0.15	6.01	5.52	0.07	23.27	1.34	2.75
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
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
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

Lane Group Results

X, volume / capacity	0.01	0.02	0.14	0.27	0.06	0.28	0.80	0.02	0.82	0.47	0.47
d, Delay for Lane Group [s/veh]	14.22	12.48	13.52	16.81	12.78	39.30	31.76	21.06	53.72	20.46	21.89
Lane Group LOS	B	B	B	B	B	D	C	C	D	C	C
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.05	0.15	0.94	2.05	0.42	0.70	5.54	0.08	5.32	3.50	3.66
50th-Percentile Queue Length [ft/ln]	1.34	3.68	23.38	51.14	10.51	17.53	138.40	1.97	133.07	87.43	91.61
95th-Percentile Queue Length [veh/ln]	0.10	0.26	1.68	3.68	0.76	1.26	9.39	0.14	9.11	6.30	6.60
95th-Percentile Queue Length [ft/ln]	2.42	6.62	42.08	92.06	18.91	31.56	234.86	3.54	227.66	157.38	164.90

Movement, Approach, & Intersection Results

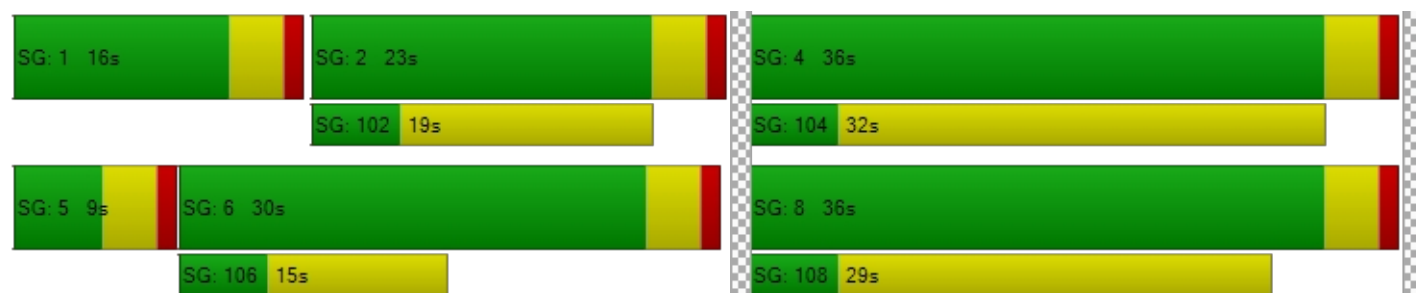
d_M, Delay for Movement [s/veh]	14.22	12.48	13.52	16.81	12.78	12.78	39.30	31.76	21.06	53.72	20.78	21.89
Movement LOS	B	B	B	B	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	13.41			16.00			31.93			27.91		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	27.94											
Intersection LOS	C											
Intersection V/C	0.462											

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]	29.04			29.04			29.04			29.04		
I_p,int, Pedestrian LOS Score for Intersection	2.255			2.070			3.087			3.422		
Crosswalk LOS	B			B			C			C		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	853			853			507			693		
d_b, Bicycle Delay [s]	12.33			12.33			20.91			16.01		
I_b,int, Bicycle LOS Score for Intersection	1.779			1.909			2.129			2.160		
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 6: Main St/I-15 SB Off Ramp

Control Type:	Signalized	Delay (sec / veh):	7.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.322

Intersection Setup

Name	I-15 SB Off Ramp		Main St		Main St	
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	1	1	0	0	0	0
Entry Pocket Length [ft]	1100.00	530.00	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]	40.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-15 SB Off Ramp		Main St		Main St	
Base Volume Input [veh/h]	310	177	0	1010	758	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0400	1.0000	1.0000	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	3	0	1	3	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
Right Turn on Red Volume [veh/h]	0	45	0	0	0	0
Total Hourly Volume [veh/h]	310	135	0	1011	761	0
Peak Hour Factor	0.8940	0.8940	1.0000	0.9470	0.8890	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	87	38	0	267	214	0
Total Analysis Volume [veh/h]	347	151	0	1068	856	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
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	Split	Split	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	0	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	0	10	10	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	37	0	0	23	23	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Delayed Vehicle Green [s]	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	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	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
I, Upstream Filtering Factor	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	R	C	C
C, Cycle Length [s]	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	43	43
g / C, Green / Cycle	0.16	0.16	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.10	0.10	0.22	0.17
s, saturation flow rate [veh/h]	3329	1530	4903	4903
c, Capacity [veh/h]	525	241	3476	3476
d1, Uniform Delay [s]	23.76	23.62	3.25	3.08
k, delay calibration	0.11	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.43	2.66	0.23	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.66	0.63	0.31	0.25
d, Delay for Lane Group [s/veh]	25.19	26.27	3.48	3.25
Lane Group LOS	C	C	A	A
Critical Lane Group	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.18	1.98	0.54	0.41
50th-Percentile Queue Length [ft/ln]	54.56	49.38	13.56	10.26
95th-Percentile Queue Length [veh/ln]	3.93	3.56	0.98	0.74
95th-Percentile Queue Length [ft/ln]	98.21	88.89	24.41	18.47

Movement, Approach, & Intersection Results

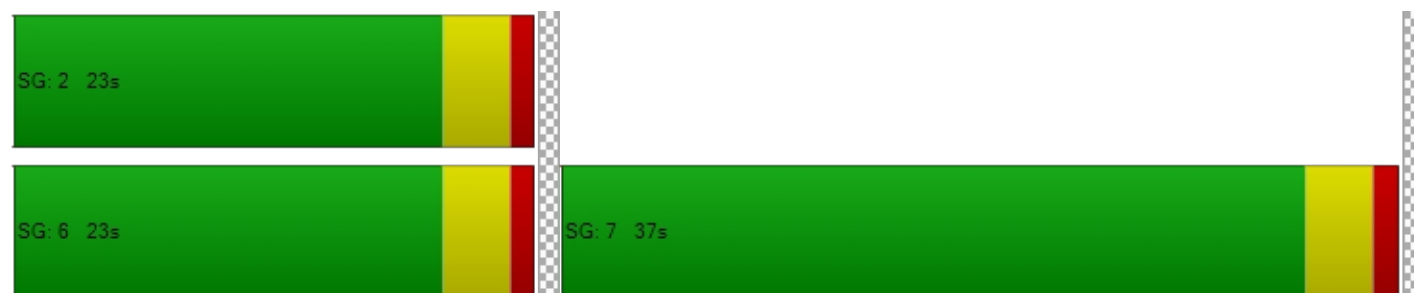
d_M, Delay for Movement [s/veh]	25.19	26.27	0.00	3.48	3.25	0.00
Movement LOS	C	C		A	A	
d_A, Approach Delay [s/veh]	25.52		3.48		3.25	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	7.93					
Intersection LOS	A					
Intersection V/C	0.322					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1100	633	633
d_b, Bicycle Delay [s]	6.08	14.01	14.01
I_b,int, Bicycle LOS Score for Intersection	1.560	2.147	2.030
Bicycle LOS	A	B	B

Sequence

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



Intersection Level Of Service Report

Intersection 7: Main St/I-15 NB Ramps

Control Type:	Signalized	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.362

Intersection Setup

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main 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	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	1790.0	100.00	615.00	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]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main St		
Base Volume Input [veh/h]	82	3	411	0	0	0	0	1021	0	0	1103	460
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400	1.0400	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]	3	0	0	0	0	0	1	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	0	0	0	115
Total Hourly Volume [veh/h]	85	3	308	0	0	0	1	1021	0	0	1103	345
Peak Hour Factor	0.9300	0.9300	0.9300	1.0000	1.0000	1.0000	1.0000	0.9190	1.0000	1.0000	0.9300	0.9300
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]	23	1	83	0	0	0	0	278	0	0	297	93
Total Analysis Volume [veh/h]	91	3	331	0	0	0	1	1111	0	0	1186	371
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	60
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	Split	Split	Split	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	14	0	0	0	0	0	46	0	0	46	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	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	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		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		C	C	C
C, Cycle Length [s]	60	60	60		60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31		21	21	21
g / C, Green / Cycle	0.52	0.52	0.52		0.35	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.05	0.11	0.11		0.23	0.24	0.25
s, saturation flow rate [veh/h]	1714	1534	1530		4903	4903	1541
c, Capacity [veh/h]	883	790	788		1723	1723	542
d1, Uniform Delay [s]	7.45	7.91	7.91		16.31	16.56	16.88
k, delay calibration	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
d2, Incremental Delay [s]	0.23	0.61	0.61		0.41	0.47	1.81
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.21	0.21		0.64	0.68	0.72
d, Delay for Lane Group [s/veh]	7.68	8.52	8.53		16.72	17.04	18.69
Lane Group LOS	A	A	A		B	B	B
Critical Lane Group	No	No	Yes		No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.51	1.02	1.02		3.43	3.67	3.94
50th-Percentile Queue Length [ft/ln]	12.79	25.52	25.46		85.82	91.72	98.38
95th-Percentile Queue Length [veh/ln]	0.92	1.84	1.83		6.18	6.60	7.08
95th-Percentile Queue Length [ft/ln]	23.02	45.94	45.83		154.47	165.09	177.08

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	7.68	8.52	8.52	0.00	0.00	0.00	0.00	16.72	0.00	0.00	17.06	18.69
Movement LOS	A	A	A					B			B	B
d_A, Approach Delay [s/veh]	8.34			0.00			16.72			17.45		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	15.94											
Intersection LOS	B											
Intersection V/C	0.362											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			0.0			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]	21.68			21.68			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	2.430			1.881			0.000			0.000		
Crosswalk LOS	B			A			F			F		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	333			0			1400			1400		
d_b, Bicycle Delay [s]	20.83			30.00			2.70			2.70		
I_b,int, Bicycle LOS Score for Intersection	2.431			4.132			2.171			2.249		
Bicycle LOS	B			D			B			B		

Sequence

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



Intersection Level Of Service Report
Intersection 8: Three Flags Ave-Lassen St/Poplar St

Control Type:	Two-way stop	Delay (sec / veh):	12.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.036

Intersection Setup

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda 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	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda St		
Base Volume Input [veh/h]	13	0	30	0	0	0	0	24	29	85	8	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	6	21	10	0	0	3	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]	13	0	30	0	0	6	21	34	29	85	11	0
Peak Hour Factor	0.6360	0.6360	0.6360	1.0000	1.0000	1.0000	0.6790	0.6790	0.6790	0.7840	0.7840	0.7840
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	0	12	0	0	2	8	13	11	27	4	0
Total Analysis Volume [veh/h]	20	0	47	0	0	6	31	50	43	108	14	0
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	0.04	0.00	0.05	0.00	0.00	0.01	0.02	0.00	0.00	0.07	0.00	0.00
d_M, Delay for Movement [s/veh]	11.96	12.39	9.02	12.08	12.19	8.38	7.27	0.00	0.00	7.56	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.27	0.27	0.27	0.02	0.02	0.02	0.06	0.06	0.06	0.23	0.23	0.23
95th-Percentile Queue Length [ft/ln]	6.82	6.82	6.82	0.42	0.42	0.42	1.47	1.47	1.47	5.75	5.75	5.75
d_A, Approach Delay [s/veh]	9.90			8.38			1.82			6.69		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.50											
Intersection LOS	B											

Intersection Level Of Service Report

Intersection 9: Mesa Linda St/Sultana Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 9.8
 Level Of Service: A
 Volume to Capacity (v/c): 0.001

Intersection Setup

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
Base Volume Input [veh/h]	0	51	2	0	94	0	0	0	0	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	2	0	0	4	3	1	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]	0	53	2	0	98	3	1	0	0	0	0	0
Peak Hour Factor	0.6310	0.6310	0.6310	0.7920	0.7920	0.7920	1.0000	1.0000	1.0000	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	21	1	0	31	1	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	84	3	0	124	4	1	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.45	0.00	0.00	0.00	0.00	0.00	9.80	0.00	8.88	0.00	0.00	0.00
Movement LOS	A	A			A	A	A		A			
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			9.80			0.00		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.05											
Intersection LOS	A											

Intersection Level Of Service Report

Intersection 10: Joshua Rd/Outpost Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10.7
 Level Of Service: B
 Volume to Capacity (v/c): 0.082

Intersection Setup

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua 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	0	0	0	1	0	1	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]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua St		
Base Volume Input [veh/h]	0	0	0	39	0	108	0	90	0	0	117	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0400	1.0000	1.0400	1.0400	1.0000	1.0400
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	2	0	0	10	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]	0	0	0	39	0	108	0	92	0	0	127	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.6950	0.6950	0.6950	1.0000	0.6990	1.0000	1.0000	0.9130	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	0	0	14	0	39	0	33	0	0	35	0
Total Analysis Volume [veh/h]	0	0	0	56	0	155	0	132	0	0	139	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	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	0.00	0.08	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.11	10.63	8.90	10.72	10.63	9.74	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	B	B	A	B	B	A		A			A	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.27	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	6.65	0.00	15.21	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.55			10.00			0.00			0.00		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	4.38											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 11: Joshua St/I-15 SB Off-Ramp

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):	0.119

Intersection Setup

Name	Joshua St		Joshua St		Joshua St	
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	1	0	0	0	0
Entry Pocket Length [ft]	100.00	1500.00	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]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Joshua St		Joshua St		Joshua St	
Base Volume Input [veh/h]	66	207	0	154	30	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0400	1.0000	1.0000	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	2	2	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]	66	216	0	156	32	0
Peak Hour Factor	0.7150	0.7150	1.0000	0.8560	0.8190	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	76	0	46	10	0
Total Analysis Volume [veh/h]	92	302	0	182	39	0
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	0.12	0.29	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.30	9.88	0.00	0.00	0.00	0.00
Movement LOS	B	A		A	A	
95th-Percentile Queue Length [veh/ln]	0.40	1.21	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	10.10	30.36	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.98		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.39					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 12: Joshua St/I-15 NB On-Ramp

Control Type:	Two-way stop	Delay (sec / veh):	7.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.081

Intersection Setup

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
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	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
Base Volume Input [veh/h]	0	0	107	111	32	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	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	2	0	2	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	0	109	111	34	12
Peak Hour Factor	1.0000	1.0000	0.8720	0.8720	0.6800	0.6800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	31	32	12	4
Total Analysis Volume [veh/h]	0	0	125	127	50	18
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			
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.08	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.53	0.00	0.00	0.00
Movement LOS			A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.26	0.26	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	6.59	6.59	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.74		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.94					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 13: Lassen St/North Dwy

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 8.6
 Level Of Service: A
 Volume to Capacity (v/c): 0.003

Intersection Setup

Name	Lassen St		Lassen St		North Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lassen St		Lassen St		North Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	11	3	0	3	1
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	3	0	3	1
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	3	1	0	1	0
Total Analysis Volume [veh/h]	0	11	3	0	3	1
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.22	0.00	8.57	8.34
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.14	0.14	0.29	0.29
d_A, Approach Delay [s/veh]	0.00		7.22		8.51	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.10					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 14: Lassen St/South Dwy

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 8.6
 Level Of Service: A
 Volume to Capacity (v/c): 0.003

Intersection Setup

Name	Lassen St		Lassen St		South Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lassen St		Lassen St		South Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	11	10	0	3	3	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]	11	10	0	3	3	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	0	1	1	0
Total Analysis Volume [veh/h]	11	10	0	3	3	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.24	0.00	8.60	8.38
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.22	0.22
d_A, Approach Delay [s/veh]	0.00		0.00		8.60	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.96					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 15: Mesa Linda St/North Dwy

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 8.5
 Level Of Service: A
 Volume to Capacity (v/c): 0.001

Intersection Setup

Name	Mesa Linda St		Mesa Linda St		North Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mesa Linda St		Mesa Linda St		North Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	1	1	3	1	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	1	1	3	1	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	0
Total Analysis Volume [veh/h]	0	1	1	3	1	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.21	0.00	0.00	0.00	8.52	8.31
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.07	0.07
d_A, Approach Delay [s/veh]	0.00		0.00		8.52	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.42					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 16: Mesa Linda St/South Dwy

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.001

Intersection Setup

Name	Mesa Linda St		Mesa Linda St		South Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mesa Linda St		Mesa Linda St		South Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	10	0	0	1	1	3
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]	10	0	0	1	1	3
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	0	0	0	1
Total Analysis Volume [veh/h]	10	0	0	1	1	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.22	0.00	0.00	0.00	8.63	8.31
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.46	0.46	0.00	0.00	0.28	0.28
d_A, Approach Delay [s/veh]	7.22		0.00		8.39	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.05					
Intersection LOS	A					

Mesa Linda Street Warehouse

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Scenario 9 Existing Plus Project AM

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1/30/2023

Turning Movement Volume: Summary

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
1	US-395/Poplar St	815	43	34	982	14	6	1894

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	US-395/Three Flags Rd	39	783	106	32	864	77	30	3	89	188	4	33	2248

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	US-395/Joshua St	9	779	48	129	908	102	16	24	9	96	55	131	2306

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	Main St/Mesa Linda St	2	0	30	46	1	16	14	918	8	81	593	17	1726

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	Main St/Key Pointe Ave	4	12	97	137	26	11	30	929	8	193	613	134	2194

ID	Intersection Name	Southbound		Eastbound		Total Volume
		Left	Right	Thru	Thru	
6	Main St/I-15 SB Off Ramp	310	180	1011	761	2262

ID	Intersection Name	Northbound			Eastbound	Westbound		Total Volume
		Left	Thru	Right	Thru	Thru	Right	
7	Main St/I-15 NB Ramps	85	3	411	1021	1103	460	3083

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
8	Three Flags Ave-Lassen St/Poplar St	13	0	30	0	0	6	21	34	29	85	11	0	229

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
9	Mesa Linda St/Sultana Rd	0	53	98	3	1	0	155

ID	Intersection Name	Northbound			Southbound			Eastbound	Westbound	Total Volume
		Left	Thru	Right	Left	Thru	Right	Thru	Thru	
10	Joshua Rd/Outpost Rd	0	0	0	39	0	108	92	127	366

ID	Intersection Name	Southbound		Eastbound	Westbound	Total Volume
		Left	Right	Thru	Thru	
11	Joshua St/I-15 SB Off-Ramp	66	216	156	32	470

ID	Intersection Name	Eastbound		Westbound		Total Volume
		Left	Thru	Thru	Right	
12	Joshua St/I-15 NB On-Ramp	109	111	34	12	266

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
13	Lassen St/North Dwy	0	11	3	0	3	1	18

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
14	Lassen St/South Dwy	11	10	0	3	3	0	27

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
15	Mesa Linda St/North Dwy	0	1	1	3	1	0	6

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
16	Mesa Linda St/South Dwy	10	0	0	1	1	3	15

Mesa Linda Street Warehouse

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Scenario 10 Existing Plus Project PM

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Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	US-395/Poplar St	Two-way stop	HCM 6th Edition	WB Left	1.035	288.1	F
2	US-395/Three Flags Rd	Signalized	HCM 6th Edition	NB Left	0.485	14.5	B
3	US-395/Joshua St	Signalized	HCM 6th Edition	NB Left	0.507	13.3	B
4	Main St/Mesa Linda St	Signalized	HCM 6th Edition	SB Left	4.072	21.9	C
5	Main St/Key Pointe Ave	Signalized	HCM 6th Edition	WB Left	0.625	31.1	C
6	Main St/I-15 SB Off Ramp	Signalized	HCM 6th Edition	SB Right	0.463	9.9	A
7	Main St/I-15 NB Ramps	Signalized	HCM 6th Edition	WB Right	0.504	14.6	B
8	Three Flags Ave-Lassen St/Poplar St	Two-way stop	HCM 6th Edition	NB Left	0.062	11.4	B
9	Mesa Linda St/Sultana Rd	Two-way stop	HCM 6th Edition	EB Left	0.004	10.0	B
10	Joshua Rd/Outpost Rd	Two-way stop	HCM 6th Edition	SB Left	0.102	11.3	B
11	Joshua St/I-15 SB Off-Ramp	Two-way stop	HCM 6th Edition	SB Left	0.041	10.2	B
12	Joshua St/I-15 NB On-Ramp	Two-way stop	HCM 6th Edition	EB Left	0.096	7.6	A
13	Lassen St/North Dwy	Two-way stop	HCM 6th Edition	WB Left	0.013	8.6	A
14	Lassen St/South Dwy	Two-way stop	HCM 6th Edition	WB Left	0.012	8.6	A
15	Mesa Linda St/North Dwy	Two-way stop	HCM 6th Edition	EB Left	0.003	8.5	A
16	Mesa Linda St/South Dwy	Two-way stop	HCM 6th Edition	EB Left	0.001	8.6	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: US-395/Poplar St**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 288.1
 Level Of Service: F
 Volume to Capacity (v/c): 1.035

Intersection Setup

Name	US-395			US-395						Poplar 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	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	373.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	510.00
No. of Lanes in Exit Pocket	0	0	0	0	0	2	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	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		
Crosswalk	No			No			Yes			No		

Volumes

Name	US-395			US-395						Poplar St		
Base Volume Input [veh/h]	0	1157	34	25	976	0	0	0	0	6	0	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	11	3	0	0	0	0	0	29	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
Total Hourly Volume [veh/h]	0	1157	45	28	976	0	0	0	0	35	0	51
Peak Hour Factor	0.9430	0.9430	0.9430	0.9110	0.9110	0.9110	1.0000	1.0000	1.0000	0.7580	0.7580	0.7580
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	307	12	8	268	0	0	0	0	12	0	17
Total Analysis Volume [veh/h]	0	1227	48	31	1071	0	0	0	0	46	0	67
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.06	0.01	0.00	0.00	0.00	0.00	0.00	1.03	0.00	0.16
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	11.92	0.00	0.00	0.00	0.00	0.00	288.14	0.00	15.06	
Movement LOS		A	A	B	A					F		C	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	4.25	0.00	0.56	
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	4.46	0.00	0.00	0.00	0.00	0.00	106.27	0.00	13.88	
d_A, Approach Delay [s/veh]	0.00			0.34			0.00			126.23			
Approach LOS	A			A			A			F			
d_I, Intersection Delay [s/veh]	5.88												
Intersection LOS	F												

Intersection Level Of Service Report

Intersection 2: US-395/Three Flags Rd

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 14.5
 Level Of Service: B
 Volume to Capacity (v/c): 0.485

Intersection Setup

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
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	0	1	0	1
Entry Pocket Length [ft]	190.00	100.00	190.00	224.00	100.00	224.00	182.00	100.00	100.00	274.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
Base Volume Input [veh/h]	62	1088	108	27	851	95	62	1	95	133	6	25
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	11	0	0	29	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	27	0	0	24	0	0	24	0	0	6
Total Hourly Volume [veh/h]	62	1099	81	27	880	71	62	1	71	133	6	19
Peak Hour Factor	0.9790	0.9790	0.9790	0.9230	0.9230	0.9230	0.8040	0.8040	0.8040	0.7130	0.7130	0.7130
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	281	21	7	238	19	19	0	22	47	2	7
Total Analysis Volume [veh/h]	63	1123	83	29	953	77	77	1	88	187	8	27
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	65
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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	21	26	0	9	14	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65
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
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	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
g_i, Effective Green Time [s]	3	35	35	2	33	33	16	16	16	16	16
g / C, Green / Cycle	0.05	0.53	0.53	0.03	0.51	0.51	0.25	0.25	0.25	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.04	0.33	0.05	0.02	0.28	0.05	0.06	0.06	0.14	0.00	0.02
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1395	1533	1329	1800	1530
c, Capacity [veh/h]	90	1822	813	54	1749	781	407	387	336	454	386
d1, Uniform Delay [s]	30.28	10.61	7.54	31.01	10.79	8.21	21.33	19.29	26.09	18.25	18.49
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
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
d2, Incremental Delay [s]	9.31	1.57	0.25	8.09	1.22	0.25	0.22	0.30	1.44	0.02	0.08
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
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
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

Lane Group Results

X, volume / capacity	0.70	0.62	0.10	0.54	0.54	0.10	0.19	0.23	0.56	0.02	0.07
d, Delay for Lane Group [s/veh]	39.59	12.18	7.79	39.10	12.02	8.46	21.55	19.59	27.54	18.26	18.57
Lane Group LOS	D	B	A	D	B	A	C	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.12	4.47	0.48	0.53	3.77	0.48	0.95	1.04	2.77	0.09	0.30
50th-Percentile Queue Length [ft/ln]	27.98	111.79	12.12	13.30	94.20	12.02	23.75	25.91	69.35	2.18	7.51
95th-Percentile Queue Length [veh/ln]	2.01	7.94	0.87	0.96	6.78	0.87	1.71	1.87	4.99	0.16	0.54
95th-Percentile Queue Length [ft/ln]	50.36	198.49	21.82	23.93	169.55	21.64	42.75	46.65	124.82	3.93	13.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.59	12.18	7.79	39.10	12.02	8.46	21.55	19.59	19.59	27.54	18.26	18.57
Movement LOS	D	B	A	D	B	A	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	13.25			12.50			20.50			26.11		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	14.45											
Intersection LOS	B											
Intersection V/C	0.485											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			24.12			0.00			24.12		
I_p,int, Pedestrian LOS Score for Intersection	0.000			3.146			0.000			2.214		
Crosswalk LOS	F			C			F			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	677			308			800			800		
d_b, Bicycle Delay [s]	14.22			23.27			11.70			11.70		
I_b,int, Bicycle LOS Score for Intersection	2.629			2.453			1.873			1.936		
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 3: US-395/Joshua St

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 13.3
 Level Of Service: B
 Volume to Capacity (v/c): 0.507

Intersection Setup

Name	US-395			US-395			Joshua St			Joshua 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	1	1	0	0	1	0	1
Entry Pocket Length [ft]	191.00	100.00	226.00	200.00	100.00	223.00	140.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	US-395			US-395			Joshua St			Joshua St		
Base Volume Input [veh/h]	24	1112	101	105	925	21	39	51	7	84	26	137
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	7	0	12	17	0	0	0	0	0	0	4
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	25	0	0	5	0	0	2	0	0	35
Total Hourly Volume [veh/h]	24	1119	76	117	942	16	39	51	5	84	26	106
Peak Hour Factor	0.9210	0.9210	0.9210	0.9020	0.9020	0.9020	0.7780	0.7780	0.7780	0.9060	0.9060	0.9060
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]	7	304	21	32	261	4	13	16	2	23	7	29
Total Analysis Volume [veh/h]	26	1215	83	130	1044	18	50	66	6	93	29	117
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	65
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully 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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	13	24	0	11	22	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65
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
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	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
g_i, Effective Green Time [s]	2	36	36	6	40	40	11	11	11	11	11
g / C, Green / Cycle	0.03	0.55	0.55	0.10	0.62	0.62	0.17	0.17	0.17	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.02	0.35	0.05	0.08	0.30	0.01	0.04	0.04	0.07	0.02	0.08
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1262	1774	1349	1800	1530
c, Capacity [veh/h]	50	1888	843	163	2115	944	265	300	247	304	259
d1, Uniform Delay [s]	31.12	10.15	6.93	28.79	6.85	4.82	26.06	23.39	28.22	22.81	24.30
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
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
d2, Incremental Delay [s]	8.19	1.70	0.23	8.49	0.83	0.04	0.34	0.41	0.95	0.13	1.23
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
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
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

Lane Group Results

X, volume / capacity	0.52	0.64	0.10	0.80	0.49	0.02	0.19	0.24	0.38	0.10	0.45
d, Delay for Lane Group [s/veh]	39.31	11.86	7.16	37.29	7.68	4.86	26.40	23.80	29.17	22.94	25.53
Lane Group LOS	D	B	A	D	A	A	C	C	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.48	4.73	0.45	2.18	2.76	0.07	0.66	0.89	1.33	0.35	1.54
50th-Percentile Queue Length [ft/ln]	12.06	118.33	11.36	54.56	69.11	1.77	16.59	22.29	33.23	8.70	38.40
95th-Percentile Queue Length [veh/ln]	0.87	8.30	0.82	3.93	4.98	0.13	1.19	1.60	2.39	0.63	2.76
95th-Percentile Queue Length [ft/ln]	21.70	207.53	20.44	98.21	124.40	3.19	29.86	40.12	59.82	15.67	69.12

Movement, Approach, & Intersection Results

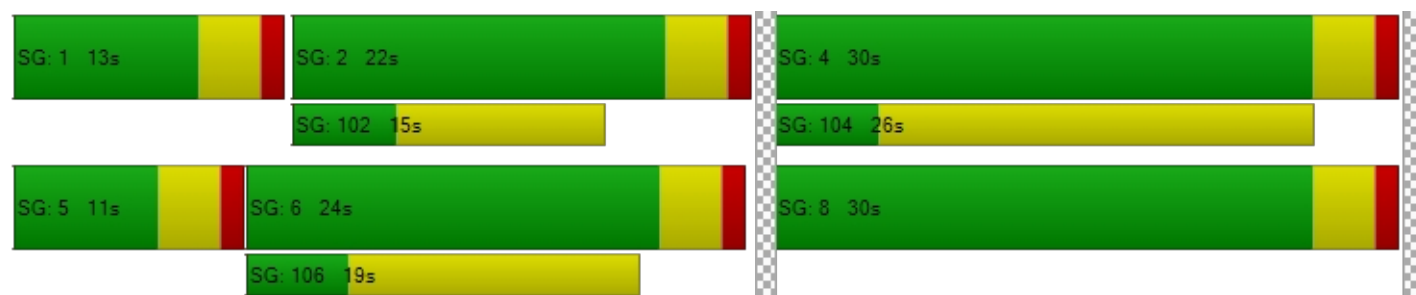
d_M, Delay for Movement [s/veh]	39.31	11.86	7.16	37.29	7.68	4.86	26.40	23.80	23.80	29.17	22.94	25.53
Movement LOS	D	B	A	D	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	12.10			10.86			24.86			26.63		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	13.34											
Intersection LOS	B											
Intersection V/C	0.507											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			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]	0.00			24.13			24.13			24.13		
I_p,int, Pedestrian LOS Score for Intersection	0.000			3.153			2.026			2.377		
Crosswalk LOS	F			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	615			554			800			800		
d_b, Bicycle Delay [s]	15.58			17.00			11.70			11.70		
I_b,int, Bicycle LOS Score for Intersection	2.673			2.547			1.764			2.012		
Bicycle LOS	B			B			A			B		

Sequence

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



Intersection Level Of Service Report

Intersection 4: Main St/Mesa Linda St

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	4.072

Intersection Setup

Name	Mesa Linda St			Mesa Linda St			Main St			Main 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	0	0	1	0	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	340.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	2	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Mesa Linda St			Mesa Linda St			Main St			Main St		
Base Volume Input [veh/h]	14	5	115	32	3	7	14	804	13	55	948	50
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	1	0	6	0	0	0	0	0	1	2	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	30	0	0	2	0	0	4	0	0	13
Total Hourly Volume [veh/h]	15	5	91	32	3	5	14	804	10	57	948	37
Peak Hour Factor	0.8450	0.8450	0.8450	0.8400	0.8400	0.8400	0.9320	0.9320	0.9320	0.9310	0.9310	0.9310
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	1	27	10	1	1	4	216	3	15	255	10
Total Analysis Volume [veh/h]	18	6	108	38	4	6	15	863	11	61	1018	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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	39	0	0	39	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	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	27	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	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	C	R	C	R	L	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
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]	2.00	0.00	2.00	0.00	2.00	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	2.00
g_i, Effective Green Time [s]	35	35	35	35	17	17	17	17	17	17
g / C, Green / Cycle	0.58	0.58	0.58	0.58	0.28	0.28	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.70	0.07	3.86	0.00	0.03	0.17	0.17	0.09	0.21	0.03
s, saturation flow rate [veh/h]	34	1530	11	1530	542	3427	1788	644	4903	1530
c, Capacity [veh/h]	125	893	121	893	154	971	507	188	1389	434
d1, Uniform Delay [s]	15.10	5.60	24.75	5.23	27.13	18.51	18.51	26.51	19.45	15.82
k, delay calibration	0.50	0.50	0.50	0.50	0.50	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	1.00
d2, Incremental Delay [s]	3.39	0.28	7.77	0.01	1.26	2.64	5.01	4.53	3.45	0.42
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	0.19	0.12	0.35	0.01	0.10	0.59	0.59	0.32	0.73	0.09
d, Delay for Lane Group [s/veh]	18.49	5.88	32.52	5.24	28.40	21.15	23.53	31.04	22.90	16.24
Lane Group LOS	B	A	C	A	C	C	C	C	C	B
Critical Lane Group	No	No	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.35	0.54	0.84	0.03	0.24	3.17	3.64	0.99	3.94	0.39
50th-Percentile Queue Length [ft/ln]	8.66	13.51	20.98	0.70	5.91	79.18	91.07	24.63	98.38	9.64
95th-Percentile Queue Length [veh/ln]	0.62	0.97	1.51	0.05	0.43	5.70	6.56	1.77	7.08	0.69
95th-Percentile Queue Length [ft/ln]	15.60	24.33	37.76	1.25	10.64	142.53	163.92	44.34	177.08	17.35

Movement, Approach, & Intersection Results

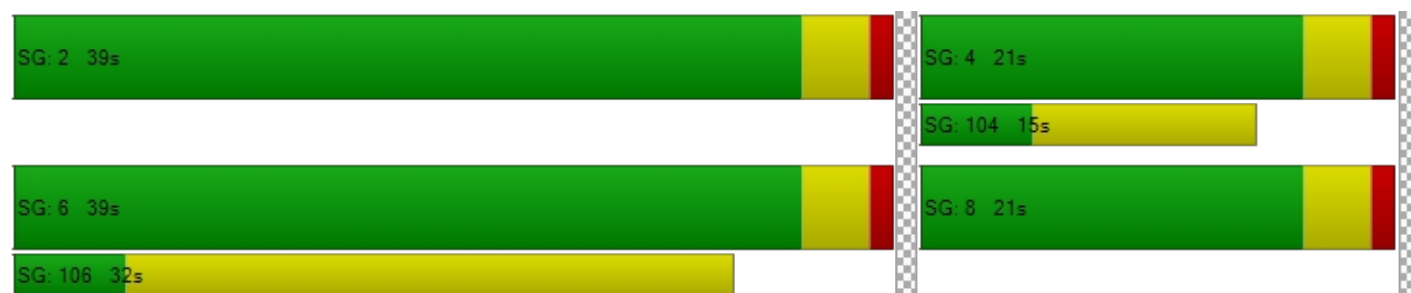
d_M, Delay for Movement [s/veh]	18.49	18.49	5.88	32.52	32.52	5.24	28.40	21.95	23.53	31.04	22.90	16.24
Movement LOS	B	B	A	C	C	A	C	C	C	C	C	B
d_A, Approach Delay [s/veh]	8.17			29.11			22.08			23.11		
Approach LOS	A			C			C			C		
d_I, Intersection Delay [s/veh]	21.92											
Intersection LOS	C											
Intersection V/C	4.072											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			21.68			0.00			21.68		
I_p,int, Pedestrian LOS Score for Intersection	0.000			1.985			0.000			3.220		
Crosswalk LOS	F			A			F			C		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	1167			1167			567			567		
d_b, Bicycle Delay [s]	5.21			5.21			15.41			15.41		
I_b,int, Bicycle LOS Score for Intersection	1.827			1.642			2.051			2.182		
Bicycle LOS	A			A			B			B		

Sequence

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



Intersection Level Of Service Report

Intersection 5: Main St/Key Pointe Ave

Control Type:	Signalized	Delay (sec / veh):	31.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.625

Intersection Setup

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main 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	1	1	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	140.00	100.00	100.00	200.00	100.00	200.00	200.00	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main St		
Base Volume Input [veh/h]	31	57	241	237	84	15	46	969	18	294	1112	195
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	6	0	0	2	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	60	0	0	4	0	0	5	0	0	49
Total Hourly Volume [veh/h]	31	57	181	237	84	11	46	975	13	294	1114	146
Peak Hour Factor	0.8480	0.8480	0.8480	0.9320	0.9320	0.9320	0.9350	0.9350	0.9350	0.9270	0.9270	0.9270
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	17	53	64	23	3	12	261	3	79	300	39
Total Analysis Volume [veh/h]	37	67	213	254	90	12	49	1043	14	317	1202	157
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
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	36	0	0	36	0	14	27	0	27	40	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	24	0	0	27	0	0	14	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	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	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
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	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	2.00	2.00
g_i, Effective Green Time [s]	32	32	32	32	32	10	23	23	23	36	36
g / C, Green / Cycle	0.36	0.36	0.36	0.36	0.36	0.11	0.26	0.26	0.26	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.14	0.23	0.06	0.03	0.21	0.01	0.18	0.27	0.27
s, saturation flow rate [veh/h]	1313	1800	1530	1117	1763	1714	4903	1530	1714	3427	1696
c, Capacity [veh/h]	466	640	544	424	627	190	1253	391	438	1371	678
d1, Uniform Delay [s]	23.10	19.41	21.71	27.86	19.84	36.60	31.68	25.17	30.60	22.05	22.06
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	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	1.00	1.00
d2, Incremental Delay [s]	0.33	0.33	2.11	6.12	0.56	3.24	6.56	0.17	9.96	2.54	5.07
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
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
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

Lane Group Results

X, volume / capacity	0.08	0.10	0.39	0.60	0.16	0.26	0.83	0.04	0.72	0.66	0.66
d, Delay for Lane Group [s/veh]	23.43	19.74	23.82	33.98	20.39	39.84	38.24	25.34	40.56	24.59	27.13
Lane Group LOS	C	B	C	C	C	D	D	C	D	C	C
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.61	0.98	3.59	5.46	1.53	1.10	7.31	0.23	6.97	7.41	7.82
50th-Percentile Queue Length [ft/ln]	15.14	24.47	89.81	136.43	38.22	27.53	182.63	5.70	174.37	185.34	195.61
95th-Percentile Queue Length [veh/ln]	1.09	1.76	6.47	9.29	2.75	1.98	11.74	0.41	11.31	11.88	12.41
95th-Percentile Queue Length [ft/ln]	27.25	44.05	161.65	232.21	68.80	49.55	293.45	10.26	282.66	296.98	310.30

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.43	19.74	23.82	33.98	20.39	20.39	39.84	38.24	25.34	40.56	25.21	27.13
Movement LOS	C	B	C	C	C	C	D	D	C	D	C	C
d_A, Approach Delay [s/veh]	22.91			30.08			38.15			28.29		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	31.14											
Intersection LOS	C											
Intersection V/C	0.625											

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	2.414			2.169			3.267			3.791		
Crosswalk LOS	B			B			C			D		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	711			711			511			800		
d_b, Bicycle Delay [s]	18.69			18.69			24.94			16.20		
I_b,int, Bicycle LOS Score for Intersection	2.182			2.154			2.171			2.508		
Bicycle LOS	B			B			B			B		

Sequence

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



Intersection Level Of Service Report

Intersection 6: Main St/I-15 SB Off Ramp

Control Type:	Signalized	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.463

Intersection Setup

Name	I-15 SB Off Ramp		Main St		Main St	
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	1	1	0	0	0	0
Entry Pocket Length [ft]	1100.00	530.00	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]	40.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-15 SB Off Ramp		Main St		Main St	
Base Volume Input [veh/h]	443	350	0	1273	1255	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0400	1.0000	1.0000	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	0	3	1	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
Right Turn on Red Volume [veh/h]	0	88	0	0	0	0
Total Hourly Volume [veh/h]	443	263	0	1276	1256	0
Peak Hour Factor	0.9110	0.9110	1.0000	0.9500	0.9340	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	122	72	0	336	336	0
Total Analysis Volume [veh/h]	486	289	0	1343	1345	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
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	Split	Split	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	0	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	0	10	10	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	37	0	0	23	23	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Delayed Vehicle Green [s]	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	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	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
I, Upstream Filtering Factor	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	R	C	C
C, Cycle Length [s]	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	37	37
g / C, Green / Cycle	0.25	0.25	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.15	0.19	0.27	0.27
s, saturation flow rate [veh/h]	3329	1530	4903	4903
c, Capacity [veh/h]	827	380	3031	3031
d1, Uniform Delay [s]	19.84	20.89	6.02	6.02
k, delay calibration	0.11	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.67	3.16	0.47	0.47
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.59	0.76	0.44	0.44
d, Delay for Lane Group [s/veh]	20.51	24.05	6.49	6.50
Lane Group LOS	C	C	A	A
Critical Lane Group	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	2.70	3.62	1.70	1.70
50th-Percentile Queue Length [ft/ln]	67.47	90.41	42.51	42.59
95th-Percentile Queue Length [veh/ln]	4.86	6.51	3.06	3.07
95th-Percentile Queue Length [ft/ln]	121.45	162.74	76.51	76.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	20.51	24.05	0.00	6.49	6.50	0.00
Movement LOS	C	C		A	A	
d_A, Approach Delay [s/veh]	21.83		6.49		6.50	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	9.93					
Intersection LOS	A					
Intersection V/C	0.463					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1100	633	633
d_b, Bicycle Delay [s]	6.08	14.01	14.01
I_b,int, Bicycle LOS Score for Intersection	1.560	2.298	2.299
Bicycle LOS	A	B	B

Sequence

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



Intersection Level Of Service Report

Intersection 7: Main St/I-15 NB Ramps

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.504

Intersection Setup

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main 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	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	1790.0	100.00	615.00	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]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main St		
Base Volume Input [veh/h]	190	4	773	0	0	0	0	1449	0	0	1531	404
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400	1.0400	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]	1	0	0	0	0	0	3	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	193	0	0	0	0	0	0	0	0	101
Total Hourly Volume [veh/h]	191	4	580	0	0	0	3	1449	0	0	1531	303
Peak Hour Factor	0.9480	0.9480	0.9480	1.0000	1.0000	1.0000	1.0000	0.9760	1.0000	1.0000	0.9690	0.9690
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]	50	1	153	0	0	0	1	371	0	0	395	78
Total Analysis Volume [veh/h]	201	4	612	0	0	0	3	1485	0	0	1580	313
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	60
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	Split	Split	Split	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	14	0	0	0	0	0	46	0	0	46	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	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	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		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		C	C	C
C, Cycle Length [s]	60	60	60		60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	27		25	25	25
g / C, Green / Cycle	0.45	0.45	0.45		0.42	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.12	0.20	0.20		0.30	0.29	0.29
s, saturation flow rate [veh/h]	1714	1533	1530		4903	4903	1612
c, Capacity [veh/h]	769	688	686		2050	2050	674
d1, Uniform Delay [s]	10.34	11.42	11.42		14.57	14.30	14.38
k, delay calibration	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
d2, Incremental Delay [s]	0.83	2.11	2.12		0.50	0.43	1.35
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.26	0.45	0.45		0.72	0.69	0.70
d, Delay for Lane Group [s/veh]	11.16	13.53	13.54		15.07	14.72	15.73
Lane Group LOS	B	B	B		B	B	B
Critical Lane Group	No	No	Yes		Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.51	2.66	2.66		4.29	4.02	4.21
50th-Percentile Queue Length [ft/ln]	37.68	66.42	66.38		107.34	100.52	105.36
95th-Percentile Queue Length [veh/ln]	2.71	4.78	4.78		7.69	7.24	7.58
95th-Percentile Queue Length [ft/ln]	67.82	119.56	119.49		192.30	180.93	189.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	11.16	13.53	13.53	0.00	0.00	0.00	0.00	15.07	0.00	0.00	14.82	15.73
Movement LOS	B	B	B					B			B	B
d_A, Approach Delay [s/veh]	12.95			0.00			15.07			14.97		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	14.61											
Intersection LOS	B											
Intersection V/C	0.504											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	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]	21.68	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.715	1.812	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	333	0	1400	1400
d_b, Bicycle Delay [s]	20.83	30.00	2.70	2.70
I_b,int, Bicycle LOS Score for Intersection	3.226	4.132	2.376	2.382
Bicycle LOS	C	D	B	B

Sequence

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



Intersection Level Of Service Report
Intersection 8: Three Flags Ave-Lassen St/Poplar St

Control Type:	Two-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.062

Intersection Setup

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda 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	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda St		
Base Volume Input [veh/h]	31	0	80	0	0	0	2	47	10	24	25	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	25	9	5	0	0	12	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]	31	0	80	0	0	25	11	52	10	24	37	0
Peak Hour Factor	0.7750	0.7750	0.7750	1.0000	1.0000	1.0000	0.6500	0.6500	0.6500	0.6130	0.6130	0.6130
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	0	26	0	0	6	4	20	4	10	15	0
Total Analysis Volume [veh/h]	40	0	103	0	0	25	17	80	15	39	60	0
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	0.06	0.00	0.11	0.00	0.00	0.02	0.01	0.00	0.00	0.03	0.00	0.00
d_M, Delay for Movement [s/veh]	11.40	11.61	9.53	11.51	10.92	8.65	7.34	0.00	0.00	7.44	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.60	0.60	0.60	0.08	0.08	0.08	0.03	0.03	0.03	0.08	0.08	0.08
95th-Percentile Queue Length [ft/ln]	14.96	14.96	14.96	1.90	1.90	1.90	0.83	0.83	0.83	1.99	1.99	1.99
d_A, Approach Delay [s/veh]	10.05			8.65			1.11			2.93		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	5.46											
Intersection LOS	B											

Intersection Level Of Service Report

Intersection 9: Mesa Linda St/Sultana Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10.0
 Level Of Service: B
 Volume to Capacity (v/c): 0.004

Intersection Setup

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
Base Volume Input [veh/h]	0	124	1	0	48	0	0	0	0	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	4	0	0	2	1	3	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]	0	128	1	0	50	1	3	0	0	0	0	0
Peak Hour Factor	0.8220	0.8220	0.8220	0.6320	0.6320	0.6320	1.0000	1.0000	1.0000	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	39	0	0	20	0	1	0	0	0	0	0
Total Analysis Volume [veh/h]	0	156	1	0	79	2	3	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.35	0.00	0.00	0.00	0.00	0.00	10.00	0.00	8.67	0.00	0.00	0.00
Movement LOS	A	A			A	A	B		A			
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.31	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			10.00			0.00		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	0.13											
Intersection LOS	B											

Intersection Level Of Service Report

Intersection 10: Joshua Rd/Outpost Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.3
 Level Of Service: B
 Volume to Capacity (v/c): 0.102

Intersection Setup

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua 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	0	0	0	1	0	1	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]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua St		
Base Volume Input [veh/h]	0	0	0	58	0	105	0	168	0	0	96	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0400	1.0000	1.0400	1.0400	1.0000	1.0400
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	12	0	0	4	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]	0	0	0	58	0	105	0	180	0	0	100	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.8930	0.8930	0.8930	1.0000	0.8610	1.0000	1.0000	0.8930	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	0	0	16	0	29	0	52	0	0	28	0
Total Analysis Volume [veh/h]	0	0	0	65	0	118	0	209	0	0	112	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	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	0.00	0.10	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.07	11.01	9.30	11.31	11.01	9.34	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	B	B	A	B	B	A		A			A	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.34	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	8.50	0.00	10.64	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.79			10.04			0.00			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	3.65											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 11: Joshua St/I-15 SB Off-Ramp

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):	0.041

Intersection Setup

Name	Joshua St		Joshua St		Joshua St	
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	1	0	0	0	0
Entry Pocket Length [ft]	100.00	1500.00	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]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Joshua St		Joshua St		Joshua St	
Base Volume Input [veh/h]	21	188	0	183	63	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0400	1.0000	1.0000	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	3	0	12	1	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]	21	191	0	195	64	0
Peak Hour Factor	0.7240	0.7240	1.0000	0.9630	0.8290	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	66	0	51	19	0
Total Analysis Volume [veh/h]	29	264	0	202	77	0
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	0.04	0.27	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.25	9.96	0.00	0.00	0.00	0.00
Movement LOS	B	A		A	A	
95th-Percentile Queue Length [veh/ln]	0.13	1.08	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.17	26.97	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.99		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.11					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 12: Joshua St/I-15 NB On-Ramp

Control Type:	Two-way stop	Delay (sec / veh):	7.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.096

Intersection Setup

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
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	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
Base Volume Input [veh/h]	0	0	123	84	71	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	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	10	2	1	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	0	133	86	72	5
Peak Hour Factor	1.0000	1.0000	0.9120	0.9120	0.9050	0.9050
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	36	24	20	1
Total Analysis Volume [veh/h]	0	0	146	94	80	6
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			
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.10	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.61	0.00	0.00	0.00
Movement LOS			A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.32	0.32	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	7.94	7.94	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		4.63		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.41					
Intersection LOS	A					

**Intersection Level Of Service Report
Intersection 13: Lassen St/North Dwy**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 8.6
 Level Of Service: A
 Volume to Capacity (v/c): 0.013

Intersection Setup

Name	Lassen St		Lassen St		North Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lassen St		Lassen St		North Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	5	1	0	13	3
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	5	1	0	13	3
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	0	0	3	1
Total Analysis Volume [veh/h]	0	5	1	0	13	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.21	0.00	8.58	8.37
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.05	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.05	0.05	1.18	1.18
d_A, Approach Delay [s/veh]	0.00		7.21		8.54	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.54					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 14: Lassen St/South Dwy

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 8.6
 Level Of Service: A
 Volume to Capacity (v/c): 0.012

Intersection Setup

Name	Lassen St		Lassen St		South Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lassen St		Lassen St		South Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	5	5	0	13	12	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]	5	5	0	13	12	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	0	3	3	0
Total Analysis Volume [veh/h]	5	5	0	13	12	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.22	0.00	8.64	8.38
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.04	0.04
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.91	0.91
d_A, Approach Delay [s/veh]	0.00		0.00		8.64	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.96					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 15: Mesa Linda St/North Dwy

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 8.5
 Level Of Service: A
 Volume to Capacity (v/c): 0.003

Intersection Setup

Name	Mesa Linda St		Mesa Linda St		North Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mesa Linda St		Mesa Linda St		North Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	1	1	1	3	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	1	1	1	3	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	1	0
Total Analysis Volume [veh/h]	0	1	1	1	3	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.20	0.00	0.00	0.00	8.52	8.32
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.22	0.22
d_A, Approach Delay [s/veh]	0.00		0.00		8.52	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.26					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 16: Mesa Linda St/South Dwy

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 8.6
 Level Of Service: A
 Volume to Capacity (v/c): 0.001

Intersection Setup

Name	Mesa Linda St		Mesa Linda St		South Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mesa Linda St		Mesa Linda St		South Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	5	0	0	1	1	12
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]	5	0	0	1	1	12
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	0	0	3
Total Analysis Volume [veh/h]	5	0	0	1	1	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	7.21	0.00	0.00	0.00	8.60	8.34
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.04	0.04
95th-Percentile Queue Length [ft/ln]	0.23	0.23	0.00	0.00	0.91	0.91
d_A, Approach Delay [s/veh]	7.21		0.00		8.36	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.62					
Intersection LOS	A					

Mesa Linda Street Warehouse

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Scenario 10 Existing Plus Project PM

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1/30/2023

Turning Movement Volume: Summary

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
1	US-395/Poplar St	1157	45	28	976	35	51	2292

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	US-395/Three Flags Rd	62	1099	108	27	880	95	62	1	95	133	6	25	2593

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	US-395/Joshua St	24	1119	101	117	942	21	39	51	7	84	26	141	2672

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	Main St/Mesa Linda St	15	5	121	32	3	7	14	804	14	57	948	50	2070

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	Main St/Key Pointe Ave	31	57	241	237	84	15	46	975	18	294	1114	195	3307

ID	Intersection Name	Southbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Thru	Thru	Thru	
6	Main St/I-15 SB Off Ramp	443	351	1276		1256		3326

ID	Intersection Name	Northbound			Eastbound		Westbound		Total Volume
		Left	Thru	Right	Thru	Thru	Thru	Right	
7	Main St/I-15 NB Ramps	191	4	773	1449	1531		404	4352

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
8	Three Flags Ave-Lassen St/Poplar St	31	0	80	0	0	25	11	52	10	24	37	0	270

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
9	Mesa Linda St/Sultana Rd	0	128	50	1	3	0	182

ID	Intersection Name	Northbound			Southbound			Eastbound	Westbound	Total Volume
		Left	Thru	Right	Left	Thru	Right	Thru	Thru	
10	Joshua Rd/Outpost Rd	0	0	0	58	0	105	180	100	443

ID	Intersection Name	Southbound		Eastbound	Westbound	Total Volume
		Left	Right	Thru	Thru	
11	Joshua St/I-15 SB Off-Ramp	21	191	195	64	471

ID	Intersection Name	Eastbound		Westbound		Total Volume
		Left	Thru	Thru	Right	
12	Joshua St/I-15 NB On-Ramp	133	86	72	5	296

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
13	Lassen St/North Dwy	0	5	1	0	13	3	22

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
14	Lassen St/South Dwy	5	5	0	13	12	0	35

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
15	Mesa Linda St/North Dwy	0	1	1	1	3	0	6

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
16	Mesa Linda St/South Dwy	5	0	0	1	1	12	19

Mesa Linda Street Warehouse

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1/30/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	US-395/Poplar St	Two-way stop	HCM 6th Edition	WB Left	12.886	5,914.1	F
2	US-395/Three Flags Rd	Signalized	HCM 6th Edition	NB Left	0.696	21.5	C
3	US-395/Joshua St	Signalized	HCM 6th Edition	NB Left	0.817	30.7	C
4	Main St/Mesa Linda St	Signalized	HCM 6th Edition	SB Left	32.049	24.2	C
5	Main St/Key Pointe Ave	Signalized	HCM 6th Edition	EB Left	0.620	36.0	D
6	Main St/I-15 SB Off Ramp	Signalized	HCM 6th Edition	SB Right	0.762	18.7	B
7	Main St/I-15 NB Ramps	Signalized	HCM 6th Edition	NB Left	0.709	17.8	B
8	Three Flags Ave-Lassen St/Poplar St	Two-way stop	HCM 6th Edition	NB Left	0.178	38.7	E
9	Mesa Linda St/Sultana Rd	Two-way stop	HCM 6th Edition	EB Left	0.002	12.4	B
10	Joshua Rd/Outpost Rd	Two-way stop	HCM 6th Edition	SB Left	0.289	29.6	D
11	Joshua St/I-15 SB Off-Ramp	Two-way stop	HCM 6th Edition	SB Right	1.017	52.4	F
12	Joshua St/I-15 NB On-Ramp	Two-way stop	HCM 6th Edition	EB Left	0.184	7.9	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: US-395/Poplar St**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 5,914.1
 Level Of Service: F
 Volume to Capacity (v/c): 12.886

Intersection Setup

Name	US-395			US-395						Poplar 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	0	1	0	1	1	0	0	0	0	1
Entry Pocket Length [ft]	150.00	100.00	100.00	373.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	510.00
No. of Lanes in Exit Pocket	0	0	0	0	0	2	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	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		
Crosswalk	No			No			Yes			No		

Volumes

Name	US-395			US-395						Poplar St		
Base Volume Input [veh/h]	0	815	18	28	982	0	0	0	0	8	0	3
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	55	171	326	47	29	27	7	0	19	56	0	8
Site-Generated Trips [veh/h]	0	117	59	11	90	0	0	0	0	13	0	3
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]	55	1136	404	87	1140	27	7	0	19	77	0	14
Peak Hour Factor	0.9240	0.9240	0.9240	0.9080	0.9080	0.9080	1.0000	1.0000	1.0000	0.4580	0.4580	0.4580
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	307	109	24	314	7	2	0	5	42	0	8
Total Analysis Volume [veh/h]	60	1229	437	96	1256	30	7	0	19	168	0	31
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
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	0.11	0.01	0.00	0.25	0.01	0.00	0.40	0.00	0.04	12.89	0.00	0.10
d_M, Delay for Movement [s/veh]	12.40	0.00	0.00	17.17	0.00	0.00	307.14	559.43	13.75	5914.0	422.09	17.63
Movement LOS	B	A	A	C	A	A	F	F	B	F	F	C
95th-Percentile Queue Length [veh/ln]	0.37	0.00	0.00	0.95	0.00	0.00	1.09	0.14	0.14	22.21	0.32	0.32
95th-Percentile Queue Length [ft/ln]	9.20	0.00	0.00	23.78	0.00	0.00	27.14	3.45	3.45	555.18	8.08	8.08
d_A, Approach Delay [s/veh]	0.43			1.19			92.74			4995.52		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	299.70											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: US-395/Three Flags Rd

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 21.5
 Level Of Service: C
 Volume to Capacity (v/c): 0.696

Intersection Setup

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
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	0	1	0	1
Entry Pocket Length [ft]	190.00	100.00	190.00	224.00	100.00	224.00	182.00	100.00	100.00	274.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
Base Volume Input [veh/h]	39	758	106	32	858	77	30	3	89	188	4	33
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	552	0	0	341	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	174	30	3	100	0	0	0	0	21	0	2
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	35	0	0	20	0	0	23	0	0	9
Total Hourly Volume [veh/h]	41	1514	105	36	1333	60	31	3	70	217	4	27
Peak Hour Factor	0.9280	0.9280	0.9280	0.9330	0.9330	0.9330	0.7960	0.7960	0.7960	0.8300	0.8300	0.8300
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]	11	408	28	10	357	16	10	1	22	65	1	8
Total Analysis Volume [veh/h]	44	1631	113	39	1429	64	39	4	88	261	5	33
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	105
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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	33	55	0	20	42	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105
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
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	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
g_i, Effective Green Time [s]	4	64	64	3	63	63	26	26	26	26	26
g / C, Green / Cycle	0.04	0.61	0.61	0.03	0.60	0.60	0.25	0.25	0.25	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.03	0.48	0.07	0.02	0.42	0.04	0.03	0.06	0.20	0.00	0.02
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1391	1540	1325	1800	1530
c, Capacity [veh/h]	62	2073	925	57	2062	921	384	381	308	446	379
d1, Uniform Delay [s]	50.04	15.64	8.85	50.20	14.28	8.69	32.32	31.61	43.79	29.80	30.37
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.22	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
d2, Incremental Delay [s]	13.65	3.11	0.27	13.44	1.94	0.15	0.11	0.32	12.23	0.01	0.10
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
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
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

Lane Group Results

X, volume / capacity	0.71	0.79	0.12	0.68	0.69	0.07	0.10	0.24	0.85	0.01	0.09
d, Delay for Lane Group [s/veh]	63.69	18.75	9.12	63.65	16.22	8.83	32.43	31.93	56.02	29.81	30.47
Lane Group LOS	E	B	A	E	B	A	C	C	E	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.35	13.26	1.04	1.20	10.39	0.57	0.80	1.90	7.88	0.10	0.65
50th-Percentile Queue Length [ft/ln]	33.64	331.52	25.98	29.91	259.67	14.33	20.04	47.48	196.89	2.42	16.33
95th-Percentile Queue Length [veh/ln]	2.42	19.23	1.87	2.15	15.67	1.03	1.44	3.42	12.48	0.17	1.18
95th-Percentile Queue Length [ft/ln]	60.55	480.82	46.76	53.85	391.81	25.79	36.08	85.47	311.95	4.36	29.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	63.69	18.75	9.12	63.65	16.22	8.83	32.43	31.93	31.93	56.02	29.81	30.47
Movement LOS	E	B	A	E	B	A	C	C	C	E	C	C
d_A, Approach Delay [s/veh]	19.25			17.12			32.08			52.76		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	21.50											
Intersection LOS	C											
Intersection V/C	0.696											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			43.89			0.00			43.89		
I_p,int, Pedestrian LOS Score for Intersection	0.000			3.341			0.000			2.274		
Crosswalk LOS	F			C			F			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	971			724			495			495		
d_b, Bicycle Delay [s]	13.89			21.38			29.72			29.72		
I_b,int, Bicycle LOS Score for Intersection	3.064			2.840			1.814			2.068		
Bicycle LOS	C			C			A			B		

Sequence

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



Intersection Level Of Service Report

Intersection 3: US-395/Joshua St

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 30.7
 Level Of Service: C
 Volume to Capacity (v/c): 0.817

Intersection Setup

Name	US-395			US-395			Joshua St			Joshua 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	1	1	0	0	1	0	1
Entry Pocket Length [ft]	191.00	100.00	226.00	200.00	100.00	223.00	140.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	US-395			US-395			Joshua St			Joshua St		
Base Volume Input [veh/h]	9	764	48	127	904	102	16	24	9	96	55	121
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	366	0	37	211	0	0	0	0	0	0	186
Site-Generated Trips [veh/h]	0	112	62	39	82	1	2	0	0	264	0	91
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	28	0	0	27	0	0	2	0	0	101
Total Hourly Volume [veh/h]	9	1273	84	208	1233	80	19	25	7	364	57	302
Peak Hour Factor	0.9120	0.9120	0.9120	0.8980	0.8980	0.8980	0.6740	0.6740	0.6740	0.9610	0.9610	0.9610
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]	2	349	23	58	343	22	7	9	3	95	15	79
Total Analysis Volume [veh/h]	10	1396	92	232	1373	89	28	37	10	379	59	314
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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	Fully 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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	18	43	0	17	42	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	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
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	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
g_i, Effective Green Time [s]	1	39	39	13	51	51	26	26	26	26	26
g / C, Green / Cycle	0.01	0.43	0.43	0.14	0.56	0.56	0.29	0.29	0.29	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.01	0.41	0.06	0.14	0.40	0.06	0.03	0.03	0.27	0.03	0.21
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1025	1735	1380	1800	1530
c, Capacity [veh/h]	23	1483	662	249	1934	863	329	501	421	520	442
d1, Uniform Delay [s]	44.07	24.45	15.42	38.06	14.26	9.08	26.52	23.40	34.99	23.54	28.64
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.32	0.11	0.17
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
d2, Incremental Delay [s]	12.03	13.04	0.44	14.61	2.24	0.24	0.11	0.08	17.69	0.10	3.29
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
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
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

Lane Group Results

X, volume / capacity	0.43	0.94	0.14	0.93	0.71	0.10	0.09	0.09	0.90	0.11	0.71
d, Delay for Lane Group [s/veh]	56.09	37.48	15.85	52.66	16.50	9.32	26.63	23.48	52.68	23.63	31.93
Lane Group LOS	E	D	B	D	B	A	C	C	D	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.29	15.18	1.12	5.79	8.98	0.75	0.45	0.70	10.04	0.88	6.02
50th-Percentile Queue Length [ft/ln]	7.25	379.61	27.99	144.78	224.53	18.72	11.31	17.45	251.03	22.03	150.52
95th-Percentile Queue Length [veh/ln]	0.52	21.57	2.02	9.74	13.90	1.35	0.81	1.26	15.24	1.59	10.04
95th-Percentile Queue Length [ft/ln]	13.06	539.37	50.38	243.44	347.40	33.70	20.35	31.41	380.95	39.65	251.12

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.09	37.48	15.85	52.66	16.50	9.32	26.63	23.48	23.48	52.68	23.63	31.93
Movement LOS	E	D	B	D	B	A	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	36.28			21.08			24.66			41.74		
Approach LOS	D			C			C			D		
d_I, Intersection Delay [s/veh]	30.68											
Intersection LOS	C											
Intersection V/C	0.817											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			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]	0.00			36.46			36.46			36.46		
I_p,int, Pedestrian LOS Score for Intersection	0.000			3.400			2.072			2.730		
Crosswalk LOS	F			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	866			844			578			578		
d_b, Bicycle Delay [s]	14.46			15.03			22.77			22.77		
I_b,int, Bicycle LOS Score for Intersection	2.819			2.979			1.687			2.967		
Bicycle LOS	C			C			A			C		

Sequence

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



Intersection Level Of Service Report

Intersection 4: Main St/Mesa Linda St

Control Type:	Signalized	Delay (sec / veh):	24.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	32.049

Intersection Setup

Name	Mesa Linda St			Mesa Linda St			Main St			Main 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	0	0	1	0	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	340.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	2	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Mesa Linda St			Mesa Linda St			Main St			Main St		
Base Volume Input [veh/h]	1	0	28	46	1	16	14	918	7	75	593	17
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0	31	0	0	0	0	210	9	175	993	0
Site-Generated Trips [veh/h]	0	0	1	0	0	0	0	29	0	4	56	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	15	0	0	4	0	0	4	0	0	5
Total Hourly Volume [veh/h]	6	0	46	48	1	13	15	1194	12	257	1666	13
Peak Hour Factor	0.5940	0.5940	0.5940	0.8290	0.8290	0.8290	0.9620	0.9620	0.9620	0.8380	0.8380	0.8380
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	0	19	14	0	4	4	310	3	77	497	4
Total Analysis Volume [veh/h]	10	0	77	58	1	16	16	1241	12	307	1988	16
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	37	0	0	37	0	0	68	0	0	68	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	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	27	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	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	C	R	C	R	L	C	C	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105
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]	2.00	0.00	2.00	0.00	2.00	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	2.00
g_i, Effective Green Time [s]	33	33	33	33	64	64	64	64	64	64
g / C, Green / Cycle	0.31	0.31	0.31	0.31	0.61	0.61	0.61	0.61	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	10000.00	0.05	31.37	0.01	0.07	0.24	0.24	0.68	0.41	0.01
s, saturation flow rate [veh/h]	0	1530	2	1530	218	3427	1791	450	4903	1530
c, Capacity [veh/h]	69	481	69	481	139	2089	1092	279	2989	933
d1, Uniform Delay [s]	52.50	25.99	52.17	24.95	25.88	10.53	10.53	34.01	13.46	8.09
k, delay calibration	0.50	0.50	0.50	0.50	0.50	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	1.00
d2, Incremental Delay [s]	4.43	0.71	74.15	0.13	1.67	0.56	1.07	83.60	1.19	0.03
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	0.15	0.16	0.86	0.03	0.11	0.39	0.39	1.10	0.67	0.02
d, Delay for Lane Group [s/veh]	56.93	26.71	126.32	25.08	27.55	11.09	11.60	117.61	14.65	8.12
Lane Group LOS	E	C	F	C	C	B	B	F	B	A
Critical Lane Group	No	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.35	1.48	2.96	0.29	0.34	4.28	4.62	13.55	8.79	0.13
50th-Percentile Queue Length [ft/ln]	8.68	37.07	74.08	7.35	8.49	106.88	115.58	338.83	219.87	3.29
95th-Percentile Queue Length [veh/ln]	0.62	2.67	5.33	0.53	0.61	7.67	8.15	21.01	13.66	0.24
95th-Percentile Queue Length [ft/ln]	15.62	66.73	133.35	13.23	15.28	191.65	203.74	525.26	341.46	5.92

Movement, Approach, & Intersection Results

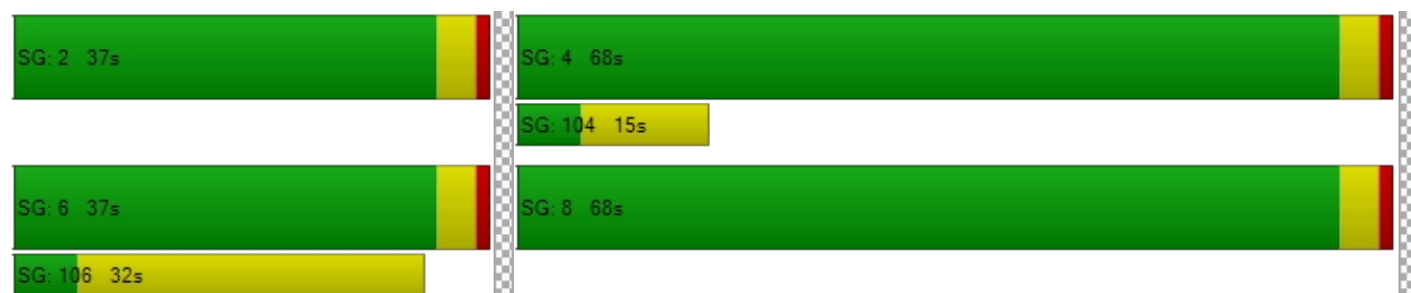
d_M, Delay for Movement [s/veh]	56.93	56.93	26.71	126.32	126.32	25.08	27.55	11.26	11.60	117.61	14.65	8.12
Movement LOS	E	E	C	F	F	C	C	B	B	F	B	A
d_A, Approach Delay [s/veh]	30.18			104.72			11.47			28.28		
Approach LOS	C			F			B			C		
d_I, Intersection Delay [s/veh]	24.16											
Intersection LOS	C											
Intersection V/C	32.049											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			43.89			0.00			43.89		
I_p,int, Pedestrian LOS Score for Intersection	0.000			2.015			0.000			3.577		
Crosswalk LOS	F			B			F			D		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	629			629			1219			1219		
d_b, Bicycle Delay [s]	24.69			24.69			8.00			8.00		
I_b,int, Bicycle LOS Score for Intersection	1.728			1.690			2.260			2.833		
Bicycle LOS	A			A			B			C		

Sequence

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



Intersection Level Of Service Report

Intersection 5: Main St/Key Pointe Ave

Control Type:	Signalized	Delay (sec / veh):	36.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.620

Intersection Setup

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main 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	1	1	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	140.00	100.00	100.00	200.00	100.00	200.00	200.00	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main St		
Base Volume Input [veh/h]	4	12	97	137	26	11	30	927	8	193	607	134
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	216	0	0	1256	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	30	0	0	60	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	25	0	0	3	0	0	2	0	0	35
Total Hourly Volume [veh/h]	4	12	76	142	27	8	31	1210	6	201	1947	104
Peak Hour Factor	0.8190	0.8190	0.8190	0.8180	0.8180	0.8180	0.9330	0.9330	0.9330	0.8560	0.8560	0.8560
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]	1	4	23	43	8	2	8	324	2	59	569	30
Total Analysis Volume [veh/h]	5	15	93	174	33	10	33	1297	6	235	2275	121
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
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	36	0	0	36	0	13	43	0	26	56	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	24	0	0	27	0	0	14	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	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105
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
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	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	2.00	2.00
g_i, Effective Green Time [s]	32	32	32	32	32	9	39	39	22	52	52
g / C, Green / Cycle	0.30	0.30	0.30	0.30	0.30	0.09	0.37	0.37	0.21	0.50	0.50
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.06	0.13	0.02	0.02	0.26	0.00	0.14	0.46	0.47
s, saturation flow rate [veh/h]	1385	1800	1530	1306	1729	1714	4903	1530	1714	3427	1754
c, Capacity [veh/h]	440	549	466	434	527	147	1821	568	359	1697	869
d1, Uniform Delay [s]	28.23	25.59	27.02	31.41	26.02	44.75	28.20	20.82	38.02	24.76	25.12
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	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	1.00	1.00
d2, Incremental Delay [s]	0.05	0.09	0.96	2.75	0.30	3.51	2.40	0.03	8.97	10.41	19.62
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
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
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

Lane Group Results

X, volume / capacity	0.01	0.03	0.20	0.40	0.08	0.22	0.71	0.01	0.65	0.93	0.94
d, Delay for Lane Group [s/veh]	28.28	25.68	27.98	34.16	26.33	48.26	30.60	20.86	46.98	35.17	44.74
Lane Group LOS	C	C	C	C	C	D	C	C	D	D	D
Critical Lane Group	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.10	0.28	1.85	3.97	0.81	0.91	8.95	0.09	6.14	18.40	21.57
50th-Percentile Queue Length [ft/ln]	2.46	6.93	46.16	99.22	20.28	22.83	223.80	2.32	153.51	459.89	539.16
95th-Percentile Queue Length [veh/ln]	0.18	0.50	3.32	7.14	1.46	1.64	13.86	0.17	10.20	25.43	29.18
95th-Percentile Queue Length [ft/ln]	4.43	12.47	83.09	178.59	36.51	41.09	346.48	4.18	255.11	635.74	729.56

Movement, Approach, & Intersection Results

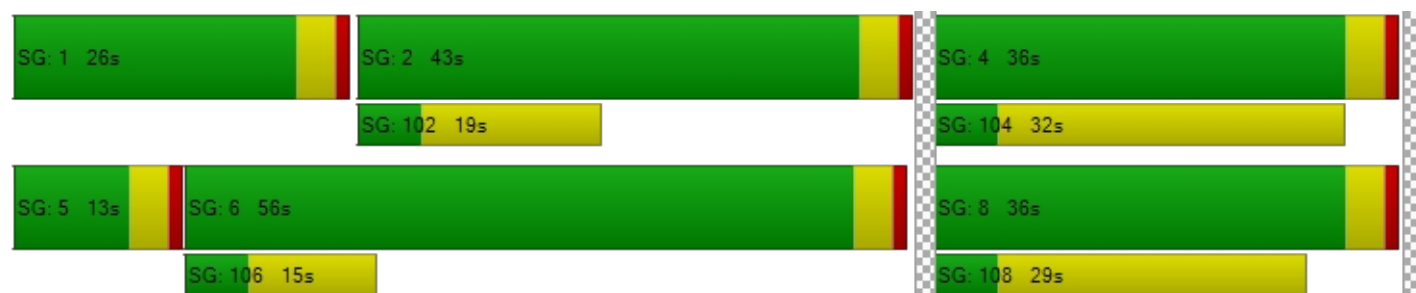
d_M, Delay for Movement [s/veh]	28.28	25.68	27.98	34.16	26.33	26.33	48.26	30.60	20.86	46.98	38.11	44.74
Movement LOS	C	C	C	C	C	C	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	27.69			32.61			31.00			39.21		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	36.02											
Intersection LOS	D											
Intersection V/C	0.620											

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]	43.89			43.89			43.89			43.89		
I_p,int, Pedestrian LOS Score for Intersection	2.277			2.091			3.482			3.888		
Crosswalk LOS	B			B			C			D		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	610			610			743			990		
d_b, Bicycle Delay [s]	25.38			25.38			20.74			13.38		
I_b,int, Bicycle LOS Score for Intersection	1.787			1.923			2.296			3.026		
Bicycle LOS	A			A			B			C		

Sequence

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



Intersection Level Of Service Report

Intersection 6: Main St/I-15 SB Off Ramp

Control Type:	Signalized	Delay (sec / veh):	18.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.762

Intersection Setup

Name	I-15 SB Off Ramp		Main St		Main St	
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	1	1	0	0	0	0
Entry Pocket Length [ft]	1100.00	530.00	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]	40.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-15 SB Off Ramp		Main St		Main St	
Base Volume Input [veh/h]	310	177	0	1010	758	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	546	0	116	699	0
Site-Generated Trips [veh/h]	0	22	0	23	38	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
Right Turn on Red Volume [veh/h]	0	188	0	0	0	0
Total Hourly Volume [veh/h]	322	564	0	1189	1525	0
Peak Hour Factor	0.8940	0.8940	1.0000	0.9470	0.8890	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	90	158	0	314	429	0
Total Analysis Volume [veh/h]	360	631	0	1256	1715	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
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	Split	Split	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	0	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	0	10	10	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	44	0	0	16	16	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Delayed Vehicle Green [s]	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	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	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
I, Upstream Filtering Factor	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	R	C	C
C, Cycle Length [s]	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	28	28	24	24
g / C, Green / Cycle	0.46	0.46	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.11	0.41	0.26	0.35
s, saturation flow rate [veh/h]	3329	1530	4903	4903
c, Capacity [veh/h]	1535	706	1988	1988
d1, Uniform Delay [s]	9.77	14.82	14.25	16.31
k, delay calibration	0.11	0.18	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.08	6.73	1.54	5.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.23	0.89	0.63	0.86
d, Delay for Lane Group [s/veh]	9.84	21.55	15.79	21.55
Lane Group LOS	A	C	B	C
Critical Lane Group	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	1.16	7.39	3.72	6.33
50th-Percentile Queue Length [ft/ln]	28.95	184.79	92.96	158.26
95th-Percentile Queue Length [veh/ln]	2.08	11.85	6.69	10.46
95th-Percentile Queue Length [ft/ln]	52.11	296.26	167.32	261.41

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	9.84	21.55	0.00	15.79	21.55	0.00
Movement LOS	A	C		B	C	
d_A, Approach Delay [s/veh]	17.30		15.79		21.55	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	18.66					
Intersection LOS	B					
Intersection V/C	0.762					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1333	400	400
d_b, Bicycle Delay [s]	3.33	19.20	19.20
I_b,int, Bicycle LOS Score for Intersection	1.560	2.250	2.503
Bicycle LOS	A	B	B

Sequence

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



Intersection Level Of Service Report

Intersection 7: Main St/I-15 NB Ramps

Control Type:	Signalized	Delay (sec / veh):	17.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.709

Intersection Setup

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main 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	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	1790.0	100.00	615.00	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]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main St		
Base Volume Input [veh/h]	82	3	411	0	0	0	0	1021	0	0	1103	460
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	571	0	0	0	0	0	0	23	0	0	128	0
Site-Generated Trips [veh/h]	22	0	0	0	0	0	7	16	0	0	16	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	107	0	0	0	0	0	0	0	0	120
Total Hourly Volume [veh/h]	678	3	320	0	0	0	7	1101	0	0	1291	358
Peak Hour Factor	0.9300	0.9300	0.9300	1.0000	1.0000	1.0000	1.0000	0.9190	1.0000	1.0000	0.9300	0.9300
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]	182	1	86	0	0	0	2	300	0	0	347	96
Total Analysis Volume [veh/h]	729	3	344	0	0	0	7	1198	0	0	1388	385
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	60
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	Split	Split	Split	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	32	0	0	0	0	0	28	0	0	28	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	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	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		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		C	C	C
C, Cycle Length [s]	60	60	60		60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31		21	21	21
g / C, Green / Cycle	0.51	0.51	0.51		0.35	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.43	0.11	0.11		0.24	0.27	0.28
s, saturation flow rate [veh/h]	1714	1534	1530		4903	4903	1561
c, Capacity [veh/h]	877	785	783		1741	1741	554
d1, Uniform Delay [s]	12.45	8.07	8.07		16.51	17.12	17.43
k, delay calibration	0.50	0.50	0.50		0.11	0.11	0.13
l, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	9.03	0.65	0.65		0.49	0.72	3.34
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.22	0.22		0.69	0.76	0.80
d, Delay for Lane Group [s/veh]	21.48	8.72	8.72		17.01	17.84	20.77
Lane Group LOS	C	A	A		B	B	C
Critical Lane Group	Yes	No	No		No	No	Yes
50th-Percentile Queue Length [veh/ln]	8.26	1.08	1.08		3.77	4.36	4.84
50th-Percentile Queue Length [ft/ln]	206.39	26.89	26.91		94.25	109.08	120.95
95th-Percentile Queue Length [veh/ln]	12.97	1.94	1.94		6.79	7.79	8.45
95th-Percentile Queue Length [ft/ln]	324.20	48.40	48.44		169.64	194.72	211.13

Movement, Approach, & Intersection Results

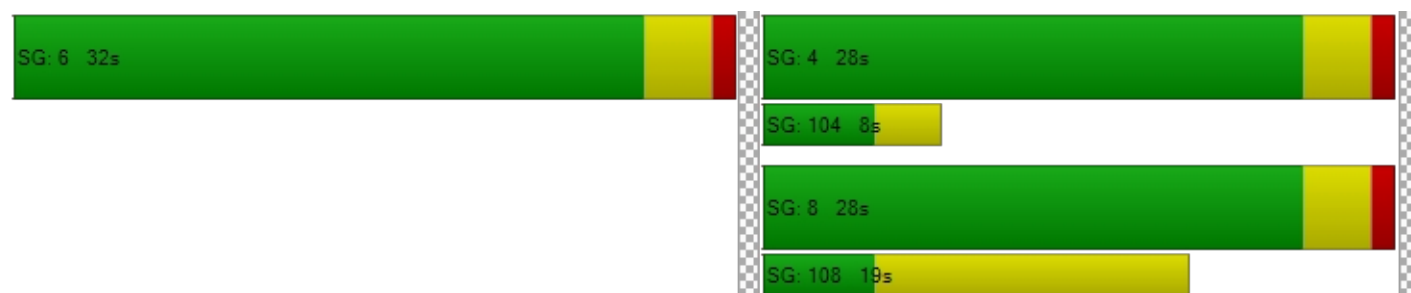
d_M, Delay for Movement [s/veh]	21.48	8.72	8.72	0.00	0.00	0.00	0.00	17.01	0.00	0.00	17.96	20.77
Movement LOS	C	A	A					B			B	C
d_A, Approach Delay [s/veh]	17.36			0.00			17.01			18.57		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	17.79											
Intersection LOS	B											
Intersection V/C	0.709											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	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]	21.68	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.648	1.899	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	933	0	800	800
d_b, Bicycle Delay [s]	8.53	30.00	10.80	10.80
I_b,int, Bicycle LOS Score for Intersection	3.512	4.132	2.219	2.340
Bicycle LOS	D	D	B	B

Sequence

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



Intersection Level Of Service Report
Intersection 8: Three Flags Ave-Lassen St/Poplar St

Control Type:	Two-way stop	Delay (sec / veh):	38.7
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.178

Intersection Setup

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda 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	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda St		
Base Volume Input [veh/h]	13	0	30	0	0	0	0	24	29	85	8	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	30	96	225	0	0	125	0
Site-Generated Trips [veh/h]	0	0	0	0	0	2	7	63	0	0	14	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]	14	0	31	0	0	32	103	313	30	88	147	0
Peak Hour Factor	0.6360	0.6360	0.6360	1.0000	1.0000	1.0000	0.6790	0.6790	0.6790	0.7840	0.7840	0.7840
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]	6	0	12	0	0	8	38	115	11	28	47	0
Total Analysis Volume [veh/h]	22	0	49	0	0	32	152	461	44	112	188	0
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	0.18	0.00	0.08	0.00	0.00	0.04	0.11	0.00	0.00	0.10	0.00	0.00
d_M, Delay for Movement [s/veh]	38.67	35.33	15.73	36.10	31.67	9.35	7.89	0.00	0.00	8.76	0.00	0.00
Movement LOS	E	E	C	E	D	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.02	1.02	1.02	0.12	0.12	0.12	0.37	0.37	0.37	0.35	0.35	0.35
95th-Percentile Queue Length [ft/ln]	25.45	25.45	25.45	2.90	2.90	2.90	9.13	9.13	9.13	8.74	8.74	8.74
d_A, Approach Delay [s/veh]	22.84			9.35			1.82			3.27		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	3.87											
Intersection LOS	E											

Intersection Level Of Service Report

Intersection 9: Mesa Linda St/Sultana Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 12.4
 Level Of Service: B
 Volume to Capacity (v/c): 0.002

Intersection Setup

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
Base Volume Input [veh/h]	0	51	2	0	94	0	0	0	0	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	77	0	0	102	14	1	0	1	0	0	0
Site-Generated Trips [veh/h]	0	1	0	0	4	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]	5	131	2	0	204	14	1	0	1	0	0	0
Peak Hour Factor	0.6310	0.6310	0.6310	0.7920	0.7920	0.7920	1.0000	1.0000	1.0000	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]	2	52	1	0	64	4	0	0	0	0	0	0
Total Analysis Volume [veh/h]	8	208	3	0	258	18	1	0	1	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.79	0.00	0.00	0.00	0.00	0.00	12.40	0.00	9.66	0.00	0.00	0.00
Movement LOS	A	A			A	A	B		A			
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.46	0.46	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.29			0.00			11.03			0.00		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	0.17											
Intersection LOS	B											

Intersection Level Of Service Report

Intersection 10: Joshua Rd/Outpost Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 29.6
 Level Of Service: D
 Volume to Capacity (v/c): 0.289

Intersection Setup

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua 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	0	0	0	1	0	1	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]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua St		
Base Volume Input [veh/h]	0	0	0	39	0	108	0	90	0	0	117	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	37	0	0	186	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	101	0	0	355	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]	0	0	0	41	0	112	0	232	0	0	663	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.6950	0.6950	0.6950	1.0000	0.6990	1.0000	1.0000	0.9130	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	0	0	15	0	40	0	83	0	0	182	0
Total Analysis Volume [veh/h]	0	0	0	59	0	161	0	332	0	0	726	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	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	0.00	0.29	0.00	0.38	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	37.05	20.89	10.04	29.61	20.89	18.40	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	E	C	B	D	C	C		A			A	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	1.15	0.00	1.72	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	28.64	0.00	43.03	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	22.66			21.41			0.00			0.00		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	3.69											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 11: Joshua St/I-15 SB Off-Ramp

Control Type:	Two-way stop	Delay (sec / veh):	52.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.017

Intersection Setup

Name	Joshua St		Joshua St		Joshua St	
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	1	0	0	0	0
Entry Pocket Length [ft]	100.00	1500.00	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]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Joshua St		Joshua St		Joshua St	
Base Volume Input [veh/h]	66	207	0	154	30	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	186	0	37	0	0
Site-Generated Trips [veh/h]	0	353	0	101	2	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]	69	754	0	298	33	0
Peak Hour Factor	0.7150	0.7150	1.0000	0.8560	0.8190	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	264	0	87	10	0
Total Analysis Volume [veh/h]	97	1055	0	348	40	0
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	0.16	1.02	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.89	52.41	0.00	0.00	0.00	0.00
Movement LOS	B	F		A	A	
95th-Percentile Queue Length [veh/ln]	0.55	21.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	13.81	526.06	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	49.00		0.00		0.00	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	36.66					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 12: Joshua St/I-15 NB On-Ramp

Control Type:	Two-way stop	Delay (sec / veh):	7.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.184

Intersection Setup

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
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	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
Base Volume Input [veh/h]	0	0	107	111	32	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	37	0	0	0
Site-Generated Trips [veh/h]	0	0	100	1	2	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	0	248	116	35	12
Peak Hour Factor	1.0000	1.0000	0.8720	0.8720	0.6800	0.6800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	71	33	13	4
Total Analysis Volume [veh/h]	0	0	284	133	51	18
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			
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.18	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.85	0.00	0.00	0.00
Movement LOS			A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.67	0.67	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	16.82	16.82	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		5.35		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.59					
Intersection LOS	A					

Mesa Linda Street Warehouse

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Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	US-395/Poplar St	55	1136	404	87	1140	27	7	0	19	77	0	14	2966

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	US-395/Three Flags Rd	41	1514	140	36	1333	80	31	3	93	217	4	36	3528

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	US-395/Joshua St	9	1273	112	208	1233	107	19	25	9	364	57	403	3819

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	Main St/Mesa Linda St	6	0	61	48	1	17	15	1194	16	257	1666	18	3299

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	Main St/Key Pointe Ave	4	12	101	142	27	11	31	1210	8	201	1947	139	3833

ID	Intersection Name	Southbound		Eastbound		Total Volume
		Left	Right	Thru	Thru	
6	Main St/I-15 SB Off Ramp	322	752	1189	1525	3788

ID	Intersection Name	Northbound			Eastbound		Westbound		Total Volume
		Left	Thru	Right	Thru	Thru	Right	Right	
7	Main St/I-15 NB Ramps	678	3	427	1101	1291	478	3978	

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
8	Three Flags Ave-Lassen St/Poplar St	14	0	31	0	0	32	103	313	30	88	147	0	758

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
9	Mesa Linda St/Sultana Rd	5	131	204	14	1	1	356

ID	Intersection Name	Northbound			Southbound			Eastbound	Westbound	Total Volume
		Left	Thru	Right	Left	Thru	Right	Thru	Thru	
10	Joshua Rd/Outpost Rd	0	0	0	41	0	112	232	663	1048

ID	Intersection Name	Southbound		Eastbound	Westbound	Total Volume
		Left	Right	Thru	Thru	
11	Joshua St/I-15 SB Off-Ramp	69	754	298	33	1154

ID	Intersection Name	Eastbound		Westbound		Total Volume
		Left	Thru	Thru	Right	
12	Joshua St/I-15 NB On-Ramp	248	116	35	12	411

Mesa Linda Street Warehouse
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Scenario 6 Opening Year PM

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Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	US-395/Poplar St	Two-way stop	HCM 6th Edition	WB Left	31.979	10,000.0	F
2	US-395/Three Flags Rd	Signalized	HCM 6th Edition	SB Left	0.653	21.2	C
3	US-395/Joshua St	Signalized	HCM 6th Edition	NB Left	0.849	40.5	D
4	Main St/Mesa Linda St	Signalized	HCM 6th Edition	NB Left	5.112	19.9	B
5	Main St/Key Pointe Ave	Signalized	HCM 6th Edition	WB Left	0.925	62.8	E
6	Main St/I-15 SB Off Ramp	Signalized	HCM 6th Edition	SB Right	0.692	13.4	B
7	Main St/I-15 NB Ramps	Signalized	HCM 6th Edition	EB Thru	0.554	14.7	B
8	Three Flags Ave-Lassen St/Poplar St	Two-way stop	HCM 6th Edition	NB Left	0.232	31.0	D
9	Mesa Linda St/Sultana Rd	Two-way stop	HCM 6th Edition	EB Left	0.015	12.7	B
10	Joshua Rd/Outpost Rd	Two-way stop	HCM 6th Edition	SB Left	0.374	36.6	E
11	Joshua St/I-15 SB Off-Ramp	Two-way stop	HCM 6th Edition	SB Left	0.081	15.6	C
12	Joshua St/I-15 NB On-Ramp	Two-way stop	HCM 6th Edition	EB Left	0.434	9.2	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: US-395/Poplar St**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10,000.0
 Level Of Service: F
 Volume to Capacity (v/c): 31.979

Intersection Setup

Name	US-395			US-395						Poplar 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	0	1	0	1	1	0	0	0	0	1
Entry Pocket Length [ft]	150.00	100.00	100.00	373.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	510.00
No. of Lanes in Exit Pocket	0	0	0	0	0	2	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	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		
Crosswalk	No			No			Yes			No		

Volumes

Name	US-395			US-395						Poplar St		
Base Volume Input [veh/h]	0	1157	34	25	976	0	0	0	0	6	0	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	32	37	66	10	168	15	23	0	47	293	0	44
Site-Generated Trips [veh/h]	0	99	30	6	134	0	0	0	0	47	0	9
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]	32	1339	131	42	1317	15	23	0	47	346	0	99
Peak Hour Factor	0.9430	0.9430	0.9430	0.9110	0.9110	0.9110	1.0000	1.0000	1.0000	0.7580	0.7580	0.7580
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	355	35	12	361	4	6	0	12	114	0	33
Total Analysis Volume [veh/h]	34	1420	139	46	1446	16	23	0	47	456	0	131
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
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	0.07	0.01	0.00	0.11	0.01	0.00	2.07	0.00	0.13	31.98	0.00	0.38
d_M, Delay for Movement [s/veh]	13.29	0.00	0.00	14.38	0.00	0.00	1166.2	410.70	16.03	10000.	384.05	21.86
Movement LOS	B	A	A	B	A	A	F	F	C	F	F	C
95th-Percentile Queue Length [veh/ln]	0.23	0.00	0.00	0.36	0.00	0.00	3.77	0.43	0.43	58.16	1.74	1.74
95th-Percentile Queue Length [ft/ln]	5.85	0.00	0.00	8.92	0.00	0.00	94.26	10.69	10.69	1453.9	43.55	43.55
d_A, Approach Delay [s/veh]	0.28			0.44			393.96			7773.19		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	1221.81											
Intersection LOS	F											

Intersection Level Of Service Report

Intersection 2: US-395/Three Flags Rd

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 21.2
 Level Of Service: C
 Volume to Capacity (v/c): 0.653

Intersection Setup

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
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	0	1	0	1
Entry Pocket Length [ft]	190.00	100.00	190.00	224.00	100.00	224.00	182.00	100.00	100.00	274.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
Base Volume Input [veh/h]	62	1088	108	27	851	95	62	1	95	133	6	25
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	135	0	0	271	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	124	39	4	177	0	0	0	0	45	0	5
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	38	0	0	25	0	0	25	0	0	8
Total Hourly Volume [veh/h]	64	1391	113	32	1333	74	64	1	74	183	6	23
Peak Hour Factor	0.9790	0.9790	0.9790	0.9230	0.9230	0.9230	0.8040	0.8040	0.8040	0.7130	0.7130	0.7130
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	355	29	9	361	20	20	0	23	64	2	8
Total Analysis Volume [veh/h]	65	1421	115	35	1444	80	80	1	92	257	8	32
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	105
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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	36	43	0	32	39	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105
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
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	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
g_i, Effective Green Time [s]	5	64	64	3	62	62	26	26	26	26	26
g / C, Green / Cycle	0.05	0.61	0.61	0.03	0.59	0.59	0.25	0.25	0.25	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.04	0.41	0.08	0.02	0.42	0.05	0.06	0.06	0.19	0.00	0.02
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1389	1532	1324	1800	1530
c, Capacity [veh/h]	87	2076	927	55	2014	899	381	379	307	446	379
d1, Uniform Delay [s]	49.20	13.94	8.82	50.19	15.43	9.42	33.44	31.64	43.74	29.85	30.35
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.22	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
d2, Incremental Delay [s]	12.23	1.86	0.27	11.29	2.23	0.20	0.27	0.33	11.29	0.02	0.09
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
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
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

Lane Group Results

X, volume / capacity	0.75	0.68	0.12	0.63	0.72	0.09	0.21	0.25	0.84	0.02	0.08
d, Delay for Lane Group [s/veh]	61.42	15.79	9.10	61.47	17.66	9.62	33.71	31.97	55.03	29.87	30.45
Lane Group LOS	E	B	A	E	B	A	C	C	E	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.93	10.13	1.05	1.06	11.15	0.76	1.70	1.92	7.67	0.16	0.63
50th-Percentile Queue Length [ft/ln]	48.14	253.27	26.35	26.39	278.80	19.03	42.55	48.05	191.74	3.88	15.82
95th-Percentile Queue Length [veh/ln]	3.47	15.35	1.90	1.90	16.63	1.37	3.06	3.46	12.21	0.28	1.14
95th-Percentile Queue Length [ft/ln]	86.66	383.77	47.42	47.51	415.72	34.25	76.60	86.50	305.29	6.98	28.48

Movement, Approach, & Intersection Results

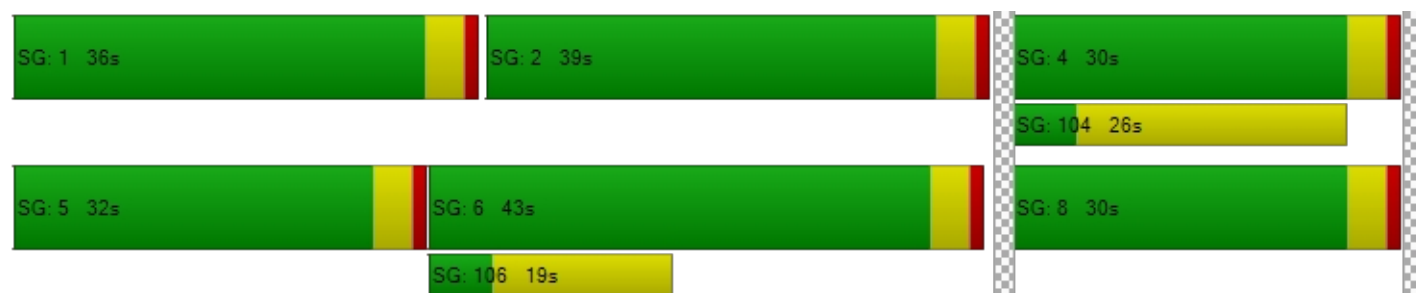
d_M, Delay for Movement [s/veh]	61.42	15.79	9.10	61.47	17.66	9.62	33.71	31.97	31.97	55.03	29.87	30.45
Movement LOS	E	B	A	E	B	A	C	C	C	E	C	C
d_A, Approach Delay [s/veh]	17.17			18.23			32.78			51.70		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	21.19											
Intersection LOS	C											
Intersection V/C	0.653											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			43.89			0.00			43.89		
I_p,int, Pedestrian LOS Score for Intersection	0.000			3.373			0.000			2.272		
Crosswalk LOS	F			C			F			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	743			667			495			495		
d_b, Bicycle Delay [s]	20.74			23.33			29.72			29.72		
I_b,int, Bicycle LOS Score for Intersection	2.912			2.866			1.886			2.063		
Bicycle LOS	C			C			A			B		

Sequence

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



Intersection Level Of Service Report

Intersection 3: US-395/Joshua St

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 40.5
 Level Of Service: D
 Volume to Capacity (v/c): 0.849

Intersection Setup

Name	US-395			US-395			Joshua St			Joshua 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	1	1	0	0	1	0	1
Entry Pocket Length [ft]	191.00	100.00	226.00	200.00	100.00	223.00	140.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	US-395			US-395			Joshua St			Joshua St		
Base Volume Input [veh/h]	24	1112	101	105	925	21	39	51	7	84	26	137
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	88	0	169	196	0	0	0	0	0	0	46
Site-Generated Trips [veh/h]	0	98	212	95	125	3	2	0	0	136	0	63
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	79	0	0	6	0	0	2	0	0	63
Total Hourly Volume [veh/h]	25	1342	238	373	1283	19	43	53	5	223	27	188
Peak Hour Factor	0.9210	0.9210	0.9210	0.9020	0.9020	0.9020	0.7780	0.7780	0.7780	0.9060	0.9060	0.9060
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]	7	364	65	103	356	5	14	17	2	62	7	52
Total Analysis Volume [veh/h]	27	1457	258	414	1422	21	55	68	6	246	30	208
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully 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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	37	54	0	36	53	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
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
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	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
g_i, Effective Green Time [s]	3	51	51	31	79	79	26	26	26	26	26
g / C, Green / Cycle	0.03	0.43	0.43	0.26	0.66	0.66	0.22	0.22	0.22	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.02	0.43	0.17	0.24	0.41	0.01	0.05	0.04	0.18	0.02	0.14
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1160	1775	1347	1800	1530
c, Capacity [veh/h]	44	1467	655	437	2253	1006	278	385	285	390	332
d1, Uniform Delay [s]	57.85	34.13	23.60	43.88	12.03	7.13	41.56	38.37	50.84	37.39	42.56
k, delay calibration	0.11	0.50	0.50	0.38	0.50	0.50	0.11	0.11	0.25	0.11	0.12
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
d2, Incremental Delay [s]	13.24	21.96	1.78	26.66	1.36	0.04	0.35	0.24	16.11	0.08	2.08
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
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
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

Lane Group Results

X, volume / capacity	0.62	0.99	0.39	0.95	0.63	0.02	0.20	0.19	0.86	0.08	0.63
d, Delay for Lane Group [s/veh]	71.09	56.09	25.38	70.53	13.38	7.17	41.91	38.61	66.94	37.48	44.63
Lane Group LOS	E	E	C	E	B	A	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.95	24.11	5.13	14.84	9.94	0.18	1.38	1.77	8.56	0.70	5.62
50th-Percentile Queue Length [ft/ln]	23.86	602.83	128.31	370.95	248.49	4.43	34.61	44.14	213.97	17.41	140.40
95th-Percentile Queue Length [veh/ln]	1.72	32.17	8.85	21.16	15.11	0.32	2.49	3.18	13.36	1.25	9.50
95th-Percentile Queue Length [ft/ln]	42.95	804.16	221.19	528.88	377.75	7.98	62.30	79.46	333.92	31.34	237.56

Movement, Approach, & Intersection Results

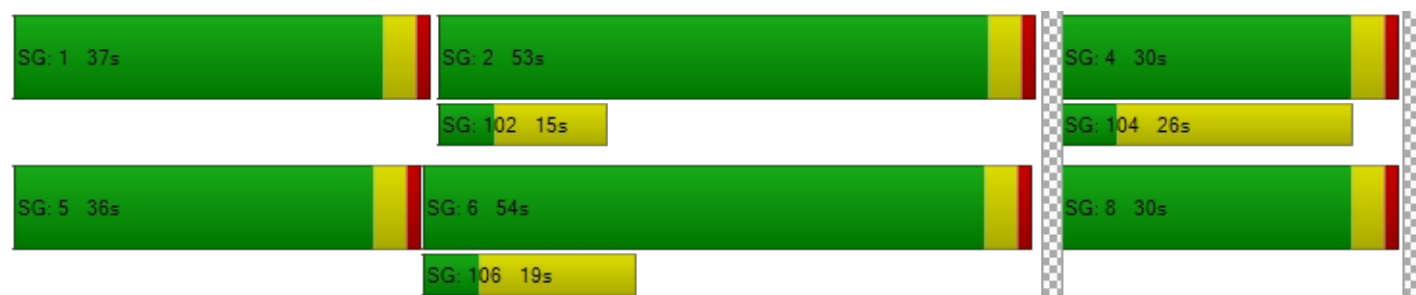
d_M, Delay for Movement [s/veh]	71.09	56.09	25.38	70.53	13.38	7.17	41.91	38.61	38.61	66.94	37.48	44.63
Movement LOS	E	E	C	E	B	A	D	D	D	E	D	D
d_A, Approach Delay [s/veh]	51.78			26.05			40.02			55.53		
Approach LOS	D			C			D			E		
d_I, Intersection Delay [s/veh]	40.51											
Intersection LOS	D											
Intersection V/C	0.849											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			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]	0.00			51.32			51.32			51.32		
I_p,int, Pedestrian LOS Score for Intersection	0.000			3.444			2.063			2.735		
Crosswalk LOS	F			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	834			817			433			433		
d_b, Bicycle Delay [s]	20.40			20.99			36.80			36.80		
I_b,int, Bicycle LOS Score for Intersection	3.062			3.097			1.776			2.462		
Bicycle LOS	C			C			A			B		

Sequence

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



Intersection Level Of Service Report

Intersection 4: Main St/Mesa Linda St

Control Type:	Signalized	Delay (sec / veh):	19.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	5.112

Intersection Setup

Name	Mesa Linda St			Mesa Linda St			Main St			Main 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	0	0	1	0	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	340.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	2	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Mesa Linda St			Mesa Linda St			Main St			Main St		
Base Volume Input [veh/h]	14	5	115	32	3	7	14	804	13	55	948	50
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	30	0	167	0	0	0	0	947	2	40	215	0
Site-Generated Trips [veh/h]	0	0	3	0	0	0	0	58	0	2	35	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	73	0	0	2	0	0	4	0	0	13
Total Hourly Volume [veh/h]	45	5	217	33	3	5	15	1841	12	99	1236	39
Peak Hour Factor	0.8450	0.8450	0.8450	0.8400	0.8400	0.8400	0.9320	0.9320	0.9320	0.9310	0.9310	0.9310
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]	13	1	64	10	1	1	4	494	3	27	332	10
Total Analysis Volume [veh/h]	53	6	257	39	4	6	16	1975	13	106	1328	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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	85
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	36	0	0	36	0	0	49	0	0	49	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	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	27	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	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	C	R	C	R	L	C	C	L	C	R
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85	85
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]	2.00	0.00	2.00	0.00	2.00	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	2.00
g_i, Effective Green Time [s]	32	32	32	32	45	45	45	45	45	45
g / C, Green / Cycle	0.38	0.38	0.38	0.38	0.53	0.53	0.53	0.53	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	4.63	0.17	3.73	0.00	0.04	0.38	0.38	0.48	0.27	0.03
s, saturation flow rate [veh/h]	13	1530	12	1530	403	3427	1794	221	4903	1530
c, Capacity [veh/h]	85	576	85	576	218	1814	950	133	2596	810
d1, Uniform Delay [s]	39.91	19.86	39.28	16.59	19.80	15.20	15.20	38.35	12.91	9.68
k, delay calibration	0.50	0.50	0.50	0.50	0.50	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	1.00
d2, Incremental Delay [s]	37.45	2.49	19.83	0.03	0.65	2.49	4.69	38.06	0.72	0.12
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	0.69	0.45	0.51	0.01	0.07	0.72	0.72	0.80	0.51	0.05
d, Delay for Lane Group [s/veh]	77.36	22.35	59.11	16.62	20.46	17.69	19.89	76.41	13.63	9.80
Lane Group LOS	E	C	E	B	C	B	B	E	B	A
Critical Lane Group	Yes	No	No	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.11	4.06	1.36	0.08	0.24	8.34	9.31	3.50	4.62	0.34
50th-Percentile Queue Length [ft/ln]	52.73	101.39	34.00	1.91	5.99	208.41	232.82	87.57	115.42	8.58
95th-Percentile Queue Length [veh/ln]	3.80	7.30	2.45	0.14	0.43	13.07	14.32	6.30	8.14	0.62
95th-Percentile Queue Length [ft/ln]	94.91	182.49	61.20	3.45	10.78	326.79	357.94	157.62	203.52	15.45

Movement, Approach, & Intersection Results

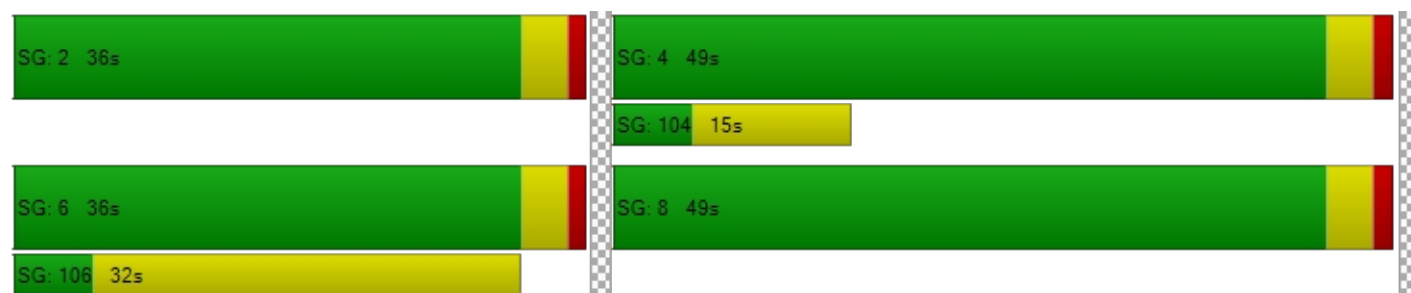
d_M, Delay for Movement [s/veh]	77.36	77.36	22.35	59.11	59.11	16.62	20.46	18.43	19.89	76.41	13.63	9.80
Movement LOS	E	E	C	E	E	B	C	B	B	E	B	A
d_A, Approach Delay [s/veh]	32.62			53.91			18.46			18.03		
Approach LOS	C			D			B			B		
d_I, Intersection Delay [s/veh]	19.91											
Intersection LOS	B											
Intersection V/C	5.112											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			33.98			0.00			33.98		
I_p,int, Pedestrian LOS Score for Intersection	0.000			2.006			0.000			3.577		
Crosswalk LOS	F			B			F			D		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	753			753			1059			1059		
d_b, Bicycle Delay [s]	16.52			16.52			9.41			9.41		
I_b,int, Bicycle LOS Score for Intersection	2.201			1.644			2.664			2.379		
Bicycle LOS	B			A			B			B		

Sequence

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



Intersection Level Of Service Report

Intersection 5: Main St/Key Pointe Ave

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 62.8
 Level Of Service: E
 Volume to Capacity (v/c): 0.925

Intersection Setup

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main 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	1	1	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	140.00	100.00	100.00	200.00	100.00	200.00	200.00	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main St		
Base Volume Input [veh/h]	31	57	241	237	84	15	46	969	18	294	1112	195
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	1193	0	0	259	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	61	0	0	37	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	63	0	0	4	0	0	5	0	0	51
Total Hourly Volume [veh/h]	32	59	188	246	87	12	48	2262	14	306	1452	152
Peak Hour Factor	0.8480	0.8480	0.8480	0.9320	0.9320	0.9320	0.9350	0.9350	0.9350	0.9270	0.9270	0.9270
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	17	55	66	23	3	13	605	4	83	392	41
Total Analysis Volume [veh/h]	38	70	222	264	93	13	51	2419	15	330	1566	164
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
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	36	0	0	36	0	10	57	0	27	74	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	24	0	0	27	0	0	14	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	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
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
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	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	2.00	2.00
g_i, Effective Green Time [s]	32	32	32	32	32	6	53	53	23	70	70
g / C, Green / Cycle	0.27	0.27	0.27	0.27	0.27	0.05	0.44	0.44	0.19	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.15	0.24	0.06	0.03	0.49	0.01	0.19	0.34	0.34
s, saturation flow rate [veh/h]	1308	1800	1530	1104	1762	1714	4903	1530	1714	3427	1714
c, Capacity [veh/h]	326	480	408	303	470	86	2166	676	329	1999	1000
d1, Uniform Delay [s]	39.25	33.57	37.74	47.82	34.33	55.81	33.50	18.89	48.50	15.68	15.74
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	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	1.00	1.00
d2, Incremental Delay [s]	0.73	0.64	5.14	27.17	1.11	26.89	59.66	0.06	50.75	1.21	2.45
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
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
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

Lane Group Results

X, volume / capacity	0.12	0.15	0.54	0.87	0.23	0.60	1.12	0.02	1.00	0.58	0.58
d, Delay for Lane Group [s/veh]	39.98	34.21	42.88	74.99	35.44	82.70	93.16	18.95	99.25	16.89	18.19
Lane Group LOS	D	C	D	E	D	F	F	B	F	B	B
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.99	1.66	6.18	10.31	2.58	2.11	31.12	0.24	14.04	9.07	9.53
50th-Percentile Queue Length [ft/ln]	24.82	41.39	154.52	257.64	64.42	52.63	778.04	5.90	351.06	226.84	238.25
95th-Percentile Queue Length [veh/ln]	1.79	2.98	10.26	15.57	4.64	3.79	43.62	0.42	20.24	14.01	14.59
95th-Percentile Queue Length [ft/ln]	44.67	74.50	256.46	389.25	115.96	94.74	1090.5	10.61	505.89	350.35	364.83

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.98	34.21	42.88	74.99	35.44	35.44	82.70	93.16	18.95	99.25	17.24	18.19
Movement LOS	D	C	D	E	D	D	F	F	B	F	B	B
d_A, Approach Delay [s/veh]	40.71			63.66			92.50			30.45		
Approach LOS	D			E			F			C		
d_I, Intersection Delay [s/veh]	62.84											
Intersection LOS	E											
Intersection V/C	0.925											

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]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersection	2.440			2.192			3.637			4.236		
Crosswalk LOS	B			B			D			D		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	533			533			883			1167		
d_b, Bicycle Delay [s]	32.27			32.27			18.70			10.42		
I_b,int, Bicycle LOS Score for Intersection	2.208			2.177			2.929			2.721		
Bicycle LOS	B			B			C			B		

Sequence

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



Intersection Level Of Service Report
Intersection 6: Main St/I-15 SB Off Ramp

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):	0.692

Intersection Setup

Name	I-15 SB Off Ramp		Main St		Main St	
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	1	1	0	0	0	0
Entry Pocket Length [ft]	1100.00	530.00	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]	40.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-15 SB Off Ramp		Main St		Main St	
Base Volume Input [veh/h]	443	350	0	1273	1255	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	111	0	643	142	0
Site-Generated Trips [veh/h]	0	10	0	40	27	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
Right Turn on Red Volume [veh/h]	0	121	0	0	0	0
Total Hourly Volume [veh/h]	461	364	0	2007	1474	0
Peak Hour Factor	0.9110	0.9110	1.0000	0.9500	0.9340	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	127	100	0	528	395	0
Total Analysis Volume [veh/h]	506	400	0	2113	1578	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
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	Split	Split	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	0	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	0	10	10	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	46	0	0	14	14	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Delayed Vehicle Green [s]	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	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	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
I, Upstream Filtering Factor	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	R	C	C
C, Cycle Length [s]	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	19	33	33
g / C, Green / Cycle	0.32	0.32	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.15	0.26	0.43	0.32
s, saturation flow rate [veh/h]	3329	1530	4903	4903
c, Capacity [veh/h]	1069	491	2675	2675
d1, Uniform Delay [s]	16.31	18.72	10.88	9.13
k, delay calibration	0.11	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.33	3.34	2.46	0.96
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.81	0.79	0.59
d, Delay for Lane Group [s/veh]	16.63	22.06	13.35	10.10
Lane Group LOS	B	C	B	B
Critical Lane Group	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	2.43	4.78	5.27	3.16
50th-Percentile Queue Length [ft/ln]	60.83	119.62	131.76	78.96
95th-Percentile Queue Length [veh/ln]	4.38	8.37	9.04	5.69
95th-Percentile Queue Length [ft/ln]	109.50	209.30	225.88	142.13

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.63	22.06	0.00	13.35	10.10	0.00
Movement LOS	B	C		B	B	
d_A, Approach Delay [s/veh]	19.03		13.35		10.10	
Approach LOS	B		B		B	
d_I, Intersection Delay [s/veh]	13.35					
Intersection LOS	B					
Intersection V/C	0.692					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1400	333	333
d_b, Bicycle Delay [s]	2.70	20.83	20.83
I_b,int, Bicycle LOS Score for Intersection	1.560	2.722	2.428
Bicycle LOS	A	B	B

Sequence

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



Intersection Level Of Service Report

Intersection 7: Main St/I-15 NB Ramps

Control Type:	Signalized	Delay (sec / veh):	14.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.554

Intersection Setup

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main 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	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	1790.0	100.00	615.00	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]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main St		
Base Volume Input [veh/h]	190	4	773	0	0	0	0	1449	0	0	1531	404
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	115	0	0	0	0	0	0	126	0	0	27	0
Site-Generated Trips [veh/h]	10	0	0	0	0	0	23	17	0	0	17	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	201	0	0	0	0	0	0	0	0	105
Total Hourly Volume [veh/h]	323	4	603	0	0	0	23	1650	0	0	1636	315
Peak Hour Factor	0.9480	0.9480	0.9480	1.0000	1.0000	1.0000	1.0000	0.9760	1.0000	1.0000	0.9690	0.9690
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]	85	1	159	0	0	0	6	423	0	0	422	81
Total Analysis Volume [veh/h]	341	4	636	0	0	0	23	1691	0	0	1688	325
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	60
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	Split	Split	Split	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	20	0	0	0	0	0	40	0	0	40	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	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	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		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		C	C	C
C, Cycle Length [s]	60	60	60		60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	26	26	26		26	26	26
g / C, Green / Cycle	0.43	0.43	0.43		0.44	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.20	0.21	0.21		0.34	0.31	0.31
s, saturation flow rate [veh/h]	1714	1533	1530		4903	4903	1616
c, Capacity [veh/h]	733	655	654		2154	2154	710
d1, Uniform Delay [s]	12.28	12.43	12.44		14.40	13.63	13.70
k, delay calibration	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
d2, Incremental Delay [s]	2.12	2.59	2.61		0.66	0.42	1.32
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.49	0.49		0.79	0.70	0.71
d, Delay for Lane Group [s/veh]	14.40	15.02	15.04		15.06	14.05	15.02
Lane Group LOS	B	B	B		B	B	B
Critical Lane Group	No	No	Yes		Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.06	2.97	2.97		4.93	4.14	4.34
50th-Percentile Queue Length [ft/ln]	76.54	74.27	74.34		123.29	103.54	108.47
95th-Percentile Queue Length [veh/ln]	5.51	5.35	5.35		8.57	7.45	7.76
95th-Percentile Queue Length [ft/ln]	137.76	133.68	133.82		214.34	186.37	193.88

Movement, Approach, & Intersection Results

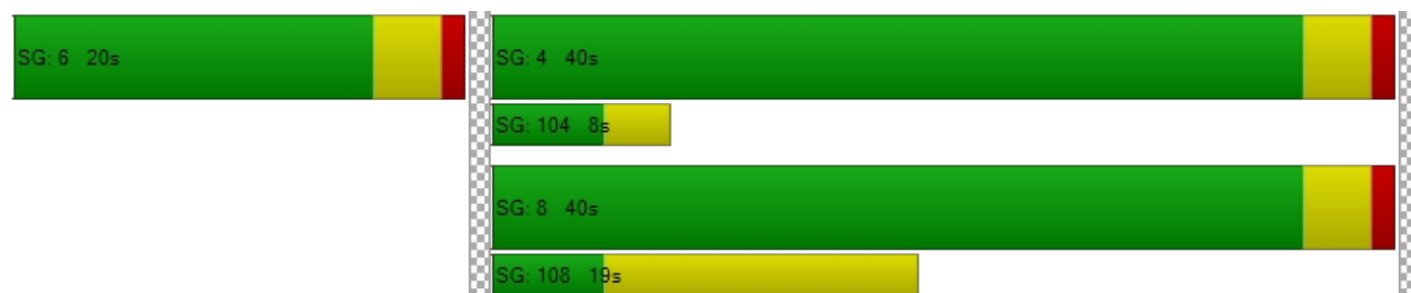
d_M, Delay for Movement [s/veh]	14.40	15.02	15.03	0.00	0.00	0.00	0.00	15.06	0.00	0.00	14.16	15.02
Movement LOS	B	B	B					B			B	B
d_A, Approach Delay [s/veh]	14.81			0.00			15.06			14.30		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	14.68											
Intersection LOS	B											
Intersection V/C	0.554											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	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]	21.68	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.782	1.827	0.000	0.000
Crosswalk LOS	C	A	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	533	0	1200	1200
d_b, Bicycle Delay [s]	16.13	30.00	4.80	4.80
I_b,int, Bicycle LOS Score for Intersection	3.510	4.132	2.490	2.433
Bicycle LOS	D	D	B	B

Sequence

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



Intersection Level Of Service Report
Intersection 8: Three Flags Ave-Lassen St/Poplar St

Control Type:	Two-way stop	Delay (sec / veh):	31.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.232

Intersection Setup

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda 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	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda St		
Base Volume Input [veh/h]	31	0	80	0	0	0	2	47	10	24	25	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	98	19	132	0	0	197	0
Site-Generated Trips [veh/h]	0	0	0	0	0	6	4	32	0	0	50	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]	32	0	83	0	0	104	25	213	10	25	273	0
Peak Hour Factor	0.7750	0.7750	0.7750	1.0000	1.0000	1.0000	0.6500	0.6500	0.6500	0.6130	0.6130	0.6130
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	0	27	0	0	26	10	82	4	10	111	0
Total Analysis Volume [veh/h]	41	0	107	0	0	104	38	328	15	41	445	0
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	0.23	0.00	0.15	0.00	0.00	0.17	0.03	0.00	0.00	0.03	0.00	0.00
d_M, Delay for Movement [s/veh]	31.02	25.42	15.71	26.17	21.09	12.01	8.31	0.00	0.00	8.03	0.00	0.00
Movement LOS	D	D	C	D	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.76	1.76	1.76	0.60	0.60	0.60	0.10	0.10	0.10	0.10	0.10	0.10
95th-Percentile Queue Length [ft/ln]	43.88	43.88	43.88	15.05	15.05	15.05	2.62	2.62	2.62	2.59	2.59	2.59
d_A, Approach Delay [s/veh]	19.95			12.01			0.83			0.68		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	4.33											
Intersection LOS	D											

Intersection Level Of Service Report

Intersection 9: Mesa Linda St/Sultana Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 12.7
 Level Of Service: B
 Volume to Capacity (v/c): 0.015

Intersection Setup

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
Base Volume Input [veh/h]	0	124	1	0	48	0	0	0	0	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	1	103	0	0	81	13	7	0	4	0	0	0
Site-Generated Trips [veh/h]	0	3	0	0	2	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]	1	235	1	0	133	13	7	0	4	0	0	0
Peak Hour Factor	0.8220	0.8220	0.8220	0.6320	0.6320	0.6320	1.0000	1.0000	1.0000	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	71	0	0	53	5	2	0	1	0	0	0
Total Analysis Volume [veh/h]	1	286	1	0	210	21	7	0	4	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			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	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.67	0.00	0.00	0.00	0.00	0.00	12.66	0.00	9.49	0.00	0.00	0.00
Movement LOS	A	A			A	A	B		A			
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.06	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.06	0.06	0.00	0.00	0.00	0.00	1.49	0.00	1.49	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.03			0.00			11.51			0.00		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	0.25											
Intersection LOS	B											

Intersection Level Of Service Report

Intersection 10: Joshua Rd/Outpost Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 36.6
 Level Of Service: E
 Volume to Capacity (v/c): 0.374

Intersection Setup

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua 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	0	0	0	1	0	1	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]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua St		
Base Volume Input [veh/h]	0	0	0	58	0	105	0	168	0	0	96	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	169	0	0	46	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	307	0	0	199	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]	0	0	0	60	0	109	0	651	0	0	345	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.8930	0.8930	0.8930	1.0000	0.8610	1.0000	1.0000	0.8930	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	0	0	17	0	31	0	189	0	0	97	0
Total Analysis Volume [veh/h]	0	0	0	67	0	122	0	756	0	0	386	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	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	0.00	0.37	0.00	0.18	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	32.09	22.81	13.75	36.64	22.81	11.61	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	D	C	B	E	C	B		A			A	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	1.61	0.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	40.21	0.00	16.65	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	22.89			20.48			0.00			0.00		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	2.91											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 11: Joshua St/I-15 SB Off-Ramp

Control Type:	Two-way stop	Delay (sec / veh):	15.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.081

Intersection Setup

Name	Joshua St		Joshua St		Joshua St	
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	1	0	0	0	0
Entry Pocket Length [ft]	100.00	1500.00	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]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Joshua St		Joshua St		Joshua St	
Base Volume Input [veh/h]	21	188	0	183	63	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	46	0	169	0	0
Site-Generated Trips [veh/h]	0	197	0	307	2	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]	22	439	0	666	68	0
Peak Hour Factor	0.7240	0.7240	1.0000	0.9630	0.8290	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	152	0	173	21	0
Total Analysis Volume [veh/h]	30	606	0	692	82	0
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	0.08	0.62	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	15.60	14.35	0.00	0.00	0.00	0.00
Movement LOS	C	B		A	A	
95th-Percentile Queue Length [veh/ln]	0.26	4.41	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	6.58	110.17	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.41		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	6.50					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 12: Joshua St/I-15 NB On-Ramp

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.434

Intersection Setup

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
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	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
Base Volume Input [veh/h]	0	0	123	84	71	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	169	0	0	0
Site-Generated Trips [veh/h]	0	0	304	3	2	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	0	601	90	76	5
Peak Hour Factor	1.0000	1.0000	0.9120	0.9120	0.9050	0.9050
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	165	25	21	1
Total Analysis Volume [veh/h]	0	0	659	99	84	6
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			
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.43	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	9.18	0.00	0.00	0.00
Movement LOS			A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	2.25	2.25	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	56.36	56.36	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		7.98		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.13					
Intersection LOS	A					

Mesa Linda Street Warehouse

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Scenario 6 Opening Year PM

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Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	US-395/Poplar St	32	1339	131	42	1317	15	23	0	47	346	0	99	3391

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	US-395/Three Flags Rd	64	1391	151	32	1333	99	64	1	99	183	6	31	3454

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	US-395/Joshua St	25	1342	317	373	1283	25	43	53	7	223	27	251	3969

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	Main St/Mesa Linda St	45	5	290	33	3	7	15	1841	16	99	1236	52	3642

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	Main St/Key Pointe Ave	32	59	251	246	87	16	48	2262	19	306	1452	203	4981

ID	Intersection Name	Southbound		Eastbound		Westbound	Total Volume
		Left	Right	Thru	Thru		
6	Main St/I-15 SB Off Ramp	461	485	2007	1474		4427

ID	Intersection Name	Northbound			Eastbound		Westbound		Total Volume
		Left	Thru	Right	Thru	Thru	Right	Right	
7	Main St/I-15 NB Ramps	323	4	804	1650	1636	420		4837

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
8	Three Flags Ave-Lassen St/Poplar St	32	0	83	0	0	104	25	213	10	25	273	0	765

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
9	Mesa Linda St/Sultana Rd	1	235	133	13	7	4	393

ID	Intersection Name	Northbound			Southbound			Eastbound	Westbound	Total Volume
		Left	Thru	Right	Left	Thru	Right	Thru	Thru	
10	Joshua Rd/Outpost Rd	0	0	0	60	0	109	651	345	1165

ID	Intersection Name	Southbound		Eastbound	Westbound	Total Volume
		Left	Right	Thru	Thru	
11	Joshua St/I-15 SB Off-Ramp	22	439	666	68	1195

ID	Intersection Name	Eastbound		Westbound		Total Volume
		Left	Thru	Thru	Right	
12	Joshua St/I-15 NB On-Ramp	601	90	76	5	772

Mesa Linda Street Warehouse

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Scenario 7 Opening Year Plus Project AM

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1/30/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	US-395/Poplar St	Two-way stop	HCM 6th Edition	WB Left	14.832	6,826.0	F
2	US-395/Three Flags Rd	Signalized	HCM 6th Edition	NB Left	0.704	21.7	C
3	US-395/Joshua St	Signalized	HCM 6th Edition	NB Left	0.823	31.4	C
4	Main St/Mesa Linda St	Signalized	HCM 6th Edition	SB Left	31.116	23.9	C
5	Main St/Key Pointe Ave	Signalized	HCM 6th Edition	EB Left	0.621	36.2	D
6	Main St/I-15 SB Off Ramp	Signalized	HCM 6th Edition	WB Thru	0.764	18.8	B
7	Main St/I-15 NB Ramps	Signalized	HCM 6th Edition	WB Right	0.711	18.0	B
8	Three Flags Ave-Lassen St/Poplar St	Two-way stop	HCM 6th Edition	NB Left	0.210	45.6	E
9	Mesa Linda St/Sultana Rd	Two-way stop	HCM 6th Edition	EB Left	0.004	12.5	B
10	Joshua Rd/Outpost Rd	Two-way stop	HCM 6th Edition	SB Left	0.295	30.4	D
11	Joshua St/I-15 SB Off-Ramp	Two-way stop	HCM 6th Edition	SB Right	1.032	56.5	F
12	Joshua St/I-15 NB On-Ramp	Two-way stop	HCM 6th Edition	EB Left	0.186	7.9	A
13	Lassen St/North Dwy	Two-way stop	HCM 6th Edition	WB Left	0.003	8.6	A
14	Lassen St/South Dwy	Two-way stop	HCM 6th Edition	WB Left	0.003	8.6	A
15	Mesa Linda St/North Dwy	Two-way stop	HCM 6th Edition	EB Left	0.001	8.5	A
16	Mesa Linda St/South Dwy	Two-way stop	HCM 6th Edition	EB Left	0.001	8.7	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: US-395/Poplar St**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 6,826.0
 Level Of Service: F
 Volume to Capacity (v/c): 14.832

Intersection Setup

Name	US-395			US-395						Poplar 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	0	1	0	1	1	0	0	0	0	1
Entry Pocket Length [ft]	150.00	100.00	100.00	373.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	510.00
No. of Lanes in Exit Pocket	0	0	0	0	0	2	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	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		
Crosswalk	No			No			Yes			No		

Volumes

Name	US-395			US-395						Poplar St		
Base Volume Input [veh/h]	0	815	18	28	982	0	0	0	0	8	0	3
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	55	171	326	47	29	27	7	0	19	56	0	8
Site-Generated Trips [veh/h]	0	117	84	17	90	0	0	0	0	19	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
Total Hourly Volume [veh/h]	55	1136	429	93	1140	27	7	0	19	83	0	17
Peak Hour Factor	0.9240	0.9240	0.9240	0.9080	0.9080	0.9080	1.0000	1.0000	1.0000	0.4580	0.4580	0.4580
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	307	116	26	314	7	2	0	5	45	0	9
Total Analysis Volume [veh/h]	60	1229	464	102	1256	30	7	0	19	181	0	37
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
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	0.11	0.01	0.00	0.27	0.01	0.00	0.42	0.00	0.04	14.83	0.00	0.12
d_M, Delay for Movement [s/veh]	12.40	0.00	0.00	17.83	0.00	0.00	334.54	610.99	13.75	6825.9	451.71	18.20
Movement LOS	B	A	A	C	A	A	F	F	B	F	F	C
95th-Percentile Queue Length [veh/ln]	0.37	0.00	0.00	1.06	0.00	0.00	1.13	0.14	0.14	23.94	0.40	0.40
95th-Percentile Queue Length [ft/ln]	9.20	0.00	0.00	26.53	0.00	0.00	28.26	3.45	3.45	598.38	10.06	10.06
d_A, Approach Delay [s/veh]	0.42			1.31			100.12			5670.53		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	366.72											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: US-395/Three Flags Rd

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 21.7
 Level Of Service: C
 Volume to Capacity (v/c): 0.704

Intersection Setup

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
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	0	1	0	1
Entry Pocket Length [ft]	190.00	100.00	190.00	224.00	100.00	224.00	182.00	100.00	100.00	274.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
Base Volume Input [veh/h]	39	758	106	32	858	77	30	3	89	188	4	33
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	552	0	0	341	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	199	30	3	106	0	0	0	0	21	0	2
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	35	0	0	20	0	0	23	0	0	9
Total Hourly Volume [veh/h]	41	1539	105	36	1339	60	31	3	70	217	4	27
Peak Hour Factor	0.9280	0.9280	0.9280	0.9330	0.9330	0.9330	0.7960	0.7960	0.7960	0.8300	0.8300	0.8300
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]	11	415	28	10	359	16	10	1	22	65	1	8
Total Analysis Volume [veh/h]	44	1658	113	39	1435	64	39	4	88	261	5	33
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	105
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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	33	55	0	20	42	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105
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
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	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
g_i, Effective Green Time [s]	4	64	64	3	63	63	26	26	26	26	26
g / C, Green / Cycle	0.04	0.61	0.61	0.03	0.60	0.60	0.25	0.25	0.25	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.03	0.48	0.07	0.02	0.42	0.04	0.03	0.06	0.20	0.00	0.02
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1391	1540	1325	1800	1530
c, Capacity [veh/h]	62	2073	925	57	2062	921	384	381	308	446	379
d1, Uniform Delay [s]	50.04	15.88	8.85	50.20	14.32	8.69	32.32	31.61	43.79	29.80	30.37
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.22	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
d2, Incremental Delay [s]	13.65	3.35	0.27	13.44	1.97	0.15	0.11	0.32	12.23	0.01	0.10
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
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
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

Lane Group Results

X, volume / capacity	0.71	0.80	0.12	0.68	0.70	0.07	0.10	0.24	0.85	0.01	0.09
d, Delay for Lane Group [s/veh]	63.69	19.23	9.12	63.65	16.29	8.83	32.43	31.93	56.02	29.81	30.47
Lane Group LOS	E	B	A	E	B	A	C	C	E	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.35	13.73	1.04	1.20	10.47	0.57	0.80	1.90	7.88	0.10	0.65
50th-Percentile Queue Length [ft/ln]	33.64	343.17	25.98	29.91	261.64	14.33	20.04	47.48	196.89	2.42	16.33
95th-Percentile Queue Length [veh/ln]	2.42	19.80	1.87	2.15	15.77	1.03	1.44	3.42	12.48	0.17	1.18
95th-Percentile Queue Length [ft/ln]	60.55	495.07	46.76	53.85	394.27	25.79	36.08	85.47	311.95	4.36	29.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	63.69	19.23	9.12	63.65	16.29	8.83	32.43	31.93	31.93	56.02	29.81	30.47
Movement LOS	E	B	A	E	B	A	C	C	C	E	C	C
d_A, Approach Delay [s/veh]	19.68			17.18			32.08			52.76		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	21.71											
Intersection LOS	C											
Intersection V/C	0.704											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			43.89			0.00			43.89		
I_p,int, Pedestrian LOS Score for Intersection	0.000			3.349			0.000			2.274		
Crosswalk LOS	F			C			F			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	971			724			495			495		
d_b, Bicycle Delay [s]	13.89			21.38			29.72			29.72		
I_b,int, Bicycle LOS Score for Intersection	3.086			2.845			1.814			2.068		
Bicycle LOS	C			C			A			B		

Sequence

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



Intersection Level Of Service Report

Intersection 3: US-395/Joshua St

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 31.4
 Level Of Service: C
 Volume to Capacity (v/c): 0.823

Intersection Setup

Name	US-395			US-395			Joshua St			Joshua 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	1	1	0	0	1	0	1
Entry Pocket Length [ft]	191.00	100.00	226.00	200.00	100.00	223.00	140.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	US-395			US-395			Joshua St			Joshua St		
Base Volume Input [veh/h]	9	764	48	127	904	102	16	24	9	96	55	121
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	366	0	37	211	0	0	0	0	0	0	186
Site-Generated Trips [veh/h]	0	127	62	41	86	1	2	0	0	264	0	101
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	28	0	0	27	0	0	2	0	0	103
Total Hourly Volume [veh/h]	9	1288	84	210	1237	80	19	25	7	364	57	310
Peak Hour Factor	0.9120	0.9120	0.9120	0.8980	0.8980	0.8980	0.6740	0.6740	0.6740	0.9610	0.9610	0.9610
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]	2	353	23	58	344	22	7	9	3	95	15	81
Total Analysis Volume [veh/h]	10	1412	92	234	1378	89	28	37	10	379	59	323
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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	Fully 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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	18	43	0	17	42	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	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
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	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
g_i, Effective Green Time [s]	1	39	39	13	51	51	26	26	26	26	26
g / C, Green / Cycle	0.01	0.43	0.43	0.14	0.56	0.56	0.29	0.29	0.29	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.01	0.41	0.06	0.14	0.40	0.06	0.03	0.03	0.27	0.03	0.21
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1017	1735	1380	1800	1530
c, Capacity [veh/h]	23	1483	662	249	1934	863	327	501	421	520	442
d1, Uniform Delay [s]	44.07	24.64	15.42	38.11	14.30	9.08	26.53	23.40	34.99	23.54	28.86
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.32	0.11	0.18
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
d2, Incremental Delay [s]	12.03	14.45	0.44	15.64	2.27	0.24	0.11	0.08	17.69	0.10	3.89
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
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
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

Lane Group Results

X, volume / capacity	0.43	0.95	0.14	0.94	0.71	0.10	0.09	0.09	0.90	0.11	0.73
d, Delay for Lane Group [s/veh]	56.09	39.09	15.85	53.74	16.57	9.32	26.64	23.48	52.68	23.63	32.75
Lane Group LOS	E	D	B	D	B	A	C	C	D	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.29	15.72	1.12	5.91	9.04	0.75	0.45	0.70	10.04	0.88	6.30
50th-Percentile Queue Length [ft/ln]	7.25	392.96	27.99	147.74	225.99	18.72	11.31	17.45	251.03	22.03	157.47
95th-Percentile Queue Length [veh/ln]	0.52	22.22	2.02	9.90	13.97	1.35	0.81	1.26	15.24	1.59	10.41
95th-Percentile Queue Length [ft/ln]	13.06	555.52	50.38	247.41	349.26	33.70	20.36	31.41	380.95	39.65	260.37

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.09	39.09	15.85	53.74	16.57	9.32	26.64	23.48	23.48	52.68	23.63	32.75
Movement LOS	E	D	B	D	B	A	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	37.79			21.30			24.66			41.97		
Approach LOS	D			C			C			D		
d_I, Intersection Delay [s/veh]	31.41											
Intersection LOS	C											
Intersection V/C	0.823											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			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]	0.00			36.46			36.46			36.46		
I_p,int, Pedestrian LOS Score for Intersection	0.000			3.409			2.072			2.738		
Crosswalk LOS	F			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	866			844			578			578		
d_b, Bicycle Delay [s]	14.46			15.03			22.77			22.77		
I_b,int, Bicycle LOS Score for Intersection	2.832			2.985			1.687			2.985		
Bicycle LOS	C			C			A			C		

Sequence

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



Intersection Level Of Service Report

Intersection 4: Main St/Mesa Linda St

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):	31.116

Intersection Setup

Name	Mesa Linda St			Mesa Linda St			Main St			Main 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	0	0	1	0	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	340.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	2	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Mesa Linda St			Mesa Linda St			Main St			Main St		
Base Volume Input [veh/h]	1	0	28	46	1	16	14	918	7	75	593	17
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0	31	0	0	0	0	210	9	175	993	0
Site-Generated Trips [veh/h]	1	0	3	0	0	0	0	29	1	10	56	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	16	0	0	4	0	0	4	0	0	5
Total Hourly Volume [veh/h]	7	0	47	48	1	13	15	1194	13	263	1666	13
Peak Hour Factor	0.5940	0.5940	0.5940	0.8290	0.8290	0.8290	0.9620	0.9620	0.9620	0.8380	0.8380	0.8380
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	0	20	14	0	4	4	310	3	78	497	4
Total Analysis Volume [veh/h]	12	0	79	58	1	16	16	1241	14	314	1988	16
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	36	0	0	36	0	0	69	0	0	69	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	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	27	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	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	C	R	C	R	L	C	C	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105
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]	2.00	0.00	2.00	0.00	2.00	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	2.00
g_i, Effective Green Time [s]	32	32	32	32	65	65	65	65	65	65
g / C, Green / Cycle	0.30	0.30	0.30	0.30	0.62	0.62	0.62	0.62	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	10000.00	0.05	30.42	0.01	0.07	0.24	0.24	0.70	0.41	0.01
s, saturation flow rate [veh/h]	0	1530	2	1530	218	3427	1790	449	4903	1530
c, Capacity [veh/h]	69	466	69	466	143	2122	1108	284	3035	947
d1, Uniform Delay [s]	52.50	26.76	52.18	25.64	24.67	10.03	10.03	33.41	12.81	7.70
k, delay calibration	0.50	0.50	0.50	0.50	0.50	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	1.00
d2, Incremental Delay [s]	5.49	0.79	74.15	0.14	1.59	0.54	1.03	84.76	1.12	0.03
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	0.17	0.17	0.86	0.03	0.11	0.39	0.39	1.11	0.65	0.02
d, Delay for Lane Group [s/veh]	57.99	27.54	126.33	25.78	26.25	10.57	11.06	118.18	13.93	7.73
Lane Group LOS	E	C	F	C	C	B	B	F	B	A
Critical Lane Group	No	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.42	1.55	2.96	0.30	0.33	4.13	4.47	13.89	8.47	0.13
50th-Percentile Queue Length [ft/ln]	10.50	38.77	74.08	7.47	8.24	103.27	111.65	347.31	211.77	3.17
95th-Percentile Queue Length [veh/ln]	0.76	2.79	5.33	0.54	0.59	7.44	7.93	21.53	13.24	0.23
95th-Percentile Queue Length [ft/ln]	18.90	69.78	133.35	13.45	14.84	185.89	198.29	538.29	331.10	5.71

Movement, Approach, & Intersection Results

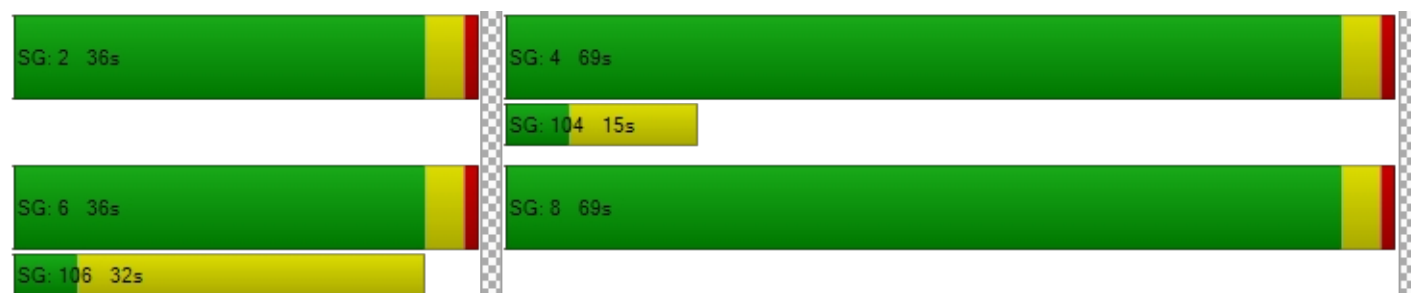
d_M, Delay for Movement [s/veh]	57.99	57.99	27.54	126.33	126.33	25.78	26.25	10.74	11.06	118.18	13.93	7.73
Movement LOS	E	E	C	F	F	C	C	B	B	F	B	A
d_A, Approach Delay [s/veh]	31.56			104.88			10.93			28.01		
Approach LOS	C			F			B			C		
d_I, Intersection Delay [s/veh]	23.85											
Intersection LOS	C											
Intersection V/C	31.116											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			43.89			0.00			43.89		
I_p,int, Pedestrian LOS Score for Intersection	0.000			2.015			0.000			3.579		
Crosswalk LOS	F			B			F			D		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	610			610			1238			1238		
d_b, Bicycle Delay [s]	25.38			25.38			7.62			7.62		
I_b,int, Bicycle LOS Score for Intersection	1.736			1.690			2.261			2.837		
Bicycle LOS	A			A			B			C		

Sequence

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



Intersection Level Of Service Report

Intersection 5: Main St/Key Pointe Ave

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 36.2
 Level Of Service: D
 Volume to Capacity (v/c): 0.621

Intersection Setup

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main 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	1	1	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	140.00	100.00	100.00	200.00	100.00	200.00	200.00	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main St		
Base Volume Input [veh/h]	4	12	97	137	26	11	30	927	8	193	607	134
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	216	0	0	1256	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	32	0	0	66	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	25	0	0	3	0	0	2	0	0	35
Total Hourly Volume [veh/h]	4	12	76	142	27	8	31	1212	6	201	1953	104
Peak Hour Factor	0.8190	0.8190	0.8190	0.8180	0.8180	0.8180	0.9330	0.9330	0.9330	0.8560	0.8560	0.8560
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]	1	4	23	43	8	2	8	325	2	59	570	30
Total Analysis Volume [veh/h]	5	15	93	174	33	10	33	1299	6	235	2282	121
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
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	36	0	0	36	0	15	46	0	28	59	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	24	0	0	27	0	0	14	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	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
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
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	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	2.00	2.00
g_i, Effective Green Time [s]	32	32	32	32	32	11	42	42	24	55	55
g / C, Green / Cycle	0.29	0.29	0.29	0.29	0.29	0.10	0.38	0.38	0.22	0.50	0.50
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.06	0.13	0.02	0.02	0.26	0.00	0.14	0.46	0.47
s, saturation flow rate [veh/h]	1385	1800	1530	1306	1729	1714	4903	1530	1714	3427	1754
c, Capacity [veh/h]	418	524	445	414	503	171	1872	584	374	1714	877
d1, Uniform Delay [s]	30.67	27.89	29.44	34.12	28.36	45.42	28.59	21.10	38.96	25.52	25.89
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	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	1.00	1.00
d2, Incremental Delay [s]	0.05	0.10	1.07	3.12	0.33	2.49	2.15	0.03	7.77	9.75	18.58
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	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
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

Lane Group Results

X, volume / capacity	0.01	0.03	0.21	0.42	0.09	0.19	0.69	0.01	0.63	0.92	0.94
d, Delay for Lane Group [s/veh]	30.72	27.99	30.51	37.23	28.69	47.91	30.74	21.13	46.73	35.26	44.47
Lane Group LOS	C	C	C	D	C	D	C	C	D	D	D
Critical Lane Group	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.11	0.30	1.99	4.28	0.87	0.92	9.26	0.10	6.28	19.16	22.32
50th-Percentile Queue Length [ft/ln]	2.65	7.47	49.79	106.93	21.87	22.90	231.61	2.40	157.01	479.03	557.89
95th-Percentile Queue Length [veh/ln]	0.19	0.54	3.58	7.67	1.57	1.65	14.26	0.17	10.39	26.34	30.06
95th-Percentile Queue Length [ft/ln]	4.76	13.45	89.62	191.72	39.37	41.22	356.41	4.33	259.76	658.50	751.57

Movement, Approach, & Intersection Results

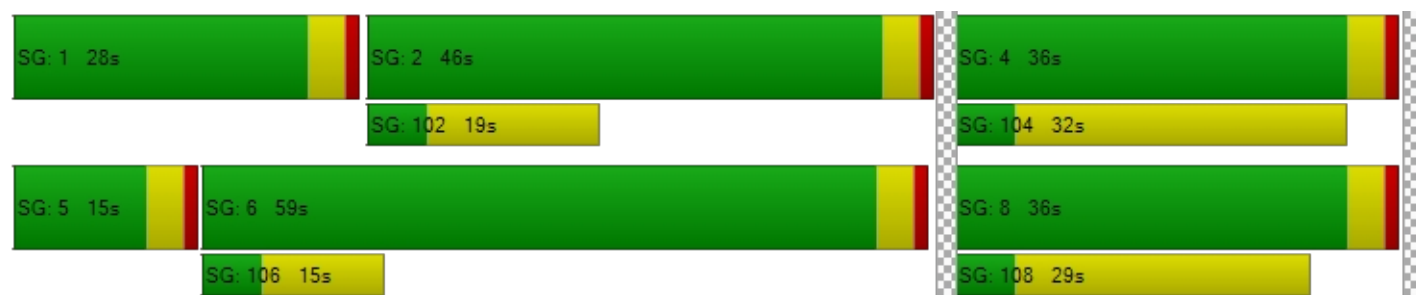
d_M, Delay for Movement [s/veh]	30.72	27.99	30.51	37.23	28.69	28.69	47.91	30.74	21.13	46.73	38.09	44.47
Movement LOS	C	C	C	D	C	C	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	30.18			35.54			31.12			39.16		
Approach LOS	C			D			C			D		
d_I, Intersection Delay [s/veh]	36.24											
Intersection LOS	D											
Intersection V/C	0.621											

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]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersection	2.279			2.093			3.486			3.892		
Crosswalk LOS	B			B			C			D		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	582			582			764			1000		
d_b, Bicycle Delay [s]	27.65			27.65			21.02			13.75		
I_b,int, Bicycle LOS Score for Intersection	1.787			1.923			2.297			3.030		
Bicycle LOS	A			A			B			C		

Sequence

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



Intersection Level Of Service Report

Intersection 6: Main St/I-15 SB Off Ramp

Control Type:	Signalized	Delay (sec / veh):	18.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.764

Intersection Setup

Name	I-15 SB Off Ramp		Main St		Main St	
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	1	1	0	0	0	0
Entry Pocket Length [ft]	1100.00	530.00	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]	40.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-15 SB Off Ramp		Main St		Main St	
Base Volume Input [veh/h]	310	177	0	1010	758	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	546	0	116	699	0
Site-Generated Trips [veh/h]	0	25	0	24	41	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
Right Turn on Red Volume [veh/h]	0	189	0	0	0	0
Total Hourly Volume [veh/h]	322	566	0	1190	1528	0
Peak Hour Factor	0.8940	0.8940	1.0000	0.9470	0.8890	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	90	158	0	314	430	0
Total Analysis Volume [veh/h]	360	633	0	1257	1719	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
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	Split	Split	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	0	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	0	10	10	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	44	0	0	16	16	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Delayed Vehicle Green [s]	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	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	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
I, Upstream Filtering Factor	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	R	C	C
C, Cycle Length [s]	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	28	28	24	24
g / C, Green / Cycle	0.46	0.46	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.11	0.41	0.26	0.35
s, saturation flow rate [veh/h]	3329	1530	4903	4903
c, Capacity [veh/h]	1539	707	1982	1982
d1, Uniform Delay [s]	9.72	14.79	14.32	16.39
k, delay calibration	0.11	0.18	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.08	6.79	1.56	5.44
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.23	0.89	0.63	0.87
d, Delay for Lane Group [s/veh]	9.80	21.58	15.88	21.83
Lane Group LOS	A	C	B	C
Critical Lane Group	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	1.15	7.42	3.74	6.40
50th-Percentile Queue Length [ft/ln]	28.84	185.44	93.41	160.02
95th-Percentile Queue Length [veh/ln]	2.08	11.88	6.73	10.55
95th-Percentile Queue Length [ft/ln]	51.92	297.11	168.14	263.75

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	9.80	21.58	0.00	15.88	21.83	0.00
Movement LOS	A	C		B	C	
d_A, Approach Delay [s/veh]	17.31		15.88		21.83	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	18.81					
Intersection LOS	B					
Intersection V/C	0.764					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1333	400	400
d_b, Bicycle Delay [s]	3.33	19.20	19.20
I_b,int, Bicycle LOS Score for Intersection	1.560	2.251	2.505
Bicycle LOS	A	B	B

Sequence

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



Intersection Level Of Service Report

Intersection 7: Main St/I-15 NB Ramps

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 18.0
 Level Of Service: B
 Volume to Capacity (v/c): 0.711

Intersection Setup

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main 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	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	1790.0	100.00	615.00	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]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main St		
Base Volume Input [veh/h]	82	3	411	0	0	0	0	1021	0	0	1103	460
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	571	0	0	0	0	0	0	23	0	0	128	0
Site-Generated Trips [veh/h]	25	0	0	0	0	0	8	16	0	0	16	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	107	0	0	0	0	0	0	0	0	120
Total Hourly Volume [veh/h]	681	3	320	0	0	0	8	1101	0	0	1291	358
Peak Hour Factor	0.9300	0.9300	0.9300	1.0000	1.0000	1.0000	1.0000	0.9190	1.0000	1.0000	0.9300	0.9300
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]	183	1	86	0	0	0	2	300	0	0	347	96
Total Analysis Volume [veh/h]	732	3	344	0	0	0	8	1198	0	0	1388	385
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	60
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	Split	Split	Split	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	33	0	0	0	0	0	27	0	0	27	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	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	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		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		C	C	C
C, Cycle Length [s]	60	60	60		60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31		21	21	21
g / C, Green / Cycle	0.52	0.52	0.52		0.35	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.43	0.11	0.11		0.24	0.27	0.28
s, saturation flow rate [veh/h]	1714	1534	1530		4903	4903	1561
c, Capacity [veh/h]	888	795	793		1710	1710	544
d1, Uniform Delay [s]	12.16	7.86	7.86		16.84	17.46	17.77
k, delay calibration	0.50	0.50	0.50		0.11	0.11	0.13
l, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	8.58	0.63	0.64		0.53	0.79	3.71
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	0.22	0.22		0.70	0.78	0.81
d, Delay for Lane Group [s/veh]	20.74	8.49	8.50		17.37	18.25	21.49
Lane Group LOS	C	A	A		B	B	C
Critical Lane Group	Yes	No	No		No	No	Yes
50th-Percentile Queue Length [veh/ln]	8.09	1.05	1.05		3.83	4.43	4.95
50th-Percentile Queue Length [ft/ln]	202.17	26.34	26.36		95.70	110.85	123.68
95th-Percentile Queue Length [veh/ln]	12.75	1.90	1.90		6.89	7.89	8.60
95th-Percentile Queue Length [ft/ln]	318.76	47.41	47.45		172.26	197.19	214.88

Movement, Approach, & Intersection Results

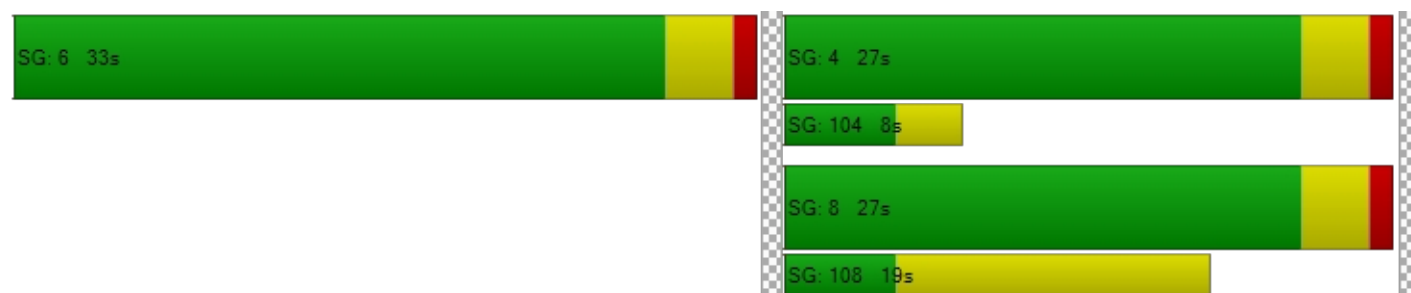
d_M, Delay for Movement [s/veh]	20.74	8.49	8.49	0.00	0.00	0.00	0.00	17.37	0.00	0.00	18.39	21.49
Movement LOS	C	A	A					B			B	C
d_A, Approach Delay [s/veh]	16.80			0.00			17.37			19.06		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	17.96											
Intersection LOS	B											
Intersection V/C	0.711											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	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]	21.68	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.649	1.899	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	967	0	767	767
d_b, Bicycle Delay [s]	8.01	30.00	11.41	11.41
I_b,int, Bicycle LOS Score for Intersection	3.517	4.132	2.219	2.340
Bicycle LOS	D	D	B	B

Sequence

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



Intersection Level Of Service Report
Intersection 8: Three Flags Ave-Lassen St/Poplar St

Control Type:	Two-way stop	Delay (sec / veh):	45.6
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.210

Intersection Setup

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda 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	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda St		
Base Volume Input [veh/h]	13	0	30	0	0	0	0	24	29	85	8	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	30	96	225	0	0	125	0
Site-Generated Trips [veh/h]	0	0	0	0	0	8	28	73	0	0	17	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]	14	0	31	0	0	38	124	323	30	88	150	0
Peak Hour Factor	0.6360	0.6360	0.6360	1.0000	1.0000	1.0000	0.6790	0.6790	0.6790	0.7840	0.7840	0.7840
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]	6	0	12	0	0	10	46	119	11	28	48	0
Total Analysis Volume [veh/h]	22	0	49	0	0	38	183	476	44	112	191	0
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	0.21	0.00	0.09	0.00	0.00	0.04	0.13	0.00	0.00	0.11	0.00	0.00
d_M, Delay for Movement [s/veh]	45.59	41.11	17.41	41.47	36.07	9.40	7.97	0.00	0.00	8.81	0.00	0.00
Movement LOS	E	E	C	E	E	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.19	1.19	1.19	0.14	0.14	0.14	0.45	0.45	0.45	0.35	0.35	0.35
95th-Percentile Queue Length [ft/ln]	29.77	29.77	29.77	3.48	3.48	3.48	11.29	11.29	11.29	8.87	8.87	8.87
d_A, Approach Delay [s/veh]	26.14			9.40			2.07			3.26		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	4.18											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 9: Mesa Linda St/Sultana Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 12.5
 Level Of Service: B
 Volume to Capacity (v/c): 0.004

Intersection Setup

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
Base Volume Input [veh/h]	0	51	2	0	94	0	0	0	0	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	77	0	0	102	14	1	0	1	0	0	0
Site-Generated Trips [veh/h]	0	3	0	0	8	3	1	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]	5	133	2	0	208	17	2	0	1	0	0	0
Peak Hour Factor	0.6310	0.6310	0.6310	0.7920	0.7920	0.7920	1.0000	1.0000	1.0000	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]	2	53	1	0	66	5	1	0	0	0	0	0
Total Analysis Volume [veh/h]	8	211	3	0	263	21	2	0	1	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.81	0.00	0.00	0.00	0.00	0.00	12.53	0.00	9.71	0.00	0.00	0.00
Movement LOS	A	A			A	A	B		A			
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.47	0.47	0.00	0.00	0.00	0.00	0.41	0.00	0.41	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.29			0.00			11.59			0.00		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	0.19											
Intersection LOS	B											

Intersection Level Of Service Report

Intersection 10: Joshua Rd/Outpost Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 30.4
 Level Of Service: D
 Volume to Capacity (v/c): 0.295

Intersection Setup

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua 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	0	0	0	1	0	1	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]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua St		
Base Volume Input [veh/h]	0	0	0	39	0	108	0	90	0	0	117	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	37	0	0	186	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	103	0	0	365	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]	0	0	0	41	0	112	0	234	0	0	673	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.6950	0.6950	0.6950	1.0000	0.6990	1.0000	1.0000	0.9130	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	0	0	15	0	40	0	84	0	0	184	0
Total Analysis Volume [veh/h]	0	0	0	59	0	161	0	335	0	0	737	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	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	0.00	0.30	0.00	0.38	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	38.06	21.20	10.06	30.37	21.20	18.71	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	E	C	B	D	C	C		A			A	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	1.18	0.00	1.76	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	29.43	0.00	43.94	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	23.10			21.84			0.00			0.00		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	3.72											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 11: Joshua St/I-15 SB Off-Ramp

Control Type:	Two-way stop	Delay (sec / veh):	56.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.032

Intersection Setup

Name	Joshua St		Joshua St		Joshua St	
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	1	0	0	0	0
Entry Pocket Length [ft]	100.00	1500.00	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]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Joshua St		Joshua St		Joshua St	
Base Volume Input [veh/h]	66	207	0	154	30	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	186	0	37	0	0
Site-Generated Trips [veh/h]	0	361	0	103	4	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]	69	762	0	300	35	0
Peak Hour Factor	0.7150	0.7150	1.0000	0.8560	0.8190	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	266	0	88	11	0
Total Analysis Volume [veh/h]	97	1066	0	350	43	0
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	0.16	1.03	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.94	56.50	0.00	0.00	0.00	0.00
Movement LOS	B	F		A	A	
95th-Percentile Queue Length [veh/ln]	0.56	22.15	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	13.91	553.82	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	52.78		0.00		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	39.45					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 12: Joshua St/I-15 NB On-Ramp

Control Type:	Two-way stop	Delay (sec / veh):	7.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.186

Intersection Setup

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
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	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
Base Volume Input [veh/h]	0	0	107	111	32	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	37	0	0	0
Site-Generated Trips [veh/h]	0	0	102	1	4	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	0	250	116	37	12
Peak Hour Factor	1.0000	1.0000	0.8720	0.8720	0.6800	0.6800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	72	33	14	4
Total Analysis Volume [veh/h]	0	0	287	133	54	18
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			
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.19	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.87	0.00	0.00	0.00
Movement LOS			A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.68	0.68	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	17.09	17.09	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		5.38		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.59					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 13: Lassen St/North Dwy

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 8.6
 Level Of Service: A
 Volume to Capacity (v/c): 0.003

Intersection Setup

Name	Lassen St		Lassen St		North Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lassen St		Lassen St		North Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	11	3	0	3	1
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	3	0	3	1
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	3	1	0	1	0
Total Analysis Volume [veh/h]	0	11	3	0	3	1
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.22	0.00	8.57	8.34
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.14	0.14	0.29	0.29
d_A, Approach Delay [s/veh]	0.00		7.22		8.51	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.10					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 14: Lassen St/South Dwy

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 8.6
 Level Of Service: A
 Volume to Capacity (v/c): 0.003

Intersection Setup

Name	Lassen St		Lassen St		South Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lassen St		Lassen St		South Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	10	0	3	3	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]	11	10	0	3	3	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	0	1	1	0
Total Analysis Volume [veh/h]	11	10	0	3	3	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.24	0.00	8.60	8.38
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.22	0.22
d_A, Approach Delay [s/veh]	0.00		0.00		8.60	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.96					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 15: Mesa Linda St/North Dwy

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.001

Intersection Setup

Name	Mesa Linda St		Mesa Linda St		North Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mesa Linda St		Mesa Linda St		North Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	5	3	1	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	2	5	3	1	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	1	1	0	0
Total Analysis Volume [veh/h]	0	2	5	3	1	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.21	0.00	0.00	0.00	8.54	8.33
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.07	0.07
d_A, Approach Delay [s/veh]	0.00		0.00		8.54	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.78					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 16: Mesa Linda St/South Dwy

Control Type:	Two-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.001

Intersection Setup

Name	Mesa Linda St		Mesa Linda St		South Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mesa Linda St		Mesa Linda St		South Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	1	4	1	1	3
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]	10	1	4	1	1	3
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	1	0	0	1
Total Analysis Volume [veh/h]	10	1	4	1	1	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.22	0.00	0.00	0.00	8.65	8.33
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.46	0.46	0.00	0.00	0.28	0.28
d_A, Approach Delay [s/veh]	6.57		0.00		8.41	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.29					
Intersection LOS	A					

Mesa Linda Street Warehouse

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Scenario 7 Opening Year Plus Project AM

Report File: C:\...\Opening Plus Project AM.pdf

1/30/2023

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	US-395/Poplar St	55	1136	429	93	1140	27	7	0	19	83	0	17	3006

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	US-395/Three Flags Rd	41	1539	140	36	1339	80	31	3	93	217	4	36	3559

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	US-395/Joshua St	9	1288	112	210	1237	107	19	25	9	364	57	413	3850

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	Main St/Mesa Linda St	7	0	63	48	1	17	15	1194	17	263	1666	18	3309

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	Main St/Key Pointe Ave	4	12	101	142	27	11	31	1212	8	201	1953	139	3841

ID	Intersection Name	Southbound		Eastbound		Total Volume
		Left	Right	Thru	Thru	
6	Main St/I-15 SB Off Ramp	322	755	1190	1528	3795

ID	Intersection Name	Northbound			Eastbound	Westbound		Total Volume
		Left	Thru	Right	Thru	Thru	Right	
7	Main St/I-15 NB Ramps	681	3	427	1101	1291	478	3981

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
8	Three Flags Ave-Lassen St/Poplar St	14	0	31	0	0	38	124	323	30	88	150	0	798

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
9	Mesa Linda St/Sultana Rd	5	133	208	17	2	1	366

ID	Intersection Name	Northbound			Southbound			Eastbound	Westbound	Total Volume
		Left	Thru	Right	Left	Thru	Right	Thru	Thru	
10	Joshua Rd/Outpost Rd	0	0	0	41	0	112	234	673	1060

ID	Intersection Name	Southbound		Eastbound	Westbound	Total Volume
		Left	Right	Thru	Thru	
11	Joshua St/I-15 SB Off-Ramp	69	762	300	35	1166

ID	Intersection Name	Eastbound		Westbound		Total Volume
		Left	Thru	Thru	Right	
12	Joshua St/I-15 NB On-Ramp	250	116	37	12	415

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
13	Lassen St/North Dwy	0	11	3	0	3	1	18

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
14	Lassen St/South Dwy	11	10	0	3	3	0	27

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
15	Mesa Linda St/North Dwy	0	2	5	3	1	0	11

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
16	Mesa Linda St/South Dwy	10	1	4	1	1	3	20

Mesa Linda Street Warehouse

Vistro File: C:\...\Intersections LOS - Starting on City
comments - Copy.vistro

Scenario 8 Opening Year Plus Project PM

Report File: C:\...\Opening Plus Project PM.pdf

1/30/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	US-395/Poplar St	Two-way stop	HCM 6th Edition	WB Left	35.702	10,000.0	F
2	US-395/Three Flags Rd	Signalized	HCM 6th Edition	SB Left	0.663	21.4	C
3	US-395/Joshua St	Signalized	HCM 6th Edition	NB Left	0.859	42.8	D
4	Main St/Mesa Linda St	Signalized	HCM 6th Edition	NB Left	5.289	20.1	C
5	Main St/Key Pointe Ave	Signalized	HCM 6th Edition	WB Left	0.926	63.5	E
6	Main St/I-15 SB Off Ramp	Signalized	HCM 6th Edition	SB Right	0.693	13.4	B
7	Main St/I-15 NB Ramps	Signalized	HCM 6th Edition	EB Thru	0.554	14.7	B
8	Three Flags Ave-Lassen St/Poplar St	Two-way stop	HCM 6th Edition	NB Left	0.277	36.9	E
9	Mesa Linda St/Sultana Rd	Two-way stop	HCM 6th Edition	EB Left	0.021	12.8	B
10	Joshua Rd/Outpost Rd	Two-way stop	HCM 6th Edition	SB Left	0.385	38.1	E
11	Joshua St/I-15 SB Off-Ramp	Two-way stop	HCM 6th Edition	SB Left	0.083	15.8	C
12	Joshua St/I-15 NB On-Ramp	Two-way stop	HCM 6th Edition	EB Left	0.442	9.2	A
13	Lassen St/North Dwy	Two-way stop	HCM 6th Edition	WB Left	0.013	8.6	A
14	Lassen St/South Dwy	Two-way stop	HCM 6th Edition	WB Left	0.012	8.6	A
15	Mesa Linda St/North Dwy	Two-way stop	HCM 6th Edition	EB Left	0.003	8.5	A
16	Mesa Linda St/South Dwy	Two-way stop	HCM 6th Edition	EB Left	0.001	8.6	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: US-395/Poplar St**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10,000.0
 Level Of Service: F
 Volume to Capacity (v/c): 35.702

Intersection Setup

Name	US-395			US-395						Poplar 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	0	1	0	1	1	0	0	0	0	1
Entry Pocket Length [ft]	150.00	100.00	100.00	373.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	510.00
No. of Lanes in Exit Pocket	0	0	0	0	0	2	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	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		
Crosswalk	No			No			Yes			No		

Volumes

Name	US-395			US-395						Poplar St		
Base Volume Input [veh/h]	0	1157	34	25	976	0	0	0	0	6	0	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	32	37	66	10	168	15	23	0	47	293	0	44
Site-Generated Trips [veh/h]	0	99	41	9	134	0	0	0	0	76	0	16
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]	32	1339	142	45	1317	15	23	0	47	375	0	106
Peak Hour Factor	0.9430	0.9430	0.9430	0.9110	0.9110	0.9110	1.0000	1.0000	1.0000	0.7580	0.7580	0.7580
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	355	38	12	361	4	6	0	12	124	0	35
Total Analysis Volume [veh/h]	34	1420	151	49	1446	16	23	0	47	495	0	140
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
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	0.07	0.01	0.00	0.12	0.01	0.00	2.21	0.00	0.13	35.70	0.00	0.41
d_M, Delay for Movement [s/veh]	13.29	0.00	0.00	14.56	0.00	0.00	1269.0	425.81	16.03	10000.	395.33	22.84
Movement LOS	B	A	A	B	A	A	F	F	C	F	F	C
95th-Percentile Queue Length [veh/ln]	0.23	0.00	0.00	0.39	0.00	0.00	3.83	0.43	0.43	63.08	1.95	1.95
95th-Percentile Queue Length [ft/ln]	5.85	0.00	0.00	9.68	0.00	0.00	95.68	10.69	10.69	1577.1	48.79	48.79
d_A, Approach Delay [s/veh]	0.28			0.47			427.73			7800.31		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	1304.45											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: US-395/Three Flags Rd

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 21.4
 Level Of Service: C
 Volume to Capacity (v/c): 0.663

Intersection Setup

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
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	0	1	0	1
Entry Pocket Length [ft]	190.00	100.00	190.00	224.00	100.00	224.00	182.00	100.00	100.00	274.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	US-395			US-395			Three Flags Rd			Three Flags Rd		
Base Volume Input [veh/h]	62	1088	108	27	851	95	62	1	95	133	6	25
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	135	0	0	271	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	135	39	4	206	0	0	0	0	45	0	5
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	38	0	0	25	0	0	25	0	0	8
Total Hourly Volume [veh/h]	64	1402	113	32	1362	74	64	1	74	183	6	23
Peak Hour Factor	0.9790	0.9790	0.9790	0.9230	0.9230	0.9230	0.8040	0.8040	0.8040	0.7130	0.7130	0.7130
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	358	29	9	369	20	20	0	23	64	2	8
Total Analysis Volume [veh/h]	65	1432	115	35	1476	80	80	1	92	257	8	32
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	105
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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	36	43	0	32	39	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105
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
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	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
g_i, Effective Green Time [s]	5	64	64	3	62	62	26	26	26	26	26
g / C, Green / Cycle	0.05	0.61	0.61	0.03	0.59	0.59	0.25	0.25	0.25	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.04	0.42	0.08	0.02	0.43	0.05	0.06	0.06	0.19	0.00	0.02
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1389	1532	1324	1800	1530
c, Capacity [veh/h]	87	2076	927	55	2014	899	381	379	307	446	379
d1, Uniform Delay [s]	49.20	14.01	8.82	50.19	15.68	9.42	33.44	31.64	43.74	29.85	30.35
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.22	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
d2, Incremental Delay [s]	12.23	1.90	0.27	11.29	2.40	0.20	0.27	0.33	11.29	0.02	0.09
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
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
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

Lane Group Results

X, volume / capacity	0.75	0.69	0.12	0.63	0.73	0.09	0.21	0.25	0.84	0.02	0.08
d, Delay for Lane Group [s/veh]	61.42	15.92	9.10	61.47	18.09	9.62	33.71	31.97	55.03	29.87	30.45
Lane Group LOS	E	B	A	E	B	A	C	C	E	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.93	10.27	1.05	1.06	11.61	0.76	1.70	1.92	7.67	0.16	0.63
50th-Percentile Queue Length [ft/ln]	48.14	256.79	26.35	26.39	290.30	19.03	42.55	48.05	191.74	3.88	15.82
95th-Percentile Queue Length [veh/ln]	3.47	15.53	1.90	1.90	17.20	1.37	3.06	3.46	12.21	0.28	1.14
95th-Percentile Queue Length [ft/ln]	86.66	388.19	47.42	47.51	430.01	34.25	76.60	86.50	305.29	6.98	28.48

Movement, Approach, & Intersection Results

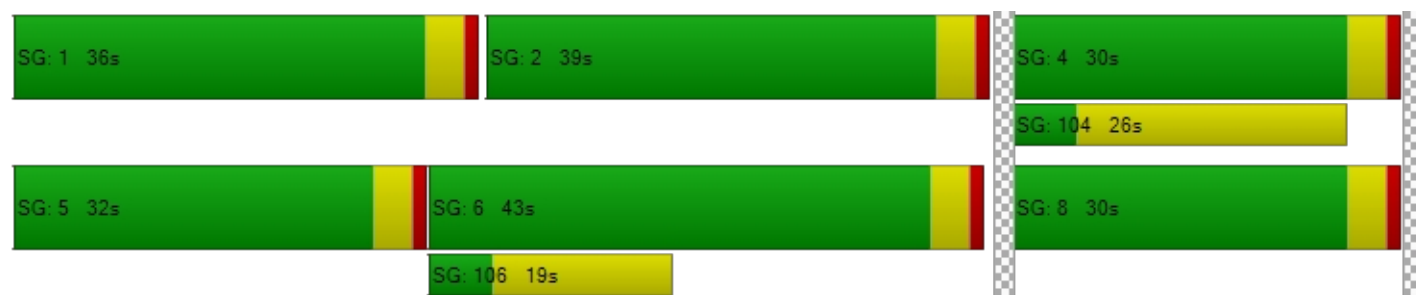
d_M, Delay for Movement [s/veh]	61.42	15.92	9.10	61.47	18.09	9.62	33.71	31.97	31.97	55.03	29.87	30.45
Movement LOS	E	B	A	E	B	A	C	C	C	E	C	C
d_A, Approach Delay [s/veh]	17.26			18.62			32.78			51.70		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	21.36											
Intersection LOS	C											
Intersection V/C	0.663											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			43.89			0.00			43.89		
I_p,int, Pedestrian LOS Score for Intersection	0.000			3.383			0.000			2.272		
Crosswalk LOS	F			C			F			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	743			667			495			495		
d_b, Bicycle Delay [s]	20.74			23.33			29.72			29.72		
I_b,int, Bicycle LOS Score for Intersection	2.921			2.893			1.886			2.063		
Bicycle LOS	C			C			A			B		

Sequence

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



Intersection Level Of Service Report

Intersection 3: US-395/Joshua St

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 42.8
 Level Of Service: D
 Volume to Capacity (v/c): 0.859

Intersection Setup

Name	US-395			US-395			Joshua St			Joshua 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	1	1	0	0	1	0	1
Entry Pocket Length [ft]	191.00	100.00	226.00	200.00	100.00	223.00	140.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	US-395			US-395			Joshua St			Joshua St		
Base Volume Input [veh/h]	24	1112	101	105	925	21	39	51	7	84	26	137
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	88	0	169	196	0	0	0	0	0	0	46
Site-Generated Trips [veh/h]	0	105	212	107	142	3	2	0	0	136	0	67
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	79	0	0	6	0	0	2	0	0	64
Total Hourly Volume [veh/h]	25	1349	238	385	1300	19	43	53	5	223	27	191
Peak Hour Factor	0.9210	0.9210	0.9210	0.9020	0.9020	0.9020	0.7780	0.7780	0.7780	0.9060	0.9060	0.9060
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]	7	366	65	107	360	5	14	17	2	62	7	53
Total Analysis Volume [veh/h]	27	1465	258	427	1441	21	55	68	6	246	30	211
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully 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	Protect	Permis	Permis	Protect	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
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]	37	53	0	37	53	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	14	0	0	10	0	0	10	0	0	21	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	R	L	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
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
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	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
g_i, Effective Green Time [s]	3	50	50	32	79	79	26	26	26	26	26
g / C, Green / Cycle	0.03	0.42	0.42	0.26	0.66	0.66	0.22	0.22	0.22	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.02	0.43	0.17	0.25	0.42	0.01	0.05	0.04	0.18	0.02	0.14
s, saturation flow rate [veh/h]	1714	3427	1530	1714	3427	1530	1157	1775	1347	1800	1530
c, Capacity [veh/h]	44	1441	643	450	2253	1006	277	385	285	390	332
d1, Uniform Delay [s]	57.85	34.76	24.23	43.42	12.14	7.13	41.57	38.37	50.84	37.39	42.65
k, delay calibration	0.11	0.50	0.50	0.39	0.50	0.50	0.11	0.11	0.25	0.11	0.12
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
d2, Incremental Delay [s]	13.24	27.98	1.86	26.48	1.41	0.04	0.35	0.24	16.11	0.08	2.26
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
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
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

Lane Group Results

X, volume / capacity	0.62	1.02	0.40	0.95	0.64	0.02	0.20	0.19	0.86	0.08	0.64
d, Delay for Lane Group [s/veh]	71.09	62.73	26.09	69.90	13.55	7.17	41.92	38.61	66.94	37.48	44.92
Lane Group LOS	E	F	C	E	B	A	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.95	25.18	5.22	15.25	10.17	0.18	1.38	1.77	8.56	0.70	5.72
50th-Percentile Queue Length [ft/ln]	23.86	629.39	130.51	381.33	254.36	4.43	34.62	44.14	213.97	17.41	143.10
95th-Percentile Queue Length [veh/ln]	1.72	33.83	8.97	21.66	15.41	0.32	2.49	3.18	13.36	1.25	9.65
95th-Percentile Queue Length [ft/ln]	42.95	845.65	224.18	541.45	385.14	7.98	62.31	79.46	333.92	31.34	241.19

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	71.09	62.73	26.09	69.90	13.55	7.17	41.92	38.61	38.61	66.94	37.48	44.92
Movement LOS	E	F	C	E	B	A	D	D	D	E	D	D
d_A, Approach Delay [s/veh]	57.46			26.21			40.02			55.59		
Approach LOS	E			C			D			E		
d_I, Intersection Delay [s/veh]	42.85											
Intersection LOS	D											
Intersection V/C	0.859											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			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]	0.00			51.32			51.32			51.32		
I_p,int, Pedestrian LOS Score for Intersection	0.000			3.454			2.063			2.743		
Crosswalk LOS	F			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	817			817			433			433		
d_b, Bicycle Delay [s]	20.99			20.99			36.80			36.80		
I_b,int, Bicycle LOS Score for Intersection	3.069			3.123			1.776			2.469		
Bicycle LOS	C			C			A			B		

Sequence

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



Intersection Level Of Service Report

Intersection 4: Main St/Mesa Linda St

Control Type:	Signalized	Delay (sec / veh):	20.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	5.289

Intersection Setup

Name	Mesa Linda St			Mesa Linda St			Main St			Main 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	0	0	1	0	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	340.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	2	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Mesa Linda St			Mesa Linda St			Main St			Main St		
Base Volume Input [veh/h]	14	5	115	32	3	7	14	804	13	55	948	50
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	30	0	167	0	0	0	0	947	2	40	215	0
Site-Generated Trips [veh/h]	1	0	9	0	0	0	0	58	1	4	35	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	74	0	0	2	0	0	4	0	0	13
Total Hourly Volume [veh/h]	46	5	222	33	3	5	15	1841	13	101	1236	39
Peak Hour Factor	0.8450	0.8450	0.8450	0.8400	0.8400	0.8400	0.9320	0.9320	0.9320	0.9310	0.9310	0.9310
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	1	66	10	1	1	4	494	3	27	332	10
Total Analysis Volume [veh/h]	54	6	263	39	4	6	16	1975	14	108	1328	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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	85
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	36	0	0	36	0	0	49	0	0	49	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	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	27	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	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	C	R	C	R	L	C	C	L	C	R
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85	85
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]	2.00	0.00	2.00	0.00	2.00	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	2.00
g_i, Effective Green Time [s]	32	32	32	32	45	45	45	45	45	45
g / C, Green / Cycle	0.38	0.38	0.38	0.38	0.53	0.53	0.53	0.53	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	4.80	0.17	3.73	0.00	0.04	0.38	0.38	0.49	0.27	0.03
s, saturation flow rate [veh/h]	13	1530	12	1530	403	3427	1794	221	4903	1530
c, Capacity [veh/h]	85	576	85	576	218	1814	950	132	2596	810
d1, Uniform Delay [s]	40.00	19.95	39.28	16.59	19.80	15.20	15.21	38.44	12.91	9.68
k, delay calibration	0.50	0.50	0.50	0.50	0.50	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	1.00
d2, Incremental Delay [s]	38.95	2.60	19.83	0.03	0.65	2.50	4.70	40.36	0.72	0.12
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	0.70	0.46	0.51	0.01	0.07	0.72	0.72	0.82	0.51	0.05
d, Delay for Lane Group [s/veh]	78.95	22.55	59.11	16.62	20.46	17.70	19.90	78.79	13.63	9.80
Lane Group LOS	E	C	E	B	C	B	B	E	B	A
Critical Lane Group	Yes	No	No	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.17	4.18	1.36	0.08	0.24	8.35	9.32	3.63	4.62	0.34
50th-Percentile Queue Length [ft/ln]	54.13	104.38	34.00	1.91	5.99	208.63	233.03	90.64	115.42	8.58
95th-Percentile Queue Length [veh/ln]	3.90	7.52	2.45	0.14	0.43	13.08	14.33	6.53	8.14	0.62
95th-Percentile Queue Length [ft/ln]	97.44	187.89	61.20	3.45	10.78	327.07	358.21	163.15	203.52	15.45

Movement, Approach, & Intersection Results

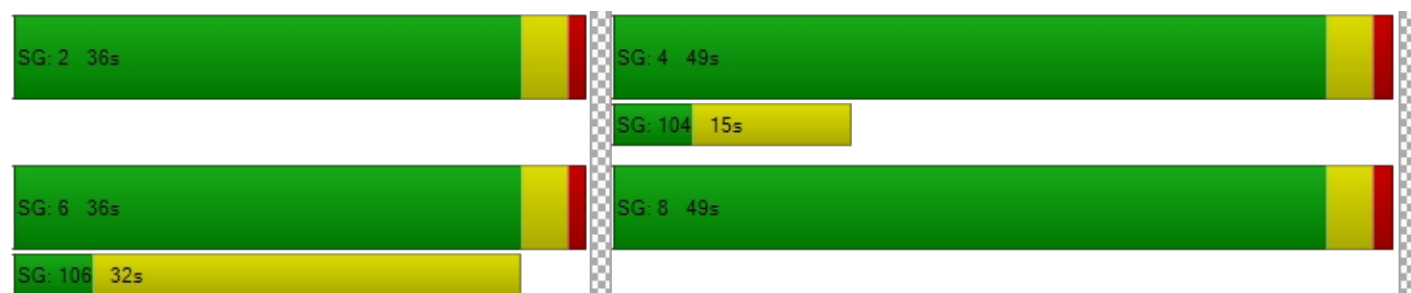
d_M, Delay for Movement [s/veh]	78.95	78.95	22.55	59.11	59.11	16.62	20.46	18.45	19.90	78.79	13.63	9.80
Movement LOS	E	E	C	E	E	B	C	B	B	E	B	A
d_A, Approach Delay [s/veh]	33.03			53.91			18.47			18.28		
Approach LOS	C			D			B			B		
d_I, Intersection Delay [s/veh]	20.07											
Intersection LOS	C											
Intersection V/C	5.289											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			9.0			0.0			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]	0.00			33.98			0.00			33.98		
I_p,int, Pedestrian LOS Score for Intersection	0.000			2.006			0.000			3.579		
Crosswalk LOS	F			B			F			D		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	753			753			1059			1059		
d_b, Bicycle Delay [s]	16.52			16.52			9.41			9.41		
I_b,int, Bicycle LOS Score for Intersection	2.215			1.644			2.665			2.380		
Bicycle LOS	B			A			B			B		

Sequence

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



Intersection Level Of Service Report

Intersection 5: Main St/Key Pointe Ave

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 63.5
 Level Of Service: E
 Volume to Capacity (v/c): 0.926

Intersection Setup

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main 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	1	1	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	140.00	100.00	100.00	200.00	100.00	200.00	200.00	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]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Key Pointe Ave			Key Pointe Ave			Main St			Main St		
Base Volume Input [veh/h]	31	57	241	237	84	15	46	969	18	294	1112	195
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	1193	0	0	259	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	67	0	0	39	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	63	0	0	4	0	0	5	0	0	51
Total Hourly Volume [veh/h]	32	59	188	246	87	12	48	2268	14	306	1454	152
Peak Hour Factor	0.8480	0.8480	0.8480	0.9320	0.9320	0.9320	0.9350	0.9350	0.9350	0.9270	0.9270	0.9270
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	17	55	66	23	3	13	606	4	83	392	41
Total Analysis Volume [veh/h]	38	70	222	264	93	13	51	2426	15	330	1569	164
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fixed time
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
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	36	0	0	36	0	10	57	0	27	74	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	24	0	0	27	0	0	14	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	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
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
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	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	2.00	2.00
g_i, Effective Green Time [s]	32	32	32	32	32	6	53	53	23	70	70
g / C, Green / Cycle	0.27	0.27	0.27	0.27	0.27	0.05	0.44	0.44	0.19	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.15	0.24	0.06	0.03	0.49	0.01	0.19	0.34	0.34
s, saturation flow rate [veh/h]	1308	1800	1530	1104	1762	1714	4903	1530	1714	3427	1715
c, Capacity [veh/h]	326	480	408	303	470	86	2166	676	329	1999	1000
d1, Uniform Delay [s]	39.25	33.57	37.74	47.82	34.33	55.81	33.50	18.89	48.50	15.69	15.76
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	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	1.00	1.00
d2, Incremental Delay [s]	0.73	0.64	5.14	27.17	1.11	26.89	60.99	0.06	50.75	1.22	2.46
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
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
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

Lane Group Results

X, volume / capacity	0.12	0.15	0.54	0.87	0.23	0.60	1.12	0.02	1.00	0.58	0.58
d, Delay for Lane Group [s/veh]	39.98	34.21	42.88	74.99	35.44	82.70	94.49	18.95	99.25	16.91	18.22
Lane Group LOS	D	C	D	E	D	F	F	B	F	B	B
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.99	1.66	6.18	10.31	2.58	2.11	31.39	0.24	14.04	9.10	9.56
50th-Percentile Queue Length [ft/ln]	24.82	41.39	154.52	257.64	64.42	52.63	784.67	5.90	351.06	227.43	238.93
95th-Percentile Queue Length [veh/ln]	1.79	2.98	10.26	15.57	4.64	3.79	44.04	0.42	20.24	14.04	14.63
95th-Percentile Queue Length [ft/ln]	44.67	74.50	256.46	389.25	115.96	94.74	1100.9	10.61	505.89	351.09	365.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.98	34.21	42.88	74.99	35.44	35.44	82.70	94.49	18.95	99.25	17.26	18.22
Movement LOS	D	C	D	E	D	D	F	F	B	F	B	B
d_A, Approach Delay [s/veh]	40.71			63.66			93.79			30.45		
Approach LOS	D			E			F			C		
d_I, Intersection Delay [s/veh]	63.47											
Intersection LOS	E											
Intersection V/C	0.926											

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]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersection	2.440			2.192			3.639			4.239		
Crosswalk LOS	B			B			D			D		
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	533			533			883			1167		
d_b, Bicycle Delay [s]	32.27			32.27			18.70			10.42		
I_b,int, Bicycle LOS Score for Intersection	2.208			2.177			2.933			2.722		
Bicycle LOS	B			B			C			B		

Sequence

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



Intersection Level Of Service Report
Intersection 6: Main St/I-15 SB Off Ramp

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):	0.693

Intersection Setup

Name	I-15 SB Off Ramp		Main St		Main St	
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	1	1	0	0	0	0
Entry Pocket Length [ft]	1100.00	530.00	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]	40.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-15 SB Off Ramp		Main St		Main St	
Base Volume Input [veh/h]	443	350	0	1273	1255	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	111	0	643	142	0
Site-Generated Trips [veh/h]	0	11	0	43	28	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
Right Turn on Red Volume [veh/h]	0	122	0	0	0	0
Total Hourly Volume [veh/h]	461	364	0	2010	1475	0
Peak Hour Factor	0.9110	0.9110	1.0000	0.9500	0.9340	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	127	100	0	529	395	0
Total Analysis Volume [veh/h]	506	400	0	2116	1579	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
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	Split	Split	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	0	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	0	10	10	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	46	0	0	14	14	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Delayed Vehicle Green [s]	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	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	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
I, Upstream Filtering Factor	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	R	C	C
C, Cycle Length [s]	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	19	33	33
g / C, Green / Cycle	0.32	0.32	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.15	0.26	0.43	0.32
s, saturation flow rate [veh/h]	3329	1530	4903	4903
c, Capacity [veh/h]	1069	491	2675	2675
d1, Uniform Delay [s]	16.31	18.72	10.90	9.14
k, delay calibration	0.11	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.33	3.34	2.48	0.96
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.81	0.79	0.59
d, Delay for Lane Group [s/veh]	16.63	22.06	13.38	10.10
Lane Group LOS	B	C	B	B
Critical Lane Group	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	2.43	4.78	5.29	3.16
50th-Percentile Queue Length [ft/ln]	60.83	119.62	132.15	79.04
95th-Percentile Queue Length [veh/ln]	4.38	8.37	9.06	5.69
95th-Percentile Queue Length [ft/ln]	109.50	209.30	226.41	142.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.63	22.06	0.00	13.38	10.10	0.00
Movement LOS	B	C		B	B	
d_A, Approach Delay [s/veh]	19.03		13.38		10.10	
Approach LOS	B		B		B	
d_I, Intersection Delay [s/veh]	13.37					
Intersection LOS	B					
Intersection V/C	0.693					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1400	333	333
d_b, Bicycle Delay [s]	2.70	20.83	20.83
I_b,int, Bicycle LOS Score for Intersection	1.560	2.723	2.428
Bicycle LOS	A	B	B

Sequence

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



Intersection Level Of Service Report

Intersection 7: Main St/I-15 NB Ramps

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 14.7
 Level Of Service: B
 Volume to Capacity (v/c): 0.554

Intersection Setup

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main 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	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	1790.0	100.00	615.00	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]	40.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Off Ramp			I-15 NB On Ramp			Main St			Main St		
Base Volume Input [veh/h]	190	4	773	0	0	0	0	1449	0	0	1531	404
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	115	0	0	0	0	0	0	126	0	0	27	0
Site-Generated Trips [veh/h]	11	0	0	0	0	0	26	17	0	0	17	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	201	0	0	0	0	0	0	0	0	105
Total Hourly Volume [veh/h]	324	4	603	0	0	0	26	1650	0	0	1636	315
Peak Hour Factor	0.9480	0.9480	0.9480	1.0000	1.0000	1.0000	1.0000	0.9760	1.0000	1.0000	0.9690	0.9690
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]	85	1	159	0	0	0	7	423	0	0	422	81
Total Analysis Volume [veh/h]	342	4	636	0	0	0	26	1691	0	0	1688	325
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 major street	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street	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]	60
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	Split	Split	Split	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	20	0	0	0	0	0	40	0	0	40	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	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	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		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		C	C	C
C, Cycle Length [s]	60	60	60		60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	26	26	26		26	26	26
g / C, Green / Cycle	0.43	0.43	0.43		0.44	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.20	0.21	0.21		0.34	0.31	0.31
s, saturation flow rate [veh/h]	1714	1533	1530		4903	4903	1616
c, Capacity [veh/h]	733	655	654		2154	2154	710
d1, Uniform Delay [s]	12.29	12.43	12.44		14.40	13.63	13.70
k, delay calibration	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
d2, Incremental Delay [s]	2.13	2.59	2.61		0.66	0.42	1.32
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.49	0.49		0.79	0.70	0.71
d, Delay for Lane Group [s/veh]	14.42	15.02	15.04		15.06	14.05	15.02
Lane Group LOS	B	B	B		B	B	B
Critical Lane Group	No	No	Yes		Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.07	2.97	2.97		4.93	4.14	4.34
50th-Percentile Queue Length [ft/ln]	76.83	74.27	74.34		123.29	103.54	108.47
95th-Percentile Queue Length [veh/ln]	5.53	5.35	5.35		8.57	7.45	7.76
95th-Percentile Queue Length [ft/ln]	138.30	133.68	133.82		214.34	186.37	193.88

Movement, Approach, & Intersection Results

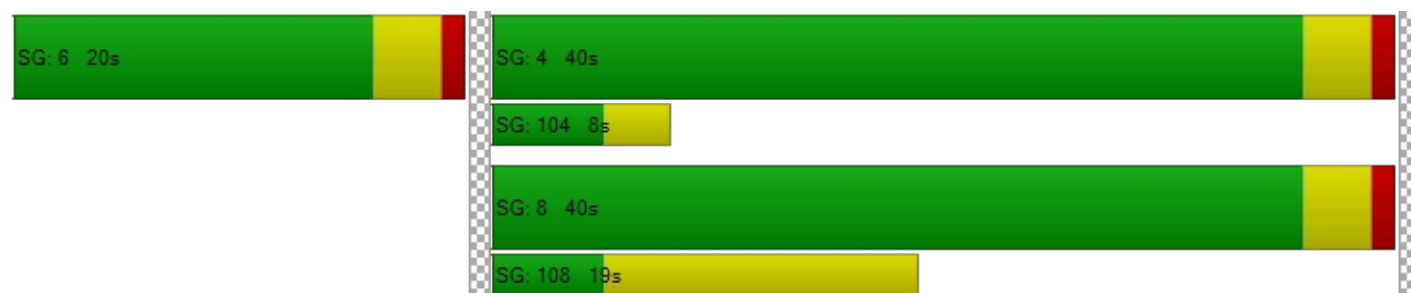
d_M, Delay for Movement [s/veh]	14.42	15.02	15.03	0.00	0.00	0.00	0.00	15.06	0.00	0.00	14.16	15.02
Movement LOS	B	B	B					B			B	B
d_A, Approach Delay [s/veh]	14.82			0.00			15.06			14.30		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	14.68											
Intersection LOS	B											
Intersection V/C	0.554											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	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]	21.68	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.782	1.827	0.000	0.000
Crosswalk LOS	C	A	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	533	0	1200	1200
d_b, Bicycle Delay [s]	16.13	30.00	4.80	4.80
I_b,int, Bicycle LOS Score for Intersection	3.512	4.132	2.490	2.433
Bicycle LOS	D	D	B	B

Sequence

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



Intersection Level Of Service Report
Intersection 8: Three Flags Ave-Lassen St/Poplar St

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 36.9
 Level Of Service: E
 Volume to Capacity (v/c): 0.277

Intersection Setup

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda 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	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda St		
Base Volume Input [veh/h]	31	0	80	0	0	0	2	47	10	24	25	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	98	19	132	0	0	197	0
Site-Generated Trips [veh/h]	0	0	0	0	0	31	13	37	0	0	62	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]	32	0	83	0	0	129	34	218	10	25	285	0
Peak Hour Factor	0.7750	0.7750	0.7750	1.0000	1.0000	1.0000	0.6500	0.6500	0.6500	0.6130	0.6130	0.6130
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	0	27	0	0	32	13	84	4	10	116	0
Total Analysis Volume [veh/h]	41	0	107	0	0	129	52	335	15	41	465	0
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	0.28	0.00	0.15	0.00	0.00	0.21	0.05	0.00	0.00	0.03	0.00	0.00
d_M, Delay for Movement [s/veh]	36.90	28.80	17.71	28.75	22.99	12.61	8.41	0.00	0.00	8.05	0.00	0.00
Movement LOS	E	D	C	D	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	2.08	2.08	2.08	0.81	0.81	0.81	0.15	0.15	0.15	0.10	0.10	0.10
95th-Percentile Queue Length [ft/ln]	51.90	51.90	51.90	20.20	20.20	20.20	3.69	3.69	3.69	2.61	2.61	2.61
d_A, Approach Delay [s/veh]	23.02			12.61			1.09			0.65		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	4.90											
Intersection LOS	E											

Intersection Level Of Service Report

Intersection 9: Mesa Linda St/Sultana Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 12.8
 Level Of Service: B
 Volume to Capacity (v/c): 0.021

Intersection Setup

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Mesa Linda St			Mesa Linda St						Sultana Rd		
Base Volume Input [veh/h]	0	124	1	0	48	0	0	0	0	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	1	103	0	0	81	13	7	0	4	0	0	0
Site-Generated Trips [veh/h]	0	7	0	0	4	1	3	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]	1	239	1	0	135	14	10	0	4	0	0	0
Peak Hour Factor	0.8220	0.8220	0.8220	0.6320	0.6320	0.6320	1.0000	1.0000	1.0000	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	73	0	0	53	6	3	0	1	0	0	0
Total Analysis Volume [veh/h]	1	291	1	0	214	22	10	0	4	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			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	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.68	0.00	0.00	0.00	0.00	0.00	12.82	0.00	9.57	0.00	0.00	0.00
Movement LOS	A	A			A	A	B		A			
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.08	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.06	0.06	0.00	0.00	0.00	0.00	2.01	0.00	2.01	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.03			0.00			11.90			0.00		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	0.32											
Intersection LOS	B											

Intersection Level Of Service Report

Intersection 10: Joshua Rd/Outpost Rd

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 38.1
 Level Of Service: E
 Volume to Capacity (v/c): 0.385

Intersection Setup

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua 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	0	0	0	1	0	1	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]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Outpost Rd			Outpost Rd			Joshua St			Joshua St		
Base Volume Input [veh/h]	0	0	0	58	0	105	0	168	0	0	96	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	169	0	0	46	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	319	0	0	203	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]	0	0	0	60	0	109	0	663	0	0	349	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.8930	0.8930	0.8930	1.0000	0.8610	1.0000	1.0000	0.8930	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	0	0	17	0	31	0	193	0	0	98	0
Total Analysis Volume [veh/h]	0	0	0	67	0	122	0	770	0	0	391	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	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	0.00	0.39	0.00	0.18	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	32.96	23.28	13.92	38.14	23.28	11.66	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	D	C	B	E	C	B		A			A	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	1.67	0.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	41.81	0.00	16.78	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	23.38			21.05			0.00			0.00		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	2.95											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 11: Joshua St/I-15 SB Off-Ramp

Control Type:	Two-way stop	Delay (sec / veh):	15.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.083

Intersection Setup

Name	Joshua St		Joshua St		Joshua St	
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	1	0	0	0	0
Entry Pocket Length [ft]	100.00	1500.00	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]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Joshua St		Joshua St		Joshua St	
Base Volume Input [veh/h]	21	188	0	183	63	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	46	0	169	0	0
Site-Generated Trips [veh/h]	0	200	0	319	3	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]	22	442	0	678	69	0
Peak Hour Factor	0.7240	0.7240	1.0000	0.9630	0.8290	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	153	0	176	21	0
Total Analysis Volume [veh/h]	30	610	0	704	83	0
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	0.08	0.62	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	15.80	14.48	0.00	0.00	0.00	0.00
Movement LOS	C	B		A	A	
95th-Percentile Queue Length [veh/ln]	0.27	4.49	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	6.71	112.15	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.54		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	6.52					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 12: Joshua St/I-15 NB On-Ramp

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.442

Intersection Setup

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
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	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	I-15 NB On-Ramp		Joshua St		Joshua St	
Base Volume Input [veh/h]	0	0	123	84	71	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	169	0	0	0
Site-Generated Trips [veh/h]	0	0	314	5	3	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	0	611	92	77	5
Peak Hour Factor	1.0000	1.0000	0.9120	0.9120	0.9050	0.9050
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	167	25	21	1
Total Analysis Volume [veh/h]	0	0	670	101	85	6
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			
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.44	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	9.24	0.00	0.00	0.00
Movement LOS			A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	2.32	2.32	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	58.08	58.08	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		8.03		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.18					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 13: Lassen St/North Dwy

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 8.6
 Level Of Service: A
 Volume to Capacity (v/c): 0.013

Intersection Setup

Name	Lassen St		Lassen St		North Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lassen St		Lassen St		North Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	1	0	13	3
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	5	1	0	13	3
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	0	0	3	1
Total Analysis Volume [veh/h]	0	5	1	0	13	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.21	0.00	8.58	8.37
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.05	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.05	0.05	1.18	1.18
d_A, Approach Delay [s/veh]	0.00		7.21		8.54	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.54					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 14: Lassen St/South Dwy

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 8.6
 Level Of Service: A
 Volume to Capacity (v/c): 0.012

Intersection Setup

Name	Lassen St		Lassen St		South Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Lassen St		Lassen St		South Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	5	0	13	12	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]	5	5	0	13	12	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	0	3	3	0
Total Analysis Volume [veh/h]	5	5	0	13	12	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.22	0.00	8.64	8.38
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.04	0.04
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.91	0.91
d_A, Approach Delay [s/veh]	0.00		0.00		8.64	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.96					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 15: Mesa Linda St/North Dwy

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 8.5
 Level Of Service: A
 Volume to Capacity (v/c): 0.003

Intersection Setup

Name	Mesa Linda St		Mesa Linda St		North Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mesa Linda St		Mesa Linda St		North Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	3	1	3	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	4	3	1	3	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	1	0	1	0
Total Analysis Volume [veh/h]	0	4	3	1	3	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.21	0.00	0.00	0.00	8.54	8.33
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.22	0.22
d_A, Approach Delay [s/veh]	0.00		0.00		8.54	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.33					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 16: Mesa Linda St/South Dwy

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 8.6
 Level Of Service: A
 Volume to Capacity (v/c): 0.001

Intersection Setup

Name	Mesa Linda St		Mesa Linda St		South Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mesa Linda St		Mesa Linda St		South Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	3	2	1	1	12
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]	5	3	2	1	1	12
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	1	0	0	3
Total Analysis Volume [veh/h]	5	3	2	1	1	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	7.21	0.00	0.00	0.00	8.62	8.35
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.04	0.04
95th-Percentile Queue Length [ft/ln]	0.23	0.23	0.00	0.00	0.91	0.91
d_A, Approach Delay [s/veh]	4.51		0.00		8.37	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.04					
Intersection LOS	A					

Mesa Linda Street Warehouse

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comments - Copy.vistro

Scenario 8 Opening Year Plus Project PM

Report File: C:\...\Opening Plus Project PM.pdf

1/30/2023

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	US-395/Poplar St	32	1339	142	45	1317	15	23	0	47	375	0	106	3441

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	US-395/Three Flags Rd	64	1402	151	32	1362	99	64	1	99	183	6	31	3494

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	US-395/Joshua St	25	1349	317	385	1300	25	43	53	7	223	27	255	4009

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	Main St/Mesa Linda St	46	5	296	33	3	7	15	1841	17	101	1236	52	3652

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	Main St/Key Pointe Ave	32	59	251	246	87	16	48	2268	19	306	1454	203	4989

ID	Intersection Name	Southbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Thru	Thru	Thru	
6	Main St/I-15 SB Off Ramp	461	486	2010		1475		4432

ID	Intersection Name	Northbound			Eastbound		Westbound		Total Volume
		Left	Thru	Right	Thru	Thru	Thru	Right	
7	Main St/I-15 NB Ramps	324	4	804	1650	1636		420	4838

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
8	Three Flags Ave-Lassen St/Poplar St	32	0	83	0	0	129	34	218	10	25	285	0	816

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
9	Mesa Linda St/Sultana Rd	1	239	135	14	10	4	403

ID	Intersection Name	Northbound			Southbound			Eastbound	Westbound	Total Volume
		Left	Thru	Right	Left	Thru	Right	Thru	Thru	
10	Joshua Rd/Outpost Rd	0	0	0	60	0	109	663	349	1181

ID	Intersection Name	Southbound		Eastbound	Westbound	Total Volume
		Left	Right	Thru	Thru	
11	Joshua St/I-15 SB Off-Ramp	22	442	678	69	1211

ID	Intersection Name	Eastbound		Westbound		Total Volume
		Left	Thru	Thru	Right	
12	Joshua St/I-15 NB On-Ramp	611	92	77	5	785

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
13	Lassen St/North Dwy	0	5	1	0	13	3	22

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
14	Lassen St/South Dwy	5	5	0	13	12	0	35

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
15	Mesa Linda St/North Dwy	0	4	3	1	3	0	11

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
16	Mesa Linda St/South Dwy	5	3	2	1	1	12	24

Option 1: Copy of US-395/Poplar St

Number	1											
Intersection	US-395/Poplar St											
Control Type	Signalized											
Analysis Method	HCM 6th Edition											
Name	US-395			US-395						Poplar St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Base Volume Input [veh/h]	0	1157	34	25	976	0	0	0	0	6	0	44
Total Analysis Volume [veh/h]	0	1227	36	31	1071	0	0	0	0	46	0	50

Intersection Settings

Cycle Length [s]	60											
Coordination Type	Time of Day Pattern Coordinated											
Actuation Type	Fixed time											
Lost time [s]	0.00											
Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	2	0	0	0	0	7	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	0	0	0	5	0	0
Maximum Green [s]	0	30	0	0	30	0	0	0	0	30	0	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
Split [s]	0	44	0	0	44	0	0	0	0	16	0	0
Walk [s]	0	5	0	0	5	0	0	0	0	5	0	0
Pedestrian Clearance [s]	0	10	0	0	3	0	0	0	0	10	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
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
Minimum Recall		No			No					No		
Maximum Recall		No			No					No		
Pedestrian Recall		No			No					No		
Pedestrian Signal Group	0											
Pedestrian Walk [s]	0											
Pedestrian Clearance [s]	0											

Lane Group Calculations

g / C, Green / Cycle	0.67	0.67	0.67	0.67		0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.35	0.35	0.07	0.60		0.03	0.03
so, Base Saturation Flow per Lane [pc/h/ln]	1800	1800	1800	1800		1800	1800
Arrival type	3		3		3	3	
s, saturation flow rate [veh/h]	1800	1782	446	1800		1714	1530
c, Capacity [veh/h]	1200	1188	321	1200		343	306
X, volume / capacity	0.53	0.53	0.10	0.89		0.13	0.16
d, Delay for Lane Group [s/veh]	6.79	6.87	10.34	18.50		20.54	20.99
Lane Group LOS	A	A	B	B		C	C

Critical Lane Group	NO	NO	NO	Yes		NO	Yes
50th-Percentile Queue Length [veh/ln]	2.49	2.51	0.24	8.69		0.57	0.64
50th-Percentile Queue Length [ft/ln]	62.19	62.74	6.00	217.19		14.28	15.94
95th-Percentile Queue Length [veh/ln]	4.48	4.52	0.43	13.52		1.03	1.15
95th-Percentile Queue Length [ft/ln]	111.93	112.93	10.79	338.04		25.71	28.69

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	6.83	6.87	10.34	18.50	0.00	0.00	0.00	0.00	20.54	0.00	20.99
Movement LOS		A	A	B	B					C		C
Critical Movement		No	No	No	No					No		Yes
d_A, Approach Delay [s/veh]	6.83			18.27			0.00			20.78		
Approach LOS	A			B			A			C		
d_I, Intersection Delay [s/veh]	12.50											
Intersection LOS	B											
Intersection V/C	0.628											

Option 1: Copy of US-395/Poplar St

Number	1											
Intersection	US-395/Poplar St											
Control Type	Signalized											
Analysis Method	HCM 6th Edition											
Name	US-395			US-395						Poplar St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Base Volume Input [veh/h]	0	815	18	28	982	0	0	0	0	8	0	3
Total Analysis Volume [veh/h]	0	882	35	37	1081	0	0	0	0	31	0	9

Intersection Settings

Cycle Length [s]	60											
Coordination Type	Time of Day Pattern Coordinated											
Actuation Type	Fixed time											
Lost time [s]	0.00											
Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	2	0	0	0	0	7	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	0	0	0	5	0	0
Maximum Green [s]	0	30	0	0	30	0	0	0	0	30	0	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
Split [s]	0	44	0	0	44	0	0	0	0	16	0	0
Walk [s]	0	5	0	0	5	0	0	0	0	5	0	0
Pedestrian Clearance [s]	0	10	0	0	3	0	0	0	0	10	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
l1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
Minimum Recall		No			No					No		
Maximum Recall		No			No					No		
Pedestrian Recall		No			No					No		
Pedestrian Signal Group	0											
Pedestrian Walk [s]	0											
Pedestrian Clearance [s]	0											

Lane Group Calculations

g / C, Green / Cycle	0.67	0.67	0.67	0.67		0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.25	0.26	0.06	0.60		0.02	0.01
so, Base Saturation Flow per Lane [pc/h/ln]	1800	1800	1800	1800		1800	1800
Arrival type	3		3		3	3	
s, saturation flow rate [veh/h]	1800	1776	619	1800		1714	1530
c, Capacity [veh/h]	1200	1184	440	1200		343	306
X, volume / capacity	0.38	0.39	0.08	0.90		0.09	0.03
d, Delay for Lane Group [s/veh]	5.40	5.45	7.81	19.29		20.07	19.49
Lane Group LOS	A	A	A	B		C	B

Critical Lane Group	NO	NO	NO	Yes		Yes	NO
50th-Percentile Queue Length [veh/ln]	1.53	1.55	0.22	9.03		0.38	0.11
50th-Percentile Queue Length [ft/ln]	38.32	38.63	5.55	225.86		9.49	2.74
95th-Percentile Queue Length [veh/ln]	2.76	2.78	0.40	13.96		0.68	0.20
95th-Percentile Queue Length [ft/ln]	68.97	69.53	10.00	349.09		17.08	4.94

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	5.42	5.45	7.81	19.29	0.00	0.00	0.00	0.00	20.07	0.00	19.49
Movement LOS		A	A	A	B					C		B
Critical Movement		No	No	No	No					Yes		No
d_A, Approach Delay [s/veh]	5.42			18.91			0.00			19.94		
Approach LOS	A			B			A			B		
d_I, Intersection Delay [s/veh]	12.97											
Intersection LOS	B											
Intersection V/C	0.619											

Option 1: Copy of US-395/Poplar St

Number	1											
Intersection	US-395/Poplar St											
Control Type	Signalized											
Analysis Method	HCM 6th Edition											
Name	US-395			US-395						Poplar St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Base Volume Input [veh/h]	0	815	18	28	982	0	0	0	0	8	0	3
Total Analysis Volume [veh/h]	60	1229	348	102	1256	22	7	0	14	181	0	28

Intersection Settings

Cycle Length [s]	60											
Coordination Type	Time of Day Pattern Coordinated											
Actuation Type	Fixed time											
Lost time [s]	0.00											
Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	38	0	0	38	0	0	22	0	0	22	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	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
l1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	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	
Pedestrian Signal Group	0											
Pedestrian Walk [s]	0											
Pedestrian Clearance [s]	0											

Lane Group Calculations

g / C, Green / Cycle	0.57	0.57	0.57	0.57	0.57	0.57	0.30	0.30	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.14	0.25	0.23	0.16	0.37	0.01	0.00	0.01	0.13	0.02
so, Base Saturation Flow per Lane [pc/h/ln]	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Arrival type	3			3			3			3
s, saturation flow rate [veh/h]	440	4903	1530	641	3427	1530	1404	1530	1422	1530
c, Capacity [veh/h]	244	2778	867	369	1942	867	476	459	490	459
X, volume / capacity	0.25	0.44	0.40	0.28	0.65	0.03	0.01	0.03	0.37	0.06
d, Delay for Lane Group [s/veh]	20.26	8.03	8.68	15.20	10.57	5.77	16.85	14.96	20.95	15.23
Lane Group LOS	C	A	A	B	B	A	B	B	C	B

Critical Lane Group	NO	NO	NO	NO	Yes	NO	NO	NO	Yes	NO
50th-Percentile Queue Length [veh/ln]	0.74	2.13	1.98	0.50	4.08	0.09	0.07	0.14	2.25	0.28
50th-Percentile Queue Length [ft/ln]	18.62	53.28	49.52	12.43	101.95	2.37	1.87	3.50	56.24	7.07
95th-Percentile Queue Length [veh/ln]	1.34	3.84	3.57	0.89	7.34	0.17	0.13	0.25	4.05	0.51
95th-Percentile Queue Length [ft/ln]	33.51	95.91	89.14	22.37	183.52	4.26	3.36	6.29	101.24	12.73

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	20.26	8.03	8.68	15.20	10.57	5.77	16.85	14.96	14.96	20.95	15.23	15.23
Movement LOS	C	A	A	B	B	A	B	B	B	C	B	B
Critical Movement	No	No	No	No	No	No	No	No	No	Yes	No	No
d_A, Approach Delay [s/veh]	8.62			10.84			15.59			20.18		
Approach LOS	A			B			B			C		
d_I, Intersection Delay [s/veh]	10.35											
Intersection LOS	B											
Intersection V/C	0.494											

Option 1: Copy of Three Flags Ave-Lassen St/Poplar St

Number	8											
Intersection	Three Flags Ave-Lassen St/Poplar St											
Control Type	All-way stop											
Analysis Method	HCM 6th Edition											
Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Base Volume Input [veh/h]	13	0	30	0	0	0	0	24	29	85	8	0
Total Analysis Volume [veh/h]	22	0	49	0	0	38	183	476	44	112	191	0

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	602	618	775	700
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Movement, Approach, & Intersection Results

Average Lane Delay [s/veh]	9.78	9.21	35.16	12.00
95th-Percentile Queue Length [veh]	0.40	0.20	12.38	2.19
95th-Percentile Queue Length [ft]	9.97	4.91	309.38	54.79
Approach Delay [s/veh]	9.78	9.21	35.16	12.00
Approach LOS	A	A	E	B
Intersection Delay [s/veh]	26.37			
Intersection LOS	D			

Option 1: Copy of Joshua St/I-15 SB Off-Ramp

Number	11					
Intersection	Joshua St/I-15 SB Off-Ramp					
Control Type	Signalized					
Analysis Method	HCM 6th Edition					
Name	Joshua St		Joshua St		Joshua St	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Base Volume Input [veh/h]	66	207	0	154	30	0
Total Analysis Volume [veh/h]	97	799	0	350	43	0

Intersection Settings

Cycle Length [s]	60					
Coordination Type	Time of Day Pattern Coordinated					
Actuation Type	Fixed time					
Lost time [s]	0.00					
Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	0	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	0	10	10	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	39	0	0	21	21	0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	7	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Pedestrian Signal Group	0					
Pedestrian Walk [s]	0					
Pedestrian Clearance [s]	0					

Lane Group Calculations

g / C, Green / Cycle	0.58	0.58	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.06	0.52	0.19	0.02
so, Base Saturation Flow per Lane [pc/h/ln]	1800	1800	1800	1800
Arrival type	3		3	3
s, saturation flow rate [veh/h]	1714	1530	1800	1800
c, Capacity [veh/h]	1000	893	510	510
X, volume / capacity	0.10	0.90	0.69	0.08
d, Delay for Lane Group [s/veh]	5.71	24.32	26.47	16.11
Lane Group LOS	A	C	C	B

Critical Lane Group	NO	Yes	yes	NO
50th-Percentile Queue Length [veh/ln]	0.40	8.98	4.68	0.42
50th-Percentile Queue Length [ft/ln]	10.03	224.44	117.01	10.38
95th-Percentile Queue Length [veh/ln]	0.72	13.89	8.23	0.75
95th-Percentile Queue Length [ft/ln]	18.05	347.28	205.71	18.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.71	24.32	0.00	26.47	16.11	0.00
Movement LOS	A	C		C	B	
Critical Movement	No	No		Yes	No	
d_A, Approach Delay [s/veh]	22.30		26.47		16.11	
Approach LOS	C		C		B	
d_I, Intersection Delay [s/veh]	23.23					
Intersection LOS	C					
Intersection V/C	0.717					

Option 1: Copy of US-395/Poplar St

Number	1											
Intersection	US-395/Poplar St											
Control Type	Signalized											
Analysis Method	HCM 6th Edition											
Name	US-395			US-395						Poplar St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Base Volume Input [veh/h]	0	1157	34	25	976	0	0	0	0	6	0	44
Total Analysis Volume [veh/h]	34	1420	112	49	1446	12	23	0	35	495	0	104

Intersection Settings

Cycle Length [s]	60											
Coordination Type	Time of Day Pattern Coordinated											
Actuation Type	Fixed time											
Lost time [s]	0.00											
Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	32	0	0	32	0	0	28	0	0	28	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	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
l1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	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	
Pedestrian Signal Group	0											
Pedestrian Walk [s]	0											
Pedestrian Clearance [s]	0											

Lane Group Calculations

g / C, Green / Cycle	0.47	0.47	0.47	0.47	0.47	0.47	0.40	0.40	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.09	0.29	0.07	0.07	0.42	0.01	0.02	0.02	0.35	0.07
so, Base Saturation Flow per Lane [pc/h/ln]	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Arrival type	3			3			3			3
s, saturation flow rate [veh/h]	370	4903	1530	669	3427	1530	1311	1530	1395	1530
c, Capacity [veh/h]	136	2288	714	265	1599	714	543	612	612	612
X, volume / capacity	0.25	0.62	0.16	0.19	0.90	0.02	0.04	0.06	0.81	0.17
d, Delay for Lane Group [s/veh]	33.70	13.29	9.68	21.44	23.57	8.64	14.15	11.23	30.52	12.19
Lane Group LOS	C	B	A	C	C	A	B	B	C	B

Critical Lane Group	NO	NO	NO	NO	Yes	NO	NO	NO	Yes	NO
50th-Percentile Queue Length [veh/ln]	0.61	3.82	0.74	0.31	8.62	0.07	0.22	0.29	7.94	0.90
50th-Percentile Queue Length [ft/ln]	15.24	95.45	18.41	7.70	215.40	1.82	5.47	7.13	198.51	22.41
95th-Percentile Queue Length [veh/ln]	1.10	6.87	1.33	0.55	13.43	0.13	0.39	0.51	12.56	1.61
95th-Percentile Queue Length [ft/ln]	27.43	171.80	33.13	13.85	335.74	3.28	9.84	12.83	314.05	40.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.70	13.29	9.68	21.44	23.57	8.64	14.15	11.23	11.23	30.52	12.19	12.19
Movement LOS	C	B	A	C	C	A	B	B	B	C	B	B
Critical Movement	Yes	No	No	No	No	No	No	No	No	No	No	No
d_A, Approach Delay [s/veh]	13.47			23.39			12.39			27.34		
Approach LOS	B			C			B			C		
d_I, Intersection Delay [s/veh]	19.69											
Intersection LOS	B											
Intersection V/C	0.777											

Option 1: Copy of Three Flags Ave-Lassen St/Poplar St

Number	8											
Intersection	Three Flags Ave-Lassen St/Poplar St											
Control Type	All-way stop											
Analysis Method	HCM 6th Edition											
Name	Three Flags Ave			Lassen St			Poplar St			Mesa Linda St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Base Volume Input [veh/h]	31	0	80	0	0	0	2	47	10	24	25	0
Total Analysis Volume [veh/h]	41	0	107	0	0	129	52	335	15	41	465	0

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	570	584	639	656
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Movement, Approach, & Intersection Results

Average Lane Delay [s/veh]	11.52	10.90	17.70	24.55
95th-Percentile Queue Length [veh]	1.03	0.84	4.43	7.30
95th-Percentile Queue Length [ft]	25.81	20.96	110.68	182.44
Approach Delay [s/veh]	11.52	10.90	17.70	24.55
Approach LOS	B	B	C	C
Intersection Delay [s/veh]	19.11			
Intersection LOS	C			

Option 1: Copy of Joshua St/I-15 SB Off-Ramp

Number	11					
Intersection	Joshua St/I-15 SB Off-Ramp					
Control Type	Signalized					
Analysis Method	HCM 6th Edition					
Name	Joshua St		Joshua St		Joshua St	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Base Volume Input [veh/h]	21	188	0	183	63	0
Total Analysis Volume [veh/h]	30	457	0	704	83	0

Intersection Settings

Cycle Length [s]	60					
Coordination Type	Time of Day Pattern Coordinated					
Actuation Type	Fixed time					
Lost time [s]	0.00					
Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	0	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	0	10	10	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	28	0	0	32	32	0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	7	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Pedestrian Signal Group	0					
Pedestrian Walk [s]	0					
Pedestrian Clearance [s]	0					

Lane Group Calculations

g / C, Green / Cycle	0.40	0.40	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.02	0.30	0.39	0.05
so, Base Saturation Flow per Lane [pc/h/ln]	1800	1800	1800	1800
Arrival type	3		3	3
s, saturation flow rate [veh/h]	1714	1530	1800	1800
c, Capacity [veh/h]	686	612	840	840
X, volume / capacity	0.04	0.75	0.84	0.10
d, Delay for Lane Group [s/veh]	11.11	23.50	23.79	9.18
Lane Group LOS	B	C	C	A

Critical Lane Group	NO	Yes	yes	NO
50th-Percentile Queue Length [veh/ln]	0.22	5.57	8.44	0.52
50th-Percentile Queue Length [ft/ln]	5.48	139.24	210.93	12.95
95th-Percentile Queue Length [veh/ln]	0.39	9.44	13.20	0.93
95th-Percentile Queue Length [ft/ln]	9.87	236.00	330.03	23.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	11.11	23.50	0.00	23.79	9.18	0.00
Movement LOS	B	C		C	A	
Critical Movement	No	No		Yes	No	
d_A, Approach Delay [s/veh]	22.73		23.79		9.18	
Approach LOS	C		C		A	
d_I, Intersection Delay [s/veh]	22.44					
Intersection LOS	C					
Intersection V/C	0.690					

APPENDIX E – TRAFFIC SIGNAL WARRANT ASSESSMENTS

Signal Warrants Report For Intersection 1: US-395/Poplar St

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	E
1	858	1016	20
2	832	986	19
3	815	965	19
4	764	904	18
5	678	803	16
6	669	792	16
7	661	782	15
8	601	711	14
9	592	701	14
10	583	691	14
11	506	599	12
12	472	559	11
13	463	549	11
14	343	406	8
15	343	406	8
16	240	284	6
17	137	163	3
18	137	163	3
19	77	91	2
20	43	51	1
21	26	30	1
22	9	10	0
23	9	10	0
24	9	10	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	1874	2	20	No	No	No	No	No	No	No	No	No	No
2	2	1818	2	19	No	No	No	No	No	No	No	No	No	No
3	2	1780	2	19	No	No	No	No	No	No	No	No	No	No
4	2	1668	2	18	No	No	No	No	No	No	No	No	No	No
5	2	1481	2	16	No	No	No	No	No	No	No	No	No	No
6	2	1461	2	16	No	No	No	No	No	No	No	No	No	No
7	2	1443	2	15	No	No	No	No	No	No	No	No	No	No
8	2	1312	2	14	No	No	No	No	No	No	No	No	No	No
9	2	1293	2	14	No	No	No	No	No	No	No	No	No	No
10	2	1274	2	14	No	No	No	No	No	No	No	No	No	No
11	2	1105	2	12	No	No	No	No	No	No	No	No	No	No
12	2	1031	2	11	No	No	No	No	No	No	No	No	No	No
13	2	1012	2	11	No	No	No	No	No	No	No	No	No	No
14	2	749	2	8	No	No	No	No	No	No	No	No	No	No
15	2	749	2	8	No	No	No	No	No	No	No	No	No	No
16	2	524	2	6	No	No	No	No	No	No	No	No	No	No
17	2	300	2	3	No	No	No	No	No	No	No	No	No	No
18	2	300	2	3	No	No	No	No	No	No	No	No	No	No
19	2	168	2	2	No	No	No	No	No	No	No	No	No	No
20	2	94	2	1	No	No	No	No	No	No	No	No	No	No
21	2	56	2	1	No	No	No	No	No	No	No	No	No	No
22	2	19	2	0	No	No	No	No	No	No	No	No	No	No
23	2	19	2	0	No	No	No	No	No	No	No	No	No	No
24	2	19	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E
Total Stopped Delay Per Vehicle on Minor Approach (s)	58.1
Number of Lanes on Minor Street Approach	2
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:19
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	20
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	1894
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	No

Signal Warrants Report For Intersection 1: US-395/Poplar St

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	E
1	1202	1004	86
2	1166	974	83
3	1142	954	82
4	1070	894	77
5	950	793	68
6	938	783	67
7	926	773	66
8	841	703	60
9	829	693	59
10	817	683	58
11	709	592	51
12	661	552	47
13	649	542	46
14	481	402	34
15	481	402	34
16	337	281	24
17	192	161	14
18	192	161	14
19	108	90	8
20	60	50	4
21	36	30	3
22	12	10	1
23	12	10	1
24	12	10	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	2206	2	86	No	No	No	No	No	Yes	Yes	Yes	Yes	No
2	2	2140	2	83	No	No	No	No	No	Yes	Yes	Yes	Yes	No
3	2	2096	2	82	No	No	No	No	No	Yes	Yes	Yes	Yes	No
4	2	1964	2	77	No	No	No	No	No	No	Yes	Yes	No	No
5	2	1743	2	68	No	No	No	No	No	No	No	Yes	No	No
6	2	1721	2	67	No	No	No	No	No	No	No	Yes	No	No
7	2	1699	2	66	No	No	No	No	No	No	No	Yes	No	No
8	2	1544	2	60	No	No	No	No	No	No	No	Yes	No	No
9	2	1522	2	59	No	No	No	No	No	No	No	Yes	No	No
10	2	1500	2	58	No	No	No	No	No	No	No	Yes	No	No
11	2	1301	2	51	No	No	No	No	No	No	No	No	No	No
12	2	1213	2	47	No	No	No	No	No	No	No	No	No	No
13	2	1191	2	46	No	No	No	No	No	No	No	No	No	No
14	2	883	2	34	No	No	No	No	No	No	No	No	No	No
15	2	883	2	34	No	No	No	No	No	No	No	No	No	No
16	2	618	2	24	No	No	No	No	No	No	No	No	No	No
17	2	353	2	14	No	No	No	No	No	No	No	No	No	No
18	2	353	2	14	No	No	No	No	No	No	No	No	No	No
19	2	198	2	8	No	No	No	No	No	No	No	No	No	No
20	2	110	2	4	No	No	No	No	No	No	No	No	No	No
21	2	66	2	3	No	No	No	No	No	No	No	No	No	No
22	2	22	2	1	No	No	No	No	No	No	No	No	No	No
23	2	22	2	1	No	No	No	No	No	No	No	No	No	No
24	2	22	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	3	4	10	3	0

Warrant 3 Condition A

Orientation	E
Total Stopped Delay Per Vehicle on Minor Approach (s)	126.2
Number of Lanes on Minor Street Approach	2
VehicleHours of Stopped Delay on Minor Approach (h:mm)	3:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	86
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	2292
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	No

Signal Warrants Report For Intersection 1: US-395/Poplar St

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	E
1	1565	1233	100
2	1518	1196	97
3	1487	1171	95
4	1393	1097	89
5	1236	974	79
6	1221	962	78
7	1205	949	77
8	1096	863	70
9	1080	851	69
10	1064	838	68
11	923	727	59
12	861	678	55
13	845	666	54
14	626	493	40
15	626	493	40
16	438	345	28
17	250	197	16
18	250	197	16
19	141	111	9
20	78	62	5
21	47	37	3
22	16	12	1
23	16	12	1
24	16	12	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	2798	2	100	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No
2	2	2714	2	97	No	No	No	No	No	Yes	Yes	Yes	Yes	No
3	2	2658	2	95	No	No	No	No	No	Yes	Yes	Yes	Yes	No
4	2	2490	2	89	No	No	No	No	No	Yes	Yes	Yes	Yes	No
5	2	2210	2	79	No	No	No	No	No	No	Yes	Yes	No	No
6	2	2183	2	78	No	No	No	No	No	No	Yes	Yes	No	No
7	2	2154	2	77	No	No	No	No	No	No	Yes	Yes	No	No
8	2	1959	2	70	No	No	No	No	No	No	Yes	Yes	No	No
9	2	1931	2	69	No	No	No	No	No	No	No	Yes	No	No
10	2	1902	2	68	No	No	No	No	No	No	No	Yes	No	No
11	2	1650	2	59	No	No	No	No	No	No	No	Yes	No	No
12	2	1539	2	55	No	No	No	No	No	No	No	No	No	No
13	2	1511	2	54	No	No	No	No	No	No	No	No	No	No
14	2	1119	2	40	No	No	No	No	No	No	No	No	No	No
15	2	1119	2	40	No	No	No	No	No	No	No	No	No	No
16	2	783	2	28	No	No	No	No	No	No	No	No	No	No
17	2	447	2	16	No	No	No	No	No	No	No	No	No	No
18	2	447	2	16	No	No	No	No	No	No	No	No	No	No
19	2	252	2	9	No	No	No	No	No	No	No	No	No	No
20	2	140	2	5	No	No	No	No	No	No	No	No	No	No
21	2	84	2	3	No	No	No	No	No	No	No	No	No	No
22	2	28	2	1	No	No	No	No	No	No	No	No	No	No
23	2	28	2	1	No	No	No	No	No	No	No	No	No	No
24	2	28	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	1	4	8	11	4	0

Warrant 3 Condition A

Orientation	E
Total Stopped Delay Per Vehicle on Minor Approach (s)	4283.5
Number of Lanes on Minor Street Approach	2
VehicleHours of Stopped Delay on Minor Approach (h:mm)	118:59
Delay Condition Met	Yes
Volume on Minor Street Approach During Same Hour	100
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	2898
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	No

Signal Warrants Report For Intersection 1: US-395/Poplar St

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	E
1	1481	1362	481
2	1437	1321	467
3	1407	1294	457
4	1318	1212	428
5	1170	1076	380
6	1155	1062	375
7	1140	1049	370
8	1037	953	337
9	1022	940	332
10	1007	926	327
11	874	804	284
12	815	749	265
13	800	735	260
14	592	545	192
15	592	545	192
16	415	381	135
17	237	218	77
18	237	218	77
19	133	123	43
20	74	68	24
21	44	41	14
22	15	14	5
23	15	14	5
24	15	14	5

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	2843	2	481	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	2	2758	2	467	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	2	2701	2	457	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	2	2530	2	428	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	2	2246	2	380	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	2	2217	2	375	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	2	2189	2	370	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	2	1990	2	337	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	2	1962	2	332	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10	2	1933	2	327	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11	2	1678	2	284	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12	2	1564	2	265	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
13	2	1535	2	260	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
14	2	1137	2	192	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
15	2	1137	2	192	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
16	2	796	2	135	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No
17	2	455	2	77	No	No	No	No	No	No	No	No	No	No
18	2	455	2	77	No	No	No	No	No	No	No	No	No	No
19	2	256	2	43	No	No	No	No	No	No	No	No	No	No
20	2	142	2	24	No	No	No	No	No	No	No	No	No	No
21	2	85	2	14	No	No	No	No	No	No	No	No	No	No
22	2	29	2	5	No	No	No	No	No	No	No	No	No	No
23	2	29	2	5	No	No	No	No	No	No	No	No	No	No
24	2	29	2	5	No	No	No	No	No	No	No	No	No	No
Hours Met					13	15	15	16	15	16	16	16	16	15

Warrant 3 Condition A

Orientation	E
Total Stopped Delay Per Vehicle on Minor Approach (s)	7800.3
Number of Lanes on Minor Street Approach	2
VehicleHours of Stopped Delay on Minor Approach (h:mm)	1042:12
Delay Condition Met	Yes
Volume on Minor Street Approach During Same Hour	481
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	3324
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	Yes
Warrant Met for Intersection	Yes

Signal Warrants Report For Intersection 11: Joshua St/I-15 SB Off-Ramp

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	35	300	831
2	34	291	806
3	33	285	789
4	31	267	740
5	28	237	656
6	27	234	648
7	27	231	640
8	25	210	582
9	24	207	573
10	24	204	565
11	21	177	490
12	19	165	457
13	19	162	449
14	14	120	332
15	14	120	332
16	10	84	233
17	6	48	133
18	6	48	133
19	3	27	75
20	2	15	42
21	1	9	25
22	0	3	8
23	0	3	8
24	0	3	8

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	335	2	831	No	No	No	Yes	No	No	No	No	Yes	Yes
2	1	325	2	806	No	No	No	Yes	No	No	No	No	Yes	Yes
3	1	318	2	789	No	No	No	Yes	No	No	No	No	Yes	Yes
4	1	298	2	740	No	No	No	Yes	No	No	No	No	Yes	Yes
5	1	265	2	656	No	No	No	No	No	No	No	No	Yes	Yes
6	1	261	2	648	No	No	No	No	No	No	No	No	Yes	Yes
7	1	258	2	640	No	No	No	No	No	No	No	No	Yes	Yes
8	1	235	2	582	No	No	No	No	No	No	No	No	Yes	Yes
9	1	231	2	573	No	No	No	No	No	No	No	No	Yes	Yes
10	1	228	2	565	No	No	No	No	No	No	No	No	Yes	Yes
11	1	198	2	490	No	No	No	No	No	No	No	No	Yes	Yes
12	1	184	2	457	No	No	No	No	No	No	No	No	Yes	Yes
13	1	181	2	449	No	No	No	No	No	No	No	No	Yes	Yes
14	1	134	2	332	No	No	No	No	No	No	No	No	Yes	No
15	1	134	2	332	No	No	No	No	No	No	No	No	Yes	No
16	1	94	2	233	No	No	No	No	No	No	No	No	No	No
17	1	54	2	133	No	No	No	No	No	No	No	No	No	No
18	1	54	2	133	No	No	No	No	No	No	No	No	No	No
19	1	30	2	75	No	No	No	No	No	No	No	No	No	No
20	1	17	2	42	No	No	No	No	No	No	No	No	No	No
21	1	10	2	25	No	No	No	No	No	No	No	No	No	No
22	1	3	2	8	No	No	No	No	No	No	No	No	No	No
23	1	3	2	8	No	No	No	No	No	No	No	No	No	No
24	1	3	2	8	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	4	0	0	0	0	15	13

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	52.8
Number of Lanes on Minor Street Approach	2
VehicleHours of Stopped Delay on Minor Approach (h:mm)	12:11
Delay Condition Met	Yes
Volume on Minor Street Approach During Same Hour	831
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	1166
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	Yes
Warrant Met for Intersection	Yes

Signal Warrants Report For Intersection 11: Joshua St/I-15 SB Off-Ramp

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	Yes
Population < 10,000	No
Warrant Factor	70%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	69	678	464
2	67	658	450
3	66	644	441
4	61	603	413
5	55	536	367
6	54	529	362
7	53	522	357
8	48	475	325
9	48	468	320
10	47	461	316
11	41	400	274
12	38	373	255
13	37	366	251
14	28	271	186
15	28	271	186
16	19	190	130
17	11	108	74
18	11	108	74
19	6	61	42
20	3	34	23
21	2	20	14
22	1	7	5
23	1	7	5
24	1	7	5

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	747	2	464	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
2	1	725	2	450	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
3	1	710	2	441	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
4	1	664	2	413	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
5	1	591	2	367	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
6	1	583	2	362	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
7	1	575	2	357	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
8	1	523	2	325	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No
9	1	516	2	320	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No
10	1	508	2	316	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No
11	1	441	2	274	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No
12	1	411	2	255	No	Yes	Yes	Yes	No	No	No	No	Yes	No
13	1	403	2	251	No	Yes	Yes	Yes	No	No	No	No	Yes	No
14	1	299	2	186	No	No	No	Yes	No	No	No	No	No	No
15	1	299	2	186	No	No	No	Yes	No	No	No	No	No	No
16	1	209	2	130	No	No	No	No	No	No	No	No	No	No
17	1	119	2	74	No	No	No	No	No	No	No	No	No	No
18	1	119	2	74	No	No	No	No	No	No	No	No	No	No
19	1	67	2	42	No	No	No	No	No	No	No	No	No	No
20	1	37	2	23	No	No	No	No	No	No	No	No	No	No
21	1	22	2	14	No	No	No	No	No	No	No	No	No	No
22	1	8	2	5	No	No	No	No	No	No	No	No	No	No
23	1	8	2	5	No	No	No	No	No	No	No	No	No	No
24	1	8	2	5	No	No	No	No	No	No	No	No	No	No
Hours Met					10	13	13	15	0	4	7	11	13	7

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	14.5
Number of Lanes on Minor Street Approach	2
VehicleHours of Stopped Delay on Minor Approach (h:mm)	1:52
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	464
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	1211
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	No

APPENDIX F – ALL-WAY STOP WARRANT ASSESSMENT

Multi-Way Stop Control Assessment

A multi-way stop control assessment has been conducted in accordance with the latest California Manual on Uniform Traffic Control Devices (CAMUTCD) to determine if a multi-way stop control is warranted at the intersection of Three Flags Avenue-Lassen Street/Poplar Street in the Opening Year Plus Project scenario. According to the CAMUTCD's Section 2B.07 *Multi-Way Stop Applications*, the following guidance criteria should be considered in the engineering study for a multi-way stop sign installation:

- A. *Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.*
 - **Installation of a traffic signal is not considered for this intersection; therefore, this criterion is not satisfied.**
- B. *Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.*
 - **According to the Transportation Injury Mapping System (TIMS) which is based on the Statewide Integrated Traffic Records System (SWITRS), zero crashes occurred in a 12-month period at the intersection of Three Flags Avenue-Lassen Street/Poplar Street between January 1, 2017, and December 31, 2021. Therefore, the intersection would not satisfy this criterion.**
- C. *Minimum Volumes:*
 - 1. *The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and*
 - 2. *The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but*
 - 3. *If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.*
 - **As per the Opening Year Plus Project PM Volumes (provided in Figure 19), the maximum vehicular volume entering the intersection from the major street (Poplar Street) would be 572 vehicles per hour (total of both approaches). The maximum vehicular volume entering the intersection from the minor streets (Three Flags Avenue/Lassen Street) would be 244 vehicles per hour (total of both approaches). Therefore, Warrant C – Minimum Volumes threshold is met and the intersection's traffic control is warranted to be converted to an all-way stop traffic control.**
- D. *Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.*
 - **Criteria not applicable.**

Other criteria that may be considered in an engineering study include:

- A. *The need to control left-turn conflicts;*
 - **Criteria does not apply as there are no recorded left-turn conflicts.**
- B. *The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;*
 - **There is no anticipation of vehicle and pedestrian conflicts near high pedestrian locations.**
- C. *Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop; and*
 - **Since there would be sufficient sight distance, this criterion would not apply.**
- D. *An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.*
 - **Criteria not applicable.**

APPENDIX G – ADJACENT ROADWAY EXHIBIT

1
OF
1
SHEETS