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ARCO AM/PM Bloomington
Traffic Impact Study

San Bernardino County, CA
March 21, 2019

Prepared by:

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Jano Baghdanian & Associates
Traffic, Transportation & Parking Consultants

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1.0 INTRODUCTION

This Traffic Impact Analysis for the ARCO AM/PM Bloomington ("the Project") is consistent with the traffic study guidelines as set forth by the County of San Bernardino and follows the requirements of the current *Congestion Management Program for San Bernardino County*. After a consultation with the staff of the County of San Bernardino, it was determined that a total of four (4) intersections would be analyzed and evaluated for potential project-related traffic impacts. The method used by this traffic analysis to analyze the required intersections is the Highway Capacity Manual methodology in compliance with San Bernardino County Congestion Management Program requirements. This method was used to evaluate the Level of Service (LOS) at each intersection by estimating the average control delay per vehicle.

A review was also conducted to determine if the total daily trips generated by the Project and the locations of the highway system that provides access to the Project site would require a Congestion Management Program (CMP) impact analysis for the proposed Project.
The following scenarios were evaluated in this analysis:

- Existing AM and PM Peak Conditions
- Existing AM and PM Peak Conditions with Proposed Project
- Future AM and PM Peak Conditions (Year 2021) without Project (Existing plus Related Projects and Ambient Growth)
- Future AM and PM Peak Conditions (Year 2021) with Proposed Project

The potential Project-related impacts were determined and required mitigations, if necessary, are included as part of the traffic analysis.

2.0 PROJECT LOCATION AND SITE DESCRIPTION

2.1 Project Location

As illustrated in **Figure 1**—*Regional Location Map*, the Project site (11279 Cedar Avenue, Bloomington, California) is located within the unincorporated community of Bloomington in the County of San Bernardino (the "County") at the northeast corner of Cedar Avenue and Jurupa Avenue. Interstate 10 (San Bernardino) Freeway provides regional access to the Project site.

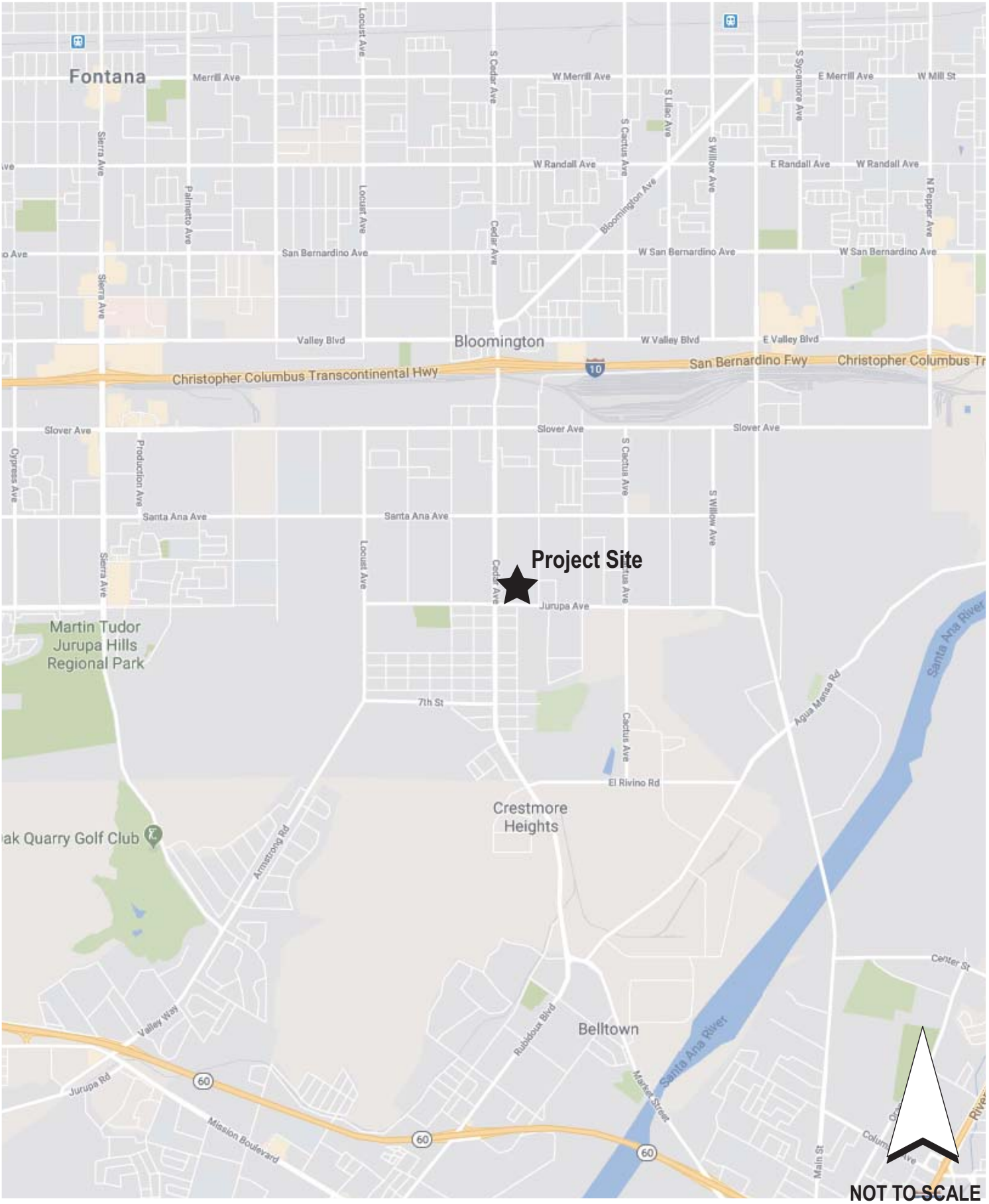
As illustrated in **Figure 2**—*Project Site and Surrounding Uses*, the Project site is bounded by Cedar Avenue to the west, Jurupa Avenue to the south, a trucking facility to the north and some residential units to the east.

2.2 Existing Development

The Project site is currently a vacant lot.

2.3 Project Characteristics

The proposed Project consists of the construction of a 16-pump gasoline/service station with convenience market and car wash. In addition, there will be a 2,550-square-foot fast-food restaurant with a driveway-through window. The Project will have a surface parking lot that provides 51 parking spaces.



Source: Google Maps, 2018

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REGIONAL LOCATION MAP

FIGURE 1

Source: Google Map 2018

NOT TO SCALE

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PROJECT SITE & SURROUNDING USES

FIGURE 2

3.0 SITE ACCESS AND CIRCULATION

3.1 Existing Site Access

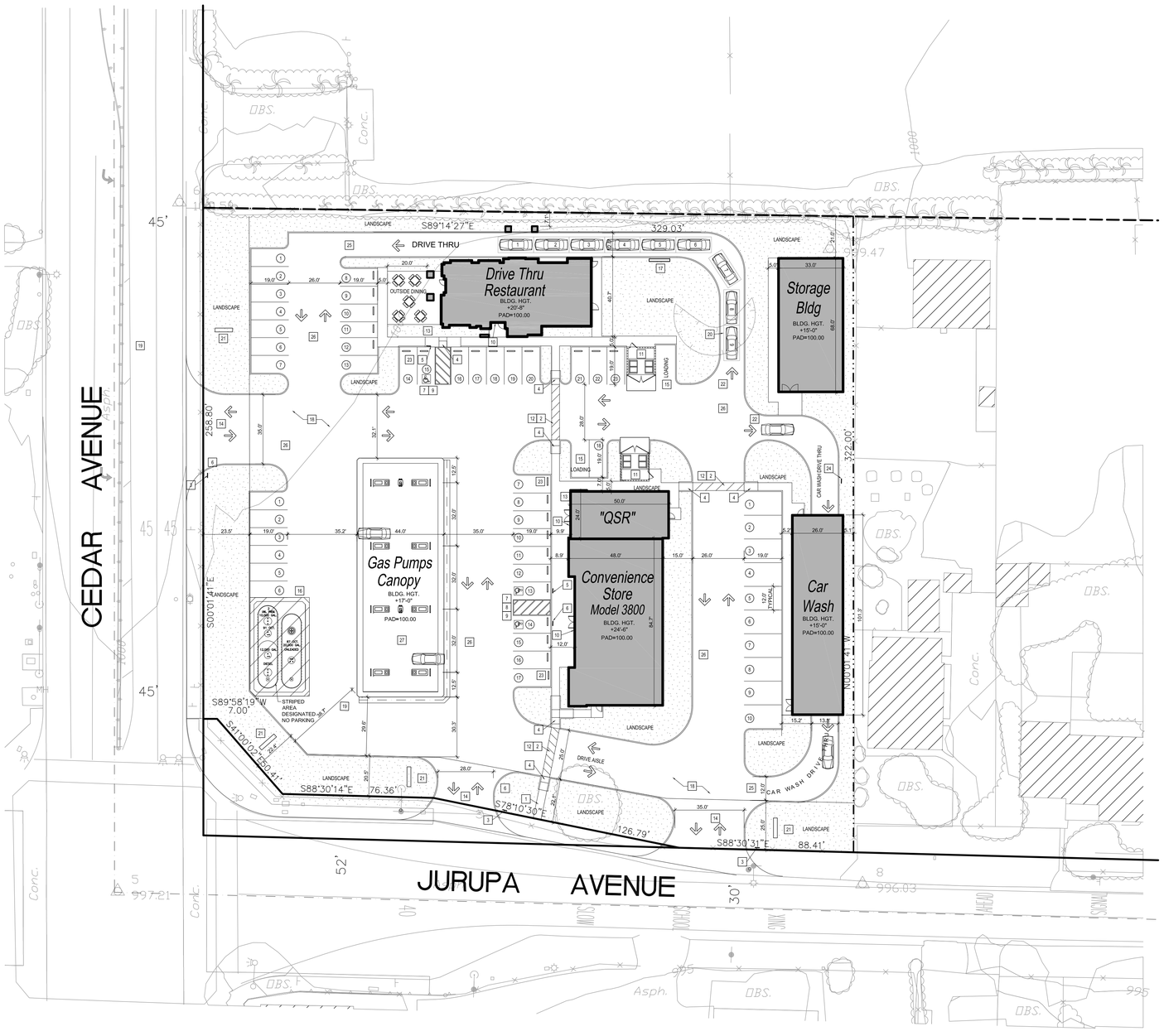
The existing site is surrounded by chain link fences and vehicular access is provided through a gate on Jurupa Avenue.

3.2 Proposed Project Site Access

Please refer to **Figure 3—***Proposed Project Site Plan* for an illustration of the proposed site layout. Access to and from the Project will be from the following locations:

(1) Two full-service driveways on Jurupa Avenue: the westerly driveway will be 28 feet wide and will mainly provide access to and from the gasoline pumps and the convenience store. The easterly driveway will be 35 feet wide and will connect to the back of the convenience store and the car wash area. Both driveways can also provide access to and from the fast-foot restaurant.

(2) One driveway on Cedar Avenue: This driveway will be 35 feet wide and will lead to the front of the fast-foot restaurant. There is a raised median island on Cedar Avenue that restricts the movements at this driveway to right in and right out only. This driveway can also provide access to and from other areas on the site.



KEYNOTES

1. ACCESIBLE PATH OF TRAVEL FROM PUBLIC WAY - 5% MAX. SLOPE
2. ACCESSIBLE PATH OF TRAVEL - 5% MAX. SLOPE
3. "UNAUTHORIZED PARKING IN ACCESSIBLE SPACES..." SIGNAGE
4. YELLOW TRUNCATED DOMES
5. ACCESSIBLE PARKING SIGNAGE WITH "VAN ACCESSIBLE" SIGNAGE AND MINIMUM FINE SIGNAGE
6. ACCESSIBLE PARKING SIGNAGE WITH MINIMUM FINE SIGNAGE
7. ACCESSIBLE VAN PARKING STALL
8. ACCESSIBLE PARKING STALL
9. ACCESSIBLE ACCESS AISLE
10. BUILDING ACCESSIBLE ENTRY SIGNAGE
11. NEW TRASH ENCLOSURE
12. STRIPED WALKWAY AT DRIVE AISLE
13. 2 BICYCLE PARKING
14. NEW DRIVE WAY
15. LOADING SPACE - 15' X 19'
16. UNDERGROUND FUEL TANK LOCATION
17. MENU BOARD
18. DELIVERY TRUCK TURNING RADIUS
19. INDICATES TANKER DELIVERY PATH
20. INDICATES VEHICLE LENGTH (20'-0")
21. MONUMENT SIGNAGE
22. DRIVE THRU ENTRANCE
23. CONCRETE WHEEL STOP, TYPICAL
24. CARWASH SELECTION BOARD
25. DRIVE THRU EXIT
26. ASPHALT PAVING TYPICAL
27. CONCRETE PAVING AT CANOPY AREA

PROJECT DATA:

DEVELOPER: APPLICANT/	HARRY SIDHU 1240 E. WASHINGTON ST. COLTON, CA 92335 909-702-3044 SIDHUAMPM@YAHOO.COM-
REPRESENTATIVE:	ARCHIMETRICS JAY NELSON 1177 IDAHO STREET, SUITE 200 REDLANDS, CA 92374 PHONE (909) 322-7582
PREPARATION DATE:	APRIL 26, 2018
PROJECT DESCRIPTION:	CONSTRUCT NEW CONVENIENCE STORE, GAS PUMP CANOPY, CARWASH, & DRIVE THRU RESTAURANT FACILITIES WITH SITE IMPROVEMENTS
ASSESSOR'S PARCEL NO.:	0257-101-09
LEGAL DESCRIPTION:	Lot: 393 District: 08 Abbreviated Description: LOT:393 DIST:08 CITY:FONTANASUBD:THE SEMI TROPIC LAND & WATER COMPANY S T L AND W CO S B L W 374 FT S 1/2 W 1/2 LOT 393 EX STS City/Muni/Twp: FONTANA
PROJECT ADDRESS:	11279 CEDAR AVENUE BLOOMINGTON, CA 92316
GENERAL PLAN:	RESIDENTIAL VACANT LAND
SPECIFIC PLAN:	N/A
UTILITIES: DISTRICT	WATER - WEST VALLEY WATER DISTRICT TELEPHONE - VERIZON CO GAS - SOUTHERN CALIFORNIA GAS CO ELECTRIC - SOUTHERN CALIFORNIA EDISON SEWER - WEST VALLEY WATER DISTRICT
BUILDING HEIGHT:	CONVENIENCE STORE 24'-6" PUMP CANOPY 17'-0" CAR WASH 15'-6" DRIVE THRU RESTAURANT 20'-8"
SITE AREA	2.31 AC. (100,447 SQ. FT.)

COVERAGE AREAS:

AREA OF USE	S.F.	REQUIRED%	PROVIDED%
BUILDINGS	12,428	---	12,428 SF(12.4%)
PARKING/PAVED	59,883	---	59,883 SF(59.6%)
LANDSCAPING	28,136	20,599 SF(20%)	28,136 SF(28.0%)

PARKING SUMMARY

DESCRIPTION	BLDG. S.F.	RATIO	REQUIRED	PROVIDED
CONVENIENCE STORE & QSR	5,000 SF	1 SP/250 SF	20	18
GAS PUMP CANOPY	- SF	1 PER PUMP ISLAND	8	
CAR WASH STATION	2,634 SF	3 REQUIRED	3	10
STORAGE BLDG	2,244 SF	N/A		
DRIVE THRU RESTAURANT	2,550 SF	1 SP/100 SF	25	23
TOTAL			48	51

STALLS PROVIDED

REGULAR STALL	9X18	48 STALLS
ACCESSIBLE STALL	9X18	3 STALLS
LOADING STALL	15X19	2 STALLS
BICYCLE		4 PROPOSED

VICINITY MAP

NORTH

PROPOSED ARCHITECTURAL SITE PLAN

SCALE: 1" = 30.00' | 1

ARCHIMETRICS DESIGN BUILD STUDIO
617 IDAHO STREET, STE 200A
REDLANDS, CALIF. 92374
909 322-7582

FOR

ARCO AM/PM - Bloomington

Mr. Harry Sidhu

-

11279 CEDAR AVENUE
BLOOMINGTON, CA 92316

REVISIONS	2017-03-02
CONSTR.	
BID	
PLAN CHECK	2017-01-20
DRAWN	VM
JOB NO.	16-071
SHEET NAME	PROPOSED ARCHITECTURAL SITE PLAN
SHEET NO.	1.0
SHEET	OF

4.0 EXISTING TRANSPORTATION FACILITIES

4.1 Freeway Access to Region

The Project area is served by the following freeway:

- **The I-10 (San Bernardino) Freeway** is an basically an east/west freeway that begins in the City Santa Monica in the Los Angeles County and runs across the entire State of California and connects to the State of Arizona and beyond. The segment of the I-10 Freeway in the vicinity of the Project area consists of four mixed-flow travel lanes in each direction. East and westbound on/off ramps that provide access to and from the Project are located on Cedar Avenue.

4.2 Surrounding Roadway Systems

The Project area is served by the following surrounding roadways:

- **Cedar Avenue** is a north-south Major Highway that provides access to the City of Rialto to the north and terminates at El Rivino Road to the south and becomes Rubidoux Boulevard in Crestmore Heights. Within the study area, Cedar Avenue consists of two travel lanes in each direction separated by a raised median island with exclusive left-turn lanes at major intersections. Parking is prohibited on both sides of the street. There are east and westbound I-10 Freeway on and off-ramps at Cedar Avenue.
- **Jurupa Avenue** is classified as an east-west Major Highway that runs between Locust Avenue to the west and South Riverside Avenue to the east. Within the study area, Jurupa Avenue has one lane in each direction separated by a double yellow or dashed centerline. Parking is allowed on either sides of the street at selected locations only.
- **Santa Ana Avenue** is an east-west Secondary Highway that connects to the City of Fontana to the east and the Rialto Water Service Wastewater Treatment Plant to the west. In the vicinity of the project, Santa Ana Avenue is basically a two-lane undivided roadway. Parking is allowed on either sides of the street at selected locations only.

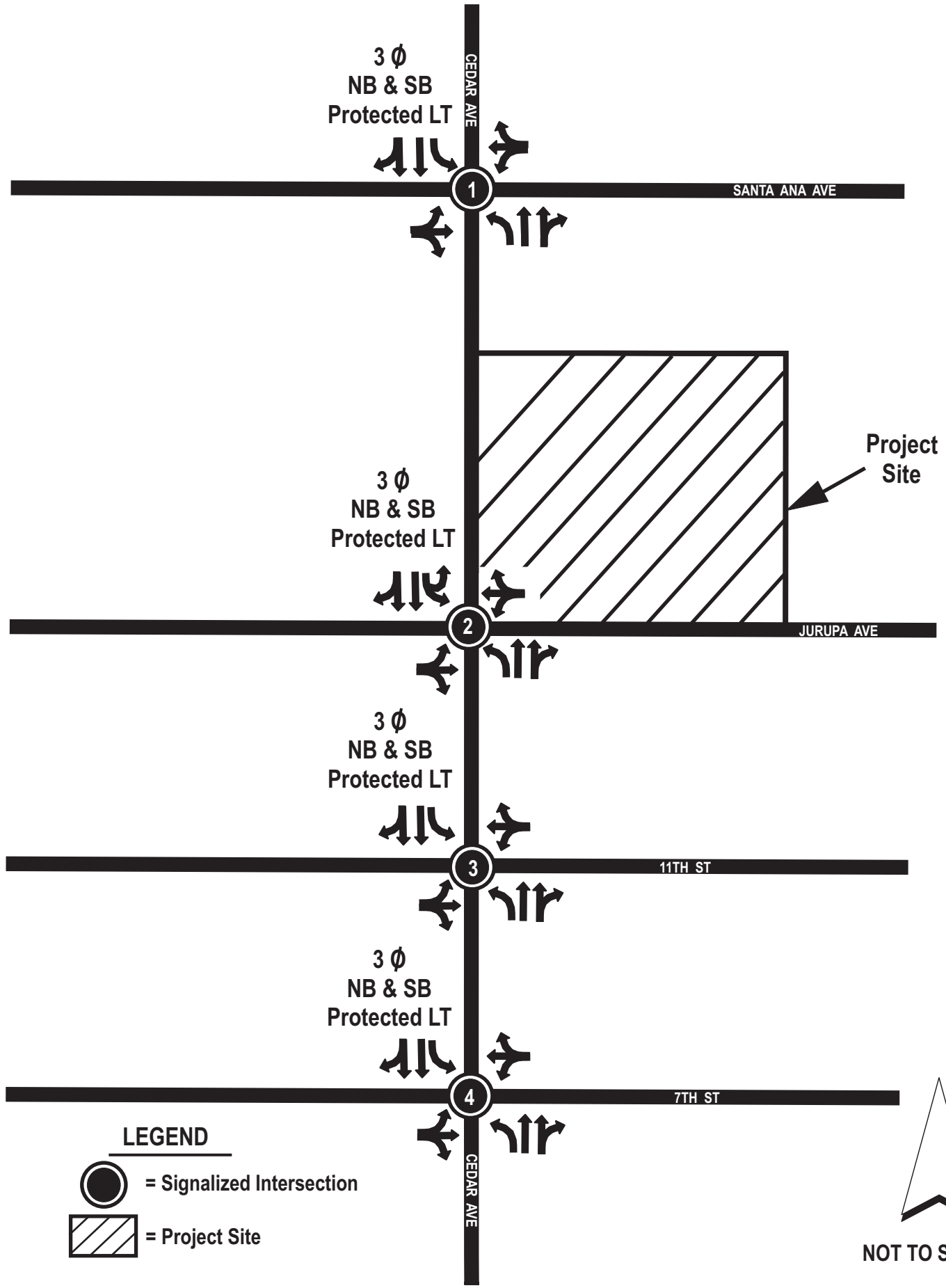
5.0 EXISTING TRAFFIC VOLUMES

Manual traffic counts were obtained for vehicular turning movements on Wednesday, January 30, 2019 at the following four (4) study intersections:

(1) Cedar Avenue and Santa Ana Avenue
(2) Cedar Avenue and Jurupa Avenue
(3) Cedar Avenue and 11th Street
(4) Cedar Avenue and 7th Street

Traffic counts were obtained during typical commuter hours to determine peak traffic volumes. The findings show that typical peak traffic for morning and afternoon hours occur during the hours of 7:00 - 9:00 A.M. and 4:00 – 6:00 P.M. respectively.

Please refer to **Appendix A** for the manual turning movement traffic counts. Please also refer to **Figure 4** for a depiction of the lane configurations and traffic controls for the study intersections and **Figure 5** for the existing traffic volumes for the AM and PM peak hours at the study intersections.



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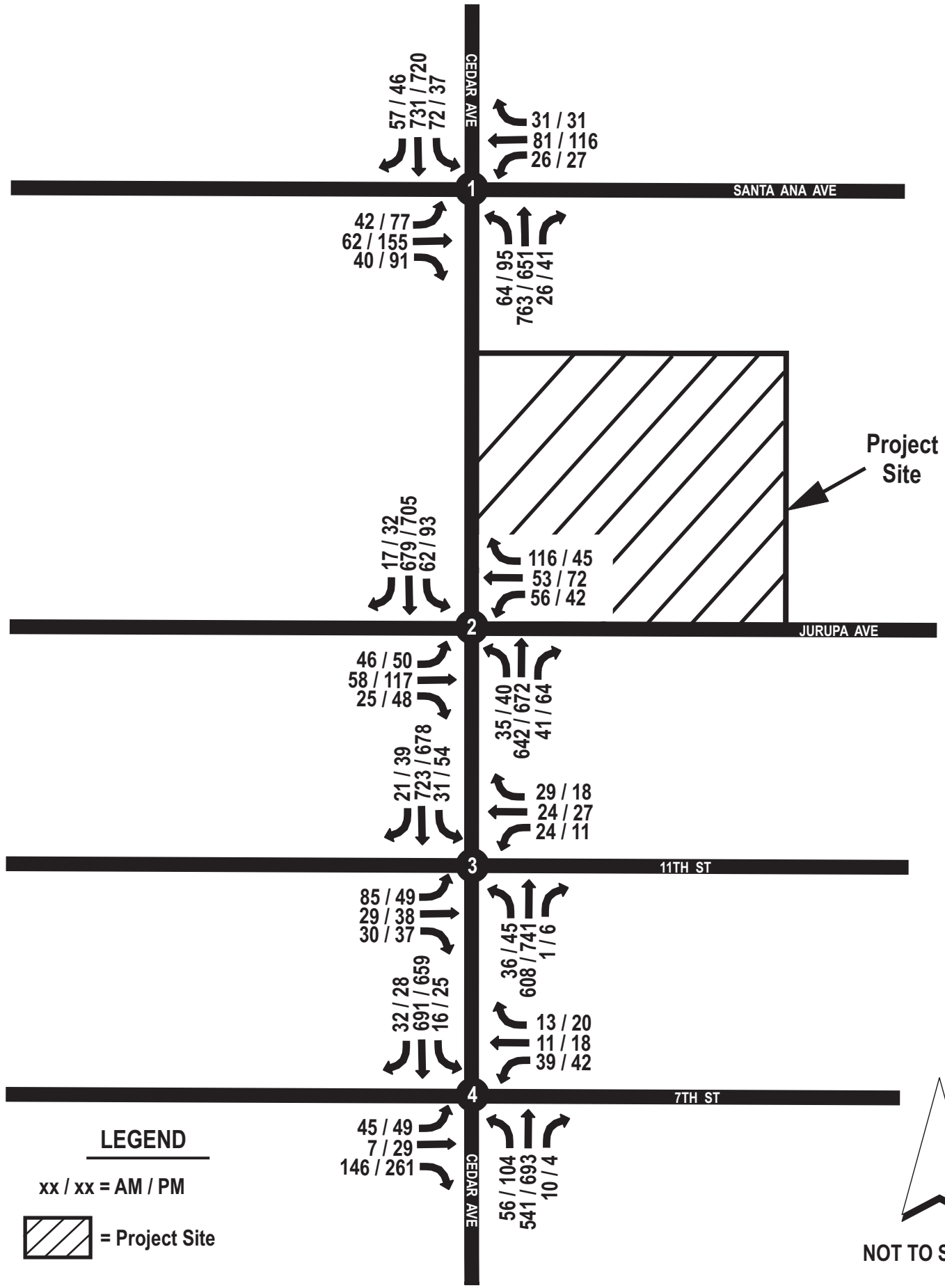
LANE CONFIGURATION AND TRAFFIC CONTROL

FIGURE 4



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EXISTING TRAFFIC VOLUMES

FIGURE 5

6.0 PROJECT TRAFFIC GENERATION ANALYSIS

The Project consists of the construction of a 16-vehicle fueling position gasoline/service station with a convenience market and a car wash and a 2,550 square-foot fast-food restaurant with a drive-through window. The purpose of this section is to document the proposed project trip generation and resulting traffic study area to be evaluated as part of this traffic analysis.

6.1 Project Trip Generation Methodology

Trip rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual 10th Edition* were used in this analysis. **Table 1** summarizes the trip generation findings. As shown in the table, the proposed project is forecast to result in 146 new a.m. peak-hour trips, 150 new p.m. peak-hour trips and 2,184 daily trips.

Table 1: Project Trip Generation

Land Use (ITE Code)	Size	Units	Weekday AM Peak Hour Trips				Weekday PM Peak Hour Trips				Daily Trips	
			Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total
Gas/Service Station with Convenience Market (945)	16	Vehicle Fueling Positions	12.47	200	102	98	13.99	224	114	110	205.36	3,286
Pass-By Reduction (50%)[2]				*-100*	*-51*	*-49*		*-112*	*-57*	*-55*		*-1,643*
Fast-Food Restaurant with Drive-Thru Window (934)	2.55	TSF	40.19	102	52	50	32.67	83	43	40	470.95	1,201
Internal Capture Reduction (10%)[3]				*-10*	*-5*	*-5*		*-8*	*-4*	*-4*		*-120*
Pass-By Reduction (50% of External Trips Only))[2]				*-46*	*-23*	*-22*		*-37*	*-19*	*-18*		*-540*
Trip Generation (Including Pass-By & Internal Reduction)				**146**	**75**	**72**		**150**	**77**	**73**		**2,184**

[1] Source: *ITE Trip Generation Manual, 10th Edition*

[2] Pass-by Reduction accounts for trips made as an intermediate stop on the way from an origin to a primary trip destination

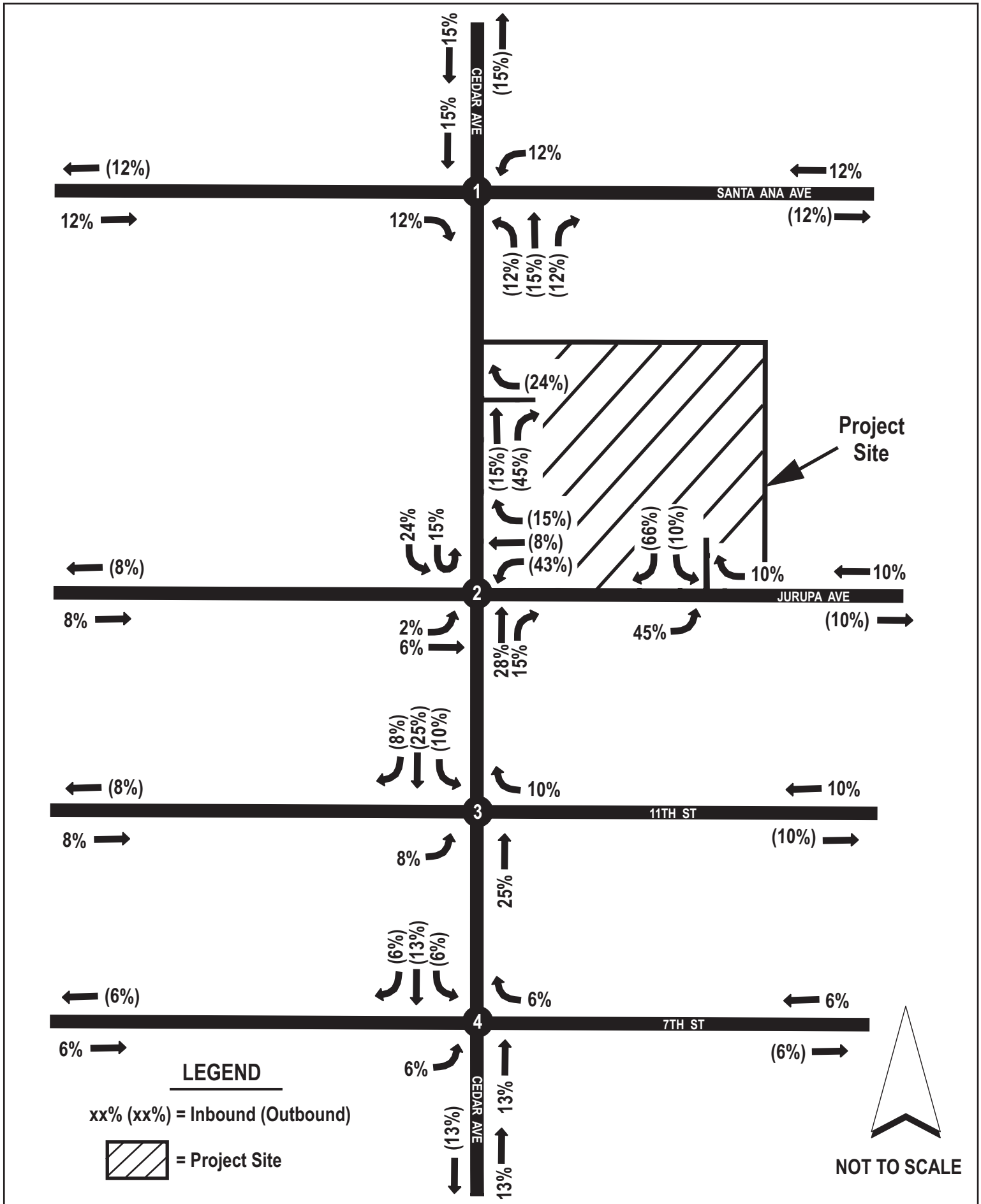
[3] Internal Capture Reduction accounts for the internal trips made between the service station and the restaurant. Those trips begin and end within the development complex without using the external road system

6.2 Project Trip Distribution & Assignment

Trip distribution assumptions are used to determine the origin and destination of new vehicle trips associated with the project. The geographic distribution of project trips is based on the functional classifications of streets in the vicinity, the magnitude of traffic volumes, as well as local knowledge of the roadway network.

Based on the project trip generation shown in **Table 1** and the expected regional trip distribution, a proposed study area for the traffic analysis was derived. The proposed study area includes 4 signalized intersections. The locations and the number of the intersections to be analyzed was reviewed and approved by the County of San Bernardino, Department of Public Works, Traffic Engineering Division.

Figures 6 & 7 illustrate the Trip Distribution and Trip Assignments at the study intersections.



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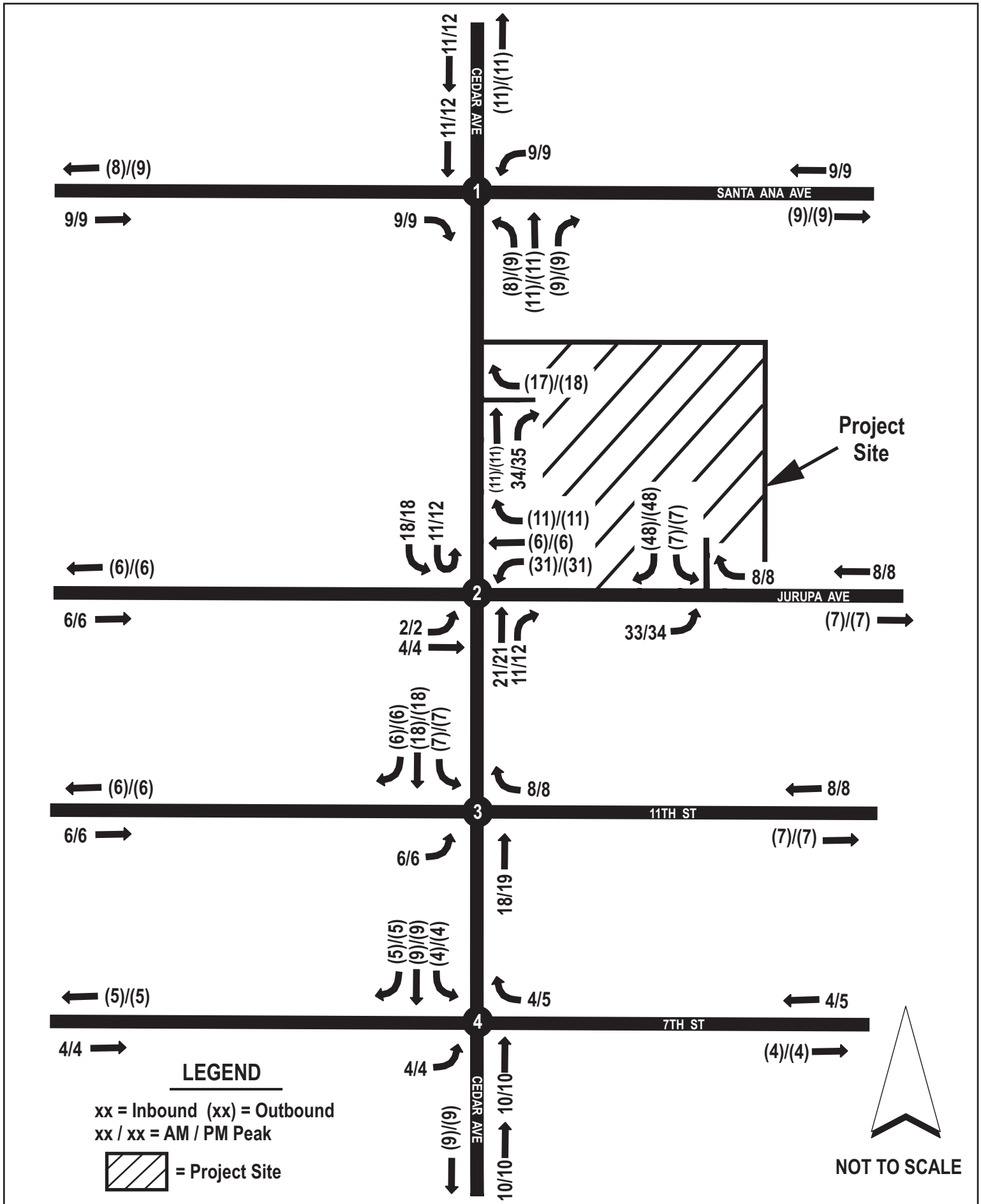
PROJECT TRIP DISTRIBUTION

FIGURE 6



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PROJECT TRIP ASSIGNMENT

FIGURE 7

7.0 RELATED PROJECTS & AMBIENT GROWTH

Future peak hour traffic projections for the study intersections have been evaluated to include growth due to (1) related projects in development and (2) ambient traffic growth.

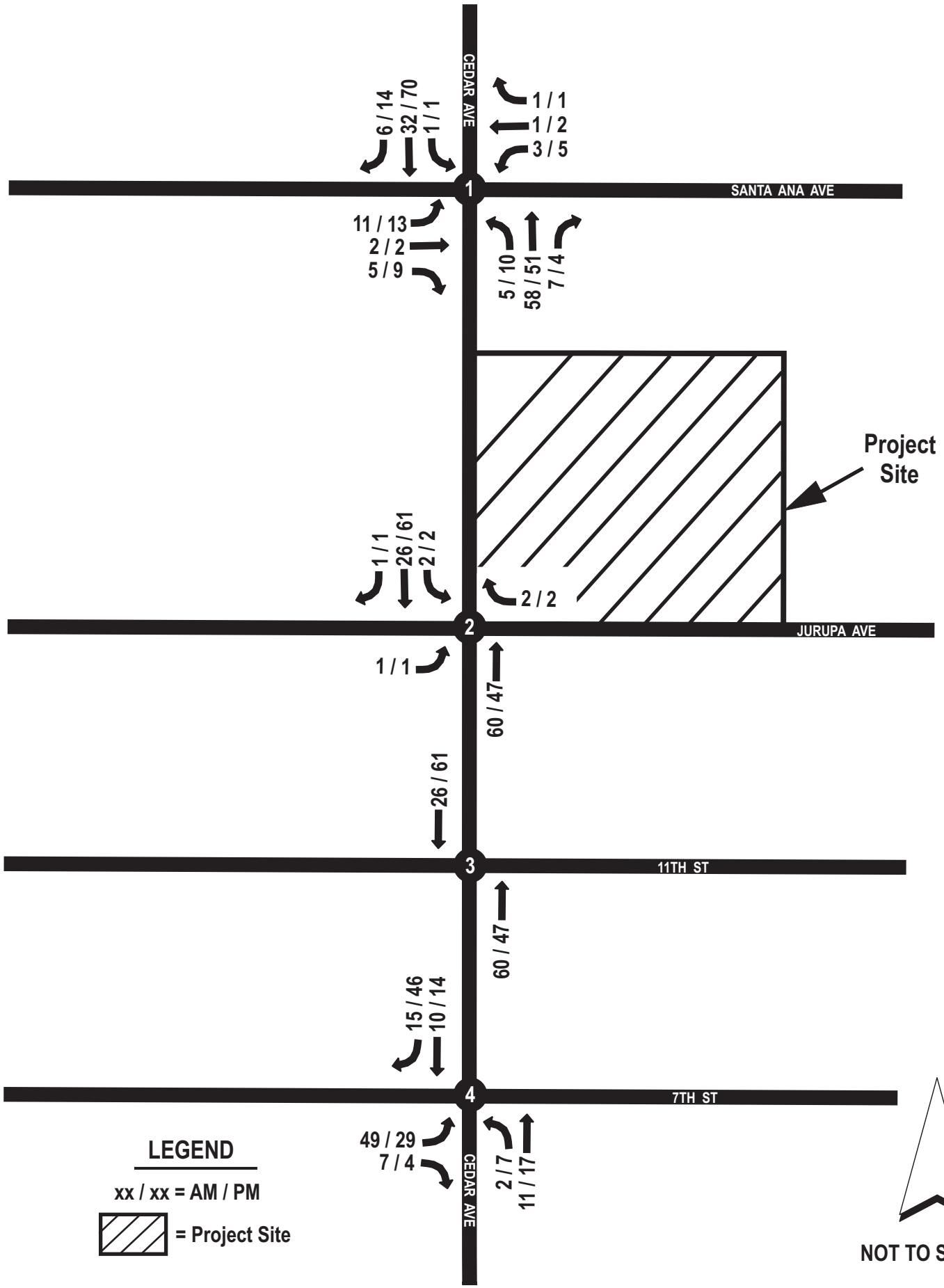
7.1 Trip Generation for Related Projects

To understand the relative traffic impacts for the projected year of completion (2021), this traffic study analyzed potential traffic trips due to the development of related projects in the area. A list of related projects was provided by the County of San Bernardino Land Use Services Planning Department and their associated trip volumes were calculated using the ITE Trip Generation Manual, 10th edition. A list of these projects with their locations and descriptions is shown in **Table 2** and the estimated trip generations for the related projects are in **Table 3**. Their corresponding traffic volumes at the study intersections, can be viewed in **Figure 8.** Moreover, a map of the locations of these related projects, with respect to the Project site, is shown in **Figure 9**.

Only those projects with a potentially significant impact, and therefore a documented trip generation, were included in the related projects list. Any other developing projects, that were considered small in nature, were encompassed in area wide ambient growth.

7.2 Ambient Traffic Growth

To account for the future traffic growth not included in the above related projects list (i.e. continuing development and intensification of existing development), the existing traffic volumes were increased by an ambient growth rate of 2% (4% per year). The use of 2% per year growth rate was approved by San Bernardino County, Department of Public Works, Traffic Division. These values were then added to the potential traffic generated by the aforementioned related projects to accurately forecast future traffic conditions.



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RELATED PROJECT TRIP ASSIGNMENT

FIGURE 8

Source: Google Maps 2019

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LOCATION MAP OF RELATED PROJECTS

FIGURE 9

Table 2: Location and Descriptions of Related Projects

No.	Location/Address	Description
1	Cedar Ave. and Santa Ana Ave. SW Corner	8,320 S.F. Dollar Retail Store
2	11048 Laurel Ave., Bloomington, CA	22 single-family detached housing units
3	18263 7th St., Bloomington, CA	198 multi-family housing units (low rise)
4	18653 Slover Ave., Bloomington, CA	10-pump gasoline/Service station with convenience store
5	11710 Cedar Ave., Bloomington, CA	Convert 784 S.F. single-family housing to retail appliance store
6	18600 Slover Ave., Bloomington, CA	Convert 1,396 S.F. single-family housing to professional office

Table 3: Related Project Trip Generation

Project #	Location	Daily Trips	Weekday Peak Hour					
			Morning			Afternoon		
			Inbound	Outbound	Total	Inbound	Outbound	Total
1	Cedar Ave./Santa Ana Ave. SW corner	528	15	11	26	30	27	57
2	11048 Laurel Ave., Bloomington, CA	208	4	12	16	14	8	22
3	18263 7th St., Bloomington, CA	1,449	21	70	91	70	41	111
4	18653 Slover Ave., Bloomington, CA	1,027*	32*	31*	63*	36*	34*	70*
5	11710 Cedar Ave., Bloomington, CA	20	1	0	1	1	1	2
6	18600 Slover Ave., Bloomington, CA	14	2	0	2	1	1	2

* Assumes 50% Pass-By Reduction

8.0 METHOD OF TRAFFIC IMPACT ANALYSIS

8.1 Signalized Intersections

For signalized intersections, the County of San Bernardino utilizes the Highway Capacity Manual (HCM) operations methodology for performing signalized intersection capacity analysis. This method relies on the determination of a Level of Service (LOS) at each of the study intersection by first determining their corresponding average control delay per vehicle. Control delay includes initial deceleration delay, queue move-up time, stopped delay and final acceleration delay. It is a measure of driver discomfort, frustration, fuel consumption and lost travel time.

Level of Service varies from at best LOS A (free flow/excellent) to at worst LOS of F (stop-and-go/failure). Shown in **Table 4** below are the LOS categories and their corresponding HCM average control delay ranges for signalized intersections.

Table 4: Level of Service Criteria for Signalized Intersections

Level of Service	Average Control Delay per Vehicle (Sec/Veh)
A	0 to 10.00
B	10.01 to 20.00
C	20.01 to 35.00
D	35.01 to 55.00
E	55.01 to 80.00
F	Over 80.00

Please refer to **Appendix C** for a more detailed description of the various Levels of Services. Please refer to **Appendix B** for the HCM calculations for the study intersections.

The average control delays and levels of service were determined for the study intersections by analyzing both their A.M. and P.M. peak hours for each of the following scenarios:

(1) Existing Traffic Conditions
(2) Existing Plus Project Traffic Conditions
(3) Future (Year 2021) Without Project Traffic Conditions (Existing plus ambient growth and related projects)
(4) Future (Year 2021) With Project Traffic Conditions

To determine if the project would cause a significant impact in traffic, relative to the without project traffic conditions, the County of San Bernardino Traffic Impact Study Guidelines Section 10.8.1 provides the following criteria for signalized intersections.

1. Any study intersection that is operating at a LOS 'A', 'B', 'C', or 'D' for any study scenario without project traffic in which the addition of project traffic causes the intersection to degrade to a LOS 'E' or 'F' shall mitigate the impact to bring the intersection back to at least LOS 'D'.
2. Any study intersection that is operating at a LOS 'E' or "F' for any study scenario without project traffic shall mitigate any impacts so as to bring the intersection back to the overall level of delay established prior to project traffic being added.

9.0 TRAFFIC IMPACT ANALYSIS FINDINGS

The following scenarios were analyzed to determine the proposed project impact at the 4 study intersections. Each individual scenario is analyzed and presented in a table form to show the average control delays and resulting Levels of Service (LOS) for the 4 signalized study intersections. Each table also includes a corresponding figure:

1) Existing Traffic Condition ……..**Table 5, Figure 5**
2) Existing Plus Project Traffic Condition ……..**Table 6, Figure 10**
3) Future (Year 2021) Without Project Traffic Conditions ……**Table 7, Figure 11**
   (Existing plus ambient growth & related projects)
4) Future (Year 2021) With Project Traffic Conditions ……..**Table 8, Figure 12**

Overall, as shown in **Tables 5-8,** there are no significant impacts at the study intersections due to the addition of the project for any of the listed scenarios. The LOS for all 4 study intersections under all scenarios are estimated to operate at LOS 'D' or better.

9.1 Existing Level of Service

Please refer to **Table 5** for a list of the study intersections and their corresponding existing Levels of Services.

Table 5: Existing Conditions LOS

Study Intersections		Existing Conditions			
		AM Peak		PM Peak	
		Control Delay (Sec/Veh)	LOS	Control Delay (Sec/Veh)	LOS
1	Cedar Ave & Santa Ana Ave	9.21	A	14.07	B
2	Cedar Ave & Jurupa Ave	9.39	A	11.70	B
3	Cedar Ave & 11th St	8.03	A	10.15	B
4	Cedar Ave & 7th St	8.58	A	14.38	B

9.2 Existing Plus Project Traffic Conditions

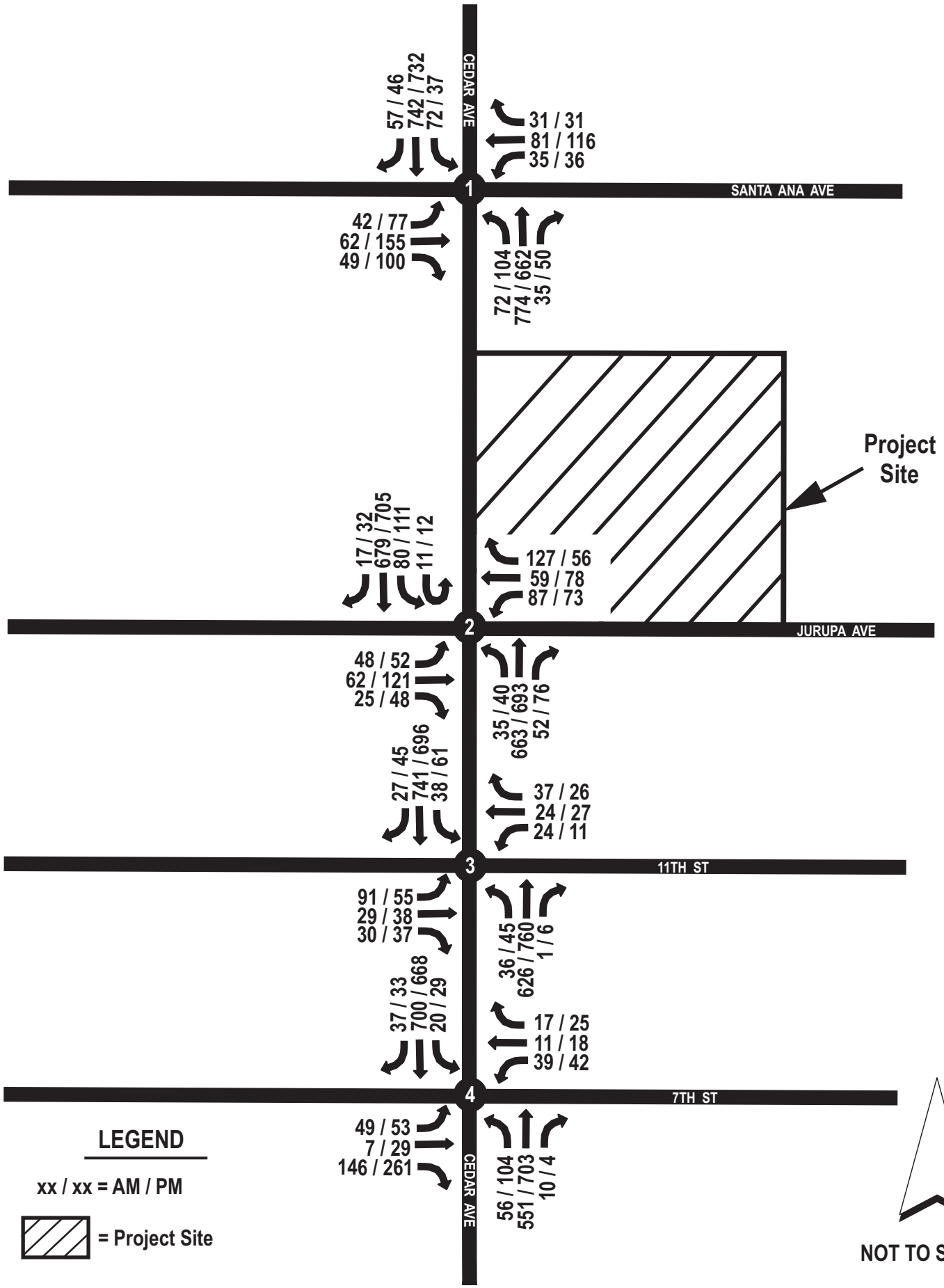
Please refer to **Table 6** for a list of the study intersections and their corresponding Levels of Services for the Existing Plus Project Traffic Conditions scenario.

To determine the Existing Plus Project Traffic Conditions, the project related traffic was added to existing traffic conditions. Please refer to **Figure 10** for an illustration of the Existing Plus Project morning and evening peak hour intersection volumes.

Based on the County's significance criteria, the study intersections would not be significantly impacted as a result of the addition of the project traffic.

Table 6: Existing Plus Project Conditions LOS

Study Intersections		Existing Conditions				Existing Plus Project Conditions					
		AM Peak		PM Peak		AM Peak			PM Peak		
		Control Delay (Sec/Veh)	LOS	Control Delay (Sec/Veh)	LOS	Control Delay (Sec/Veh)	LOS	Significant Impact	Control Delay (Sec/Veh)	LOS	Significant Impact
1	Cedar Ave & Santa Ana Ave	9.21	A	14.07	B	9.43	A	no	14.48	B	no
2	Cedar Ave & Jurupa Ave	9.39	A	11.70	B	10.76	B	no	12.24	B	no
3	Cedar Ave & 11th St	8.03	A	10.15	B	8.21	A	no	10.32	B	no
4	Cedar Ave & 7th St	8.58	A	14.38	B	8.75	A	no	14.65	B	no



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EXISTING PLUS PROJECT TRAFFIC VOLUMES

FIGURE 10

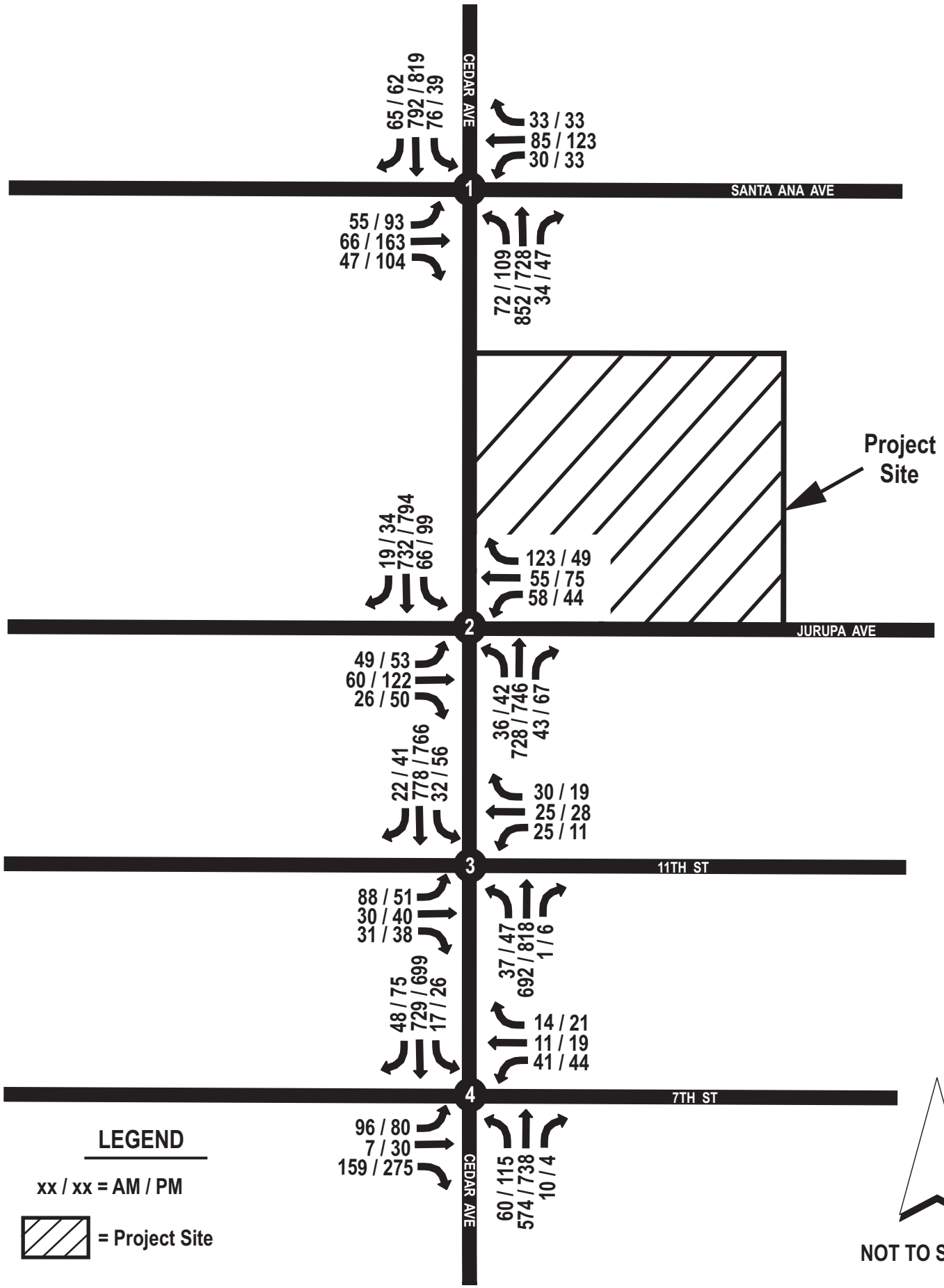
9.3 Future (Year 2021) Without Project Traffic Conditions

Please refer to **Table 7** for a list of the study intersections and their corresponding Levels of Services for the Future (Year 2021) Without Project Traffic Conditions scenario.

To determine the Future (Year 2021) Without Project Traffic Conditions, the trips generated by related projects (projects under construction, approved, and planned) was added to existing conditions. Please refer to **Figure 11** for an illustration of the Future without Project morning and evening peak hour intersection volumes.

Table 7: Future (Year 2021) Without Project Conditions LOS

Study Intersections		Future Conditions			
		AM Peak		PM Peak	
		Control Delay (Sec/Veh)	LOS	Control Delay (Sec/Veh)	LOS
1	Cedar Ave & Santa Ana Ave	9.75	A	16.10	B
2	Cedar Ave & Jurupa Ave	9.96	A	12.34	B
3	Cedar Ave & 11th St	8.23	A	10.45	B
4	Cedar Ave & 7th St	10.11	B	16.51	B



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FUTURE (2021) WITHOUT PROJECT TRAFFIC VOLUMES

FIGURE 11

9.4 Future (Year 2021) With Project Traffic Conditions

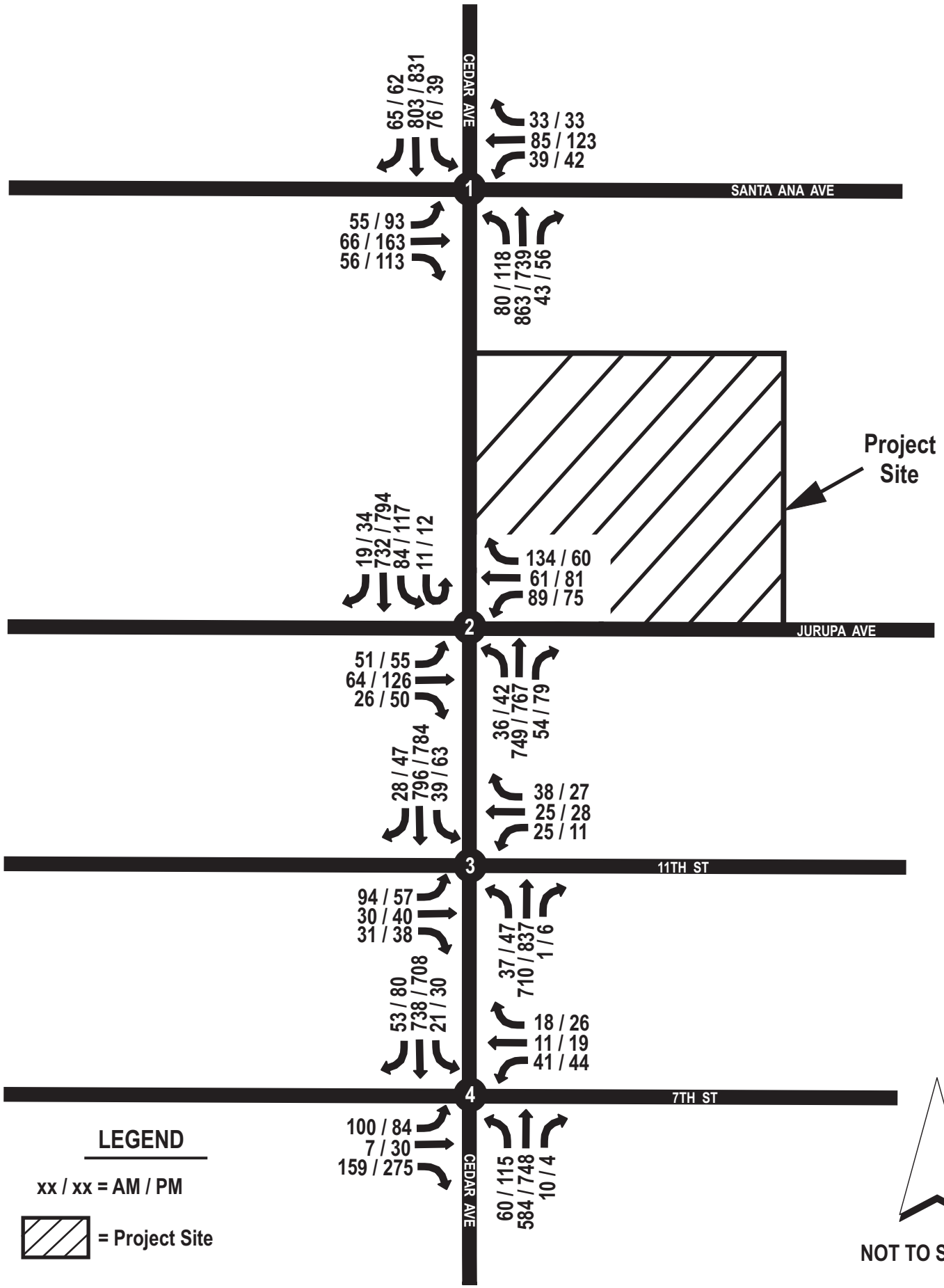
Please refer to **Table 8** for a list of the study intersections and their corresponding Levels of Services for the Future (Year 2021) With Project Traffic Conditions scenario.

To determine the Future (Year 2021) With Project Traffic Conditions, the traffic generated by the proposed project was added to the Future (Year 2021) Without Project Traffic Conditions. Please refer to **Figure 12** for an illustration of the Future (Year 2021) with project traffic morning and evening peak hour intersection volumes.

Based on the County's significance criteria, the study intersections would not be significantly impacted as a result of the addition of the project traffic.

Table 8: Future (Year 2021) With Project Condition LOS

Study Intersections		Future Conditions				Future Plus Project Conditions					
		AM Peak		PM Peak		AM Peak			PM Peak		
		Control Delay (Sec/Veh)	LOS	Control Delay (Sec/Veh)	LOS	Control Delay (Sec/Veh)	LOS	Significant Impact	Control Delay (Sec/Veh)	LOS	Significant Impact
1	Cedar Ave & Santa Ana Ave	9.75	A	16.10	B	10.04	B	no	16.75	B	no
2	Cedar Ave & Jurupa Ave	9.96	A	12.34	B	11.50	B	no	12.91	B	no
3	Cedar Ave & 11th St	8.23	A	10.45	B	8.42	A	no	10.62	B	no
4	Cedar Ave & 7th St	10.11	B	16.51	B	10.33	B	no	16.89	B	no



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FUTURE (2021) WITH PROJECT TRAFFIC VOLUMES

FIGURE 12

10.0 CONCLUSION/MITIGATION MEASURES

The Traffic Impact Analysis projected the trips generated by the proposed gas/service station with convenience market and fast-food restaurant. To evaluate the impacts of the trips projected to be generated by the Project, 4 intersections were analyzed. Traffic counts were obtained at the study locations and the Level of Service (LOS) of these intersections were evaluated under the following scenarios:

(1) Existing Traffic Condition
(2) Existing Plus Project Traffic Condition
(3) Future (Year 2021) Without Project Traffic Conditions (Existing plus ambient growth & related projects)
(4) Future (Year 2021) With Project Traffic Conditions

Based on the County of San Bernardino's significance criteria, none of the four (4) study intersections would be significantly impacted as a result of the addition of the project traffic.

APPENDIX A

Manual Traffic Counts

CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : Cedar_SantaAna
Site Code : 00000000
Start Date : 1/30/2019
Page No : 1

Groups Printed- Vehicles

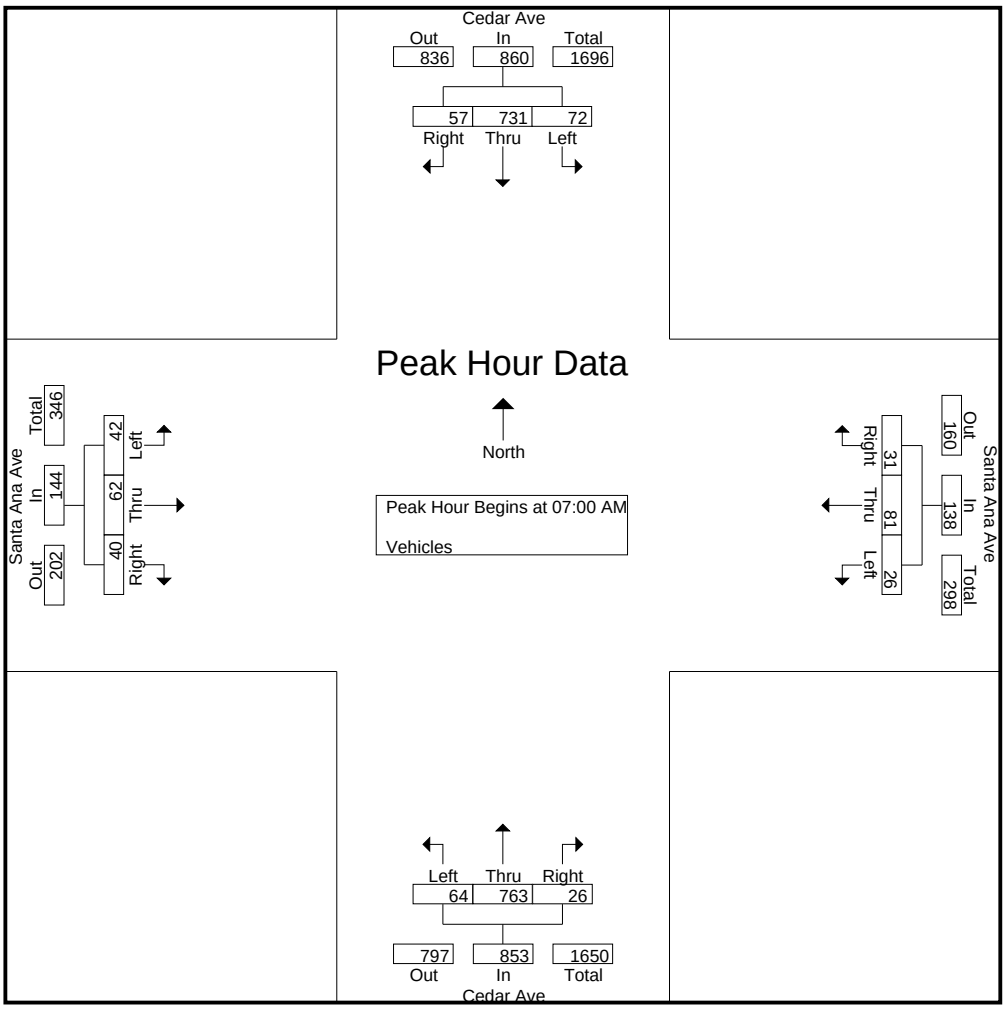
	Cedar Ave Southbound			Santa Ana Ave Westbound			Cedar Ave Northbound			Santa Ana Ave Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	24	176	11	5	16	7	11	166	4	13	15	6	454
07:15 AM	29	195	14	9	20	9	16	189	7	8	13	10	519
07:30 AM	13	184	16	7	33	10	27	231	14	10	14	15	574
07:45 AM	6	176	16	5	12	5	10	177	1	11	20	9	448
Total	72	731	57	26	81	31	64	763	26	42	62	40	1995
08:00 AM	9	148	14	13	10	5	16	146	8	15	18	11	413
08:15 AM	5	129	5	4	16	3	16	147	7	12	7	9	360
08:30 AM	7	148	13	6	14	8	19	149	4	13	17	11	409
08:45 AM	8	138	16	8	22	8	19	143	7	14	17	14	414
Total	29	563	48	31	62	24	70	585	26	54	59	45	1596
04:00 PM	8	152	8	4	26	5	31	143	10	11	34	18	450
04:15 PM	12	168	10	6	36	6	21	182	8	19	44	21	533
04:30 PM	5	161	8	11	23	9	18	175	16	25	36	19	506
04:45 PM	12	201	17	6	26	8	30	146	7	15	34	25	527
Total	37	682	43	27	111	28	100	646	41	70	148	83	2016
05:00 PM	8	190	11	4	31	8	26	148	10	18	41	26	521
05:15 PM	11	158	9	9	31	7	21	161	6	28	31	31	503
05:30 PM	9	159	12	13	34	2	27	174	6	19	49	20	524
05:45 PM	10	154	13	3	28	8	21	154	11	16	37	25	480
Total	38	661	45	29	124	25	95	637	33	81	158	102	2028
Grand Total	176	2637	193	113	378	108	329	2631	126	247	427	270	7635
Apprch %	5.9	87.7	6.4	18.9	63.1	18	10.7	85.3	4.1	26.2	45.2	28.6	
Total %	2.3	34.5	2.5	1.5	5	1.4	4.3	34.5	1.7	3.2	5.6	3.5	

CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : Cedar_SantaAna
Site Code : 00000000
Start Date : 1/30/2019
Page No : 2

	Cedar Ave Southbound				Santa Ana Ave Westbound				Cedar Ave Northbound				Santa Ana Ave Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	24	176	11	211	5	16	7	28	11	166	4	181	**13**	15	6	34	454
07:15 AM	**29**	**195**	14	**238**	**9**	20	9	38	16	189	7	212	8	13	10	31	519
07:30 AM	13	184	**16**	213	7	**33**	**10**	**50**	**27**	**231**	**14**	**272**	10	14	**15**	39	**574**
07:45 AM	6	176	16	198	5	12	5	22	10	177	1	188	11	**20**	9	**40**	448
Total Volume	72	731	57	860	26	81	31	138	64	763	26	853	42	62	40	144	1995
% App. Total	8.4	85	6.6		18.8	58.7	22.5		7.5	89.4	3		29.2	43.1	27.8		
PHF	.621	.937	.891	.903	.722	.614	.775	.690	.593	.826	.464	.784	.808	.775	.667	.900	.869

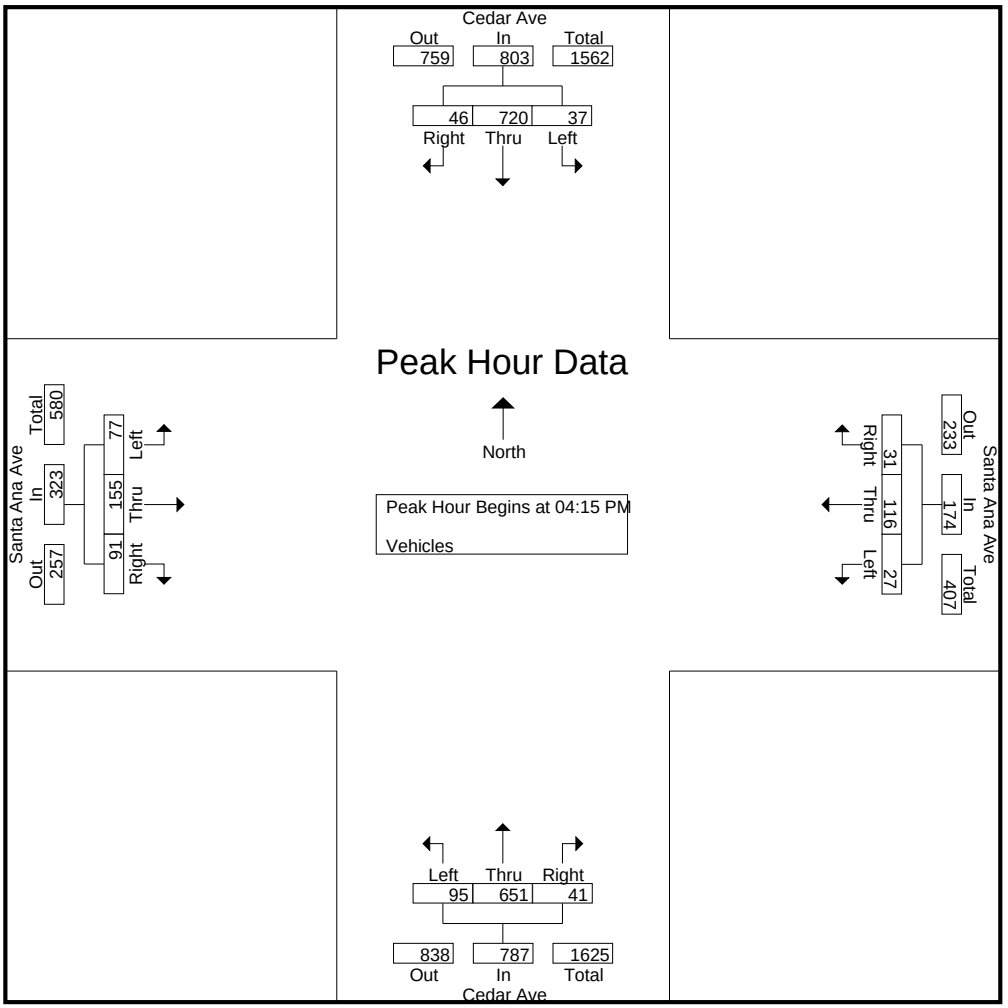


CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : Cedar_SantaAna
Site Code : 00000000
Start Date : 1/30/2019
Page No : 3

	Cedar Ave Southbound				Santa Ana Ave Westbound				Cedar Ave Northbound				Santa Ana Ave Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**12**	168	10	190	6	**36**	6	**48**	21	**182**	8	**211**	19	**44**	21	84	**533**
04:30 PM	5	161	8	174	**11**	23	**9**	43	18	175	**16**	209	**25**	36	19	80	506
04:45 PM	12	**201**	**17**	**230**	6	26	8	40	**30**	146	7	183	15	34	25	74	527
05:00 PM	8	190	11	209	4	31	8	43	26	148	10	184	18	41	**26**	**85**	521
Total Volume	37	720	46	803	27	116	31	174	95	651	41	787	77	155	91	323	2087
% App. Total	4.6	89.7	5.7		15.5	66.7	17.8		12.1	82.7	5.2		23.8	48	28.2		
PHF	.771	.896	.676	.873	.614	.806	.861	.906	.792	.894	.641	.932	.770	.881	.875	.950	.979



CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : Cedar_Jurupa
Site Code : 00000000
Start Date : 1/30/2019
Page No : 1

Groups Printed- Vehicles

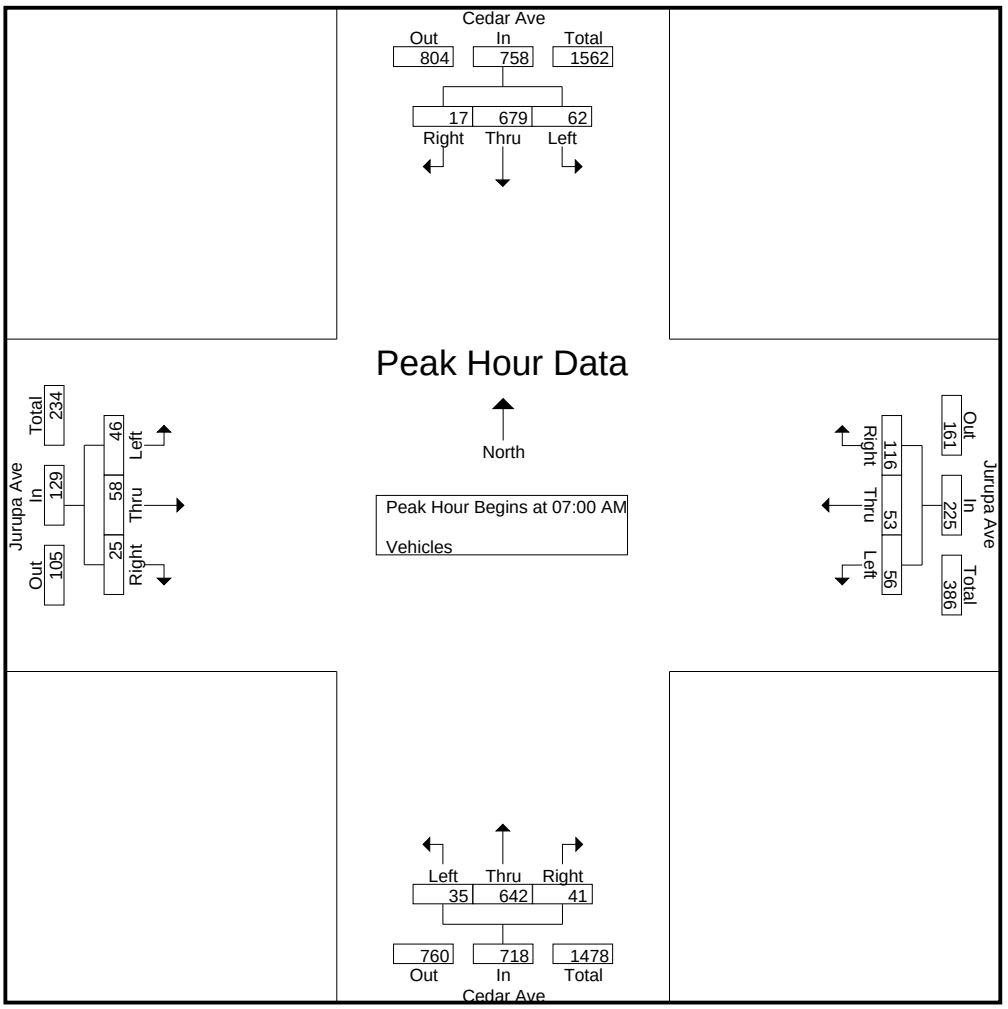
	Cedar Ave Southbound			Jurupa Ave Westbound			Cedar Ave Northbound			Jurupa Ave Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	13	163	6	11	15	23	9	145	3	10	9	7	414
07:15 AM	11	184	6	17	15	34	6	156	8	14	10	5	466
07:30 AM	26	164	3	22	13	47	17	195	22	10	20	4	543
07:45 AM	12	168	2	6	10	12	3	146	8	12	19	9	407
Total	62	679	17	56	53	116	35	642	41	46	58	25	1830
08:00 AM	11	158	2	8	12	16	6	137	4	5	13	5	377
08:15 AM	11	124	3	11	13	19	8	150	7	3	11	4	364
08:30 AM	10	144	2	9	15	18	5	151	7	7	12	4	384
08:45 AM	15	134	3	6	12	15	1	137	1	7	13	6	350
Total	47	560	10	34	52	68	20	575	19	22	49	19	1475
04:00 PM	20	151	7	13	24	14	11	155	17	9	40	14	475
04:15 PM	18	151	5	14	8	9	8	177	12	14	27	11	454
04:30 PM	20	198	9	10	19	10	12	160	12	23	20	12	505
04:45 PM	26	164	11	8	22	13	10	166	15	5	43	8	491
Total	84	664	32	45	73	46	41	658	56	51	130	45	1925
05:00 PM	29	192	7	10	23	13	10	169	25	8	27	17	530
05:15 PM	12	162	7	9	17	2	8	163	11	12	22	13	438
05:30 PM	19	170	13	11	11	13	9	158	11	11	42	12	480
05:45 PM	18	135	2	8	6	13	7	168	10	8	38	19	432
Total	78	659	29	38	57	41	34	658	57	39	129	61	1880
Grand Total	271	2562	88	173	235	271	130	2533	173	158	366	150	7110
Apprch %	9.3	87.7	3	25.5	34.6	39.9	4.6	89.3	6.1	23.4	54.3	22.3	
Total %	3.8	36	1.2	2.4	3.3	3.8	1.8	35.6	2.4	2.2	5.1	2.1	

CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : Cedar_Jurupa
Site Code : 00000000
Start Date : 1/30/2019
Page No : 2

	Cedar Ave Southbound				Jurupa Ave Westbound				Cedar Ave Northbound				Jurupa Ave Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	13	163	**6**	182	11	**15**	23	49	9	145	3	157	10	9	7	26	414
07:15 AM	11	**184**	6	**201**	17	15	34	66	6	156	8	170	**14**	10	5	29	466
07:30 AM	**26**	164	3	193	**22**	13	**47**	**82**	**17**	**195**	**22**	**234**	10	**20**	4	34	**543**
07:45 AM	12	168	2	182	6	10	12	28	3	146	8	157	12	19	**9**	**40**	407
Total Volume	62	679	17	758	56	53	116	225	35	642	41	718	46	58	25	129	1830
% App. Total	8.2	89.6	2.2		24.9	23.6	51.6		4.9	89.4	5.7		35.7	45	19.4		
PHF	.596	.923	.708	.943	.636	.883	.617	.686	.515	.823	.466	.767	.821	.725	.694	.806	.843



CITY TRAFFIC COUNTERS

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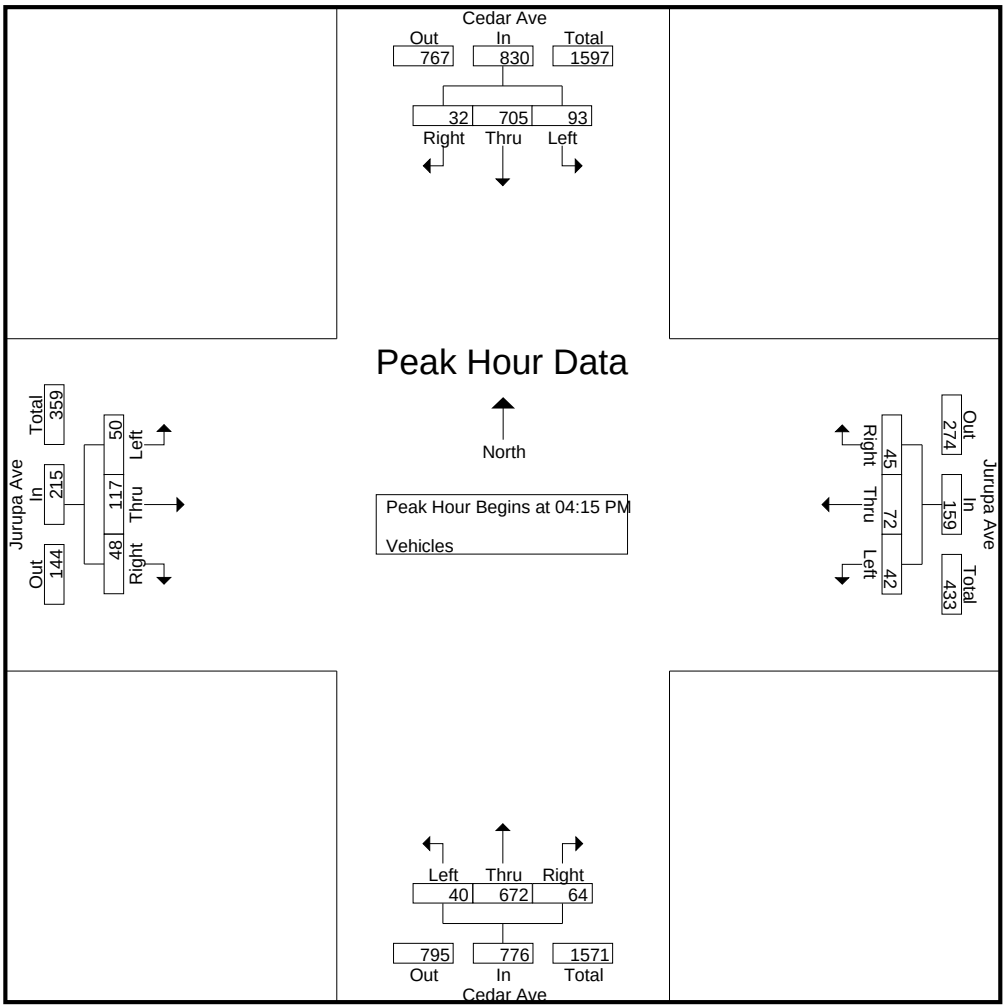
File Name : Cedar_Jurupa
Site Code : 00000000
Start Date : 1/30/2019
Page No : 3

	Cedar Ave Southbound				Jurupa Ave Westbound				Cedar Ave Northbound				Jurupa Ave Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	18	151	5	174	**14**	8	9	31	8	**177**	12	197	14	27	11	52	454
04:30 PM	20	**198**	9	227	10	19	10	39	**12**	160	12	184	**23**	20	12	55	505
04:45 PM	26	164	**11**	201	8	22	**13**	43	10	166	15	191	5	**43**	8	**56**	491
05:00 PM	**29**	192	7	**228**	10	**23**	13	**46**	10	169	**25**	**204**	8	27	**17**	52	**530**
Total Volume	93	705	32	830	42	72	45	159	40	672	64	776	50	117	48	215	1980
% App. Total	11.2	84.9	3.9		26.4	45.3	28.3		5.2	86.6	8.2		23.3	54.4	22.3		
PHF	.802	.890	.727	.910	.750	.783	.865	.864	.833	.949	.640	.951	.543	.680	.706	.960	.934



CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : Cedar_11th
Site Code : 00000000
Start Date : 1/30/2019
Page No : 1

Groups Printed- Vehicles

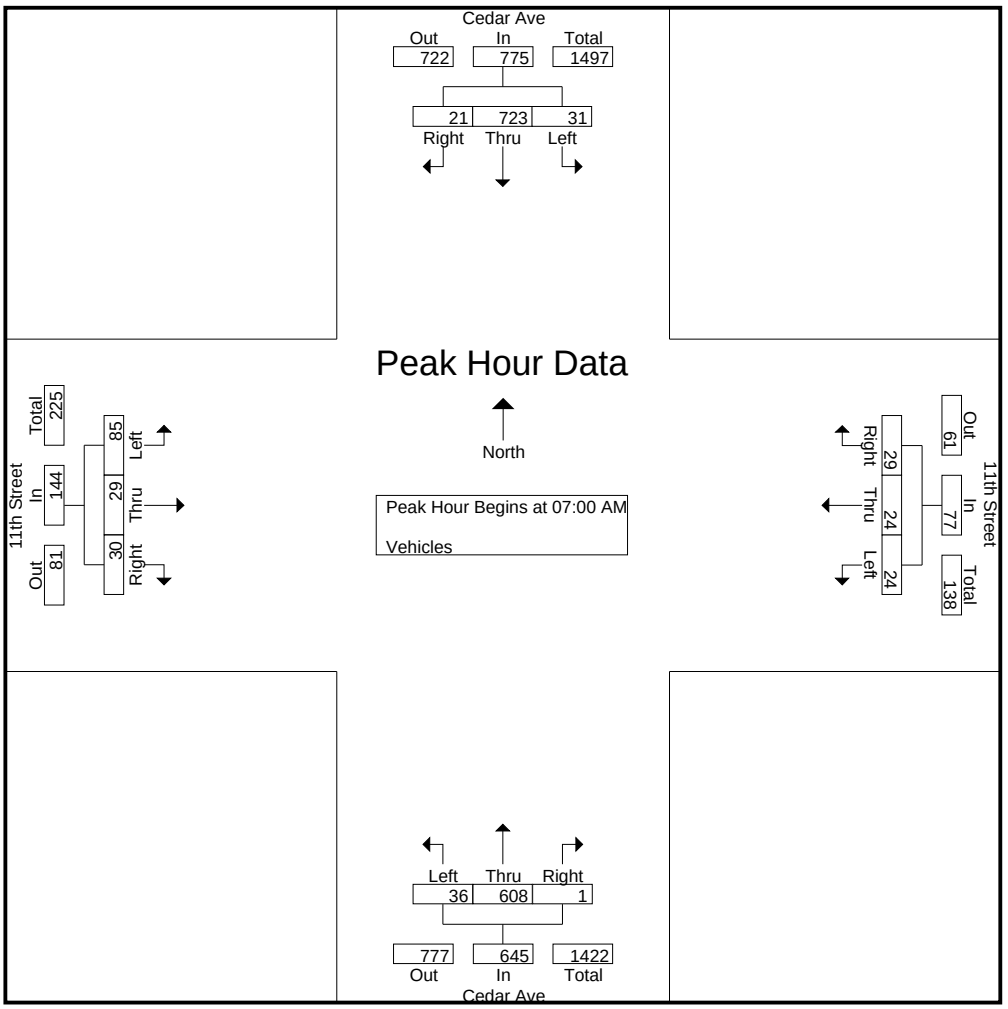
	Cedar Ave Southbound			11th Street Westbound			Cedar Ave Northbound			11th Street Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	6	166	10	7	11	4	15	131	0	24	6	8	388
07:15 AM	7	205	6	4	4	3	7	153	0	21	2	9	421
07:30 AM	6	186	4	7	4	13	4	191	0	21	6	5	447
07:45 AM	12	166	1	6	5	9	10	133	1	19	15	8	385
Total	31	723	21	24	24	29	36	608	1	85	29	30	1641
08:00 AM	9	157	3	1	11	9	9	131	0	9	3	8	350
08:15 AM	8	124	2	2	5	3	7	148	3	11	5	3	321
08:30 AM	10	133	6	2	2	3	6	136	2	16	2	6	324
08:45 AM	6	129	6	2	6	3	10	121	1	16	4	7	311
Total	33	543	17	7	24	18	32	536	6	52	14	24	1306
04:00 PM	5	138	3	1	3	6	9	185	2	12	10	5	379
04:15 PM	11	164	15	1	10	2	10	187	1	14	10	13	438
04:30 PM	12	164	9	1	6	8	9	179	0	12	7	7	414
04:45 PM	13	179	8	1	4	2	13	185	1	12	11	9	438
Total	41	645	35	4	23	18	41	736	4	50	38	34	1669
05:00 PM	18	171	7	8	7	6	13	190	4	11	10	8	453
05:15 PM	6	167	10	5	7	7	17	156	2	17	9	8	411
05:30 PM	6	158	14	3	7	4	12	181	2	22	2	10	421
05:45 PM	14	141	6	6	5	5	15	170	4	12	8	9	395
Total	44	637	37	22	26	22	57	697	12	62	29	35	1680
Grand Total	149	2548	110	57	97	87	166	2577	23	249	110	123	6296
Apprch %	5.3	90.8	3.9	23.7	40.2	36.1	6	93.2	0.8	51.7	22.8	25.5	
Total %	2.4	40.5	1.7	0.9	1.5	1.4	2.6	40.9	0.4	4	1.7	2	

CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : Cedar_11th
Site Code : 00000000
Start Date : 1/30/2019
Page No : 2

	Cedar Ave Southbound				11th Street Westbound				Cedar Ave Northbound				11th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	6	166	**10**	182	**7**	**11**	4	22	**15**	131	0	146	**24**	6	8	38	388
07:15 AM	7	**205**	6	**218**	4	4	3	11	7	153	0	160	21	2	**9**	32	421
07:30 AM	6	186	4	196	7	4	**13**	**24**	4	**191**	0	**195**	21	6	5	32	**447**
07:45 AM	**12**	166	1	179	6	5	9	20	10	133	**1**	144	19	**15**	8	**42**	385
Total Volume	31	723	21	775	24	24	29	77	36	608	1	645	85	29	30	144	1641
% App. Total	4	93.3	2.7		31.2	31.2	37.7		5.6	94.3	0.2		59	20.1	20.8		
PHF	.646	.882	.525	.889	.857	.545	.558	.802	.600	.796	.250	.827	.885	.483	.833	.857	.918

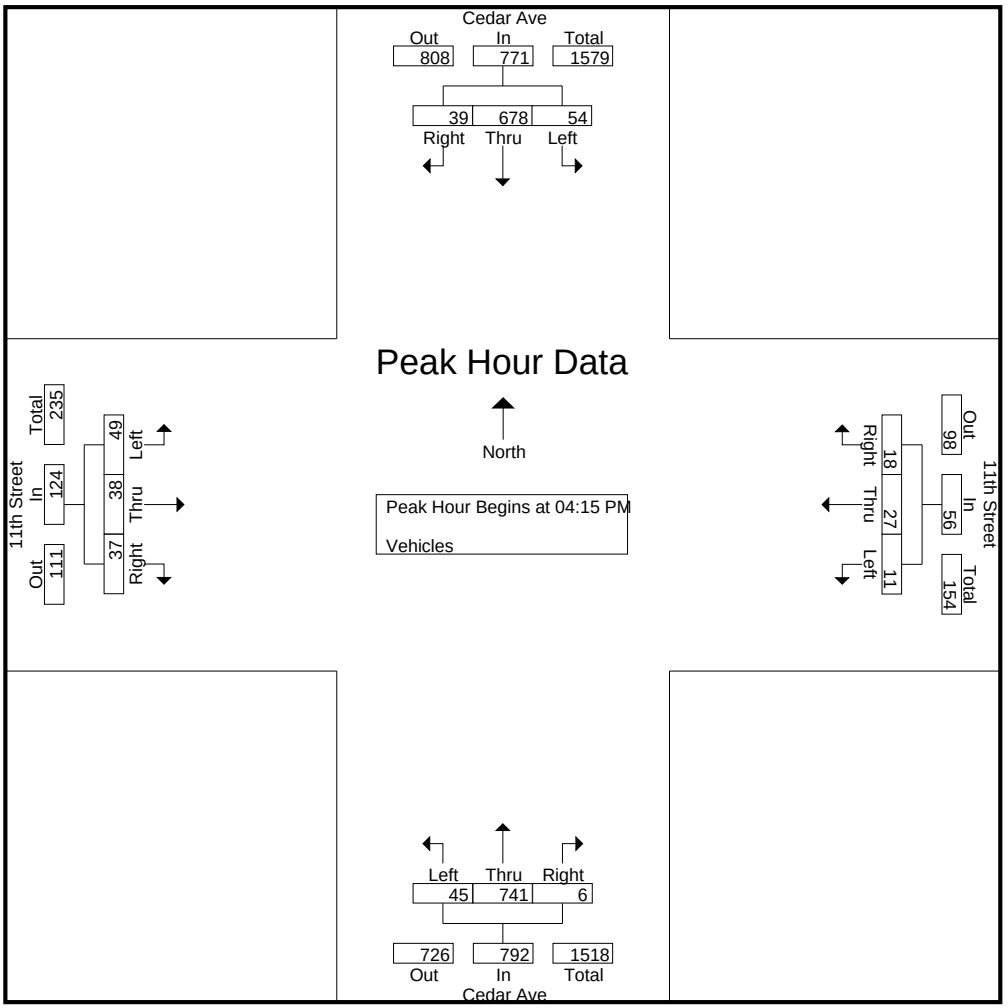


CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : Cedar_11th
Site Code : 00000000
Start Date : 1/30/2019
Page No : 3

	Cedar Ave Southbound				11th Street Westbound				Cedar Ave Northbound				11th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	11	164	**15**	190	1	**10**	2	13	10	187	1	198	**14**	10	**13**	**37**	438
04:30 PM	12	164	9	185	1	6	**8**	15	9	179	0	188	12	7	7	26	414
04:45 PM	13	**179**	8	**200**	1	4	2	7	**13**	185	1	199	12	**11**	9	32	438
05:00 PM	**18**	171	7	196	**8**	7	6	**21**	13	**190**	**4**	**207**	11	10	8	29	**453**
Total Volume	54	678	39	771	11	27	18	56	45	741	6	792	49	38	37	124	1743
% App. Total	7	87.9	5.1		19.6	48.2	32.1		5.7	93.6	0.8		39.5	30.6	29.8		
PHF	.750	.947	.650	.964	.344	.675	.563	.667	.865	.975	.375	.957	.875	.864	.712	.838	.962



CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : Cedar_7th
Site Code : 00000000
Start Date : 1/30/2019
Page No : 1

Groups Printed- Vehicles

	Cedar Ave Southbound			7th Street Westbound			Cedar Ave Northbound			7th Street Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	5	168	8	11	1	2	8	132	2	11	1	30	379
07:15 AM	3	188	9	9	3	6	14	125	3	8	2	32	402
07:30 AM	4	169	12	12	3	5	19	169	2	13	2	44	454
07:45 AM	4	166	3	7	4	0	15	115	3	13	2	40	372
Total	16	691	32	39	11	13	56	541	10	45	7	146	1607
08:00 AM	4	135	9	9	3	4	19	121	0	7	3	35	349
08:15 AM	2	90	2	2	6	0	10	101	0	5	1	18	237
08:30 AM	4	117	3	0	3	5	11	133	1	7	3	12	299
08:45 AM	1	132	4	3	5	4	8	116	0	10	4	17	304
Total	11	474	18	14	17	13	48	471	1	29	11	82	1189
04:00 PM	8	134	5	0	4	7	30	159	4	15	12	65	443
04:15 PM	9	143	3	2	4	5	25	175	4	9	16	59	454
04:30 PM	2	143	4	10	1	5	13	185	1	7	9	46	426
04:45 PM	7	180	10	12	3	3	25	176	2	7	10	60	495
Total	26	600	22	24	12	20	93	695	11	38	47	230	1818
05:00 PM	5	163	5	13	4	9	27	187	1	11	9	51	485
05:15 PM	7	172	5	3	8	7	28	157	0	12	4	90	493
05:30 PM	6	144	8	14	3	1	24	173	1	19	6	60	459
05:45 PM	4	138	6	8	1	2	18	163	0	15	5	47	407
Total	22	617	24	38	16	19	97	680	2	57	24	248	1844
Grand Total	75	2382	96	115	56	65	294	2387	24	169	89	706	6458
Apprch %	2.9	93.3	3.8	48.7	23.7	27.5	10.9	88.2	0.9	17.5	9.2	73.2	
Total %	1.2	36.9	1.5	1.8	0.9	1	4.6	37	0.4	2.6	1.4	10.9	

CITY TRAFFIC COUNTERS

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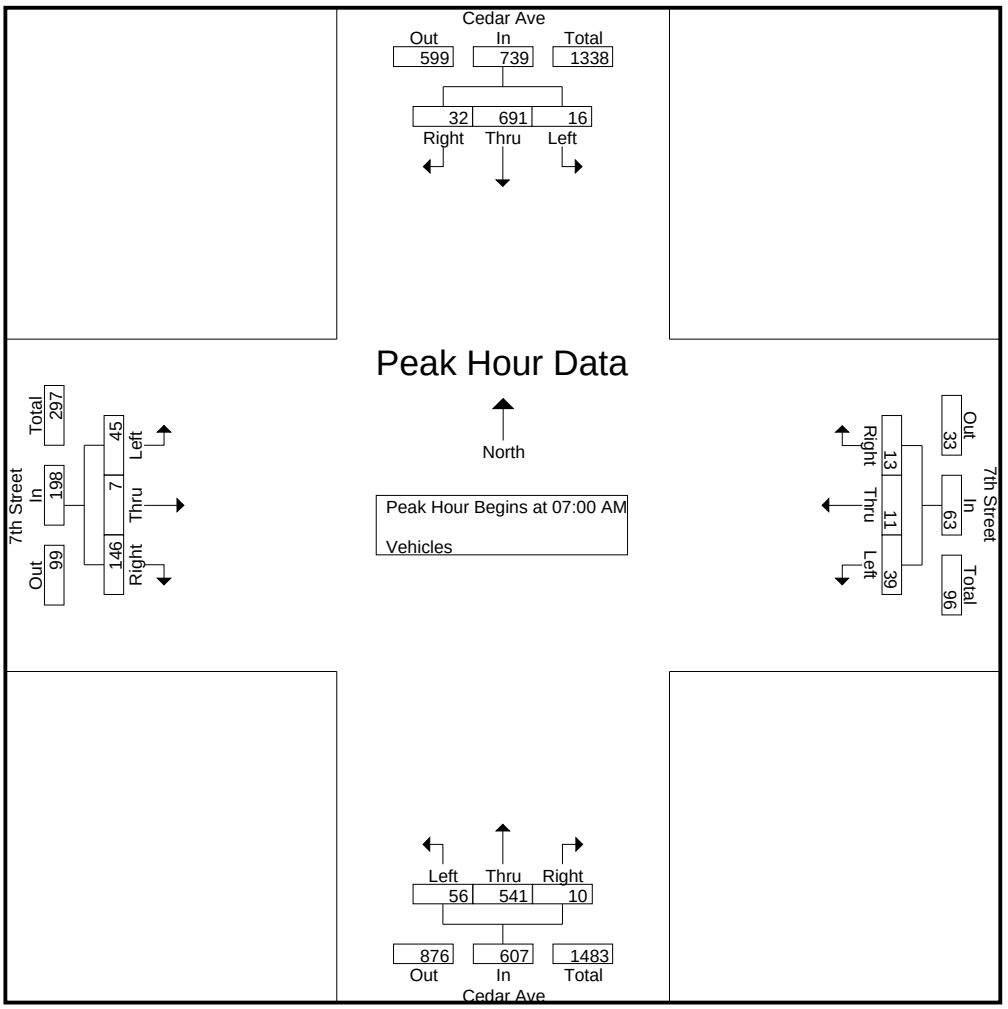
File Name : Cedar_7th
Site Code : 00000000
Start Date : 1/30/2019
Page No : 2

	Cedar Ave Southbound				7th Street Westbound				Cedar Ave Northbound				7th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**5**	168	8	181	11	1	2	14	8	132	2	142	11	1	30	42	379
07:15 AM	3	**188**	9	**200**	9	3	**6**	18	14	125	**3**	142	8	**2**	32	42	402
07:30 AM	4	169	**12**	185	**12**	3	5	**20**	**19**	**169**	2	**190**	**13**	2	**44**	**59**	**454**
07:45 AM	4	166	3	173	7	**4**	0	11	15	115	3	133	13	2	40	55	372
Total Volume	16	691	32	739	39	11	13	63	56	541	10	607	45	7	146	198	1607
% App. Total	2.2	93.5	4.3		61.9	17.5	20.6		9.2	89.1	1.6		22.7	3.5	73.7		
PHF	.800	.919	.667	.924	.813	.688	.542	.788	.737	.800	.833	.799	.865	.875	.830	.839	.885

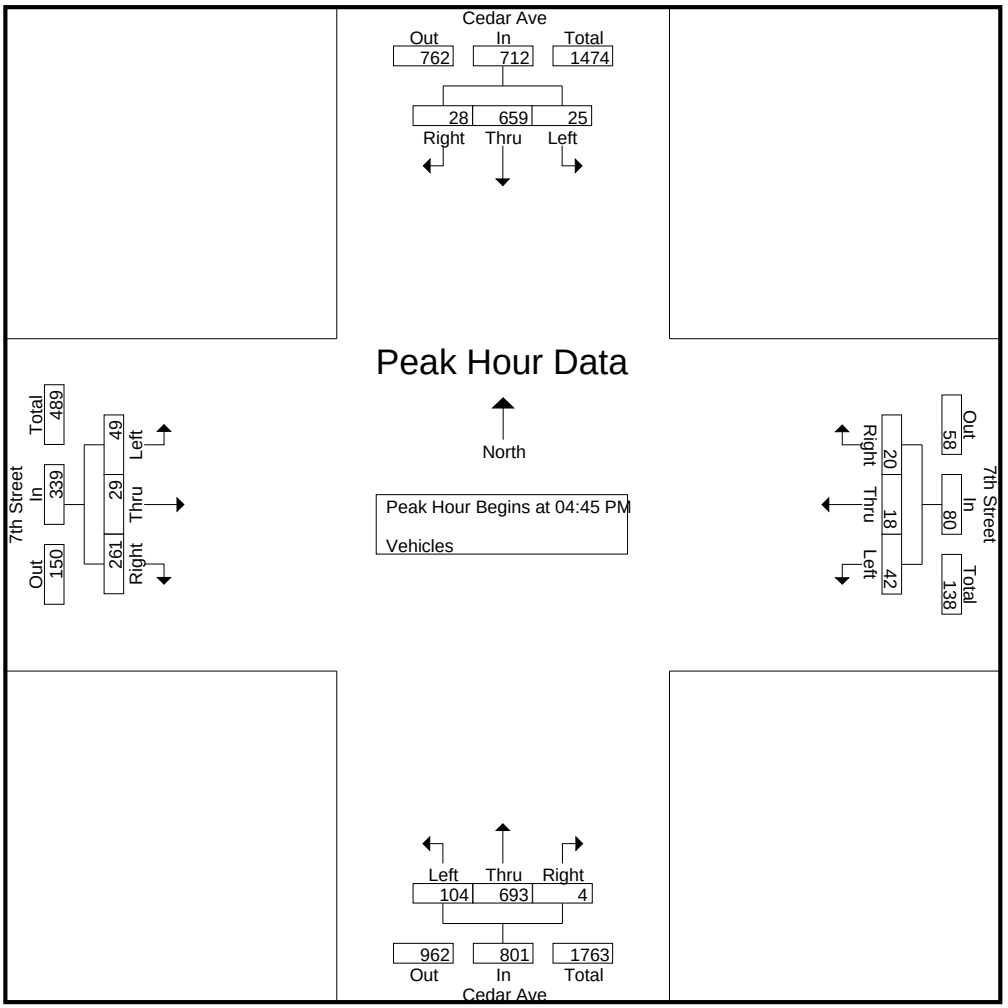


CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : Cedar_7th
Site Code : 00000000
Start Date : 1/30/2019
Page No : 3

	Cedar Ave Southbound				7th Street Westbound				Cedar Ave Northbound				7th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:45 AM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**7**	**180**	**10**	**197**	12	3	3	18	25	176	**2**	203	7	**10**	60	77	**495**
05:00 PM	5	163	5	173	13	4	**9**	**26**	27	**187**	1	**215**	11	9	51	71	485
05:15 PM	7	172	5	184	3	**8**	7	18	**28**	157	0	185	12	4	**90**	**106**	493
05:30 PM	6	144	8	158	**14**	3	1	18	24	173	1	198	**19**	6	60	85	459
Total Volume	25	659	28	712	42	18	20	80	104	693	4	801	49	29	261	339	1932
% App. Total	3.5	92.6	3.9		52.5	22.5	25		13	86.5	0.5		14.5	8.6	77		
PHF	.893	.915	.700	.904	.750	.563	.556	.769	.929	.926	.500	.931	.645	.725	.725	.800	.976



APPENDIX B

Level of Service Calculations

Intersection Level Of Service Report
Intersection 1: Cedar Ave & Santa Ana Ave

Control Type:	Signalized	Delay (sec / veh):	9.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.505

Intersection Setup

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Base Volume Input [veh/h]	64	763	26	72	731	57	42	62	40	26	81	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	64	763	26	72	731	57	42	62	40	26	81	31
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	16	191	7	18	183	14	11	16	10	7	20	8
Total Analysis Volume [veh/h]	64	763	26	72	731	57	42	62	40	26	81	31
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	12	33	0	11	32	0	0	26	0	0	26	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	19	0	0	19	0	0	13	0	0	13	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [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
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	C	L	C	C	C	C
C, Cycle Length [s]	33	33	33	33	33	33	33	33
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	6	14	14	6	14	14	7	7
g / C, Green / Cycle	0.18	0.41	0.41	0.19	0.42	0.42	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.04	0.26	0.26	0.05	0.25	0.25	0.10	0.09
s, saturation flow rate [veh/h]	1434	1506	1488	1434	1594	1554	1447	1492
c, Capacity [veh/h]	263	624	617	272	670	653	452	450
d1, Uniform Delay [s]	11.55	7.71	7.71	11.45	7.41	7.42	11.26	11.20
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.48	1.08	1.09	0.52	0.85	0.87	0.40	0.38
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.24	0.64	0.64	0.27	0.60	0.60	0.32	0.31
d, Delay for Lane Group [s/veh]	12.02	8.79	8.80	11.96	8.26	8.29	11.66	11.58
Lane Group LOS	B	A	A	B	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.34	1.53	1.51	0.38	1.45	1.42	0.74	0.70
50th-Percentile Queue Length [ft/ln]	8.57	38.17	37.79	9.58	36.30	35.50	18.39	17.52
95th-Percentile Queue Length [veh/ln]	0.62	2.75	2.72	0.69	2.61	2.56	1.32	1.26
95th-Percentile Queue Length [ft/ln]	15.42	68.71	68.03	17.25	65.34	63.91	33.10	31.54

Movement, Approach, & Intersection Results

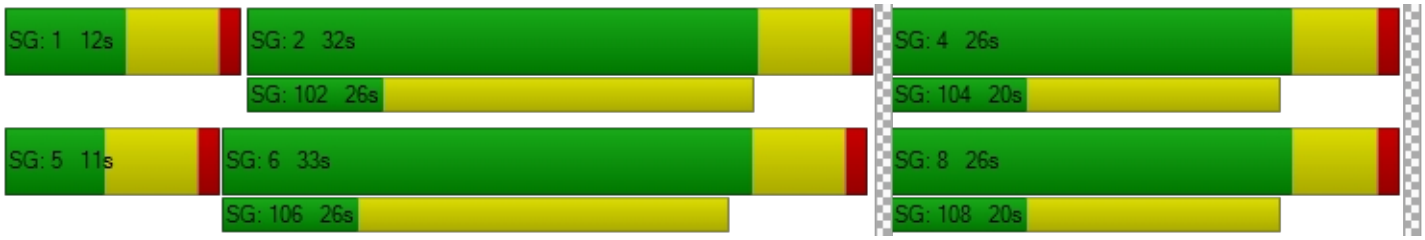
d_M, Delay for Movement [s/veh]	12.02	8.79	8.80	11.96	8.28	8.29	11.66	11.66	11.66	11.58	11.58	11.58
Movement LOS	B	A	A	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	9.04			8.58			11.66			11.58		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	9.21											
Intersection LOS	A											
Intersection V/C	0.505											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
l_p,int, Pedestrian LOS Score for Intersection	2.645	2.676	1.870	1.846
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	777	749	589	589
d_b, Bicycle Delay [s]	13.08	13.70	17.43	17.43
l_b,int, Bicycle LOS Score for Intersection	2.263	2.269	1.797	1.787
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 2: Cedar Ave & Jurupa Ave

Control Type:	Signalized	Delay (sec / veh):	9.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.514

Intersection Setup

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Approach	Northbound			Southbound				Eastbound			Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00				30.00			30.00		
Grade [%]	0.00			0.00				0.00			0.00		
Curb Present	No			No				No			No		
Crosswalk	Yes			Yes				Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Base Volume Input [veh/h]	35	642	41	0	62	679	17	46	58	25	56	53	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	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	0
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	642	41	0	62	679	17	46	58	25	56	53	116
Peak Hour Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	161	10	0	16	170	4	12	15	6	14	13	29
Total Analysis Volume [veh/h]	35	642	41	0	62	679	17	46	58	25	56	53	116
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	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0				0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0				0			0		
v_co, Outbound Pedestrian Volume crossing	0			0				0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0				0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0				0			0		
Bicycle Volume [bicycles/h]	0			0				0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	30	66	0	0	19	55	0	0	35	0	0	35	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	25	0	0	0	25	0	0	22	0	0	22	0
Rest In Walk		No				No			No			No	
I1, Start-Up Lost Time [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
I2, Clearance Lost Time [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	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	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Cycle Length [s]	33	33	33	33	33	33	33	33
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	5	12	12	6	13	13	9	9
g / C, Green / Cycle	0.16	0.37	0.37	0.18	0.39	0.39	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.02	0.22	0.22	0.04	0.22	0.22	0.09	0.16
s, saturation flow rate [veh/h]	1434	1594	1561	1434	1594	1581	1468	1403
c, Capacity [veh/h]	226	591	579	261	630	625	537	508
d1, Uniform Delay [s]	11.98	8.32	8.33	11.52	7.72	7.72	9.72	10.53
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.31	0.92	0.94	0.46	0.77	0.77	0.23	0.61
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	0.58	0.58	0.24	0.55	0.55	0.24	0.44
d, Delay for Lane Group [s/veh]	12.30	9.24	9.27	11.98	8.48	8.49	9.95	11.13
Lane Group LOS	B	A	A	B	A	A	A	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.19	1.41	1.38	0.33	1.31	1.30	0.57	1.10
50th-Percentile Queue Length [ft/ln]	4.79	35.18	34.59	8.25	32.81	32.58	14.31	27.56
95th-Percentile Queue Length [veh/ln]	0.35	2.53	2.49	0.59	2.36	2.35	1.03	1.98
95th-Percentile Queue Length [ft/ln]	8.63	63.32	62.26	14.84	59.06	58.64	25.76	49.62

Movement, Approach, & Intersection Results

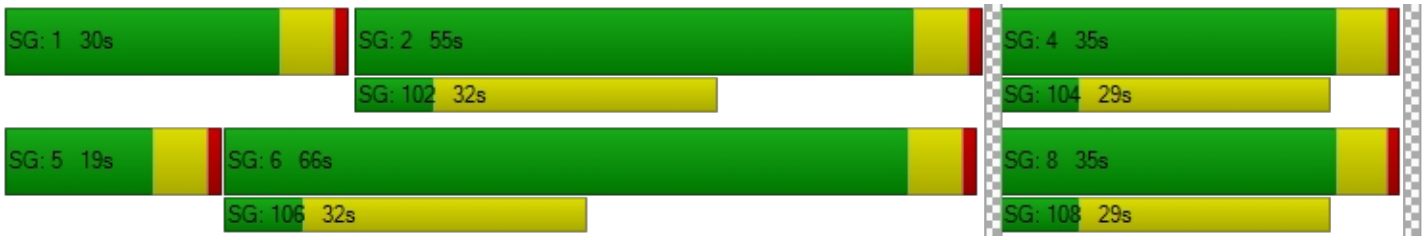
d_M, Delay for Movement [s/veh]	12.30	9.25	9.27	11.98	11.98	8.49	8.49	9.95	9.95	9.95	11.13	11.13	11.13
Movement LOS	B	A	A	B	B	A	A	A	A	A	B	B	B
d_A, Approach Delay [s/veh]	9.40			8.77				9.95			11.13		
Approach LOS	A			A				A			B		
d_I, Intersection Delay [s/veh]	9.39												
Intersection LOS	A												
Intersection V/C	0.514												

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.682	2.684	1.843	1.917
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1003	820	493	493
d_b, Bicycle Delay [s]	14.90	20.89	34.05	34.05
l_b,int, Bicycle LOS Score for Intersection	2.152	2.134	1.772	1.931
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: Cedar Ave & 11th St

Control Type:	Signalized	Delay (sec / veh):	8.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.454

Intersection Setup

Name	Cedar Ave			Cedar Ave			11th St			11th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			11th St			11th St		
Base Volume Input [veh/h]	36	608	1	31	723	21	85	29	30	24	24	29
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	608	1	31	723	21	85	29	30	24	24	29
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	9	152	0	8	181	5	21	7	8	6	6	7
Total Analysis Volume [veh/h]	36	608	1	31	723	21	85	29	30	24	24	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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	27	0	41	32	0	0	32	0	0	32	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [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
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	C	L	C	C	C	C
C, Cycle Length [s]	30	30	30	30	30	30	30	30
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	5	12	12	5	12	12	7	7
g / C, Green / Cycle	0.17	0.41	0.41	0.16	0.40	0.40	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.03	0.19	0.19	0.02	0.23	0.23	0.10	0.05
s, saturation flow rate [veh/h]	1434	1594	1593	1434	1594	1579	1380	1433
c, Capacity [veh/h]	244	648	648	236	640	633	507	486
d1, Uniform Delay [s]	10.68	6.58	6.58	10.78	7.08	7.08	9.88	9.44
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.28	0.53	0.53	0.25	0.85	0.86	0.30	0.15
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	0.47	0.47	0.13	0.58	0.58	0.28	0.16
d, Delay for Lane Group [s/veh]	10.95	7.11	7.11	11.03	7.93	7.94	10.18	9.59
Lane Group LOS	B	A	A	B	A	A	B	A
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.14	0.63	0.62	0.12	0.86	0.85	0.50	0.25
50th-Percentile Queue Length [ft/ln]	3.59	15.63	15.62	3.12	21.49	21.33	12.49	6.34
95th-Percentile Queue Length [veh/ln]	0.26	1.13	1.12	0.22	1.55	1.54	0.90	0.46
95th-Percentile Queue Length [ft/ln]	6.46	28.13	28.12	5.61	38.68	38.39	22.48	11.42

Movement, Approach, & Intersection Results

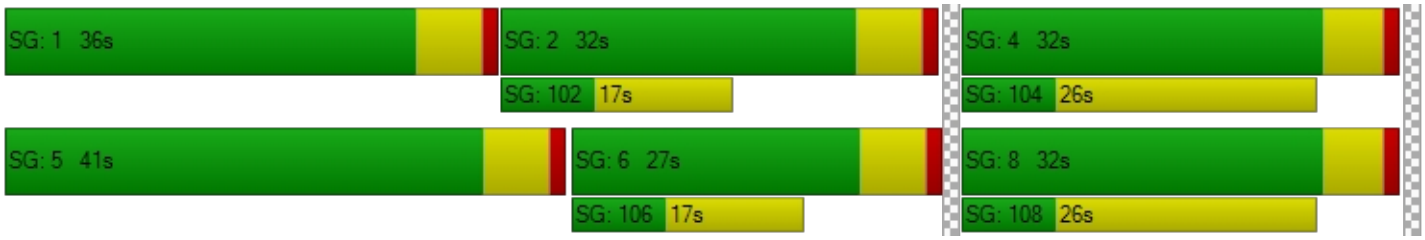
d_M, Delay for Movement [s/veh]	10.95	7.11	7.11	11.03	7.94	7.94	10.18	10.18	10.18	9.59	9.59	9.59
Movement LOS	B	A	A	B	A	A	B	B	B	A	A	A
d_A, Approach Delay [s/veh]	7.33			8.06			10.18			9.59		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	8.03											
Intersection LOS	A											
Intersection V/C	0.454											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	39.61	39.61	39.61
l_p,int, Pedestrian LOS Score for Intersection	2.755	2.863	1.884	1.821
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	424	524	532	532
d_b, Bicycle Delay [s]	31.05	27.23	26.94	26.94
l_b,int, Bicycle LOS Score for Intersection	2.092	2.199	1.797	1.687
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 4: Cedar Ave & 7th St

Control Type:	Signalized	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.507

Intersection Setup

Name	Cedar Ave			Cedar Ave			7th St			7th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			7th St			7th St		
Base Volume Input [veh/h]	56	541	10	16	691	32	45	7	146	39	11	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	56	541	10	16	691	32	45	7	146	39	11	13
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	14	135	3	4	173	8	11	2	37	10	3	3
Total Analysis Volume [veh/h]	56	541	10	16	691	32	45	7	146	39	11	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	15	25	0	23	33	0	0	32	0	0	32	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [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
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	C	L	C	C	C	C
C, Cycle Length [s]	32	32	32	32	32	32	32	32
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	6	14	14	4	12	12	8	8
g / C, Green / Cycle	0.18	0.43	0.43	0.14	0.38	0.38	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.04	0.17	0.17	0.01	0.23	0.23	0.14	0.04
s, saturation flow rate [veh/h]	1434	1594	1584	1434	1594	1570	1373	1419
c, Capacity [veh/h]	259	679	675	200	614	604	478	533
d1, Uniform Delay [s]	11.26	6.42	6.42	12.06	7.89	7.90	10.58	9.48
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.42	0.39	0.40	0.17	0.92	0.94	0.57	0.10
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.22	0.41	0.41	0.08	0.59	0.59	0.41	0.12
d, Delay for Lane Group [s/veh]	11.67	6.81	6.81	12.23	8.81	8.83	11.15	9.58
Lane Group LOS	B	A	A	B	A	A	B	A
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.25	0.59	0.59	0.08	1.06	1.05	0.80	0.22
50th-Percentile Queue Length [ft/ln]	6.19	14.82	14.76	1.89	26.55	26.23	19.96	5.51
95th-Percentile Queue Length [veh/ln]	0.45	1.07	1.06	0.14	1.91	1.89	1.44	0.40
95th-Percentile Queue Length [ft/ln]	11.14	26.68	26.57	3.41	47.79	47.22	35.93	9.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	11.67	6.81	6.81	12.23	8.82	8.83	11.15	11.15	11.15	9.58	9.58	9.58
Movement LOS	B	A	A	B	A	A	B	B	B	A	A	A
d_A, Approach Delay [s/veh]	7.26			8.90			11.15			9.58		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	8.58											
Intersection LOS	A											
Intersection V/C	0.507											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.76	29.76	29.76	29.76
l_p,int, Pedestrian LOS Score for Intersection	2.782	2.749	1.925	1.778
Crosswalk LOS	C	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	480	680	665	665
d_b, Bicycle Delay [s]	23.10	17.42	17.82	17.82
l_b,int, Bicycle LOS Score for Intersection	2.060	2.169	1.886	1.664
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 1: Cedar Ave & Santa Ana Ave

Control Type:	Signalized	Delay (sec / veh):	9.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.520

Intersection Setup

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Base Volume Input [veh/h]	64	763	26	72	731	57	42	62	40	26	81	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	11	9	0	11	0	0	0	9	9	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	774	35	72	742	57	42	62	49	35	81	31
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	18	194	9	18	186	14	11	16	12	9	20	8
Total Analysis Volume [veh/h]	72	774	35	72	742	57	42	62	49	35	81	31
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	12	33	0	11	32	0	0	26	0	0	26	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	19	0	0	19	0	0	13	0	0	13	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [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
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	C	L	C	C	C	C
C, Cycle Length [s]	34	34	34	34	34	34	34	34
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	6	14	14	6	14	14	7	7
g / C, Green / Cycle	0.19	0.42	0.42	0.19	0.42	0.42	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.05	0.27	0.27	0.05	0.25	0.25	0.11	0.10
s, saturation flow rate [veh/h]	1434	1506	1483	1434	1594	1555	1445	1482
c, Capacity [veh/h]	268	631	622	268	668	652	448	452
d1, Uniform Delay [s]	11.71	7.78	7.78	11.71	7.61	7.61	11.52	11.45
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.53	1.12	1.13	0.53	0.89	0.91	0.45	0.41
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.27	0.65	0.65	0.27	0.61	0.61	0.34	0.33
d, Delay for Lane Group [s/veh]	12.24	8.90	8.92	12.24	8.50	8.52	11.97	11.86
Lane Group LOS	B	A	A	B	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.39	1.61	1.59	0.39	1.54	1.50	0.81	0.77
50th-Percentile Queue Length [ft/ln]	9.87	40.27	39.74	9.87	38.43	37.59	20.23	19.27
95th-Percentile Queue Length [veh/ln]	0.71	2.90	2.86	0.71	2.77	2.71	1.46	1.39
95th-Percentile Queue Length [ft/ln]	17.77	72.48	71.53	17.77	69.18	67.67	36.41	34.69

Movement, Approach, & Intersection Results

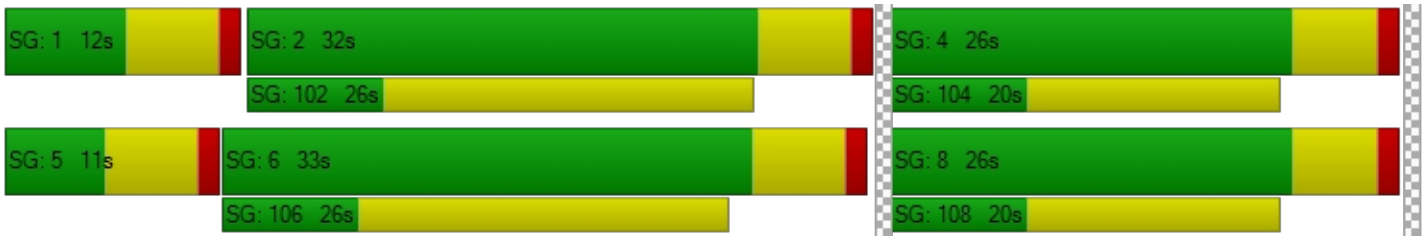
d_M, Delay for Movement [s/veh]	12.24	8.91	8.92	12.24	8.51	8.52	11.97	11.97	11.97	11.86	11.86	11.86
Movement LOS	B	A	A	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	9.18			8.82			11.97			11.86		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	9.43											
Intersection LOS	A											
Intersection V/C	0.520											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
l_p,int, Pedestrian LOS Score for Intersection	2.669	2.681	1.878	1.855
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	777	749	589	589
d_b, Bicycle Delay [s]	13.08	13.70	17.43	17.43
l_b,int, Bicycle LOS Score for Intersection	2.286	2.278	1.812	1.802
Bicycle LOS	B	B	A	A

Sequence

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



Intersection Level Of Service Report
Intersection 2: Cedar Ave & Jurupa Ave

Control Type:	Signalized	Delay (sec / veh):	10.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.581

Intersection Setup

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Approach	Northbound			Southbound				Eastbound			Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00				30.00			30.00		
Grade [%]	0.00			0.00				0.00			0.00		
Curb Present	No			No				No			No		
Crosswalk	Yes			Yes				Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Base Volume Input [veh/h]	35	642	41	0	62	679	17	46	58	25	56	53	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	21	11	11	18	0	0	2	4	0	31	6	11
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	663	52	11	80	679	17	48	62	25	87	59	127
Peak Hour Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	166	13	3	20	170	4	12	16	6	22	15	32
Total Analysis Volume [veh/h]	35	663	52	11	80	679	17	48	62	25	87	59	127
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	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0				0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0				0			0		
v_co, Outbound Pedestrian Volume crossing	0			0				0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0				0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0				0			0		
Bicycle Volume [bicycles/h]	0			0				0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	14	44	0	0	11	41	0	0	35	0	0	35	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	25	0	0	0	25	0	0	22	0	0	22	0
Rest In Walk		No				No			No			No	
I1, Start-Up Lost Time [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
I2, Clearance Lost Time [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	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	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Cycle Length [s]	37	37	37	37	37	37	37	37
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	5	14	14	7	15	15	11	11
g / C, Green / Cycle	0.14	0.36	0.36	0.18	0.40	0.40	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.02	0.23	0.23	0.06	0.22	0.22	0.09	0.20
s, saturation flow rate [veh/h]	1434	1594	1554	1434	1594	1581	1470	1382
c, Capacity [veh/h]	204	578	564	263	644	638	562	533
d1, Uniform Delay [s]	14.19	9.89	9.89	13.40	8.57	8.57	10.27	11.55
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.39	1.12	1.15	0.78	0.71	0.72	0.22	0.76
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.63	0.63	0.35	0.54	0.54	0.24	0.51
d, Delay for Lane Group [s/veh]	14.58	11.00	11.04	14.17	9.28	9.29	10.49	12.31
Lane Group LOS	B	B	B	B	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.24	1.94	1.90	0.60	1.62	1.60	0.70	1.61
50th-Percentile Queue Length [ft/ln]	5.98	48.42	47.39	15.06	40.40	40.10	17.39	40.28
95th-Percentile Queue Length [veh/ln]	0.43	3.49	3.41	1.08	2.91	2.89	1.25	2.90
95th-Percentile Queue Length [ft/ln]	10.76	87.15	85.31	27.11	72.73	72.18	31.30	72.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	14.58	11.02	11.04	14.17	14.17	9.28	9.29	10.49	10.49	10.49	12.31	12.31	12.31
Movement LOS	B	B	B	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	11.19			9.85				10.49			12.31		
Approach LOS	B			A				B			B		
d_I, Intersection Delay [s/veh]	10.76												
Intersection LOS	B												
Intersection V/C	0.581												

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.724	2.685	1.834	1.942
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	849	782	658	658
d_b, Bicycle Delay [s]	14.91	16.68	20.27	20.27
l_b,int, Bicycle LOS Score for Intersection	2.178	2.143	1.782	2.010
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: Cedar Ave & 11th St

Control Type:	Signalized	Delay (sec / veh):	8.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.468

Intersection Setup

Name	Cedar Ave			Cedar Ave			11th St			11th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			11th St			11th St		
Base Volume Input [veh/h]	36	608	1	31	723	21	85	29	30	24	24	29
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	18	0	7	18	6	6	0	0	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	626	1	38	741	27	91	29	30	24	24	37
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	9	157	0	10	185	7	23	7	8	6	6	9
Total Analysis Volume [veh/h]	36	626	1	38	741	27	91	29	30	24	24	37
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	23	37	0	11	25	0	0	32	0	0	32	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [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
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	C	L	C	C	C	C
C, Cycle Length [s]	31	31	31	31	31	31	31	31
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	5	12	12	5	12	12	7	7
g / C, Green / Cycle	0.17	0.40	0.40	0.17	0.41	0.41	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.03	0.20	0.20	0.03	0.24	0.24	0.11	0.06
s, saturation flow rate [veh/h]	1434	1594	1594	1434	1594	1575	1379	1425
c, Capacity [veh/h]	241	645	644	244	648	640	506	478
d1, Uniform Delay [s]	10.90	6.78	6.78	10.86	7.14	7.14	10.08	9.65
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.28	0.57	0.57	0.29	0.88	0.89	0.32	0.18
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	0.49	0.49	0.16	0.60	0.60	0.30	0.18
d, Delay for Lane Group [s/veh]	11.18	7.35	7.35	11.15	8.02	8.03	10.40	9.83
Lane Group LOS	B	A	A	B	A	A	B	A
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.15	0.69	0.69	0.16	0.91	0.91	0.54	0.29
50th-Percentile Queue Length [ft/ln]	3.71	17.20	17.19	3.90	22.87	22.65	13.51	7.30
95th-Percentile Queue Length [veh/ln]	0.27	1.24	1.24	0.28	1.65	1.63	0.97	0.53
95th-Percentile Queue Length [ft/ln]	6.68	30.96	30.94	7.02	41.17	40.78	24.32	13.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	11.18	7.35	7.35	11.15	8.02	8.03	10.40	10.40	10.40	9.83	9.83	9.83
Movement LOS	B	A	A	B	A	A	B	B	B	A	A	A
d_A, Approach Delay [s/veh]	7.56			8.17			10.40			9.83		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	8.21											
Intersection LOS	A											
Intersection V/C	0.468											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.76	29.76	29.76	29.76
l_p,int, Pedestrian LOS Score for Intersection	2.754	2.879	1.882	1.820
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	780	480	665	665
d_b, Bicycle Delay [s]	14.88	23.10	17.82	17.82
l_b,int, Bicycle LOS Score for Intersection	2.107	2.225	1.807	1.700
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 4: Cedar Ave & 7th St

Control Type:	Signalized	Delay (sec / veh):	8.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.514

Intersection Setup

Name	Cedar Ave			Cedar Ave			7th St			7th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			7th St			7th St		
Base Volume Input [veh/h]	56	541	10	16	691	32	45	7	146	39	11	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	10	0	4	9	5	4	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	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	56	551	10	20	700	37	49	7	146	39	11	17
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	14	138	3	5	175	9	12	2	37	10	3	4
Total Analysis Volume [veh/h]	56	551	10	20	700	37	49	7	146	39	11	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	11	36	0	12	37	0	0	32	0	0	32	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [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
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	C	L	C	C	C	C
C, Cycle Length [s]	33	33	33	33	33	33	33	33
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	6	14	14	5	13	13	8	8
g / C, Green / Cycle	0.18	0.42	0.42	0.14	0.39	0.39	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.04	0.18	0.18	0.01	0.23	0.23	0.15	0.05
s, saturation flow rate [veh/h]	1434	1594	1584	1434	1594	1566	1372	1422
c, Capacity [veh/h]	256	675	671	204	618	607	481	530
d1, Uniform Delay [s]	11.47	6.59	6.59	12.18	7.99	7.99	10.70	9.60
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.43	0.41	0.41	0.21	0.95	0.96	0.59	0.11
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.22	0.42	0.42	0.10	0.60	0.60	0.42	0.13
d, Delay for Lane Group [s/veh]	11.90	7.00	7.01	12.39	8.94	8.96	11.29	9.70
Lane Group LOS	B	A	A	B	A	A	B	A
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.26	0.64	0.64	0.10	1.12	1.10	0.84	0.24
50th-Percentile Queue Length [ft/ln]	6.38	16.01	15.94	2.42	27.98	27.60	20.89	6.02
95th-Percentile Queue Length [veh/ln]	0.46	1.15	1.15	0.17	2.01	1.99	1.50	0.43
95th-Percentile Queue Length [ft/ln]	11.48	28.82	28.70	4.35	50.37	49.67	37.61	10.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	11.90	7.00	7.01	12.39	8.95	8.96	11.29	11.29	11.29	9.70	9.70	9.70
Movement LOS	B	A	A	B	A	A	B	B	B	A	A	A
d_A, Approach Delay [s/veh]	7.45			9.04			11.29			9.70		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	8.75											
Intersection LOS	A											
Intersection V/C	0.514											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.76	29.76	29.76	29.76
l_p,int, Pedestrian LOS Score for Intersection	2.788	2.765	1.932	1.784
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	755	780	665	665
d_b, Bicycle Delay [s]	15.50	14.88	17.82	17.82
l_b,int, Bicycle LOS Score for Intersection	2.069	2.184	1.893	1.670
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 1: Cedar Ave & Santa Ana Ave

Control Type:	Signalized	Delay (sec / veh):	9.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.561

Intersection Setup

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Base Volume Input [veh/h]	64	763	26	72	731	57	42	62	40	26	81	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	5	58	7	1	32	6	11	2	5	3	1	1
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	852	34	76	792	65	55	66	47	30	85	33
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	18	213	9	19	198	16	14	17	12	8	21	8
Total Analysis Volume [veh/h]	72	852	34	76	792	65	55	66	47	30	85	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	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	12	33	0	11	32	0	0	26	0	0	26	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	19	0	0	19	0	0	13	0	0	13	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [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
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	C	L	C	C	C	C
C, Cycle Length [s]	35	35	35	35	35	35	35	35
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	6	15	15	6	15	15	7	7
g / C, Green / Cycle	0.18	0.44	0.44	0.18	0.44	0.44	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.05	0.30	0.30	0.05	0.27	0.27	0.12	0.10
s, saturation flow rate [veh/h]	1434	1506	1486	1434	1594	1552	1446	1493
c, Capacity [veh/h]	258	657	648	262	700	682	441	438
d1, Uniform Delay [s]	12.53	7.99	7.99	12.49	7.66	7.66	12.38	12.18
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.58	1.24	1.26	0.61	0.90	0.93	0.54	0.45
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.28	0.68	0.68	0.29	0.62	0.62	0.38	0.34
d, Delay for Lane Group [s/veh]	13.12	9.23	9.25	13.09	8.56	8.58	12.92	12.64
Lane Group LOS	B	A	A	B	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.43	1.90	1.88	0.46	1.74	1.70	0.98	0.85
50th-Percentile Queue Length [ft/ln]	10.82	47.61	47.04	11.39	43.50	42.47	24.55	21.23
95th-Percentile Queue Length [veh/ln]	0.78	3.43	3.39	0.82	3.13	3.06	1.77	1.53
95th-Percentile Queue Length [ft/ln]	19.47	85.69	84.67	20.51	78.29	76.44	44.20	38.22

Movement, Approach, & Intersection Results

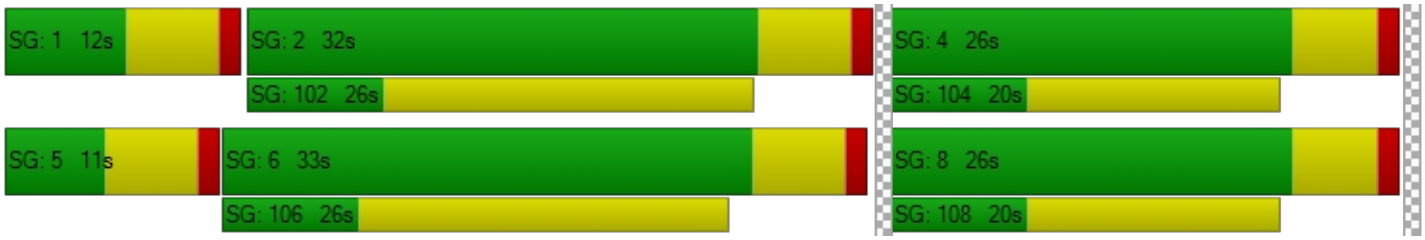
d_M, Delay for Movement [s/veh]	13.12	9.24	9.25	13.09	8.57	8.58	12.92	12.92	12.92	12.64	12.64	12.64
Movement LOS	B	A	A	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	9.53			8.94			12.92			12.64		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	9.75											
Intersection LOS	A											
Intersection V/C	0.561											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
l_p,int, Pedestrian LOS Score for Intersection	2.685	2.729	1.891	1.859
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	777	749	589	589
d_b, Bicycle Delay [s]	13.08	13.70	17.43	17.43
l_b,int, Bicycle LOS Score for Intersection	2.350	2.329	1.837	1.804
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 2: Cedar Ave & Jurupa Ave

Control Type:	Signalized	Delay (sec / veh):	10.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.552

Intersection Setup

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Approach	Northbound			Southbound				Eastbound			Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00				30.00			30.00		
Grade [%]	0.00			0.00				0.00			0.00		
Curb Present	No			No				No			No		
Crosswalk	Yes			Yes				Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Base Volume Input [veh/h]	35	642	41	0	62	679	17	46	58	25	56	53	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	60	0	0	2	26	1	1	0	0	0	0	2
Site-Generated Trips [veh/h]	0	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	0
Pass-by Trips [veh/h]	0	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	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	728	43	0	66	732	19	49	60	26	58	55	123
Peak Hour Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	182	11	0	17	183	5	12	15	7	15	14	31
Total Analysis Volume [veh/h]	36	728	43	0	66	732	19	49	60	26	58	55	123
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	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0				0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0				0			0		
v_co, Outbound Pedestrian Volume crossing	0			0				0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0				0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0				0			0		
Bicycle Volume [bicycles/h]	0			0				0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	12	44	0	0	11	43	0	0	35	0	0	35	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	25	0	0	0	25	0	0	22	0	0	22	0
Rest In Walk		No				No			No			No	
I1, Start-Up Lost Time [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
I2, Clearance Lost Time [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	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	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Cycle Length [s]	35	35	35	35	35	35	35	35
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	5	14	14	6	15	15	9	9
g / C, Green / Cycle	0.15	0.39	0.39	0.18	0.41	0.41	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.03	0.24	0.24	0.05	0.24	0.24	0.09	0.17
s, saturation flow rate [veh/h]	1434	1594	1563	1434	1594	1580	1469	1400
c, Capacity [veh/h]	215	618	606	252	659	653	532	502
d1, Uniform Delay [s]	13.17	8.81	8.81	12.67	8.01	8.01	10.43	11.36
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.36	1.06	1.08	0.55	0.79	0.79	0.25	0.69
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.63	0.63	0.26	0.57	0.57	0.25	0.47
d, Delay for Lane Group [s/veh]	13.54	9.87	9.90	13.21	8.80	8.81	10.68	12.05
Lane Group LOS	B	A	A	B	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.22	1.80	1.77	0.40	1.57	1.56	0.68	1.31
50th-Percentile Queue Length [ft/ln]	5.59	44.95	44.20	9.99	39.26	38.95	16.89	32.78
95th-Percentile Queue Length [veh/ln]	0.40	3.24	3.18	0.72	2.83	2.80	1.22	2.36
95th-Percentile Queue Length [ft/ln]	10.07	80.92	79.56	17.98	70.66	70.12	30.40	59.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	13.54	9.89	9.90	13.21	13.21	8.80	8.81	10.68	10.68	10.68	12.05	12.05	12.05
Movement LOS	B	A	A	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	10.05			9.16				10.68			12.05		
Approach LOS	B			A				B			B		
d_I, Intersection Delay [s/veh]	9.96												
Intersection LOS	A												
Intersection V/C	0.552												

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.698	2.704	1.834	1.912
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	849	827	658	658
d_b, Bicycle Delay [s]	14.91	15.49	20.27	20.27
l_b,int, Bicycle LOS Score for Intersection	2.225	2.179	1.782	1.949
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: Cedar Ave & 11th St

Control Type:	Signalized	Delay (sec / veh):	8.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.478

Intersection Setup

Name	Cedar Ave			Cedar Ave			11th St			11th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			11th St			11th St		
Base Volume Input [veh/h]	36	608	1	31	723	21	85	29	30	24	24	29
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	60	0	0	26	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	692	1	32	778	22	88	30	31	25	25	30
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	9	173	0	8	195	6	22	8	8	6	6	8
Total Analysis Volume [veh/h]	37	692	1	32	778	22	88	30	31	25	25	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	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	11	26	0	12	27	0	0	32	0	0	32	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [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
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	C	L	C	C	C	C
C, Cycle Length [s]	31	31	31	31	31	31	31	31
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	5	13	13	5	13	13	7	7
g / C, Green / Cycle	0.17	0.42	0.42	0.16	0.41	0.41	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.03	0.22	0.22	0.02	0.25	0.25	0.11	0.06
s, saturation flow rate [veh/h]	1434	1594	1594	1434	1594	1579	1382	1437
c, Capacity [veh/h]	239	668	668	232	660	653	497	478
d1, Uniform Delay [s]	11.11	6.73	6.73	11.21	7.17	7.17	10.32	9.84
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.30	0.63	0.63	0.27	0.92	0.92	0.33	0.16
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	0.52	0.52	0.14	0.61	0.61	0.30	0.17
d, Delay for Lane Group [s/veh]	11.40	7.35	7.35	11.47	8.08	8.09	10.65	10.01
Lane Group LOS	B	A	A	B	A	A	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.16	0.76	0.76	0.14	0.97	0.97	0.56	0.28
50th-Percentile Queue Length [ft/ln]	3.94	19.03	19.02	3.44	24.36	24.17	13.98	7.11
95th-Percentile Queue Length [veh/ln]	0.28	1.37	1.37	0.25	1.75	1.74	1.01	0.51
95th-Percentile Queue Length [ft/ln]	7.08	34.25	34.24	6.18	43.84	43.51	25.16	12.80

Movement, Approach, & Intersection Results

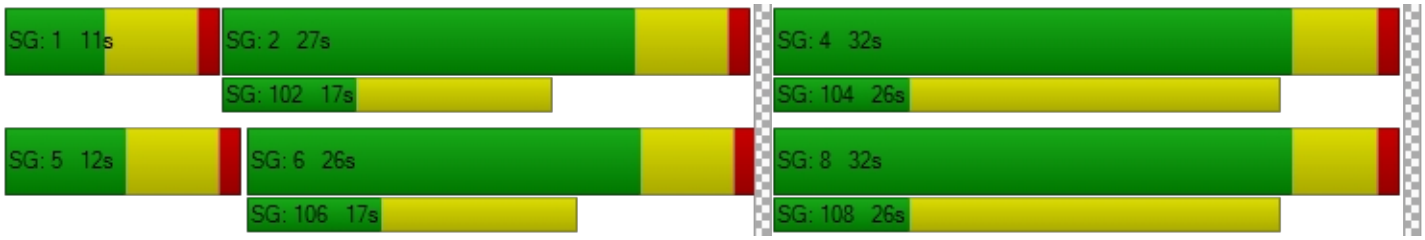
d_M, Delay for Movement [s/veh]	11.40	7.35	7.35	11.47	8.09	8.09	10.65	10.65	10.65	10.01	10.01	10.01
Movement LOS	B	A	A	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	7.56			8.22			10.65			10.01		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	8.23											
Intersection LOS	A											
Intersection V/C	0.478											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
l_p,int, Pedestrian LOS Score for Intersection	2.779	2.891	1.871	1.806
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	577	606	760	760
d_b, Bicycle Delay [s]	17.71	17.01	13.45	13.45
l_b,int, Bicycle LOS Score for Intersection	2.162	2.246	1.805	1.692
Bicycle LOS	B	B	A	A

Sequence

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



Intersection Level Of Service Report
Intersection 4: Cedar Ave & 7th St

Control Type:	Signalized	Delay (sec / veh):	10.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.575

Intersection Setup

Name	Cedar Ave			Cedar Ave			7th St			7th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			7th St			7th St		
Base Volume Input [veh/h]	56	541	10	16	691	32	45	7	146	39	11	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	2	11	0	0	10	15	49	0	7	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	574	10	17	729	48	96	7	159	41	11	14
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	15	144	3	4	182	12	24	2	40	10	3	4
Total Analysis Volume [veh/h]	60	574	10	17	729	48	96	7	159	41	11	14
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	11	46	0	12	47	0	0	32	0	0	32	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [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
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	C	L	C	C	C	C
C, Cycle Length [s]	37	37	37	37	37	37	37	37
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	6	16	16	5	14	14	11	11
g / C, Green / Cycle	0.17	0.42	0.42	0.12	0.38	0.38	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.04	0.18	0.18	0.01	0.25	0.25	0.19	0.05
s, saturation flow rate [veh/h]	1434	1594	1585	1434	1594	1560	1354	1269
c, Capacity [veh/h]	237	675	671	178	610	597	527	526
d1, Uniform Delay [s]	13.55	7.59	7.59	14.46	9.42	9.43	11.48	9.77
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.56	0.44	0.44	0.23	1.15	1.17	0.73	0.11
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.25	0.43	0.43	0.10	0.64	0.64	0.50	0.13
d, Delay for Lane Group [s/veh]	14.10	8.03	8.03	14.69	10.57	10.60	12.21	9.88
Lane Group LOS	B	A	A	B	B	B	B	A
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.35	0.94	0.93	0.11	1.65	1.62	1.30	0.27
50th-Percentile Queue Length [ft/ln]	8.79	23.38	23.27	2.63	41.29	40.55	32.61	6.83
95th-Percentile Queue Length [veh/ln]	0.63	1.68	1.68	0.19	2.97	2.92	2.35	0.49
95th-Percentile Queue Length [ft/ln]	15.82	42.08	41.89	4.73	74.32	72.98	58.69	12.30

Movement, Approach, & Intersection Results

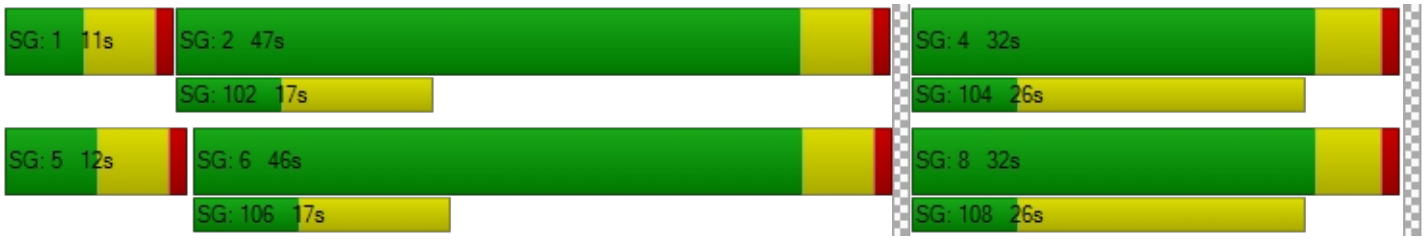
d_M, Delay for Movement [s/veh]	14.10	8.03	8.03	14.69	10.58	10.60	12.21	12.21	12.21	9.88	9.88	9.88
Movement LOS	B	A	A	B	B	B	B	B	B	A	A	A
d_A, Approach Delay [s/veh]	8.59			10.67			12.21			9.88		
Approach LOS	A			B			B			A		
d_I, Intersection Delay [s/veh]	10.11											
Intersection LOS	B											
Intersection V/C	0.575											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.818	2.868	1.993	1.787
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	893	916	591	591
d_b, Bicycle Delay [s]	13.78	13.23	22.33	22.33
l_b,int, Bicycle LOS Score for Intersection	2.091	2.215	1.992	1.669
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 1: Cedar Ave & Santa Ana Ave

Control Type:	Signalized	Delay (sec / veh):	10.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.574

Intersection Setup

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Base Volume Input [veh/h]	64	763	26	72	731	57	42	62	40	26	81	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	5	58	7	1	32	6	11	2	5	3	1	1
Site-Generated Trips [veh/h]	8	11	9	0	11	0	0	0	9	9	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	80	863	43	76	803	65	55	66	56	39	85	33
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	20	216	11	19	201	16	14	17	14	10	21	8
Total Analysis Volume [veh/h]	80	863	43	76	803	65	55	66	56	39	85	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	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	12	33	0	11	32	0	0	26	0	0	26	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	19	0	0	19	0	0	13	0	0	13	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [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
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	C	L	C	C	C	C
C, Cycle Length [s]	36	36	36	36	36	36	36	36
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	7	16	16	6	16	16	8	8
g / C, Green / Cycle	0.18	0.44	0.44	0.18	0.44	0.44	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.06	0.30	0.30	0.05	0.28	0.28	0.12	0.11
s, saturation flow rate [veh/h]	1434	1506	1481	1434	1594	1553	1445	1489
c, Capacity [veh/h]	261	663	652	258	698	680	440	443
d1, Uniform Delay [s]	12.85	8.15	8.15	12.89	7.91	7.91	12.68	12.47
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.66	1.28	1.31	0.63	0.94	0.97	0.59	0.48
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.69	0.69	0.30	0.63	0.63	0.40	0.35
d, Delay for Lane Group [s/veh]	13.51	9.43	9.45	13.52	8.85	8.88	13.28	12.95
Lane Group LOS	B	A	A	B	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.50	2.03	2.00	0.47	1.86	1.81	1.08	0.93
50th-Percentile Queue Length [ft/ln]	12.46	50.74	49.99	11.86	46.46	45.37	26.90	23.36
95th-Percentile Queue Length [veh/ln]	0.90	3.65	3.60	0.85	3.35	3.27	1.94	1.68
95th-Percentile Queue Length [ft/ln]	22.43	91.33	89.99	21.34	83.63	81.66	48.42	42.04

Movement, Approach, & Intersection Results

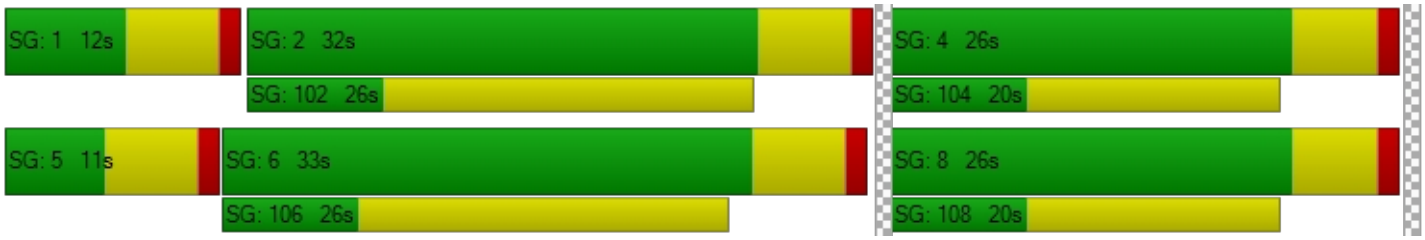
d_M, Delay for Movement [s/veh]	13.51	9.44	9.45	13.52	8.86	8.88	13.28	13.28	13.28	12.95	12.95	12.95
Movement LOS	B	A	A	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	9.77			9.24			13.28			12.95		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	10.04											
Intersection LOS	B											
Intersection V/C	0.574											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
l_p,int, Pedestrian LOS Score for Intersection	2.709	2.734	1.899	1.868
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	777	749	589	589
d_b, Bicycle Delay [s]	13.08	13.70	17.43	17.43
l_b,int, Bicycle LOS Score for Intersection	2.373	2.338	1.852	1.819
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 2: Cedar Ave & Jurupa Ave

Control Type:	Signalized	Delay (sec / veh):	11.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.619

Intersection Setup

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Approach	Northbound			Southbound				Eastbound			Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00				30.00			30.00		
Grade [%]	0.00			0.00				0.00			0.00		
Curb Present	No			No				No			No		
Crosswalk	Yes			Yes				Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Base Volume Input [veh/h]	35	642	41	0	62	679	17	46	58	25	56	53	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	60	0	0	2	26	1	1	0	0	0	0	2
Site-Generated Trips [veh/h]	0	21	11	11	18	0	0	2	4	0	31	6	11
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	749	54	11	84	732	19	51	64	26	89	61	134
Peak Hour Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	187	14	3	21	183	5	13	16	7	22	15	34
Total Analysis Volume [veh/h]	36	749	54	11	84	732	19	51	64	26	89	61	134
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	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0				0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0				0			0		
v_co, Outbound Pedestrian Volume crossing	0			0				0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0				0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0				0			0		
Bicycle Volume [bicycles/h]	0			0				0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	12	44	0	0	11	43	0	0	35	0	0	35	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	25	0	0	0	25	0	0	22	0	0	22	0
Rest In Walk		No				No			No			No	
I1, Start-Up Lost Time [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
I2, Clearance Lost Time [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	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	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Cycle Length [s]	41	41	41	41	41	41	41	41
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	5	15	15	7	17	17	12	12
g / C, Green / Cycle	0.14	0.38	0.38	0.18	0.42	0.42	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.03	0.25	0.25	0.07	0.24	0.24	0.10	0.21
s, saturation flow rate [veh/h]	1434	1594	1557	1434	1594	1580	1433	1379
c, Capacity [veh/h]	194	606	592	251	670	664	546	526
d1, Uniform Delay [s]	15.64	10.50	10.50	14.85	8.97	8.97	11.07	12.53
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.46	1.29	1.32	0.94	0.74	0.75	0.25	0.86
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.19	0.67	0.67	0.38	0.56	0.56	0.26	0.54
d, Delay for Lane Group [s/veh]	16.10	11.79	11.82	15.79	9.71	9.72	11.32	13.39
Lane Group LOS	B	B	B	B	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.28	2.45	2.40	0.72	1.94	1.93	0.82	1.90
50th-Percentile Queue Length [ft/ln]	6.95	61.34	60.06	17.94	48.56	48.17	20.50	47.62
95th-Percentile Queue Length [veh/ln]	0.50	4.42	4.32	1.29	3.50	3.47	1.48	3.43
95th-Percentile Queue Length [ft/ln]	12.51	110.40	108.11	32.29	87.40	86.70	36.90	85.72

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.10	11.80	11.82	15.79	15.79	9.72	9.72	11.32	11.32	11.32	13.39	13.39	13.39
Movement LOS	B	B	B	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	11.99			10.40				11.32			13.39		
Approach LOS	B			B				B			B		
d_I, Intersection Delay [s/veh]	11.50												
Intersection LOS	B												
Intersection V/C	0.619												

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.755	2.719	1.840	1.951
Crosswalk LOS	C	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	849	827	658	658
d_b, Bicycle Delay [s]	14.91	15.49	20.27	20.27
l_b,int, Bicycle LOS Score for Intersection	2.252	2.188	1.792	2.028
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: Cedar Ave & 11th St

Control Type:	Signalized	Delay (sec / veh):	8.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.491

Intersection Setup

Name	Cedar Ave			Cedar Ave			11th St			11th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			11th St			11th St		
Base Volume Input [veh/h]	36	608	1	31	723	21	85	29	30	24	24	29
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	60	0	0	26	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	18	0	7	18	6	6	0	0	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	710	1	39	796	28	94	30	31	25	25	38
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	9	178	0	10	199	7	24	8	8	6	6	10
Total Analysis Volume [veh/h]	37	710	1	39	796	28	94	30	31	25	25	38
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	12	27	0	11	26	0	0	32	0	0	32	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [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
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	C	L	C	C	C	C
C, Cycle Length [s]	32	32	32	32	32	32	32	32
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	5	13	13	5	13	13	7	7
g / C, Green / Cycle	0.16	0.42	0.42	0.17	0.42	0.42	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.03	0.22	0.22	0.03	0.26	0.26	0.11	0.06
s, saturation flow rate [veh/h]	1434	1594	1594	1434	1594	1575	1380	1430
c, Capacity [veh/h]	237	665	665	239	668	660	495	470
d1, Uniform Delay [s]	11.34	6.93	6.93	11.30	7.22	7.22	10.54	10.08
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.30	0.67	0.67	0.32	0.94	0.96	0.36	0.19
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.53	0.53	0.16	0.62	0.62	0.31	0.19
d, Delay for Lane Group [s/veh]	11.65	7.60	7.60	11.62	8.17	8.18	10.90	10.27
Lane Group LOS	B	A	A	B	A	A	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.16	0.83	0.83	0.17	1.03	1.02	0.60	0.33
50th-Percentile Queue Length [ft/ln]	4.07	20.85	20.85	4.27	25.87	25.62	15.10	8.15
95th-Percentile Queue Length [veh/ln]	0.29	1.50	1.50	0.31	1.86	1.84	1.09	0.59
95th-Percentile Queue Length [ft/ln]	7.33	37.54	37.52	7.69	46.57	46.12	27.18	14.67

Movement, Approach, & Intersection Results

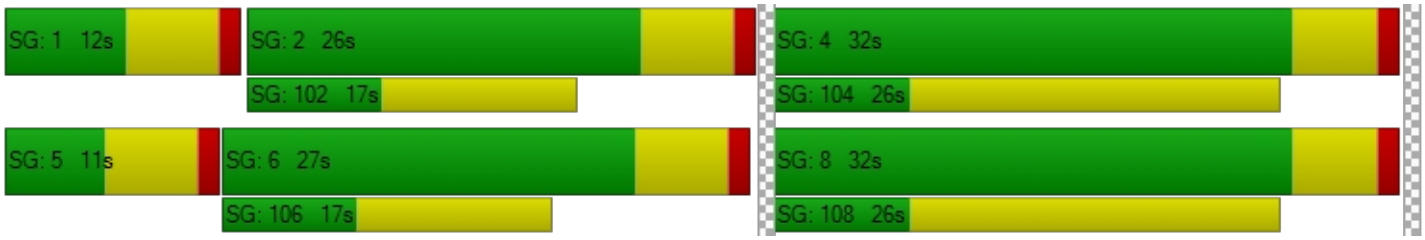
d_M, Delay for Movement [s/veh]	11.65	7.60	7.60	11.62	8.17	8.18	10.90	10.90	10.90	10.27	10.27	10.27
Movement LOS	B	A	A	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	7.80			8.33			10.90			10.27		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	8.42											
Intersection LOS	A											
Intersection V/C	0.491											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
l_p,int, Pedestrian LOS Score for Intersection	2.790	2.918	1.880	1.817
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	606	577	760	760
d_b, Bicycle Delay [s]	17.01	17.71	13.45	13.45
l_b,int, Bicycle LOS Score for Intersection	2.177	2.272	1.815	1.705
Bicycle LOS	B	B	A	A

Sequence

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



Intersection Level Of Service Report
Intersection 4: Cedar Ave & 7th St

Control Type:	Signalized	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.583

Intersection Setup

Name	Cedar Ave			Cedar Ave			7th St			7th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			7th St			7th St		
Base Volume Input [veh/h]	56	541	10	16	691	32	45	7	146	39	11	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	2	11	0	0	10	15	49	0	7	0	0	0
Site-Generated Trips [veh/h]	0	10	0	4	9	5	4	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	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	584	10	21	738	53	100	7	159	41	11	18
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	15	146	3	5	185	13	25	2	40	10	3	5
Total Analysis Volume [veh/h]	60	584	10	21	738	53	100	7	159	41	11	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	11	46	0	12	47	0	0	32	0	0	32	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [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
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	C	L	C	C	C	C
C, Cycle Length [s]	38	38	38	38	38	38	38	38
L, Total Lost Time per Cycle [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	6	16	16	5	14	14	11	11
g / C, Green / Cycle	0.16	0.42	0.42	0.13	0.38	0.38	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.04	0.19	0.19	0.01	0.25	0.25	0.20	0.05
s, saturation flow rate [veh/h]	1434	1594	1585	1434	1594	1557	1351	1283
c, Capacity [veh/h]	234	671	667	182	614	599	527	527
d1, Uniform Delay [s]	13.85	7.81	7.81	14.65	9.57	9.57	11.65	9.91
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.57	0.46	0.46	0.28	1.18	1.21	0.75	0.11
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.26	0.44	0.44	0.12	0.65	0.65	0.50	0.13
d, Delay for Lane Group [s/veh]	14.42	8.27	8.28	14.93	10.75	10.78	12.40	10.02
Lane Group LOS	B	A	A	B	B	B	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.36	1.00	1.00	0.13	1.74	1.71	1.36	0.30
50th-Percentile Queue Length [ft/ln]	9.07	25.08	24.97	3.32	43.50	42.65	34.06	7.46
95th-Percentile Queue Length [veh/ln]	0.65	1.81	1.80	0.24	3.13	3.07	2.45	0.54
95th-Percentile Queue Length [ft/ln]	16.32	45.15	44.94	5.98	78.31	76.76	61.31	13.42

Movement, Approach, & Intersection Results

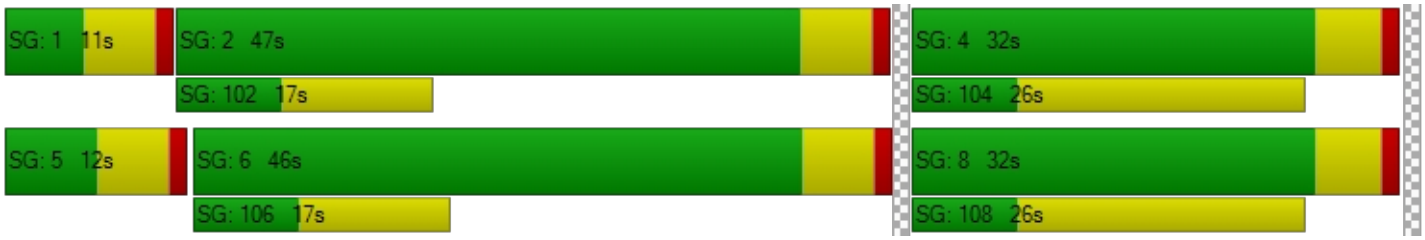
d_M, Delay for Movement [s/veh]	14.42	8.28	8.28	14.93	10.77	10.78	12.40	12.40	12.40	10.02	10.02	10.02
Movement LOS	B	A	A	B	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	8.84			10.87			12.40			10.02		
Approach LOS	A			B			B			B		
d_I, Intersection Delay [s/veh]	10.33											
Intersection LOS	B											
Intersection V/C	0.583											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.823	2.884	2.000	1.793
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	893	916	591	591
d_b, Bicycle Delay [s]	13.78	13.23	22.33	22.33
l_b,int, Bicycle LOS Score for Intersection	2.099	2.230	1.999	1.675
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 1: Cedar Ave & Santa Ana Ave

Control Type:	Signalized	Delay (sec / veh):	14.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.621

Intersection Setup

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Base Volume Input [veh/h]	95	651	41	37	720	46	77	155	91	27	116	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	95	651	41	37	720	46	77	155	91	27	116	31
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	24	163	10	9	180	12	19	39	23	7	29	8
Total Analysis Volume [veh/h]	95	651	41	37	720	46	77	155	91	27	116	31
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	15	52	0	11	48	0	0	27	0	0	27	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	19	0	0	19	0	0	13	0	0	13	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [s]	2.8	2.8	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	C	L	C	C	C	C
C, Cycle Length [s]	43	43	43	43	43	43	43	43
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	5	16	16	4	14	14	12	12
g / C, Green / Cycle	0.13	0.37	0.37	0.09	0.33	0.33	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.07	0.22	0.22	0.03	0.24	0.24	0.22	0.11
s, saturation flow rate [veh/h]	1434	1594	1561	1434	1594	1561	1437	1527
c, Capacity [veh/h]	181	586	574	127	526	515	518	537
d1, Uniform Delay [s]	17.58	11.02	11.03	18.33	12.76	12.76	13.90	12.28
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.34	0.98	1.00	1.25	2.03	2.07	1.24	0.35
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.52	0.60	0.60	0.29	0.74	0.74	0.62	0.32
d, Delay for Lane Group [s/veh]	19.92	12.00	12.03	19.58	14.78	14.83	15.14	12.63
Lane Group LOS	B	B	B	B	B	B	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.88	2.24	2.20	0.35	2.90	2.85	2.48	1.15
50th-Percentile Queue Length [ft/ln]	22.04	55.96	54.94	8.66	72.45	71.16	61.97	28.71
95th-Percentile Queue Length [veh/ln]	1.59	4.03	3.96	0.62	5.22	5.12	4.46	2.07
95th-Percentile Queue Length [ft/ln]	39.68	100.73	98.90	15.58	130.41	128.08	111.55	51.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	19.92	12.01	12.03	19.58	14.80	14.83	15.14	15.14	15.14	12.63	12.63	12.63
Movement LOS	B	B	B	B	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	12.97			15.03			15.14			12.63		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	14.07											
Intersection LOS	B											
Intersection V/C	0.621											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.655	2.713	1.997	1.913
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1027	938	480	480
d_b, Bicycle Delay [s]	10.66	12.69	25.99	25.99
l_b,int, Bicycle LOS Score for Intersection	2.209	2.222	2.093	1.847
Bicycle LOS	B	B	B	A

Sequence

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

Intersection Level Of Service Report
Intersection 2: Cedar Ave & Jurupa Ave

Control Type:	Signalized	Delay (sec / veh):	11.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.535

Intersection Setup

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Approach	Northbound			Southbound				Eastbound			Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00				30.00			30.00		
Grade [%]	0.00			0.00				0.00			0.00		
Curb Present	No			No				No			No		
Crosswalk	Yes			Yes				Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Base Volume Input [veh/h]	40	672	64	0	93	705	32	50	117	48	42	72	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	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	0
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	672	64	0	93	705	32	50	117	48	42	72	45
Peak Hour Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	168	16	0	23	176	8	13	29	12	11	18	11
Total Analysis Volume [veh/h]	40	672	64	0	93	705	32	50	117	48	42	72	45
Presence of On-Street Parking	No		No	No			No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0				0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0				0			0		
v_co, Outbound Pedestrian Volume crossing	0			0				0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0				0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0				0			0		
Bicycle Volume [bicycles/h]	0			0				0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	13	44	0	0	11	42	0	0	35	0	0	35	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	25	0	0	0	25	0	0	22	0	0	22	0
Rest In Walk		No				No			No			No	
I1, Start-Up Lost Time [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
I2, Clearance Lost Time [s]	2.8	2.8	0.0	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Cycle Length [s]	36	36	36	36	36	36	36	36
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	4	12	12	5	13	13	7	7
g / C, Green / Cycle	0.10	0.34	0.34	0.14	0.38	0.38	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.03	0.23	0.23	0.06	0.23	0.23	0.14	0.11
s, saturation flow rate [veh/h]	1434	1594	1546	1434	1594	1570	1484	1492
c, Capacity [veh/h]	148	542	525	204	603	594	437	441
d1, Uniform Delay [s]	14.78	10.17	10.18	14.06	8.99	9.00	12.95	12.44
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.97	1.58	1.63	1.60	1.02	1.04	0.86	0.50
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.27	0.69	0.69	0.46	0.62	0.62	0.49	0.36
d, Delay for Lane Group [s/veh]	15.75	11.75	11.81	15.66	10.02	10.04	13.81	12.93
Lane Group LOS	B	B	B	B	B	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.29	2.01	1.96	0.65	1.75	1.72	1.33	0.93
50th-Percentile Queue Length [ft/ln]	7.14	50.28	49.03	16.13	43.66	43.09	33.35	23.35
95th-Percentile Queue Length [veh/ln]	0.51	3.62	3.53	1.16	3.14	3.10	2.40	1.68
95th-Percentile Queue Length [ft/ln]	12.84	90.51	88.26	29.04	78.60	77.55	60.03	42.03

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	15.75	11.78	11.81	15.66	15.66	10.03	10.04	13.81	13.81	13.81	12.93	12.93	12.93
Movement LOS	B	B	B	B	B	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	11.98			10.66				13.81			12.93		
Approach LOS	B			B				B			B		
d_I, Intersection Delay [s/veh]	11.70												
Intersection LOS	B												
Intersection V/C	0.535												

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.665	2.682	1.889	1.925
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	849	804	658	658
d_b, Bicycle Delay [s]	14.91	16.08	20.27	20.27
l_b,int, Bicycle LOS Score for Intersection	2.200	2.168	1.914	1.822
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: Cedar Ave & 11th St

Control Type:	Signalized	Delay (sec / veh):	10.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.445

Intersection Setup

Name	Cedar Ave			Cedar Ave			11th St			11th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			11th St			11th St		
Base Volume Input [veh/h]	45	741	6	54	678	39	49	38	37	11	27	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	741	6	54	678	39	49	38	37	11	27	18
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	11	185	2	14	170	10	12	10	9	3	7	5
Total Analysis Volume [veh/h]	45	741	6	54	678	39	49	38	37	11	27	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	12	27	0	11	26	0	0	32	0	0	32	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [s]	2.8	2.8	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	C	L	C	C	C	C
C, Cycle Length [s]	31	31	31	31	31	31	31	31
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	4	11	11	4	11	11	5	5
g / C, Green / Cycle	0.12	0.35	0.35	0.13	0.36	0.36	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.03	0.23	0.23	0.04	0.23	0.23	0.09	0.04
s, saturation flow rate [veh/h]	1434	1594	1590	1434	1594	1564	1425	1477
c, Capacity [veh/h]	168	562	560	180	575	564	404	390
d1, Uniform Delay [s]	12.61	8.59	8.59	12.46	8.29	8.29	11.73	11.18
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.84	1.37	1.37	0.92	1.14	1.17	0.42	0.17
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.27	0.67	0.67	0.30	0.63	0.63	0.31	0.14
d, Delay for Lane Group [s/veh]	13.45	9.96	9.97	13.38	9.43	9.46	12.15	11.35
Lane Group LOS	B	A	A	B	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.23	1.22	1.22	0.27	1.11	1.10	0.54	0.23
50th-Percentile Queue Length [ft/ln]	5.73	30.48	30.41	6.79	27.80	27.39	13.42	5.72
95th-Percentile Queue Length [veh/ln]	0.41	2.19	2.19	0.49	2.00	1.97	0.97	0.41
95th-Percentile Queue Length [ft/ln]	10.32	54.86	54.74	12.22	50.05	49.31	24.15	10.29

Movement, Approach, & Intersection Results

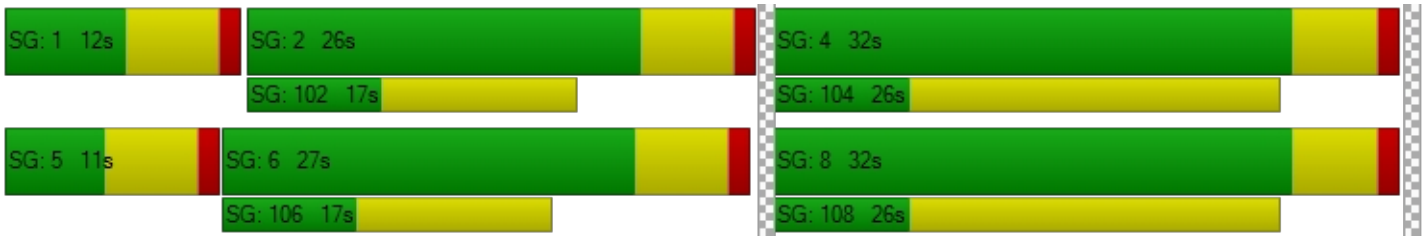
d_M, Delay for Movement [s/veh]	13.45	9.96	9.97	13.38	9.45	9.46	12.15	12.15	12.15	11.35	11.35	11.35
Movement LOS	B	A	A	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	10.16			9.72			12.15			11.35		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	10.15											
Intersection LOS	B											
Intersection V/C	0.445											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
l_p,int, Pedestrian LOS Score for Intersection	2.746	2.818	1.873	1.814
Crosswalk LOS	B	C	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	606	577	760	760
d_b, Bicycle Delay [s]	17.01	17.71	13.45	13.45
l_b,int, Bicycle LOS Score for Intersection	2.213	2.196	1.764	1.652
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 4: Cedar Ave & 7th St

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):	0.623

Intersection Setup

Name	Cedar Ave			Cedar Ave			7th St			7th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			7th St			7th St		
Base Volume Input [veh/h]	104	693	4	25	659	28	49	29	261	42	18	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	104	693	4	25	659	28	49	29	261	42	18	20
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	26	173	1	6	165	7	12	7	65	11	5	5
Total Analysis Volume [veh/h]	104	693	4	25	659	28	49	29	261	42	18	20
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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	26	0	11	23	0	0	43	0	0	43	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [s]	2.8	2.8	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	C	L	C	C	C	C
C, Cycle Length [s]	43	43	43	43	43	43	43	43
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	6	15	15	3	13	13	13	13
g / C, Green / Cycle	0.13	0.35	0.35	0.08	0.30	0.30	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.07	0.22	0.22	0.02	0.22	0.22	0.25	0.07
s, saturation flow rate [veh/h]	1434	1594	1591	1434	1594	1572	1377	1095
c, Capacity [veh/h]	187	566	565	111	481	474	525	469
d1, Uniform Delay [s]	17.50	11.43	11.43	18.60	13.36	13.36	13.43	10.73
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.58	1.10	1.10	1.02	2.03	2.07	1.34	0.17
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.56	0.62	0.62	0.23	0.72	0.72	0.65	0.17
d, Delay for Lane Group [s/veh]	20.08	12.53	12.53	19.62	15.38	15.42	14.77	10.90
Lane Group LOS	C	B	B	B	B	B	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.89	2.00	2.00	0.22	2.36	2.33	2.26	0.41
50th-Percentile Queue Length [ft/ln]	22.31	50.08	49.99	5.49	59.00	58.35	56.48	10.30
95th-Percentile Queue Length [veh/ln]	1.61	3.61	3.60	0.40	4.25	4.20	4.07	0.74
95th-Percentile Queue Length [ft/ln]	40.15	90.15	89.99	9.88	106.21	105.03	101.66	18.54

Movement, Approach, & Intersection Results

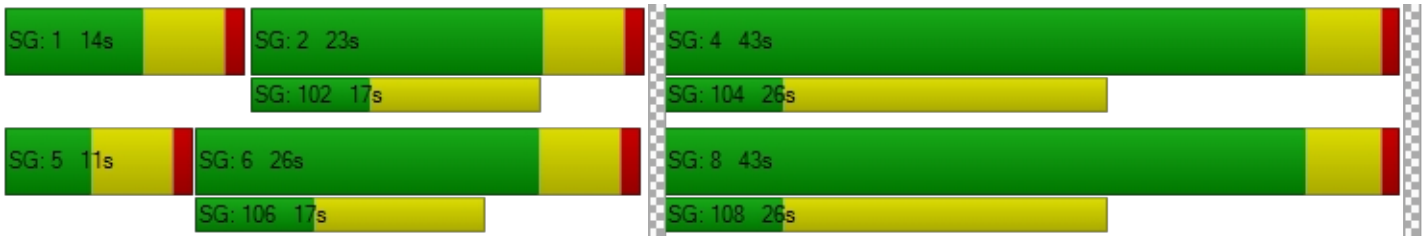
d_M, Delay for Movement [s/veh]	20.08	12.53	12.53	19.62	15.40	15.42	14.77	14.77	14.77	10.90	10.90	10.90
Movement LOS	C	B	B	B	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	13.51			15.55			14.77			10.90		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	14.38											
Intersection LOS	B											
Intersection V/C	0.623											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.76	29.76	29.76	29.76
l_p,int, Pedestrian LOS Score for Intersection	2.869	2.794	2.066	1.809
Crosswalk LOS	C	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	505	430	940	940
d_b, Bicycle Delay [s]	22.35	24.65	11.24	11.24
l_b,int, Bicycle LOS Score for Intersection	2.220	2.147	2.119	1.692
Bicycle LOS	B	B	B	A

Sequence

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



Intersection Level Of Service Report
Intersection 1: Cedar Ave & Santa Ana Ave

Control Type:	Signalized	Delay (sec / veh):	14.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.637

Intersection Setup

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Base Volume Input [veh/h]	95	651	41	37	720	46	77	155	91	27	116	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	11	9	0	12	0	0	0	9	9	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	104	662	50	37	732	46	77	155	100	36	116	31
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	26	166	13	9	183	12	19	39	25	9	29	8
Total Analysis Volume [veh/h]	104	662	50	37	732	46	77	155	100	36	116	31
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	27	52	0	11	36	0	0	27	0	0	27	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	19	0	0	19	0	0	13	0	0	13	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [s]	2.8	2.8	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	C	L	C	C	C	C
C, Cycle Length [s]	44	44	44	44	44	44	44	44
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	6	16	16	4	15	15	13	13
g / C, Green / Cycle	0.13	0.37	0.37	0.09	0.33	0.33	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.07	0.23	0.23	0.03	0.25	0.25	0.23	0.12
s, saturation flow rate [veh/h]	1434	1594	1555	1434	1594	1561	1437	1521
c, Capacity [veh/h]	183	592	577	125	527	517	521	543
d1, Uniform Delay [s]	18.13	11.28	11.28	18.89	13.13	13.13	14.22	12.53
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.76	1.02	1.04	1.30	2.12	2.16	1.30	0.36
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.57	0.61	0.61	0.30	0.75	0.75	0.64	0.34
d, Delay for Lane Group [s/veh]	20.89	12.30	12.33	20.20	15.24	15.29	15.52	12.90
Lane Group LOS	C	B	B	C	B	B	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.01	2.41	2.35	0.36	3.08	3.02	2.65	1.25
50th-Percentile Queue Length [ft/ln]	25.33	60.13	58.81	8.99	76.88	75.52	66.24	31.33
95th-Percentile Queue Length [veh/ln]	1.82	4.33	4.23	0.65	5.54	5.44	4.77	2.26
95th-Percentile Queue Length [ft/ln]	45.59	108.23	105.86	16.18	138.39	135.93	119.24	56.39

Movement, Approach, & Intersection Results

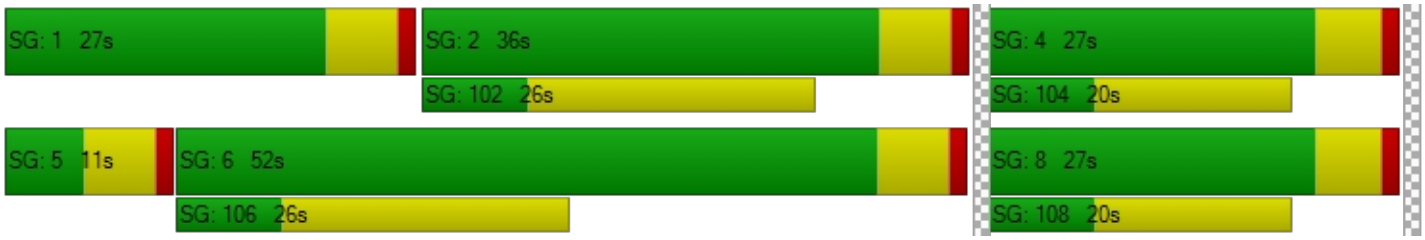
d_M, Delay for Movement [s/veh]	20.89	12.31	12.33	20.20	15.26	15.29	15.52	15.52	15.52	12.90	12.90	12.90
Movement LOS	C	B	B	C	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	13.41			15.49			15.52			12.90		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	14.48											
Intersection LOS	B											
Intersection V/C	0.637											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.679	2.718	2.006	1.922
Crosswalk LOS	B	B	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1027	671	480	480
d_b, Bicycle Delay [s]	10.66	19.87	25.99	25.99
l_b,int, Bicycle LOS Score for Intersection	2.233	2.232	2.107	1.862
Bicycle LOS	B	B	B	A

Sequence

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



Intersection Level Of Service Report
Intersection 2: Cedar Ave & Jurupa Ave

Control Type:	Signalized	Delay (sec / veh):	12.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.569

Intersection Setup

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Approach	Northbound			Southbound				Eastbound			Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00				30.00			30.00		
Grade [%]	0.00			0.00				0.00			0.00		
Curb Present	No			No				No			No		
Crosswalk	Yes			Yes				Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Base Volume Input [veh/h]	40	672	64	0	93	705	32	50	117	48	42	72	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	21	12	12	18	0	0	2	4	0	31	6	11
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	693	76	12	111	705	32	52	121	48	73	78	56
Peak Hour Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	173	19	3	28	176	8	13	30	12	18	20	14
Total Analysis Volume [veh/h]	40	693	76	12	111	705	32	52	121	48	73	78	56
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	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0				0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0				0			0		
v_co, Outbound Pedestrian Volume crossing	0			0				0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0				0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0				0			0		
Bicycle Volume [bicycles/h]	0			0				0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	39	0	0	16	44	0	0	35	0	0	35	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	25	0	0	0	25	0	0	22	0	0	22	0
Rest In Walk		No				No			No			No	
I1, Start-Up Lost Time [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
I2, Clearance Lost Time [s]	2.8	2.8	0.0	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Cycle Length [s]	37	37	37	37	37	37	37	37
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	4	13	13	6	15	15	8	8
g / C, Green / Cycle	0.10	0.34	0.34	0.15	0.40	0.40	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.03	0.25	0.25	0.09	0.23	0.23	0.15	0.14
s, saturation flow rate [veh/h]	1434	1594	1540	1434	1594	1570	1508	1487
c, Capacity [veh/h]	143	551	532	216	632	623	435	443
d1, Uniform Delay [s]	15.62	10.63	10.64	14.77	8.89	8.89	13.65	13.52
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.05	1.71	1.77	2.34	0.87	0.88	0.92	0.77
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.28	0.71	0.71	0.57	0.59	0.59	0.51	0.47
d, Delay for Lane Group [s/veh]	16.67	12.34	12.41	17.11	9.76	9.78	14.56	14.29
Lane Group LOS	B	B	B	B	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.31	2.28	2.22	0.94	1.79	1.76	1.48	1.37
50th-Percentile Queue Length [ft/ln]	7.68	57.12	55.47	23.42	44.66	44.05	37.04	34.16
95th-Percentile Queue Length [veh/ln]	0.55	4.11	3.99	1.69	3.22	3.17	2.67	2.46
95th-Percentile Queue Length [ft/ln]	13.82	102.81	99.84	42.15	80.39	79.29	66.68	61.49

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.67	12.37	12.41	17.11	17.11	9.77	9.78	14.56	14.56	14.56	14.29	14.29	14.29
Movement LOS	B	B	B	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	12.59			10.82				14.56			14.29		
Approach LOS	B			B				B			B		
d_I, Intersection Delay [s/veh]	12.24												
Intersection LOS	B												
Intersection V/C	0.569												

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.722	2.697	1.895	1.965
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	738	849	658	658
d_b, Bicycle Delay [s]	17.92	14.91	20.27	20.27
l_b,int, Bicycle LOS Score for Intersection	2.227	2.178	1.924	1.901
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: Cedar Ave & 11th St

Control Type:	Signalized	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.462

Intersection Setup

Name	Cedar Ave			Cedar Ave			11th St			11th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			11th St			11th St		
Base Volume Input [veh/h]	45	741	6	54	678	39	49	38	37	11	27	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	19	0	7	18	6	6	0	0	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	760	6	61	696	45	55	38	37	11	27	26
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	11	190	2	15	174	11	14	10	9	3	7	7
Total Analysis Volume [veh/h]	45	760	6	61	696	45	55	38	37	11	27	26
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	12	26	0	11	25	0	0	33	0	0	33	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [s]	2.8	2.8	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	C	L	C	C	C	C
C, Cycle Length [s]	32	32	32	32	32	32	32	32
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	4	11	11	4	12	12	5	5
g / C, Green / Cycle	0.12	0.36	0.36	0.13	0.37	0.37	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.03	0.24	0.24	0.04	0.23	0.23	0.09	0.04
s, saturation flow rate [veh/h]	1434	1594	1590	1434	1594	1561	1414	1461
c, Capacity [veh/h]	166	568	566	186	590	578	402	382
d1, Uniform Delay [s]	12.96	8.76	8.76	12.69	8.32	8.32	12.05	11.51
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.87	1.41	1.42	1.02	1.13	1.16	0.46	0.20
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.27	0.68	0.68	0.33	0.63	0.63	0.32	0.17
d, Delay for Lane Group [s/veh]	13.83	10.17	10.18	13.71	9.45	9.48	12.51	11.72
Lane Group LOS	B	B	B	B	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.24	1.31	1.31	0.32	1.18	1.16	0.59	0.28
50th-Percentile Queue Length [ft/ln]	5.98	32.79	32.72	7.94	29.50	29.00	14.75	6.88
95th-Percentile Queue Length [veh/ln]	0.43	2.36	2.36	0.57	2.12	2.09	1.06	0.50
95th-Percentile Queue Length [ft/ln]	10.76	59.02	58.89	14.29	53.10	52.20	26.55	12.38

Movement, Approach, & Intersection Results

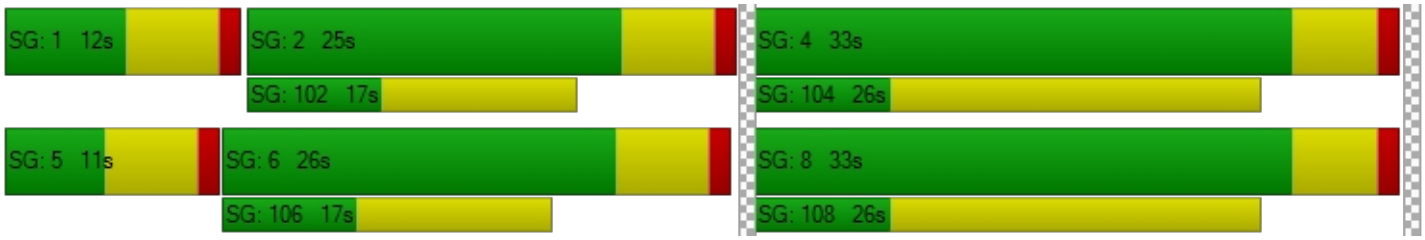
d_M, Delay for Movement [s/veh]	13.83	10.18	10.18	13.71	9.47	9.48	12.51	12.51	12.51	11.72	11.72	11.72
Movement LOS	B	B	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	10.38			9.79			12.51			11.72		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	10.32											
Intersection LOS	B											
Intersection V/C	0.462											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
l_p,int, Pedestrian LOS Score for Intersection	2.757	2.845	1.882	1.825
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	577	549	789	789
d_b, Bicycle Delay [s]	17.71	18.43	12.84	12.84
l_b,int, Bicycle LOS Score for Intersection	2.229	2.221	1.774	1.665
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 4: Cedar Ave & 7th St

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):	0.631

Intersection Setup

Name	Cedar Ave			Cedar Ave			7th St			7th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			7th St			7th St		
Base Volume Input [veh/h]	104	693	4	25	659	28	49	29	261	42	18	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	10	0	4	9	5	4	0	0	0	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	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	104	703	4	29	668	33	53	29	261	42	18	25
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	26	176	1	7	167	8	13	7	65	11	5	6
Total Analysis Volume [veh/h]	104	703	4	29	668	33	53	29	261	42	18	25
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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	26	0	11	23	0	0	43	0	0	43	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [s]	2.8	2.8	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	C	L	C	C	C	C
C, Cycle Length [s]	43	43	43	43	43	43	43	43
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	6	15	15	3	13	13	14	14
g / C, Green / Cycle	0.13	0.35	0.35	0.08	0.30	0.30	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.07	0.22	0.22	0.02	0.22	0.22	0.25	0.08
s, saturation flow rate [veh/h]	1434	1594	1591	1434	1594	1568	1375	1118
c, Capacity [veh/h]	185	564	563	115	487	479	527	474
d1, Uniform Delay [s]	17.86	11.71	11.72	18.84	13.53	13.53	13.62	10.89
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.68	1.15	1.16	1.13	2.08	2.12	1.37	0.18
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.56	0.63	0.63	0.25	0.73	0.73	0.65	0.18
d, Delay for Lane Group [s/veh]	20.54	12.87	12.87	19.97	15.60	15.65	14.98	11.07
Lane Group LOS	C	B	B	B	B	B	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.92	2.11	2.11	0.26	2.47	2.44	2.35	0.45
50th-Percentile Queue Length [ft/ln]	22.93	52.77	52.67	6.48	61.80	60.99	58.64	11.24
95th-Percentile Queue Length [veh/ln]	1.65	3.80	3.79	0.47	4.45	4.39	4.22	0.81
95th-Percentile Queue Length [ft/ln]	41.28	94.98	94.81	11.67	111.24	109.78	105.55	20.23

Movement, Approach, & Intersection Results

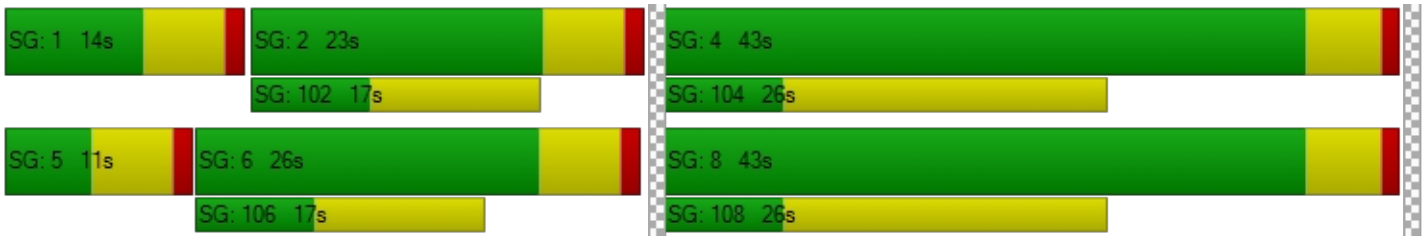
d_M, Delay for Movement [s/veh]	20.54	12.87	12.87	19.97	15.62	15.65	14.98	14.98	14.98	11.07	11.07	11.07
Movement LOS	C	B	B	B	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	13.85			15.80			14.98			11.07		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	14.65											
Intersection LOS	B											
Intersection V/C	0.631											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.76	29.76	29.76	29.76
l_p,int, Pedestrian LOS Score for Intersection	2.874	2.811	2.072	1.816
Crosswalk LOS	C	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	505	430	940	940
d_b, Bicycle Delay [s]	22.35	24.65	11.24	11.24
l_b,int, Bicycle LOS Score for Intersection	2.229	2.162	2.126	1.700
Bicycle LOS	B	B	B	A

Sequence

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



Intersection Level Of Service Report
Intersection 1: Cedar Ave & Santa Ana Ave

Control Type:	Signalized	Delay (sec / veh):	16.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.691

Intersection Setup

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Base Volume Input [veh/h]	95	651	41	37	720	46	77	155	91	27	116	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	10	51	4	1	70	14	13	2	9	5	2	1
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	109	728	47	39	819	62	93	163	104	33	123	33
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	27	182	12	10	205	16	23	41	26	8	31	8
Total Analysis Volume [veh/h]	109	728	47	39	819	62	93	163	104	33	123	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	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	17	50	0	11	44	0	0	29	0	0	29	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	19	0	0	19	0	0	13	0	0	13	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [s]	2.8	2.8	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	C	L	C	C	C	C
C, Cycle Length [s]	50	50	50	50	50	50	50	50
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	6	19	19	4	18	18	15	15
g / C, Green / Cycle	0.12	0.39	0.39	0.08	0.35	0.35	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.08	0.25	0.25	0.03	0.28	0.28	0.25	0.13
s, saturation flow rate [veh/h]	1434	1594	1561	1434	1594	1555	1429	1505
c, Capacity [veh/h]	170	623	610	118	566	552	529	546
d1, Uniform Delay [s]	21.03	12.30	12.30	21.65	14.46	14.46	15.85	13.69
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.99	1.05	1.07	1.62	2.50	2.56	1.55	0.38
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.64	0.63	0.63	0.33	0.79	0.79	0.68	0.35
d, Delay for Lane Group [s/veh]	25.02	13.34	13.37	23.27	16.96	17.02	17.40	14.07
Lane Group LOS	C	B	B	C	B	B	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.29	3.06	3.00	0.45	4.14	4.05	3.42	1.50
50th-Percentile Queue Length [ft/ln]	32.19	76.59	75.09	11.17	103.54	101.25	85.51	37.61
95th-Percentile Queue Length [veh/ln]	2.32	5.51	5.41	0.80	7.46	7.29	6.16	2.71
95th-Percentile Queue Length [ft/ln]	57.95	137.87	135.15	20.11	186.38	182.25	153.91	67.69

Movement, Approach, & Intersection Results

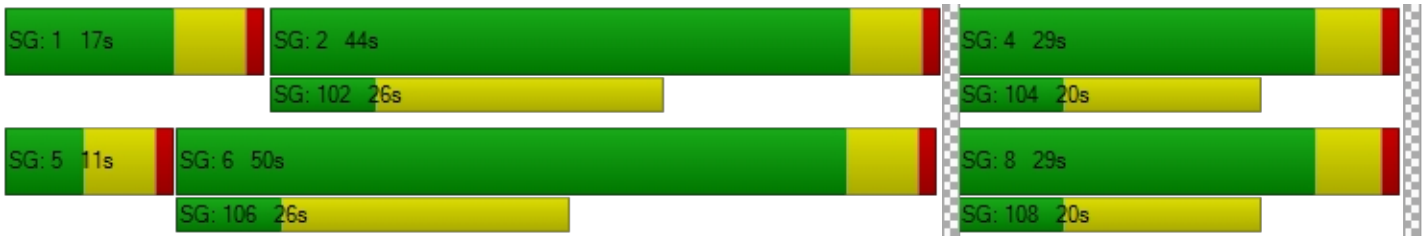
d_M, Delay for Movement [s/veh]	25.02	13.35	13.37	23.27	16.99	17.02	17.40	17.40	17.40	14.07	14.07	14.07
Movement LOS	C	B	B	C	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	14.79			17.25			17.40			14.07		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	16.10											
Intersection LOS	B											
Intersection V/C	0.691											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.705	2.778	2.033	1.928
Crosswalk LOS	B	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	982	849	524	524
d_b, Bicycle Delay [s]	11.65	14.91	24.49	24.49
l_b,int, Bicycle LOS Score for Intersection	2.289	2.319	2.154	1.871
Bicycle LOS	B	B	B	A

Sequence

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



Intersection Level Of Service Report
Intersection 2: Cedar Ave & Jurupa Ave

Control Type:	Signalized	Delay (sec / veh):	12.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.569

Intersection Setup

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Approach	Northbound			Southbound				Eastbound			Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00				30.00			30.00		
Grade [%]	0.00			0.00				0.00			0.00		
Curb Present	No			No				No			No		
Crosswalk	Yes			Yes				Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Base Volume Input [veh/h]	40	672	64	0	93	705	32	50	117	48	42	72	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	47	0	0	2	61	1	1	0	0	0	0	2
Site-Generated Trips [veh/h]	0	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	0
Pass-by Trips [veh/h]	0	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	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	746	67	0	99	794	34	53	122	50	44	75	49
Peak Hour Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	187	17	0	25	199	9	13	31	13	11	19	12
Total Analysis Volume [veh/h]	42	746	67	0	99	794	34	53	122	50	44	75	49
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	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0				0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0				0			0		
v_co, Outbound Pedestrian Volume crossing	0			0				0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0				0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0				0			0		
Bicycle Volume [bicycles/h]	0			0				0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	13	41	0	0	14	42	0	0	35	0	0	35	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	25	0	0	0	25	0	0	22	0	0	22	0
Rest In Walk		No				No			No			No	
I1, Start-Up Lost Time [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
I2, Clearance Lost Time [s]	2.8	2.8	0.0	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Cycle Length [s]	38	38	38	38	38	38	38	38
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	4	14	14	5	15	15	8	8
g / C, Green / Cycle	0.10	0.36	0.36	0.14	0.40	0.40	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.03	0.26	0.26	0.07	0.26	0.26	0.15	0.11
s, saturation flow rate [veh/h]	1434	1594	1549	1434	1594	1571	1485	1493
c, Capacity [veh/h]	144	570	554	199	632	622	435	439
d1, Uniform Delay [s]	15.86	10.58	10.59	15.15	9.39	9.39	13.76	13.21
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.10	1.75	1.81	1.91	1.19	1.20	0.95	0.55
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.29	0.72	0.72	0.50	0.66	0.66	0.52	0.38
d, Delay for Lane Group [s/veh]	16.96	12.34	12.39	17.06	10.58	10.60	14.71	13.76
Lane Group LOS	B	B	B	B	B	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.33	2.44	2.38	0.76	2.17	2.14	1.54	1.09
50th-Percentile Queue Length [ft/ln]	8.23	60.89	59.38	19.07	54.27	53.57	38.43	27.15
95th-Percentile Queue Length [veh/ln]	0.59	4.38	4.28	1.37	3.91	3.86	2.77	1.95
95th-Percentile Queue Length [ft/ln]	14.81	109.60	106.89	34.32	97.69	96.42	69.18	48.86

Movement, Approach, & Intersection Results

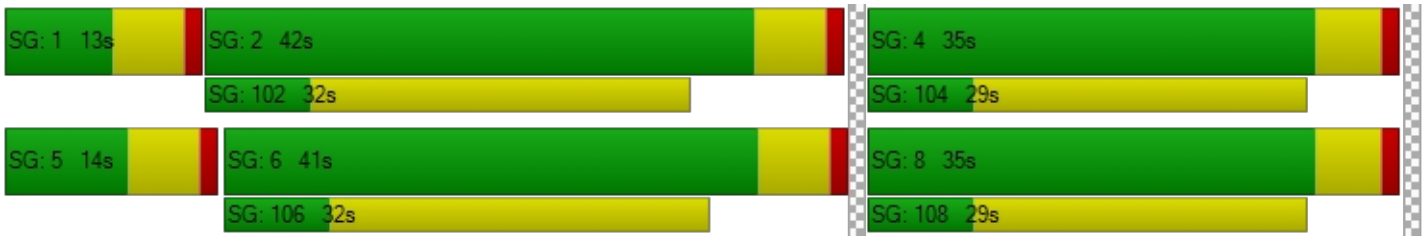
d_M, Delay for Movement [s/veh]	16.96	12.36	12.39	17.06	17.06	10.59	10.60	14.71	14.71	14.71	13.76	13.76	13.76
Movement LOS	B	B	B	B	B	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	12.59			11.28				14.71			13.76		
Approach LOS	B			B				B			B		
d_I, Intersection Delay [s/veh]	12.34												
Intersection LOS	B												
Intersection V/C	0.569												

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.702	2.721	1.898	1.937
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	782	804	658	658
d_b, Bicycle Delay [s]	16.68	16.08	20.27	20.27
l_b,int, Bicycle LOS Score for Intersection	2.265	2.243	1.931	1.837
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: Cedar Ave & 11th St

Control Type:	Signalized	Delay (sec / veh):	10.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.476

Intersection Setup

Name	Cedar Ave			Cedar Ave			11th St			11th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			11th St			11th St		
Base Volume Input [veh/h]	45	741	6	54	678	39	49	38	37	11	27	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	47	0	0	61	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	818	6	56	766	41	51	40	38	11	28	19
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	12	205	2	14	192	10	13	10	10	3	7	5
Total Analysis Volume [veh/h]	47	818	6	56	766	41	51	40	38	11	28	19
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	15	27	0	11	23	0	0	42	0	0	42	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [s]	2.8	2.8	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	C	L	C	C	C	C
C, Cycle Length [s]	33	33	33	33	33	33	33	33
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	4	12	12	4	12	12	5	5
g / C, Green / Cycle	0.12	0.37	0.37	0.12	0.38	0.38	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.03	0.26	0.26	0.04	0.26	0.26	0.09	0.04
s, saturation flow rate [veh/h]	1434	1594	1590	1434	1594	1566	1423	1477
c, Capacity [veh/h]	166	593	591	177	605	595	393	380
d1, Uniform Delay [s]	13.22	8.70	8.70	13.07	8.44	8.44	12.36	11.76
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.93	1.48	1.49	1.01	1.31	1.33	0.48	0.18
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.28	0.70	0.70	0.32	0.67	0.67	0.33	0.15
d, Delay for Lane Group [s/veh]	14.15	10.18	10.19	14.08	9.75	9.77	12.84	11.94
Lane Group LOS	B	B	B	B	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.26	1.43	1.42	0.30	1.34	1.32	0.61	0.26
50th-Percentile Queue Length [ft/ln]	6.46	35.69	35.61	7.61	33.56	33.08	15.29	6.46
95th-Percentile Queue Length [veh/ln]	0.47	2.57	2.56	0.55	2.42	2.38	1.10	0.47
95th-Percentile Queue Length [ft/ln]	11.63	64.23	64.10	13.70	60.42	59.54	27.52	11.64

Movement, Approach, & Intersection Results

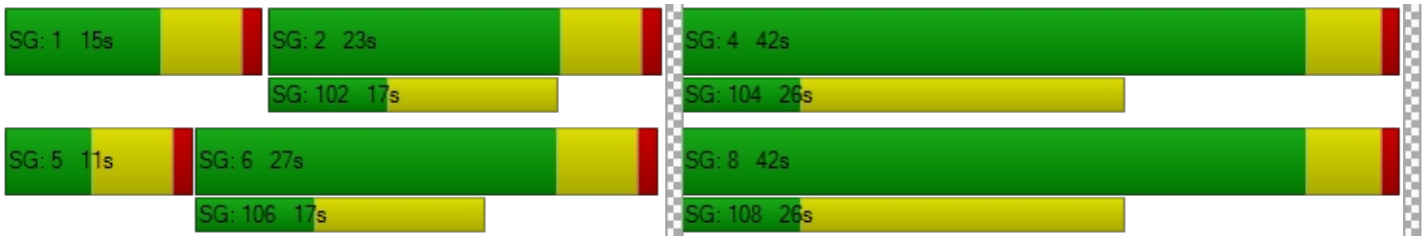
d_M, Delay for Movement [s/veh]	14.15	10.19	10.19	14.08	9.76	9.77	12.84	12.84	12.84	11.94	11.94	11.94
Movement LOS	B	B	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	10.40			10.04			12.84			11.94		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	10.45											
Intersection LOS	B											
Intersection V/C	0.476											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.76	29.76	29.76	29.76
l_p,int, Pedestrian LOS Score for Intersection	2.802	2.878	1.887	1.825
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	530	430	915	915
d_b, Bicycle Delay [s]	21.61	24.65	11.77	11.77
l_b,int, Bicycle LOS Score for Intersection	2.278	2.272	1.772	1.655
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 4: Cedar Ave & 7th St

Control Type:	Signalized	Delay (sec / veh):	16.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.692

Intersection Setup

Name	Cedar Ave			Cedar Ave			7th St			7th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			7th St			7th St		
Base Volume Input [veh/h]	104	693	4	25	659	28	49	29	261	42	18	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	7	17	0	0	14	46	29	0	4	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	115	738	4	26	699	75	80	30	275	44	19	21
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	29	185	1	7	175	19	20	8	69	11	5	5
Total Analysis Volume [veh/h]	115	738	4	26	699	75	80	30	275	44	19	21
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	15	30	0	11	26	0	0	49	0	0	49	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [s]	2.8	2.8	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	C	L	C	C	C	C
C, Cycle Length [s]	50	50	50	50	50	50	50	50
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	6	18	18	4	16	16	17	17
g / C, Green / Cycle	0.12	0.37	0.37	0.07	0.32	0.32	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.08	0.23	0.23	0.02	0.25	0.25	0.28	0.08
s, saturation flow rate [veh/h]	1434	1594	1591	1434	1594	1541	1368	988
c, Capacity [veh/h]	174	592	591	101	510	493	549	444
d1, Uniform Delay [s]	20.92	12.86	12.86	21.93	15.30	15.31	15.11	11.58
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.20	1.10	1.10	1.32	2.50	2.60	1.64	0.20
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.66	0.63	0.63	0.26	0.77	0.77	0.70	0.19
d, Delay for Lane Group [s/veh]	25.11	13.96	13.96	23.25	17.80	17.90	16.76	11.78
Lane Group LOS	C	B	B	C	B	B	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.27	2.66	2.66	0.28	3.40	3.30	3.22	0.52
50th-Percentile Queue Length [ft/ln]	31.87	66.58	66.47	7.06	84.96	82.54	80.50	13.05
95th-Percentile Queue Length [veh/ln]	2.29	4.79	4.79	0.51	6.12	5.94	5.80	0.94
95th-Percentile Queue Length [ft/ln]	57.37	119.85	119.64	12.71	152.93	148.57	144.89	23.49

Movement, Approach, & Intersection Results

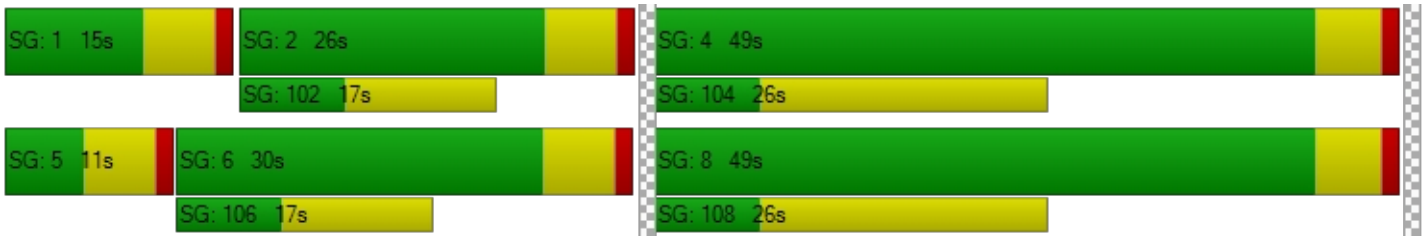
d_M, Delay for Movement [s/veh]	25.11	13.96	13.96	23.25	17.85	17.90	16.76	16.76	16.76	11.78	11.78	11.78
Movement LOS	C	B	B	C	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	15.46			18.03			16.76			11.78		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	16.51											
Intersection LOS	B											
Intersection V/C	0.692											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.910	2.893	2.149	1.820
Crosswalk LOS	C	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	538	449	969	969
d_b, Bicycle Delay [s]	24.05	27.07	11.96	11.96
l_b,int, Bicycle LOS Score for Intersection	2.267	2.220	2.195	1.698
Bicycle LOS	B	B	B	A

Sequence

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



Intersection Level Of Service Report
Intersection 1: Cedar Ave & Santa Ana Ave

Control Type:	Signalized	Delay (sec / veh):	16.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.705

Intersection Setup

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			Santa Ana Ave			Santa Ana Ave		
Base Volume Input [veh/h]	95	651	41	37	720	46	77	155	91	27	116	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	10	51	4	1	70	14	13	2	9	5	2	1
Site-Generated Trips [veh/h]	9	11	9	0	12	0	0	0	9	9	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	118	739	56	39	831	62	93	163	113	42	123	33
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	30	185	14	10	208	16	23	41	28	11	31	8
Total Analysis Volume [veh/h]	118	739	56	39	831	62	93	163	113	42	123	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	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	16	49	0	11	44	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	19	0	0	19	0	0	13	0	0	13	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [s]	2.8	2.8	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	C	L	C	C	C	C
C, Cycle Length [s]	52	52	52	52	52	52	52	52
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	6	21	21	4	18	18	16	16
g / C, Green / Cycle	0.12	0.40	0.40	0.08	0.35	0.35	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.08	0.25	0.25	0.03	0.28	0.28	0.26	0.14
s, saturation flow rate [veh/h]	1434	1594	1555	1434	1594	1556	1429	1449
c, Capacity [veh/h]	177	635	619	115	566	552	530	534
d1, Uniform Delay [s]	21.83	12.62	12.62	22.66	15.12	15.12	16.47	14.20
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.30	1.05	1.08	1.73	2.64	2.71	1.66	0.43
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.67	0.63	0.63	0.34	0.80	0.80	0.70	0.37
d, Delay for Lane Group [s/veh]	26.12	13.68	13.70	24.39	17.77	17.83	18.13	14.63
Lane Group LOS	C	B	B	C	B	B	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.47	3.31	3.23	0.47	4.47	4.37	3.71	1.67
50th-Percentile Queue Length [ft/ln]	36.68	82.77	80.86	11.79	111.68	109.23	92.85	41.71
95th-Percentile Queue Length [veh/ln]	2.64	5.96	5.82	0.85	7.93	7.80	6.69	3.00
95th-Percentile Queue Length [ft/ln]	66.02	148.98	145.55	21.22	198.34	194.93	167.14	75.07

Movement, Approach, & Intersection Results

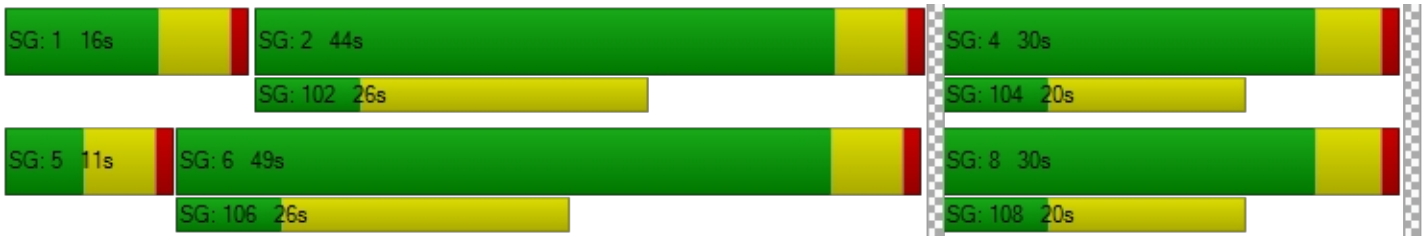
d_M, Delay for Movement [s/veh]	26.12	13.69	13.70	24.39	17.80	17.83	18.13	18.13	18.13	14.63	14.63	14.63
Movement LOS	C	B	B	C	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	15.30			18.07			18.13			14.63		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	16.75											
Intersection LOS	B											
Intersection V/C	0.705											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.729	2.782	2.042	1.937
Crosswalk LOS	B	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	960	849	547	547
d_b, Bicycle Delay [s]	12.17	14.91	23.76	23.76
l_b,int, Bicycle LOS Score for Intersection	2.313	2.329	2.168	1.886
Bicycle LOS	B	B	B	A

Sequence

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



Intersection Level Of Service Report
Intersection 2: Cedar Ave & Jurupa Ave

Control Type:	Signalized	Delay (sec / veh):	12.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.604

Intersection Setup

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Approach	Northbound			Southbound				Eastbound			Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00				30.00			30.00		
Grade [%]	0.00			0.00				0.00			0.00		
Curb Present	No			No				No			No		
Crosswalk	Yes			Yes				Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave				Jurupa Ave			Jurupa Ave		
Base Volume Input [veh/h]	40	672	64	0	93	705	32	50	117	48	42	72	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	47	0	0	2	61	1	1	0	0	0	0	2
Site-Generated Trips [veh/h]	0	21	12	12	18	0	0	2	4	0	31	6	11
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	767	79	12	117	794	34	55	126	50	75	81	60
Peak Hour Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	192	20	3	29	199	9	14	32	13	19	20	15
Total Analysis Volume [veh/h]	42	767	79	12	117	794	34	55	126	50	75	81	60
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	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0				0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0				0			0		
v_co, Outbound Pedestrian Volume crossing	0			0				0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0				0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0				0			0		
Bicycle Volume [bicycles/h]	0			0				0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups													
Lead / Lag	Lead	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	39	0	0	16	44	0	0	35	0	0	35	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	25	0	0	0	25	0	0	22	0	0	22	0
Rest In Walk		No				No			No			No	
I1, Start-Up Lost Time [s]	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
I2, Clearance Lost Time [s]	2.8	2.8	0.0	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Cycle Length [s]	40	40	40	40	40	40	40	40
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	4	14	14	6	16	16	8	8
g / C, Green / Cycle	0.10	0.36	0.36	0.15	0.41	0.41	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.03	0.27	0.27	0.09	0.26	0.26	0.15	0.15
s, saturation flow rate [veh/h]	1434	1594	1543	1434	1594	1571	1508	1489
c, Capacity [veh/h]	140	580	562	210	658	649	435	440
d1, Uniform Delay [s]	16.75	11.05	11.05	15.98	9.32	9.32	14.50	14.35
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.19	1.88	1.95	2.91	1.01	1.03	1.01	0.85
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.30	0.74	0.74	0.61	0.63	0.63	0.53	0.49
d, Delay for Lane Group [s/veh]	17.94	12.94	13.00	18.89	10.33	10.34	15.51	15.20
Lane Group LOS	B	B	B	B	B	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.35	2.75	2.67	1.10	2.22	2.19	1.70	1.56
50th-Percentile Queue Length [ft/ln]	8.82	68.64	66.68	27.45	55.57	54.83	42.50	39.11
95th-Percentile Queue Length [veh/ln]	0.64	4.94	4.80	1.98	4.00	3.95	3.06	2.82
95th-Percentile Queue Length [ft/ln]	15.88	123.54	120.02	49.41	100.02	98.70	76.50	70.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	17.94	12.96	13.00	18.89	18.89	10.34	10.34	15.51	15.51	15.51	15.20	15.20	15.20
Movement LOS	B	B	B	B	B	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	13.20			11.49				15.51			15.20		
Approach LOS	B			B				B			B		
d_I, Intersection Delay [s/veh]	12.91												
Intersection LOS	B												
Intersection V/C	0.604												

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.758	2.736	1.904	1.977
Crosswalk LOS	C	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	738	849	658	658
d_b, Bicycle Delay [s]	17.92	14.91	20.27	20.27
l_b,int, Bicycle LOS Score for Intersection	2.292	2.253	1.941	1.916
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: Cedar Ave & 11th St

Control Type:	Signalized	Delay (sec / veh):	10.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.493

Intersection Setup

Name	Cedar Ave			Cedar Ave			11th St			11th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			11th St			11th St		
Base Volume Input [veh/h]	45	741	6	54	678	39	49	38	37	11	27	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	47	0	0	61	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	19	0	7	18	6	6	0	0	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	837	6	63	784	47	57	40	38	11	28	27
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	12	209	2	16	196	12	14	10	10	3	7	7
Total Analysis Volume [veh/h]	47	837	6	63	784	47	57	40	38	11	28	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	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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]	12	37	0	11	36	0	0	32	0	0	32	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [s]	2.8	2.8	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	C	L	C	C	C	C
C, Cycle Length [s]	33	33	33	33	33	33	33	33
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	4	12	12	4	13	13	6	6
g / C, Green / Cycle	0.11	0.37	0.37	0.13	0.39	0.39	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.03	0.26	0.26	0.04	0.26	0.26	0.10	0.05
s, saturation flow rate [veh/h]	1434	1594	1590	1434	1594	1563	1417	1466
c, Capacity [veh/h]	163	599	597	183	620	608	391	372
d1, Uniform Delay [s]	13.57	8.86	8.86	13.32	8.47	8.47	12.70	12.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.96	1.53	1.54	1.12	1.30	1.33	0.52	0.23
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.29	0.70	0.70	0.34	0.68	0.68	0.35	0.18
d, Delay for Lane Group [s/veh]	14.53	10.40	10.40	14.43	9.77	9.79	13.23	12.33
Lane Group LOS	B	B	B	B	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.27	1.53	1.53	0.35	1.42	1.39	0.67	0.31
50th-Percentile Queue Length [ft/ln]	6.73	38.25	38.18	8.86	35.46	34.87	16.75	7.73
95th-Percentile Queue Length [veh/ln]	0.48	2.75	2.75	0.64	2.55	2.51	1.21	0.56
95th-Percentile Queue Length [ft/ln]	12.11	68.86	68.72	15.94	63.83	62.77	30.15	13.91

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	14.53	10.40	10.40	14.43	9.78	9.79	13.23	13.23	13.23	12.33	12.33	12.33
Movement LOS	B	B	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	10.62			10.11			13.23			12.33		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	10.62											
Intersection LOS	B											
Intersection V/C	0.493											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.76	29.76	29.76	29.76
l_p,int, Pedestrian LOS Score for Intersection	2.813	2.905	1.896	1.836
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	780	755	665	665
d_b, Bicycle Delay [s]	14.88	15.50	17.82	17.82
l_b,int, Bicycle LOS Score for Intersection	2.294	2.297	1.782	1.669
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 4: Cedar Ave & 7th St

Control Type:	Signalized	Delay (sec / veh):	16.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.699

Intersection Setup

Name	Cedar Ave			Cedar Ave			7th St			7th 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 Pocket	1	0	0	1	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cedar Ave			Cedar Ave			7th St			7th St		
Base Volume Input [veh/h]	104	693	4	25	659	28	49	29	261	42	18	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	7	17	0	0	14	46	29	0	4	0	0	0
Site-Generated Trips [veh/h]	0	10	0	4	9	5	4	0	0	0	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	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	115	748	4	30	708	80	84	30	275	44	19	26
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	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]	29	187	1	8	177	20	21	8	69	11	5	7
Total Analysis Volume [veh/h]	115	748	4	30	708	80	84	30	275	44	19	26
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	4.8	4.8	0.0	4.8	4.8	0.0	0.0	4.4	0.0	0.0	4.4	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	36	0	11	26	0	0	33	0	0	33	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	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	19	0	0	19	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [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
I2, Clearance Lost Time [s]	2.8	2.8	0.0	2.8	2.8	0.0	0.0	2.4	0.0	0.0	2.4	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	C	L	C	C	C	C
C, Cycle Length [s]	51	51	51	51	51	51	51	51
L, Total Lost Time per Cycle [s]	3.80	3.80	3.80	3.80	3.80	3.80	3.40	3.40
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
l2, Clearance Lost Time [s]	2.80	2.80	2.80	2.80	2.80	2.80	2.40	2.40
g_i, Effective Green Time [s]	6	19	19	4	16	16	17	17
g / C, Green / Cycle	0.12	0.37	0.37	0.07	0.32	0.32	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.08	0.24	0.24	0.02	0.25	0.25	0.28	0.09
s, saturation flow rate [veh/h]	1434	1594	1591	1434	1594	1538	1365	1009
c, Capacity [veh/h]	174	591	590	105	515	497	550	448
d1, Uniform Delay [s]	21.40	13.20	13.20	22.34	15.59	15.59	15.41	11.80
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.27	1.14	1.15	1.46	2.57	2.68	1.69	0.21
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.66	0.64	0.64	0.28	0.78	0.78	0.71	0.20
d, Delay for Lane Group [s/veh]	25.67	14.35	14.35	23.80	18.16	18.27	17.10	12.01
Lane Group LOS	C	B	B	C	B	B	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.31	2.81	2.80	0.33	3.58	3.47	3.36	0.57
50th-Percentile Queue Length [ft/ln]	32.79	70.22	70.10	8.35	89.39	86.69	84.10	14.28
95th-Percentile Queue Length [veh/ln]	2.36	5.06	5.05	0.60	6.44	6.24	6.06	1.03
95th-Percentile Queue Length [ft/ln]	59.02	126.40	126.18	15.04	160.90	156.04	151.38	25.70

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.67	14.35	14.35	23.80	18.21	18.27	17.10	17.10	17.10	12.01	12.01	12.01
Movement LOS	C	B	B	C	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	15.85			18.42			17.10			12.01		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	16.89											
Intersection LOS	B											
Intersection V/C	0.699											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.76	29.76	29.76	29.76
l_p,int, Pedestrian LOS Score for Intersection	2.910	2.903	2.149	1.820
Crosswalk LOS	C	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	755	505	690	690
d_b, Bicycle Delay [s]	15.50	22.35	17.16	17.16
l_b,int, Bicycle LOS Score for Intersection	2.275	2.234	2.201	1.706
Bicycle LOS	B	B	B	A

Sequence

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

APPENDIX C

Explanation of Level of Service Categories

Level of Service (LOS) Descriptions[1]

Level of Service	Description	Volume to Capacity (v/c) Ratio	Control Delay Per Vehicle
A	Level of Service A occurs when progression is extremely favorable and vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0.600 and below	10 sec and below
B	Level of Service B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for Level of Service A, causing higher levels of delay.	0.601 to 0.700	10 to 20 sec
C	Level of Service C generally result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level although many still pass through the intersection without stopping.	0.701 to 0.800	20 to 35 sec
D	Level of Service D describes a situation in which the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and/or high traffic volumes as compared to the roadway capacity. Many vehicles are required to stop and the number of vehicle that do not have to stop declines. Individual cycle failures are therefore more noticeable.	0.801 to 0.900	35 to 55 sec
E	Level of Service E is considered to be the limit of acceptable conditions. High delay values generally indicate poor progression, long cycle lengths, and high traffic volumes. Individual cycle failures frequently occur.	0.901 to 1.000	55 to 80 sec
F	Level of Service F is generally considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when traffic arrives at a flow rate that exceeds the capacity of the intersection.	1.001 and above	80 sec and above

[1] Source: Highway Capacity Manual Special Report 209, Transportation Research Board, National Research Council Washington D.C., 2000.