



TECHNICAL MEMORANDUM

Date: January 21, 2025
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Project No.: 011-101
From: Rutvij Patel
Project Manager
Jurisdiction: City of Stockton
Subject: **Traffic Analysis on Main Street and Market Street in Stockton, California**

INTRODUCTION

The purpose of this technical memorandum is to evaluate the existing conditions, existing build conditions, background conditions, and background build conditions of Main Street and Market Street. The study area consists of approximately 2.6 mile section of Main Street and 1.3 mile section of Market Street in Stockton.

Main Street is a primarily two to three-lane, one-way major arterial running westbound from Market Street to Hunter Street. Main Street has four lanes, two lanes each direction from Market Street to Golden Gate Avenue. From Golden Gate Avenue to Broadway Avenue, it is a five-lane with two lane in each direction and one two way left turn lane (TWLTL). The average daily traffic (ADT) volume on Main Street ranges between 950 vehicles per day (vpd) to 14,435 vpd.

Market Street is a primarily two-lane one-way minor arterial stretching eastbound direction from Center Street to Locust Street. The average daily traffic (ADT) volume on Market Street ranges between 1,305 vpd to 5,410 vpd.

45 study intersections and 21 study roadway segments were selected for the project within the study area – 28 study intersections and 14 study roadway segments on Main Street; and 17 study intersections and 7 study roadway segments on Market Street. The intersections were evaluated under existing conditions, existing build conditions, background conditions, and background build conditions for the weekday a.m. and p.m. peak periods.

This technical memorandum summarizes the existing, existing build, background, and background build conditions intersection and segment level of service (LOS) analysis as well as the 95th percentile queue length at the study intersections. This memorandum also summarizes the collisions that occurred over an eight year (2015-2022) period in the project vicinity.

The following is the list of study intersections that were selected for the project:

1. Main Street/ Hunter Street (No Control)



2. Main Street/San Joaquin Street (Signal)
3. Main Street/Sutter Street (Signal)
4. Main Street/California Street (Signal)
5. Main Street/American Street (Signal)
6. Main Street/Stanslaus Street (Signal)
7. Main Street/Grant Street (Two-Way Stop)
8. Main Street/Aurora Street (Two-Way Stop)
9. Main Street/Union Street (All-Way Stop)
10. Main Street/Pilgrim Street (Two-Way Stop)
11. Main Street/Airport Way (Signal)
12. Main Street/Sierra Nevada Street (Two-Way Stop)
13. Main Street/Wilson Way (Signal)
14. Main Street/Market Street – Locust Street (Signal)
15. Main Street/B Street (Two-Way Stop)
16. Main Street/C Street-Lafayette Street (Two-Way Stop)
17. Main Street/D Street (Signal)
18. Main Street/E Street-Marsh Street (Two-Way Stop)
19. Main Street/F Street-Alma Street (Two-Way Stop)
20. Main Street/Filbert Street (Signal)
21. Main Street/Burkett Avenue (Two-Way Stop)
22. Main Street/Shasta Avenue (Two-Way Stop)
23. Main Street/David Avenue (Two-Way Stop)
24. Main Street/Rendon Avenue (Two-Way Stop)
25. Main Street/Golden Gate Avenue (Signal)
26. Main Street/Windsor Avenue (Two-Way Stop)
27. Main Street/Netherton Avenue (Signal)
28. Main Street/Broadway Avenue (Two-Way Stop)
29. Market Street/Center Street (Signal)
30. Market Street/El Dorado Street (Signal)
31. Market Street/Hunter Street (All-Way Stop)
32. Market Street/San Joaquin Street (Signal)
33. Market Street/Sutter Street (Signal)
34. Market Street/California Street (Signal)
35. Market Street/American Street (Signal)

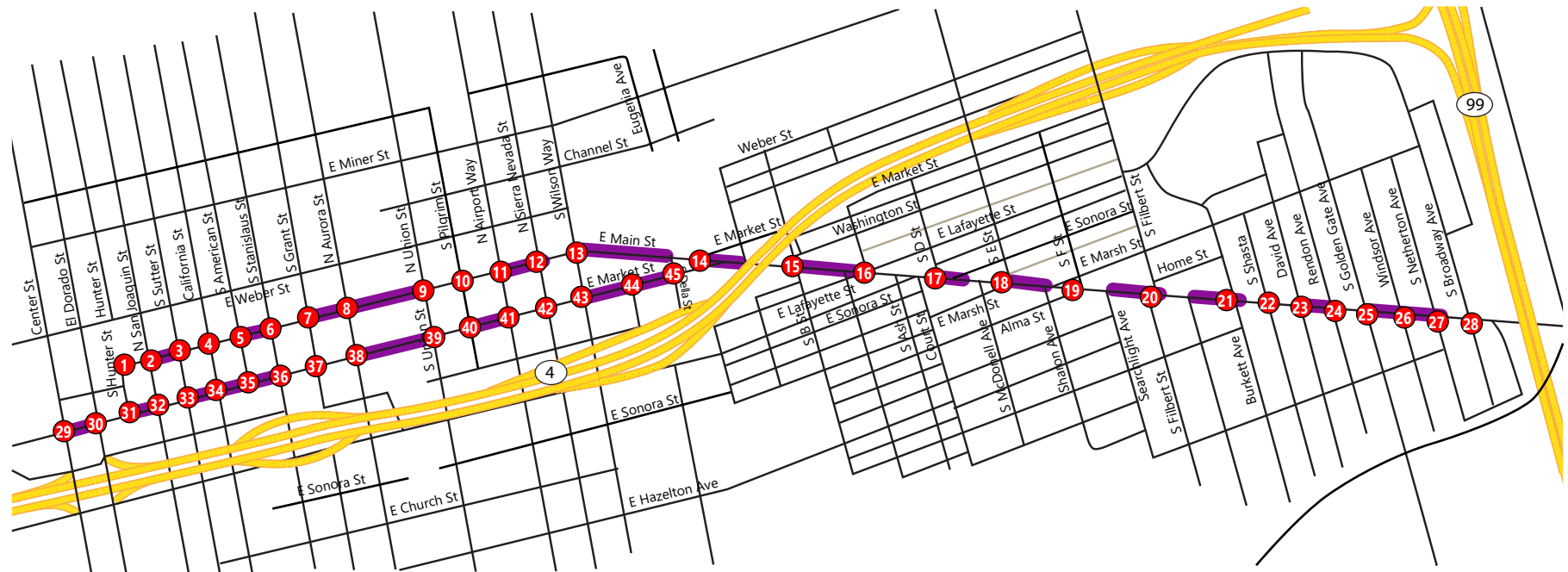


36. Market Street/Stanislaus Street (Signal)
37. Market Street/Grant Street (Two-Way Stop)
38. Market Street/Aurora Street (Two-Way Stop)
39. Market Street/Union Street (Two-Way Stop)
40. Market Street/Pilgrim Street (Two-Way Stop)
41. Market Street/Airport Way (Signal)
42. Market Street/Sierra Nevada Street (Two-Way Stop)
43. Market Street/Wilson Way (Signal)
44. Market Street/Eugenia Street (One-Way Stop)
45. Market Street/Della Street (Two-Way Stop)

The following is the list of study roadway segments:

1. Main Street between San Joaquin Street and Sutter Street
2. Main Street between American Street and Stanislaus Street
3. Main Street between Grant Street and Aurora Street
4. Main Street between Aurora Street And Union Street
5. Main Street between Airport Way and Sierra Nevada Street
6. Main Street between Wilson Way and Della Street
7. Main Street between Market Street and A Street
8. Main Street between B Street and C Street
9. Main Street between D Street and Sonora Street
10. Main Street between E Street and Sharon Avenue
11. Main Street between Searchlight Avenue and Filbert Street
12. Main Street between Sullivan Avenue and Burkett Avenue
13. Main Street between David Avenue and Rendon Avenue
14. Main Street between Golden Gate Avenue and Netherton Avenue
15. Market Street between Center Street and El Dorado Street
16. Market Street between Hunter Street and San Joaquin Street
17. Market Street between Sutter Street and California Street
18. Market Street between California Street and Stanislaus Street
19. Market Street between Aurora Street and Union Street
20. Market Street between Airport Way and Pilgrim Street
21. Market Street between Wilson Street and Main Street

Figure 1 illustrates the 45 study intersections and 21 study roadway segments.

Main Street Complete Streets**Figure 1: Vicinity Map****LEGEND**

⊗ Study Intersection
 Study Segment





STUDY METHODOLOGY

LEVEL OF SERVICE ANALYSIS AND METHODOLOGY

Existing operational conditions at the study intersections were evaluated according to the requirements set forth by the City of Stockton. The traffic operational analysis was conducted using the Highway Capacity Manual (HCM) 6th as well as HCM 2000 Level of Service (LOS) methodology with Synchro 12.0 software. The HCM 2000 methodology was used in lieu of more recent editions of the HCM due to limitations in the newer methodology in analyzing exclusive pedestrian phases, clustered intersections, and non-NEMA phasing. In the existing build conditions, two intersections were analyzed as Roundabouts using the Sidra 8.1 software.

LOS is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers. The LOS generally describes these conditions in terms of such factors as speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The operational LOS are given letter designations from A to F, with 'A' representing the best operating conditions (free-flow) and 'F' the worst (severely-congested flow with high delays). Intersections generally are the capacity-controlling locations with respect to traffic operations on arterial and collector streets.

SIGNALIZED, UNSIGNALIZED AND ROUNDABOUTS INTERSECTIONS

Signalized intersection LOS and unsignalized all-way stop controlled LOS is based on the capacity of the intersection as a whole and average delay experienced by a driver. Unsignalized one-way and two-way stop controlled intersection LOS is defined by the average delay experienced by a driver for the minor approach worst movement or major approach critical movement. Roundabout intersection LOS is defined by the average control delay based on the capacity of intersection as a whole. The LOS criteria is same as the unsignalized intersection. **Table 1** provides the relationship between LOS rating and delay for signalized and unsignalized intersections.

Table 1: Level of Service Thresholds Based on Intersection Delay

Level of Service	Signalized Intersection Delay (sec)	Unsignalized Intersection Delay (sec)
A	$0 \leq D \leq 10$	$0 \leq D \leq 10$
B	$10 < D \leq 20$	$10 < D \leq 15$
C	$20 < D \leq 35$	$15 < D \leq 25$
D	$35 < D \leq 55$	$25 < D \leq 35$
E	$55 < D \leq 80$	$35 < D \leq 50$
F	$80 < D$	$50 < D$

Source: Highway Capacity Manual (HCM), 6th Edition



ROADWAY SEGMENTS

Roadway segment LOS was performed based on the LOS thresholds set by the City. The analysis was performed for the study segments where ADT counts were collected. **Table 2** shows the LOS thresholds for roadways in the City.

Table 2: Roadway Segment Level of Service Thresholds

Roadway Classification	Lanes	Capacity for LOS C (Vehicles)
Major Arterial	2	12,500
with two-way center left	3	15,000
	4	30,100
with two-way center left	5	35,000
	6	45,000
Minor Arterial	2	12,500
with two-way center left	3	15,000
	4	25,000
Collector (Commercial/Industrial)	2	10,000
Collector (Residential)	2	7,000
Local (Commercial/Industrial)	2	7,000
Local (Residential)	2	2,000

Source: San Joaquin County

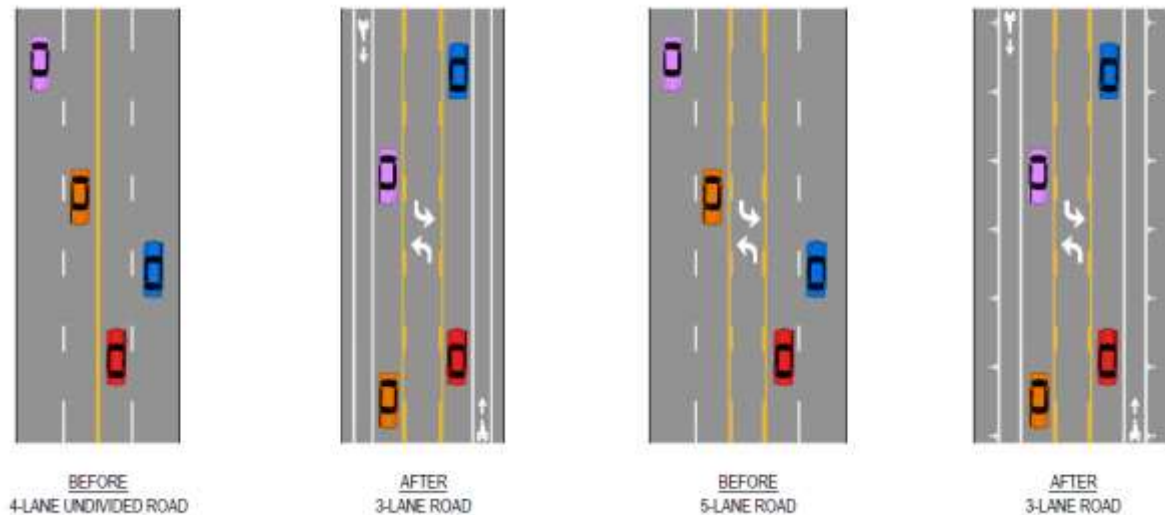
SIGNIFICANT IMPACT CRITERIA/LEVEL OF SERVICE STANDARDS

The "Envision Stockton 2040 General Plan", adopted by City Council in 2018, established LOS D as the acceptable level of traffic congestion on major streets. For the purposes of this study when evaluating the potential significance of level of service impacts to the City of Stockton motorists, LOS D or better is acceptable whereas LOS E and F are unacceptable.

ROAD DIET GUIDELINES

"Road diets" are often conversions of four-lane undivided roads into three lanes (two through lanes and a center turn lane), as shown in **Figure 2**. The residual street space can be utilized for bike lanes, street parking, transit lanes, raised medians, pedestrian refuge islands, sidewalks and/or curbside delivery and pick-up areas. In short, existing street space is reallocated from traffic lanes to other uses while maintaining the same curbs and curb-to-curb pavement width. If planned as a part of a street overlay or pavement resurfacing project, a road diet conversion can be relatively inexpensive and cost-effective.

Figure 2: Typical Road Diet Basic Design (Typical)



(source: Road Diet Informational Guide: FHWA Safety program, November 2014, section 1.2.2, page 5, https://safety.fhwa.dot.gov/road_diets/guidance/info_guide/).

Under most ADT volumes, road diets have minimal effect on motorist delay because left-turning vehicles are moved into an exclusive two-way left-turn lane. At ADTs above approximately 20,000 vehicles, there is a greater likelihood that traffic congestion will increase to the point of diverting traffic to alternate or parallel streets.

Road diets offer potential benefits to pedestrians, bicyclists and motorists. On a typical four-lane street, drivers change lanes to pass slower vehicles (such as vehicles stopped in the left lane in a midblock location waiting to make a left turn to a driveway). In contrast, drivers' speeds on two-lane streets are limited by the speed of the lead vehicle. Thus, road diets may reduce vehicle speeds and vehicle interactions during lane changes, which has been proven to reduce the number and severity of vehicle-to-vehicle crashes in most cases. Based on studies conducted by FHWA, road diets have been observed to bring about a crash reduction of 19 to 47 percent. Pedestrians benefit because they have fewer lanes of traffic to cross, and also because motor vehicles are likely to be moving more slowly and further from the sidewalk.

In determining the feasibility of a roadway for a road diet, there are eight criteria to evaluate. The criteria are introduced below to provide a basis for the evaluation and analysis of the study corridor which is described in the subsequent sections of this report. Parameters to be assessed when a road diet conversion is considered include:

- Roadway characteristics
- Parallel routes
- Traffic volume, level of service and delay
- Access points, turning volume and patterns
- Collision analysis



- Frequent stop and slow-moving vehicles
- Weaving and speed
- Pedestrian and bicycle activity

COLLISION ANALYSIS

DATA COLLECTION

Eight-year collision data, from 2015 to 2022, was retrieved from the Transportation Injury Mapping System (TIMS) database. The collision data was collected at all the study intersections and roadways. TIMS dataset includes collisions of 4 levels of severity. The essential information required to analyze the TIMS database includes collision severity, types of collision, primary violation factors, and lighting conditions.

Collisions that occurred within a 150-foot radius of an intersection were considered as an intersection collision. Collisions that occurred at a distance greater than 150 feet were considered occurring at a mid-block location, i.e., at a roadway segment.

Based on the collision data retrieved, a total of 371 collisions were reported from the year 2015 to 2022. Out of the total collisions, approximately 94% (349 collisions) were observed to have occurred at an intersection and 6% (22 collisions) were observed to have occurred at mid-block locations on roadway segments. The number of collisions that occurred every year, as per facility type, is listed in **Table 3. Appendix A** contains the complete collision data set.

Table 3: Intersection and Mid-block Collisions by Year

Facility Type	2015	2016	2017	2018	2019	2020	2021	2022	Total
Intersection Collisions	51	38	45	43	59	24	43	46	349
Segment Collisions		2	4	5		3	5	3	22
Total	51	40	49	48	59	27	48	49	371

Source: TIMS (2015-2022 Collision Data along Main Street and Market Street)

Based on the 349 reported collisions that occurred at intersections, 84% are vehicle-vehicle collisions (7 of these collisions involved a parked motor vehicle), 9% are vehicle-pedestrian, 4% are vehicle-bicycle collisions, and 3% are vehicle-fixed object collisions. All the collisions occurring on Main Street and Market Street were further analyzed based on facility type by the following factors:

- Collision Types & Severity
- Motor Vehicle Involved With
- Primary Violation Factors
- Lighting

INTERSECTION COLLISION ANALYSIS

Broadside (219 collisions, 63%) and rear-end (49 collisions, 14%) collisions are the most common occurring collision types at intersections. Other significant collision types include vehicle



pedestrian (30 collisions, 9%) followed by sideswipe and head-on collisions, each contributing 34 collisions (10%). Vehicle-Bicycle collisions contributed 4% (15 collisions) of all collisions. 72% of collisions (250 collisions) resulted in complaint of pain, followed by other visible injury (88 collisions, 26%), severe injury (9 collisions, 2%) and fatal (1 collisions, 1%). Traffic signals and signs violations (124 collisions, 36%) is the most common primary collision factor leading to collisions at intersection. The next highest factors are automobile right of way violation (86 collisions, 25%) and unsafe speed (54 collisions, 15%). 79% (276 collisions) of the collisions occurred in daylight, 19% (66 collisions) occurred at dark hours but street lights were present, and 2% (5 collisions) occurred when it was dusk or dawn. **Table 4** summarizes the intersection collision analysis based on all the factors analyzed.

**Table 4: Intersection Collision Analysis (January 2015 to December 2022)**

Collision Attribute	2015		2016		2017		2018		2019		2020		2021		2022		Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Collision Type																		
Head-On	2	1%	1	0%	3	1%		0%	4	1%	1	0%	4	1%	1	0%	16	4%
Sideswipe	6	2%	2	1%	1	0%	1	0%	1	0%	2	1%	2	1%	3	1%	18	5%
Rear End	7	2%	5	1%	7	2%	8	2%	13	4%	2	1%	4	1%	3	1%	49	14%
Broadside	30	9%	21	6%	28	8%	29	8%	35	10%	17	5%	30	9%	29	8%	219	63%
Hit Object	1	0%	2	1%	1	0%		0%		0%		0%	1	0%	4	1%	9	3%
Vehicle/Pedestrian	4	1%	5	1%	4	1%	2	1%	5	1%	2	1%	2	1%	6	2%	30	9%
Other	1	0%	2	1%	1	0%	3	1%	1	0%		0%		0%		0%	8	2%
Total	51	15%	38	11%	45	13%	43	12%	59	17%	24	7%	43	12%	46	13%	349	100%
Motor Vehicle Involved With																		
Not Stated	1	0%		0%		0%		0%		0%		0%		0%		0%	1	0%
Pedestrian	4	1%	5	1%	4	1%	2	1%	5	1%	2	1%	2	1%	6	2%	30	9%
Other Motor Vehicle	36	10%	27	8%	38	11%	37	11%	51	15%	20	6%	38	11%	33	9%	280	80%
Motor Vehicle on Other Roadway	3	1%		0%		0%		0%	1	0%	2	1%	1	0%		0%	7	2%
Parked Motor Vehicle	2	1%	2	1%		0%	1	0%	1	0%		0%		0%	1	0%	7	2%
Bicycle	4	1%	2	1%	2	1%	3	1%	1	0%		0%	1	0%	2	1%	15	4%
Fixed Object	1	0%	2	1%	1	0%		0%		0%		0%	1	0%	4	1%	9	3%
Total	51	15%	38	11%	45	13%	43	12%	59	17%	24	7%	43	12%	46	13%	349	100%
Collision Severity																		
Fatal Injury	1	0%		0%		0%		0%		0%		0%		0%		0%	1	0%
Sever Injury	1	0%	2	1%	1	0%	1	0%	1	0%	1	0%	2	1%		0%	9	2%
Visible Injury	17	5%	12	3%	12	3%	9	3%	13	4%	7	2%	7	2%	12	3%	89	26%
Complaint of Pain	32	9%	24	7%	32	9%	33	9%	45	13%	16	5%	34	10%	34	10%	250	72%
Total	51	15%	38	11%	45	13%	43	12%	59	17%	24	7%	43	12%	46	13%	349	100%



Collision Attribute	2015		2016		2017		2018		2019		2020		2021		2022		Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Primary Collision Factor																		
Unknown	2	1%	4	1%	1	0%		0%	1	0%		0%		0%		0%	8	2%
Driving/Bicycling Under the Influence	3	1%		0%		0%	2	1%	3	1%	1	0%	1	0%		0%	10	3%
Unsafe Speed	8	2%	7	2%	6	2%	7	2%	13	4%	4	1%	2	1%	7	2%	54	15%
Wrong Side of Road	2	1%		0%	1	0%	2	1%	1	0%		0%	1	0%	1	0%	8	2%
Unsafe Lane Change	1	0%		0%		0%		0%		0%	1	0%	3	1%	1	0%	6	2%
Improper Turning	1	0%		0%	1	0%	2	1%	3	1%		0%	3	1%	1	0%	11	3%
Auto ROW	13	4%	7	2%	13	4%	11	3%	13	4%	4	1%	14	4%	11	3%	86	25%
Ped ROW	1	0%	2	1%	3	1%	1	0%	3	1%	1	0%	2	1%	4	1%	17	5%
Ped Violation	3	1%		0%		0%	1	0%	1	0%	1	0%		0%	2	1%	8	2%
Traffic Signals and Signs	16	5%	15	4%	16	5%	15	4%	20	6%	10	3%	15	4%	17	5%	124	36%
Lights		0%		0%	1	0%		0%		0%		0%		0%		0%	1	0%
Brakes		0%		0%		0%	1	0%		0%		0%		0%		0%	1	0%
Other Hazardous Violation		0%	2	1%	1	0%	1	0%	1	0%	2	1%	2	1%	1	0%	10	3%
Other Than Driver (or Pedestrian)		0%		0%	1	0%		0%		0%		0%		0%	1	0%	2	1%
Unsafe Starting or Backing		0%	1	0%		0%		0%		0%		0%		0%		0%	1	0%
Other Improve Driving	1	0%		0%	1	0%		0%		0%		0%		0%		0%	2	1%
Total	51	15%	38	11%	45	13%	43	12%	59	17%	24	7%	43	12%	46	13%	349	100%
Lighting																		
Daylight	42	12%	31	9%	36	10%	33	9%	47	13%	20	6%	29	8%	38	11%	276	79%
Dusk-Dawn	1	0%		0%	2	1%		0%		0%		0%	2	1%		0%	5	1%
Dark - Street lights	8	2%	7	2%	7	2%	10	3%	11	3%	4	1%	12	3%	7	2%	66	19%
Dark - No Street lights		0%		0%		0%		0%	1	0%		0%		0%	1	0%	2	1%
Total	51	15%	38	11%	45	13%	43	12%	59	17%	24	7%	43	12%	46	13%	349	100%



During the eight year period, the intersections of Market Street/Airport Way, Main Street/Filbert Street, Main Street/Airport Way, Main Street/Wilson Way, and Market Street/Wilson Way are the top five intersections that experienced the highest number of collisions. **Table 5** summarizes the total number of collisions that were reported at the study intersections during the eight-year analysis period and the calculated intersection collision rate for each intersection. The collision rates at the intersections along the study corridor were compared with the Caltrans' 2021 statewide average collision rates for intersections with similar characteristics. Based on the analysis, 22 out of the 45 study intersections experienced a collision rate higher than the Caltrans statewide average.

Table 5: Intersection Collision Analysis

#	Study Intersection	Total # of Collisions (2015-2022)	Intersection Collision Rate (ICR)	Statewide Average Collision Rate ¹	High Collision Rate
1	Main Street/S Hunter Street	0	0.00	0.13	No
2	Main Street/San Joaquin Street	1	0.08	0.33	No
3	Main Street/Sutter Street	0	0.00	0.33	No
4	Main Street/California Street	2	0.12	0.33	No
5	Main Street/American Street	0	0.00	0.33	No
6	Main Street/Stanislaus Street	15	0.65	0.33	Yes
7	Main Street/Grant Street	2	0.33	0.20	Yes
8	Main Street/Aurora Street	1	0.13	0.20	No
9	Main Street/Union Street	3	0.35	0.21	Yes
10	Main Street/Pilgrim Street	2	0.43	0.20	Yes
11	Main Street/Airport Way	26	0.51	0.33	Yes
12	Main Street/Sierra Nevada Street	3	0.34	0.20	Yes
13	Main Street/Wilson Way	24	0.41	0.33	Yes
14	Main Street/Market Street	2	0.08	0.33	No
15	Main Street/B Street	7	0.30	0.20	Yes
16	Main Street/C Street-Lafayette Street	7	0.29	0.20	Yes
17	Main Street/D Street	1	0.05	0.28	No
18	Main Street/E Street-Marsh Street	8	0.13	0.20	No
19	Main Street/F Street-Alma Street	7	0.48	0.20	Yes
20	Main Street/Filbert Street	34	0.82	0.33	Yes
21	Main Street/Burkett Ave	8	0.23	0.20	Yes
22	Main Street/Shasta Ave	4	0.09	0.20	No
23	Main Street/David Ave	4	0.12	0.20	No



#	Study Intersection	Total # of Collisions (2015-2022)	Intersection Collision Rate (ICR)	Statewide Average Collision Rate ¹	High Collision Rate
24	Main Street/Rendon Ave	5	0.14	0.20	No
25	Main Street/Golden Gate Ave	13	0.36	0.33	Yes
26	Main Street/Windsor Ave	3	0.11	0.20	No
27	Main Street/Netherton Ave	4	0.13	0.33	No
28	Main Street/Broadway Ave	4	0.14	0.20	No
29	Market Street/Center Street	14	0.29	0.33	No
30	Market Street/El Dorado Street	15	0.29	0.33	No
31	Market Street/Hunter Street	2	0.24	0.21	Yes
32	Market Street/San Joaquin Street	15	1.03	0.33	Yes
33	Market Street/Sutter Street	5	0.41	0.33	Yes
34	Market Street/California Street	8	0.41	0.33	Yes
35	Market Street/American Street	0	0.00	0.33	No
36	Market Street/Stanislaus Street	9	0.32	0.33	No
37	Market Street/Grant Street	1	0.19	0.20	No
38	Market Street/Aurora Street	3	0.33	0.20	Yes
39	Market Street/Union Street	11	1.19	0.20	Yes
40	Market Street/Pilgrim Street	1	0.18	0.20	No
41	Market Street/Airport Way	47	0.92	0.33	Yes
42	Market Street/Sierra Nevada Street	5	0.51	0.20	Yes
43	Market Street/Wilson Way	22	0.38	0.33	Yes
44	Market Street/Eugenia Street	0	0.00	0.13	No
45	Market Street/Della Street	3	0.13	0.20	No
46	Market Street/Locust Street	0	0.00	0.33	No

Source: TIMS

Notes: High Collision Rate – denotes a crash rate that is greater than the statewide average for similar types of intersections

ICR = collisions per million vehicles entering the intersection (all approaches) or $1,000,000 \cdot A / (365 \cdot T \cdot \text{AADT})$

ICR= Observed collision rate; Number of accidents/vehicles miles traveled

A = Number of collisions over study period

T = Total number of years over which intersection accidents were collected; January 2015 to December 2022 = 8.0 years

AADT = Annual Average Daily Traffic

¹Obtained from 2021 Collision Data on California State Highways, Basic Average Accident Rate Table for Intersections, Page 89 and 90



EXISTING CONDITIONS

ROADWAY NETWORK

Main Street is an east-west major arterial that extends from Downtown Stockton to unincorporated San Joaquin County. From Market Street to Golden Gate Avenue, Main Street is four lanes with two lanes in each direction. From Golden Gate Avenue to Broadway Avenue, it is a five-lane with two-lane in each direction and a center two-way left turn lane. West of Market Street, Main Street is a two to three-lane one-way roadway heading into downtown. Main Street provides access to the residential and commercial land uses. The ADT volume on Main Street ranges between 950 vpd to 14,435 vpd. The posted speed limit along the corridor is 30 miles per hour (mph) from Wilson Way to Filbert Street and 35 mph from Filbert Street to Highway 99. There were no posted speed limit sign boards on the west of Wilson Way. We have assumed 25 mph.

Market Street is an east-west minor arterial roadway in the Downtown Stockton of the San Joaquin County. It is a two lane one-way roadway between Center Street and Main Street within the study area. The ADT volume ranges from 1,305 vpd to 5,410 vpd along the Market Street. No posted speed limit is present. The speed limit along the corridor is assumed as 25 mph. There are various land uses along the study corridor, such as residential, commercial, recreational, and administrative land uses.

EXISTING PEDESTRIAN FACILITIES

Walkability is defined as the ability to travel easily and safely between various origins and destinations without having to rely on automobiles or other motorized travel. The ideal "walkable" community includes but is not limited to having wide sidewalks, a mix of land uses such as residential, employment and shopping opportunities, buildings with windows and interesting facades at or near the edge of sidewalk, a limited number of conflict points with vehicle traffic, and easy access to transit facilities and services.

Pedestrian facilities are comprised of crosswalks, sidewalks, ADA ramps, pedestrian signals, and off-street paths, which provide safe and convenient routes for pedestrians to access destinations such as institutions, businesses, public transportation and recreation facilities.

In the project vicinity, sidewalks are provided on both sides of Main Street and Market Street throughout the corridor. Pedestrian non-actuated crossings are provided at each signalized study intersection. Pedestrian crossings are considered as a separate phase and they are operating with exclusive pedestrian phasing on Main Street at San Joaquin Street, Sutter Street, California Street, and American Street. The existing pedestrian facilities in the study area are shown in **Figure 3**.

EXISTING BICYCLE FACILITIES

As defined by the State of California Streets and Highways Code, Section 890.4, "bikeway" means all facilities that provide primarily for bicycle travel. Bikeways shall be categorized as follows:



- **Class I** bikeways, such as a bike path, which provide a completely separated right-of-way designated for the exclusive use of bicycles and pedestrians with crossflows by motorists minimized.
- **Class II** bikeways, such as a bike lane, which provide a restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted.
- **Class III** bikeways, such as an on-street or off-street bike route, which provide a right-of-way designated by signs or permanent markings and shared with pedestrians or motorists.
- **Class IV** bike ways, such as separated bikeway, also known as a cycle track, is an on-street bike lane that is physically separated from motor-vehicle traffic by a vertical and/or horizontal element such as a raised curb, narrow median, bollards, or car parking.

There are currently no existing bicycle facilities along Main Street and Market Street, however, a Class II bike lane is planned for the study corridors. The planned bicycle facility is illustrated in **Figure 3**.

The map displays a proposed bus route in Eugene, Oregon, with 45 numbered stops. The route is marked by a green dashed line. Major streets shown include Center St, E Sonora St, E Market St, E Main St, E Lafayette St, E Marsh St, and Highway 99. Yellow shaded areas indicate existing bus routes. The route starts at the intersection of Center St and E Sonora St and ends at Broadway Ave and Highway 99.

 Study Intersection
 Sidewalk
 Marked Crosswalk
 Marked School Crosswalk
 Class II Planned Bike Lane





EXISTING TRANSIT FACILITIES

Public transit service in the area is provided by San Joaquin Regional Transit District (RTD). RTD bus stops are located throughout the study area on both sides of Main Street and Market Street.

Table 6 summarizes the services and frequency during the weekday and on weekends for bus transit in Stockton. **Figure 4** illustrates the transit facilities in the study area.

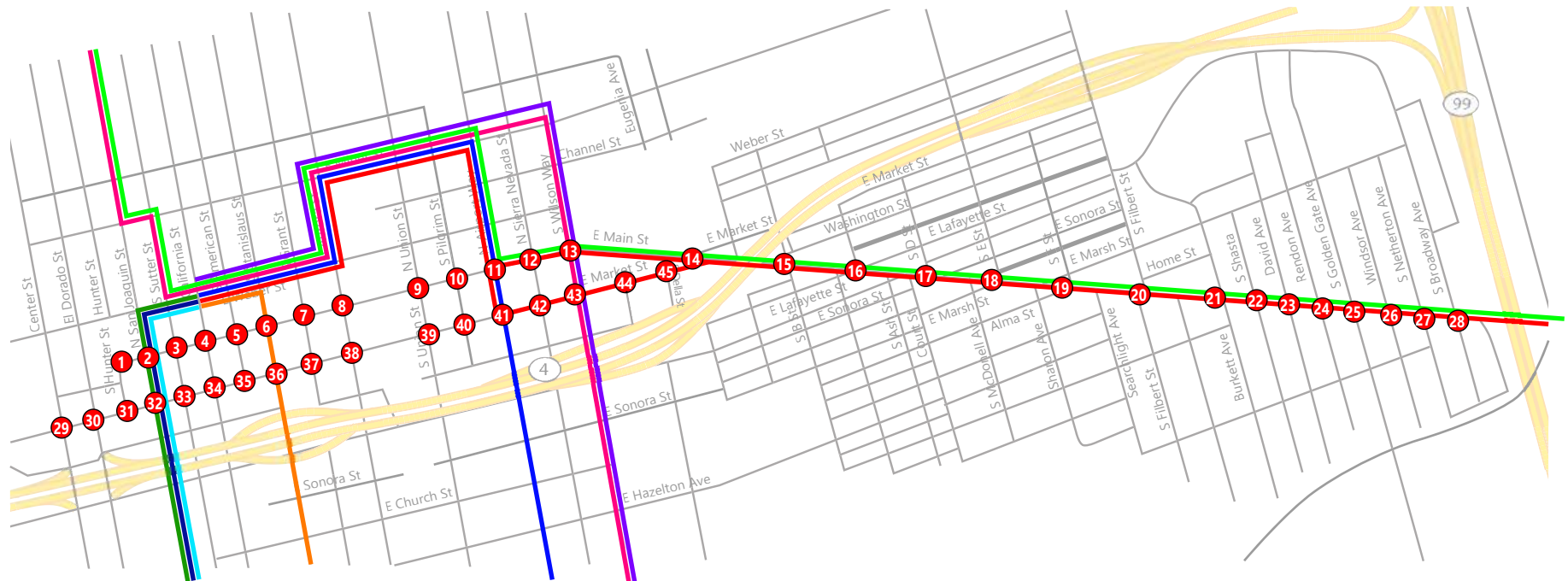
Table 6: Existing Transit Service

Route	From	To	Weekdays		Weekends	
			Operating Hours	Headway (minutes)	Operating Hours	Headway (minutes)
Bus Rapid Transit (BRT) 44	Downtown Transit Center (DTC)	99 Frontage/Boeing	5:49 a.m. to 9:36 p.m.	20-30	7:50 a.m. to 7:42 p.m.	40
315 ^[1]	Downtown Transit Center	Stockton MLK Boulevard	7:15 a.m. & 8:07 a.m. 3:45 p.m. & 4:15 p.m.	N/A	No Service	N/A
378 ^[1]	Mall Transfer Station (MTS)	Section/Oro	7:20 a.m. & 3:40 p.m.	N/A	No Service	N/A
510	Downtown Transit Center (DTC)	San Joaquin County Honor Farm	5:25 a.m. – 8:24 p.m.	11-30	No Service	N/A
525	Downtown Transit Center (DTC)	Main-Gertrude	6:15 a.m. to 8:06 p.m.	30-50	No Service	N/A
555	Downtown Transit Center (DTC)	Carolyn Weston - Manthey	6:07 a.m. to 8:19 p.m.	30-35	No Service	N/A
580	Downtown Transit Center (DTC)	Section/Oro	6:26 a.m. to 7:51 p.m.	35-45	No Service	N/A
710	Downtown Transit Center (DTC)	San Joaquin County Hospital	No Service	N/A	8:10 a.m. to 7:20 p.m.	60-65
725	Acacia-Lincoln (Dameron Hospital)	Main-Gertrude	No Service	N/A	7:55 a.m. to 6:43 p.m.	60-75

Source: San Joaquin RTD Website

Note: ¹ Not a frequent Transit

Figure 4: Existing Transit Facilities



LEGEND

- (X) Study Intersection
 Route 315
 Route 378
 Route 710
 Route 580
 Route 510
 Route 525
 Route 555
 Route 725
 Route 44





DATA COLLECTION

Turning movement counts (TMC) for vehicles, bicycles, and pedestrians were conducted during the weekday a.m. peak period (7:00 to 9:00 a.m.) and p.m. peak period (4:00 to 6:00 p.m.) at the study intersections. On Main Street between Aurora Street and Broadway Avenue, TMC were collected on September 28, 2023. 24-hour bi-directional average daily traffic (ADT) counts were collected on September 28, 2023 for the same corridor. On Main Street between Hunter Street and Grant Street, and Market Street between Center Street and Della Street, TMC were collected on April 3, 2024. 24-hour bi-directional average daily traffic (ADT) counts were also collected on April 3, 2024 along the study corridors. For Market Street between Center Street and El Dorado Street, 24-hour bidirectional ADT counts were recorded on April 10, 2024. **Figure 5** illustrates average daily traffic along the study corridors.

EXISTING PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Existing conditions traffic operations at the study intersections were evaluated for the busiest one-hour period during weekday morning (a.m.) and afternoon (p.m.) peak periods. **Figure 6 (a-d)** illustrates the existing lane geometry and traffic controls at the study intersections. **Figure 7 (a-c)** illustrates the existing a.m. and p.m. peak hour turning movement counts at the study intersections. **Appendix B** includes all the data sheets for the collected traffic counts.

Figure 5: Average Daily Traffic

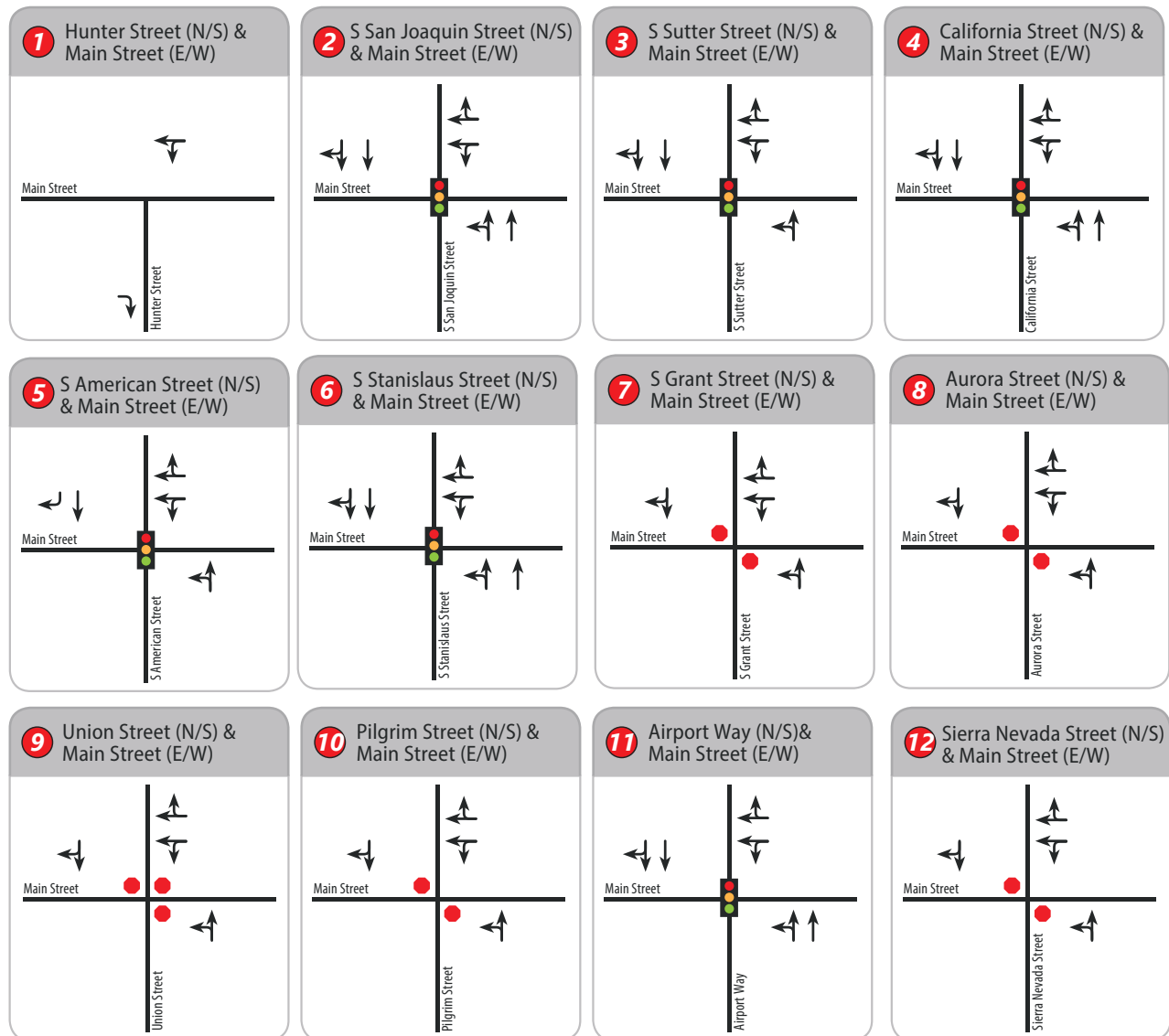


LEGEND

⊗ Study Intersection — Average Daily Traffic



Figure 6a: Existing Lane Configuration and Traffic Control

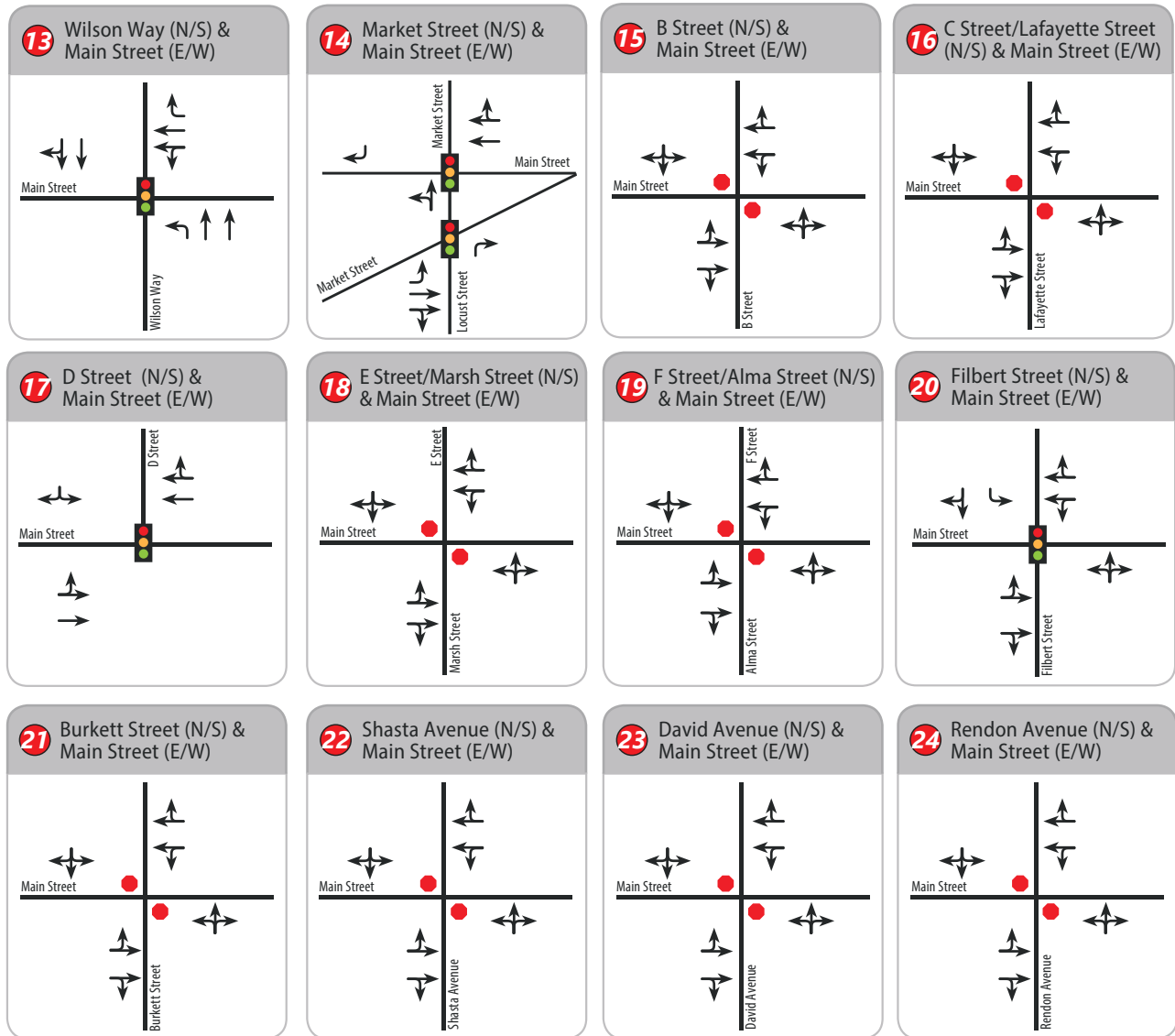


LEGEND

- X Study Intersection
- Traffic Signal
- Stop Sign



Figure 6b: Existing Lane Configuration and Traffic Control

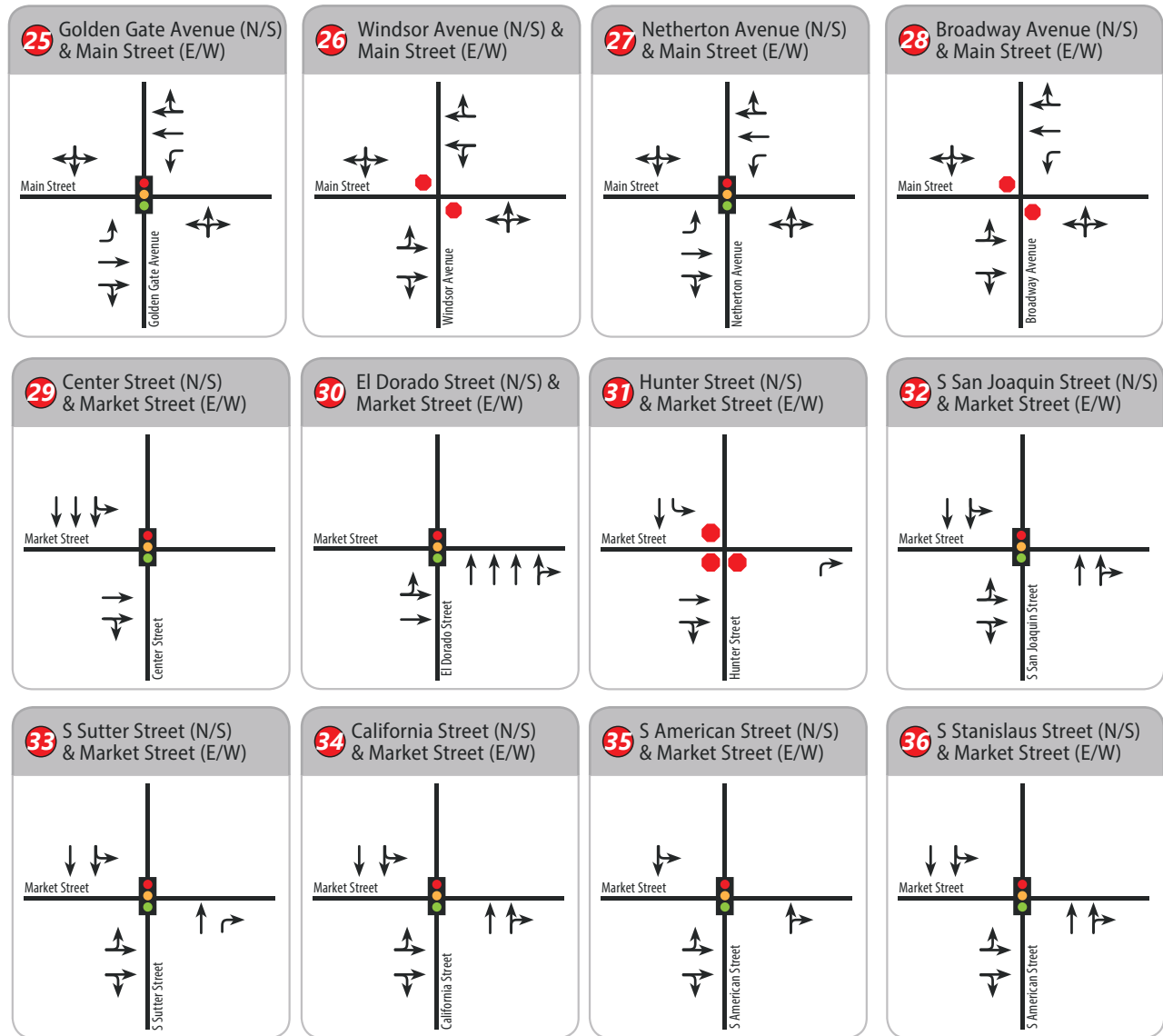


LEGEND

-  Study Intersection
-  Traffic Signal
-  Stop Sign



Figure 6c: Existing Lane Configuration and Traffic Control

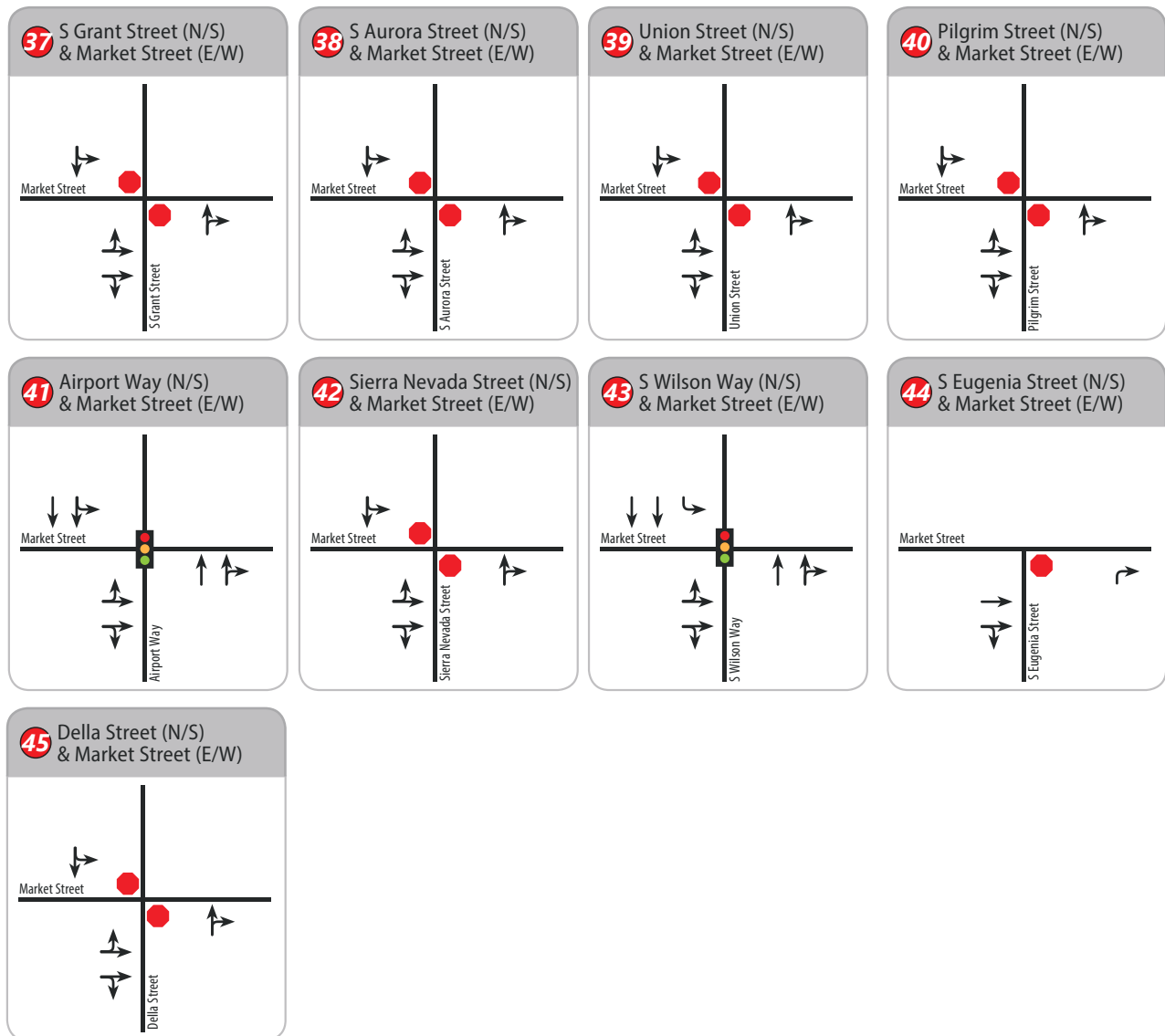


LEGEND

- X Study Intersection
- Stop Sign
- Traffic Signal



Figure 6d: Existing Lane Configuration and Traffic Control



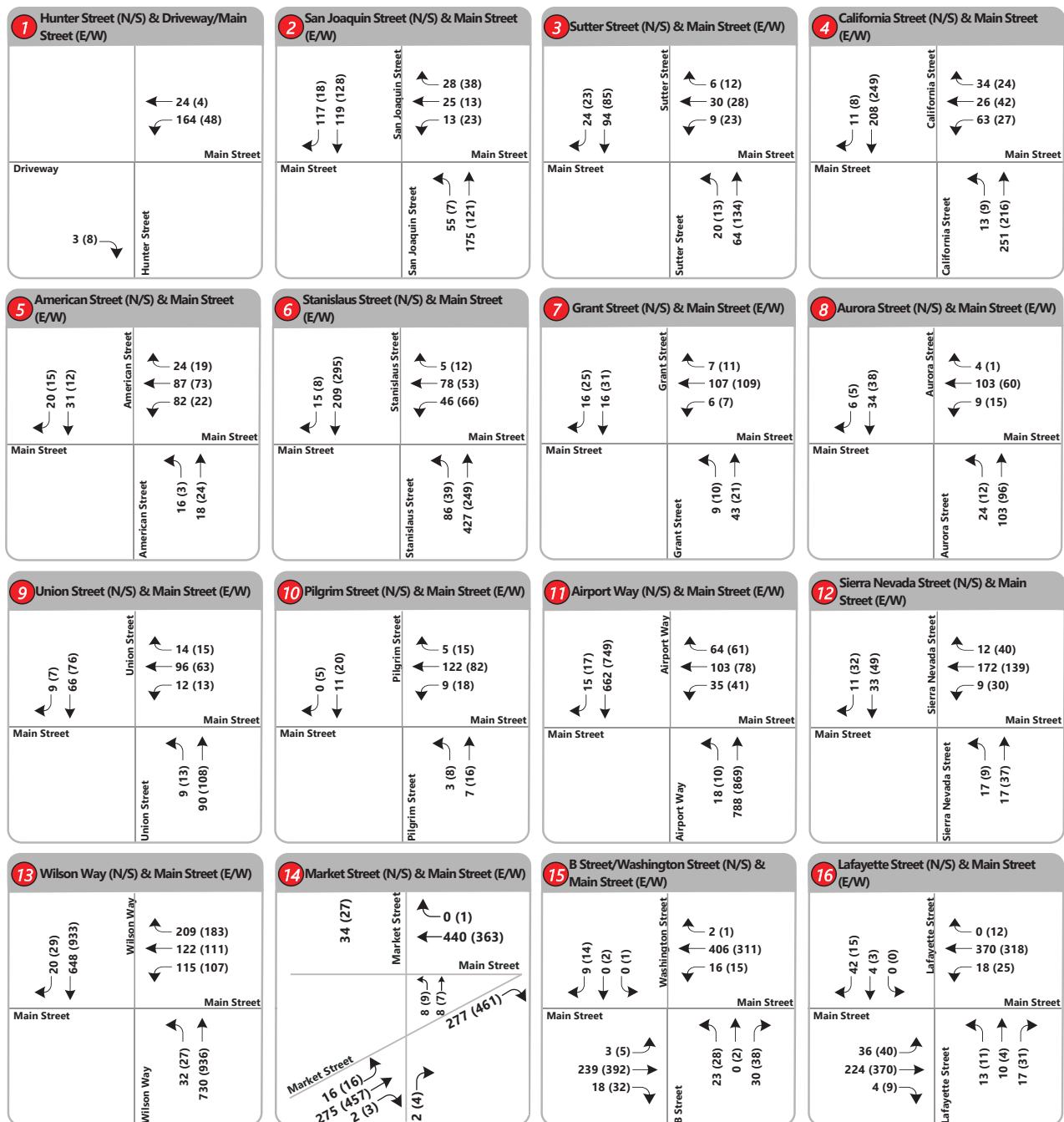
LEGEND

-  Study Intersection
-  Stop Sign

-  Traffic Signal



Figure 7a: Existing Conditions Peak Hour Traffic Volumes and Traffic Control



LEGEND



Study Intersection

XX

AM Peak Hour Volumes

(XX)

PM Peak Hour Volumes



Figure 7b: Existing Conditions Peak Hour Traffic Volumes and Traffic Control



LEGEND



Study Intersection

XX AM Peak Hour Volumes

(XX) PM Peak Hour Volumes



Figure 7c: Existing Conditions Peak Hour Traffic Volumes and Traffic Control



LEGEND



Study Intersection

XX AM Peak Hour Volumes

(XX) PM Peak Hour Volumes





INTERSECTION LEVEL OF SERVICE ANALYSIS – EXISTING CONDITIONS

Existing intersection lane configurations, signal timings and turning movement volumes were used to calculate the LOS for the study intersections during each peak hour. The results of the LOS analysis using Synchro 12 software for baseline conditions are summarized in **Table 7**. LOS worksheets are provided in **Appendix C**.

Under this scenario, all the study intersections operate at acceptable LOS D or better during the a.m. and p.m. peak hours.

Table 7: Intersection Level of Service Analysis – Existing Conditions

#	Intersection	Peak Hour ¹	Existing Conditions		
			Control	Delay ²	LOS ³
1	Main Street/S Hunter Street	AM	No Control	-	-
		PM		-	-
2	Main Street/San Joaquin Street	AM	Signal	14.4	B
		PM		15.5	B
3	Main Street/Sutter Street	AM	Signal	16.5	B
		PM		17.3	B
4	Main Street/California Street	AM	Signal	21.8	C
		PM		22.7	C
5	Main Street/American Street	AM	Signal	30.1	C
		PM		20.7	C
6	Main Street/Stanslaus Street	AM	Signal	10.8	B
		PM		10.2	B
7	Main Street/Grant Street	AM	Two-Way Stop	10.8	B
		PM		10.4	B
8	Main Street/Aurora Street	AM	Two-Way Stop	11.6	B
		PM		10.7	B
9	Main Street/Union Street	AM	All-Way Stop	8.1	A
		PM		8.0	A
10	Main Street/Pilgrim Street	AM	Two-Way Stop	10.5	B
		PM		10.1	B
11	Main Street/Airport Way	AM	Signal	6.3	A
		PM		5.5	A
12	Main Street/Sierra Nevada Street	AM	Two-Way Stop	10.6	B
		PM		11.2	B
13	Main Street/Wilson Way	AM	Signal	10.5	B
		PM		8.6	A
14	Main Street/Market Street	AM	Signal	3.9	A
		PM		3.7	A
15	Main Street/B Street	AM	Two-Way Stop	11.7	B
		PM		13.6	B
16	Main Street/C Street-Lafayette Street	AM	Two-Way Stop	13.8	B
		PM		12.6	B
17	Main Street/D Street	AM	Signal	3.5	A
		PM		3.5	A



#	Intersection	Peak Hour ¹	Existing Conditions		
			Control	Delay ²	LOS ³
18	Main Street/E Street-Marsh Street	AM	Two-Way Stop	16.0	C
		PM		16.6	C
19	Main Street/F Street-Alma Street	AM	Two-Way Stop	14.9	B
		PM		16.8	C
20	Main Street/Filbert Street	AM	Signal	15.4	B
		PM		19.3	B
21	Main Street/Burkett Avenue	AM	Two-Way Stop	17.4	C
		PM		19.5	C
22	Main Street/Shasta Avenue	AM	Two-Way Stop	16.6	C
		PM		17.7	C
23	Main Street/David Avenue	AM	Two-Way Stop	17.1	C
		PM		27.7	D
24	Main Street/Rendon Avenue	AM	Two-Way Stop	19.1	C
		PM		25.2	D
25	Main Street/Golden Gate Avenue	AM	Signal	9.0	A
		PM		10.8	B
26	Main Street/Windsor Avenue	AM	Two-Way Stop	14.5	B
		PM		15.9	C
27	Main Street/Netherton Avenue	AM	Signal	13.6	B
		PM		16.3	B
28	Main Street/Broadway Avenue	AM	Two-Way Stop	20.1	C
		PM		16.0	C
29	Market Street/Center Street	AM	Signal	10.5	B
		PM		12.9	B
30	Market Street/El Dorado Street	AM	Signal	10.8	B
		PM		10.8	B
31	Market Street/Hunter Street	AM	All-Way Stop	8.9	A
		PM		7.8	A
32	Market Street/San Joaquin Street	AM	Signal	10.9	B
		PM		9.2	A
33	Market Street/Sutter Street	AM	Signal	15.3	B
		PM		12.6	B
34	Market Street/California Street	AM	Signal	6.7	A
		PM		7.1	A
35	Market Street/American Street	AM	Signal	10.6	B
		PM		6.3	A
36	Market Street/Stanislaus Street	AM	Signal	11.8	B
		PM		8.4	A
37	Market Street/Grant Street	AM	Two-Way Stop	11.4	B
		PM		10.0	B
38	Market Street/Aurora Street	AM	Two-Way Stop	10.9	B
		PM		11.2	B
39	Market Street/Union Street	AM	Two-Way Stop	10.3	B
		PM		11.2	B



#	Intersection	Peak Hour ¹	Existing Conditions		
			Control	Delay ²	LOS ³
40	Market Street/Pilgrim Street	AM	Two-Way Stop	9.7	A
		PM		9.9	A
41	Market Street/Airport Way	AM	Signal	4.7	A
		PM		5.9	A
42	Market Street/Sierra Nevada Street	AM	Two-Way Stop	10.1	B
		PM		11.5	B
43	Market Street/Wilson Way	AM	Signal	11.8	B
		PM		16.8	B
44	Market Street/Eugenia Street	AM	Two-Way Stop	9.5	A
		PM		10.7	B
45	Market Street/Della Street	AM	Two-Way Stop	12.8	B
		PM		17.0	C

Notes:

1. AM – morning peak hour, PM – afternoon peak hour

2. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop – controlled intersections.

3. LOS – Level of Service.

Bold indicates unacceptable LOS and Delay.

ROADWAY SEGMENT LEVEL OF SERVICE

Table 8 presents the roadway segment level of service along Main Street and Market Street for daily volumes. All of the study roadway segments operate under capacity (LOS C or better).

Table 8: Roadway Segment Level of Service – Existing Conditions

#	Segment	LOS C Threshold	Existing Volume	Exceeds LOS C Threshold?
1	Main Street between San Joaquin Street and Sutter Street	12,500	951	No
2	Main Street between American Street and Stanislaus Street	12,500	1,343	No
3	Main Street between Grant Street and Aurora Street	12,500	1,459	No
4	Main Street between Aurora Street and Union Street	12,500	1,163	No
5	Main Street between Airport Way and Sierra Nevada Street	12,500	2,184	No
6	Main Street between Wilson Way and Della Street	12,500	5,549	No
7	Main Street between Market Street and A Street	30,100	8,530	No
8	Main Street between B Street and C Street	30,100	9,944	No
9	Main Street between D Street and Sonora Street	30,100	9,192	No
10	Main Street between E Street and Sharon Avenue	30,100	9,339	No
11	Main Street between Searchlight Avenue and Filbert Street	30,100	9,451	No
12	Main Street between Sullivan Avenue and Burkett Avenue	30,100	12,966	No
13	Main Street between David Avenue and Rendon Avenue	30,100	14,436	No



#	Segment	LOS C Threshold	Existing Volume	Exceeds LOS C Threshold?
14	Main Street between Golden Gate Avenue and Netherton Avenue	35,000	11,384	No
15	Market Street between Center Street and El Dorado Street	12,500	1,806	No
16	Market Street between Hunter Street and San Joaquin Street	12,500	2,031	No
17	Market Street between Sutter Street and California Street	12,500	1,303	No
18	Market Street between California Street and Stanislaus Street	12,500	1,362	No
19	Market Street between Aurora Street and Union Street	12,500	1,789	No
20	Market Street between Airport Way and Pilgrim Street	12,500	1,789	No
21	Market Street between Wilson Street and Main Street	12,500	5,411	No

95TH PERCENTILE QUEUE ANALYSIS

TJKM conducted a vehicle queuing and turn lane storage analysis for study signalized intersections existing conditions. The 95th percentile queues were analyzed using the HCM Queue methodology contained in Synchro 12 software. **Table 9** presents the existing queues (in feet) at the study signalized intersections. **Appendix C** contains the queue output worksheets for existing conditions.

Under existing conditions, the southbound left-turn movement at Main Street/Filbert Street & Market Street/Wilson Way experiences queue lengths that exceed storage lengths for the a.m. and p.m. peak hours.

Table 9: 95th Percentile Queueing Analysis – Existing Conditions

#	Intersection	Lane Group	Storage Length	Existing Conditions	
				AM	PM
1	Main Street/Hunter Street	EBR	-	0	0
		WBLT	-	0	0
2	Main Street/San Joaquin Street	WBT	-	34	37
		NBT	-	42	21
		SBT	-	60	40
3	Main Street/Sutter Street	WBT	-	16	27
		NBT	-	36	55
		SBT	-	41	38
4	Main Street/California Street	WBT	-	47	47
		NBT	-	85	75
		SBT	-	70	81
5	Main Street/American Street	WBT	-	72	49
		NBT	-	11	11
		SBT	-	24	14
		SBR	-	18	17



#	Intersection	Lane Group	Storage Length	Existing Conditions	
				AM	PM
6	Main Street/Stanislaus Street	WBT	-	36	37
		NBT	-	73	40
		SBT	-	42	59
7	Main Street/Grant Street	NBLT	-	10	5
		SBTR	-	5	10
8	Main Street/Aurora Street	NBLT	-	25	15
		SBTR	-	5	5
9	Main Street/Union Street	NBLT	-	15	15
		SBTR	-	10	10
		WBLTR	-	10	5
10	Main Street/Pilgrim Street	NBLT	-	5	5
		SBTR	-	5	5
		WBLTR	-	0	0
11	Main Street/Airport Way	NBLT	-	11	10
		SBTR	-	115	130
		WBLTR	-	54	51
12	Main Street/Sierra Nevada Street	NBLT	-	5	10
		SBTR	-	5	10
		WBLTR	-	0	5
13	Main Street/Wilson Way	WBT	-	91	84
		WBR	215	53	72
		NBL	70	36	23
		NBT	-	215	286
		SBTR	-	112	176
14	Main Street/Market Street – Locust Street	WBTR	-	26	21
		NBT	-	0	0
		SBT	-	0	0
15	Main Street/B Street	NBLTR	-	10	15
		SBLTR	-	0	5
		EBL	-	0	0
		WBL	-	0	0
16	Main Street/C Street - Lafayette Street	NBLTR	-	5	10
		SBLTR	-	5	5
		EBL	-	5	5
		WBL	-	0	5
17	Main Street/D Street	EBLT	-	20	32
		WBTR	-	29	26
		SBLR	-	9	10
18	Main Street/ E Street- Marsh Street	NBLTR	-	0	5
		SBLTR	-	10	25
		EBL	-	5	0
		WBL	-	0	5



#	Intersection	Lane Group	Storage Length	Existing Conditions	
				AM	PM
19	Main Street/F Street - Alma Street	NBLTR	-	5	5
		SBLTR	-	5	5
		EBL	-	0	0
		WBL	-	0	5
20	Main Street/Filbert Street	EBT	-	95	161
		WBT	-	159	138
		NBT	-	61	84
		SBL	50	193	289
		SBT	-	46	47
21	Main Street/Burkett Avenue	NBLTR	-	5	10
		SBLTR	-	5	5
		EBL	-	5	5
		WBL	-	0	0
22	Main Street/Shasta Avenue	NBLTR	-	5	5
		SBLTR	-	0	5
		EBL	-	0	0
		WBL	-	0	0
23	Main Street/David Avenue	NBLTR	-	5	10
		SBLTR	-	5	5
		EBL	-	0	0
		WBL	-	0	0
24	Main Street/Rendon Avenue	NBLTR	-	5	15
		SBLTR	-	10	5
		EBL	-	0	0
		WBL	-	0	5
25	Main Street/Golden Gate Avenue	EBL	95	9	18
		EBT	-	117	185
		WBL	95	35	33
		WBT	-	137	110
		NBT	-	65	122
		SBT	-	33	39
26	Main Street/Windsor Avenue	NBLTR	-	5	5
		SBLTR	-	5	5
		EBL	-	0	0
		WBL	-	0	0
27	Main Street/Netherton Avenue	EBL	90	10	19
		EBT	-	100	130
		WBL	90	36	40
		WBT	-	132	103
		NBT	-	28	33
		SBT	-	39	35
28	Main Street/Broadway Avenue	NBLTR	-	5	5
		SBLTR	-	30	10
		EBL	-	10	5



#	Intersection	Lane Group	Storage Length	Existing Conditions	
				AM	PM
		WBL	-	0	0
29	Market Street/Center Street	EBT	-	32	38
		SBT	-	169	281
30	Market Street/El Dorado Street	EBT	-	82	33
		NBT	-	163	142
31	Market Street/Hunter Street	EBT	-	20	10
		NBR	-	5	5
		SBL	-	15	5
		SBT	-	15	5
32	Market Street/San Joaquin Street	EBT	-	54	35
		NBT	-	35	28
		SBT	-	8	7
33	Market Street/Sutter Street	EBT	-	42	35
		NBT	-	55	59
		NBR	-	6	13
		SBT	-	5	20
34	Market Street/California Street	EBT	-	13	28
		NBT	-	43	33
		SBT	-	1	0
35	Market Street/American Street	EBT	-	27	21
		SBT	-	55	28
36	Market Street/Stanslaus Street	EBT	-	30	1
		NBT	-	106	55
		SBT	-	18	32
37	Market Street/Grant Street	NBTR	-	5	0
		SBLT	-	5	5
		EBL	-	5	5
38	Market Street/Aurora Street	NBTR	-	20	20
		SBLT	-	5	10
		EBL	-	0	5
39	Market Street/Union Street	NBTR	-	15	15
		SBLT	-	10	15
		EBL	-	0	0
40	Market Street/Pilgrim Street	NBTR	-	5	5
		SBLT	-	5	5
		EBL	-	0	0
41	Market Street/Airport Way	EBT	-	50	72
		NBT	-	158	167
		SBT	-	56	67
42	Market Street/Sierra Nevada Street	NBTR	-	5	5
		SBLT	-	5	15
		EBL	-	0	0
43	Market Street/Wilson Way	EBT	-	61	97
		NBT	-	211	286
		SBL	90	126	220
		SBT	-	135	191



#	Intersection	Lane Group	Storage Length	Existing Conditions	
				AM	PM
44	Market Street/Eugenia Street	NBR	-	5	5
		EBTR	-	0	0
45	Market Street/Della Street	NBTR	-	0	0
		SBLT	-	10	25
		EBL	-	0	5

Notes: Storage length and 95th percentile queue is expressed in feet per lane.

AM – morning peak hour, PM – afternoon peak hour

L – left turn, T – through, R- right turn

- indicates 95th percentile volume exceeds capacity, queue may be longer.

Bold indicates queue lengths exceeding capacity.



EXISTING BUILD CONDITIONS

Proposed intersection lane configurations, existing signal timings and baseline turning movement volumes were used to calculate the LOS for the study intersections during each peak hour. According to the striping plans provided by Siegfried, the proposed lane configuration on the Main Street and Market Street (within the study area) would reduce the number of travel lanes in each direction from two to one. Beyond Golden Gate Avenue, the travel lanes would reduce from five lanes to three lanes until reaching Broadway Avenue. The plan also includes the addition of parking lanes in both directions, as well as continuous and connected Class II bicycle facilities along the project limits. Furthermore, there are additional intersection modifications at Main Street/Market Street, and Main Street/Filbert Street. These modifications entail transforming the intersections into single-lane roundabouts for improved traffic flow. For this scenario, the existing lane configuration would be maintained on the side streets along the study corridors. **Figure 8 (a-d)** illustrates the proposed lane geometry and traffic controls at the study intersections.

INTERSECTION LEVEL OF SERVICE ANALYSIS – EXISTING BUILD CONDITIONS

The results of the LOS analysis using the Synchro 12 software program for existing Build conditions are summarized in **Table 10**. LOS worksheets are provided in **Appendix C**.

Under this scenario, all of the study intersections operate at acceptable service levels (LOS D or better) during a.m., and p.m. peak hours, except at the following intersections:

- Main Street/David Avenue operates at unacceptable LOS E only during the p.m. peak hour.

Table 10: Intersection Level of Service Analysis – Existing Build Conditions

#	Intersection	Peak Hour	Existing Conditions			Existing Build Conditions			Change in Delay
			Control	Delay	LOS	Control	Delay	LOS	
1	Main Street/S Hunter Street	AM	No Control			No Control			
		PM							
2	Main Street/San Joaquin Street	AM	Signal	14.4	B	Signal	14.8	B	0.4
		PM		15.5	B		16.1	B	0.6
3	Main Street/Sutter Street	AM	Signal	16.5	B	Signal	16.7	B	0.2
		PM		17.3	B		17.5	B	0.2
4	Main Street/California Street	AM	Signal	21.8	C	Signal	26.1	C	4.3
		PM		22.7	C		27.1	C	4.4
5	Main Street/American Street	AM	Signal	30.1	C	Signal	49.8	D	19.7
		PM		20.7	C		24.9	C	4.2
6	Main Street/Stanslaus Street	AM	Signal	10.8	B	Signal	10.7	B	-0.1
		PM		10.2	B		10.3	B	0.1
7	Main Street/Grant Street	AM	Two-Way Stop	10.8	B	Two-Way Stop	10.9	B	0.1
		PM		10.4	B		10.6	B	0.2
8	Main Street/Aurora Street	AM	Two-Way Stop	11.6	B	Two-Way Stop	11.7	B	0.1
		PM		10.7	B		10.7	B	0.0
9	Main Street/Union Street	AM	All-Way Stop	8.1	A	All-Way Stop	8.1	A	0.0
		PM		8.0	A		7.9	A	-0.1



#	Intersection	Peak Hour	Existing Conditions			Existing Build Conditions			Change in Delay
			Control	Delay	LOS	Control	Delay	LOS	
10	Main Street/Pilgrim Street	AM	Two-Way Stop	10.5	B	Two-Way Stop	10.5	B	0.0
		PM		10.1	B		10.2	B	0.1
11	Main Street/Airport Way	AM	Signal	6.3	A	Signal	7.4	A	1.1
		PM		5.5	A		6.4	A	0.9
12	Main Street/Sierra Nevada Street	AM	Two-Way Stop	10.6	B	Two-Way Stop	11.0	B	0.4
		PM		11.2	B		11.2	B	0.0
13	Main Street/Wilson Way	AM	Signal	10.5	B	Signal	11.1	B	0.6
		PM		8.6	A		8.9	A	0.3
14	Main Street/Market Street	AM	Signal	3.9	A	Roundabout	2.1	A	-1.8
		PM		3.7	A		2.0	A	-1.7
15	Main Street/B Street	AM	Two-Way Stop	11.7	B	Two-Way Stop	13.7	B	2.0
		PM		13.6	B		15.8	C	2.2
16	Main Street/C Street-Lafayette Street	AM	Two-Way Stop	13.8	B	Two-Way Stop	15.4	C	1.6
		PM		12.6	B		11.7	B	-0.9
17	Main Street/D Street	AM	Signal	3.5	A	Signal	4.3	A	0.8
		PM		3.5	A		4.5	A	1.0
18	Main Street/E Street-Marsh Street	AM	Two-Way Stop	16.0	C	Two-Way Stop	18.0	C	2.0
		PM		16.6	C		20.1	C	3.5
19	Main Street/F Street-Alma Street	AM	Two-Way Stop	14.9	B	Two-Way Stop	16.0	C	1.1
		PM		16.8	C		20.7	C	3.9
20	Main Street/Filbert Street	AM	Signal	15.4	B	Roundabout	5.4	A	-10.0
		PM		19.3	B		7.4	A	-11.9
21	Main Street/Burkett Avenue	AM	Two-Way Stop	17.4	C	Two-Way Stop	22.5	C	5.1
		PM		19.5	C		25.7	D	6.2
22	Main Street/Shasta Avenue	AM	Two-Way Stop	16.6	C	Two-Way Stop	21.9	C	5.3
		PM		17.7	C		23.5	C	5.8
	<u>Restripe westbound as shared through+left lane and exclusive right turn lane</u>	AM		-	-		<u>21.9</u>	<u>C</u>	-
		PM		-	-		<u>23.3</u>	<u>C</u>	-
23	Main Street/David Avenue	AM	Two-Way Stop	17.1	C	Two-Way Stop	22.8	C	5.7
		PM		27.7	D		37.4	E	9.7
	<u>Mitigation: Restripe eastbound and westbound as shared through+left lane and shared through+right lane</u>	AM		-	-		<u>17.1</u>	<u>C</u>	-
		PM		-	-		<u>27.7</u>	<u>D</u>	-
24	Main Street/Rendon Avenue	AM	Two-Way Stop	19.1	C	Two-Way Stop	25.2	D	6.1
		PM		25.2	D		33.5	D	8.3
	<u>Restripe eastbound as shared through+left lane and an exclusive right turn lane</u>	AM		-	-		<u>24.8</u>	<u>C</u>	-
		PM		-	-		<u>32.5</u>	<u>D</u>	-
25	Main Street/Golden Gate Avenue	AM	Signal	9.0	A	Signal	10.7	B	1.7
		PM		10.8	B		14.4	B	3.6
26	Main Street/Windsor Avenue	AM	Two-Way Stop	14.5	B	Two-Way Stop	17.8	C	3.3
		PM		15.9	C		19.4	C	3.5



#	Intersection	Peak Hour	Existing Conditions			Existing Build Conditions			Change in Delay
			Control	Delay	LOS	Control	Delay	LOS	
27	Main Street/Netherton Avenue	AM	Signal	13.6	B	Signal	10.8	B	-2.8
		PM		16.3	B		17.6	B	1.3
28	Main Street/Broadway Avenue	AM	Two-Way Stop	20.1	C	Two-Way Stop	22.6	C	2.5
		PM		16.0	C		18.9	C	2.9
29	Market Street/Center Street	AM	Signal	10.5	B	Signal	10.6	B	0.1
		PM		12.9	B		12.9	B	0.0
30	Market Street/El Dorado Street	AM	Signal	10.8	B	Signal	12.8	B	2.0
		PM		10.8	B		12.0	B	1.2
31	Market Street/Hunter Street	AM	All-Way Stop	8.9	A	All-Way Stop	9.2	A	0.3
		PM		7.8	A		7.7	A	-0.1
32	Market Street/San Joaquin Street	AM	Signal	10.9	B	Signal	12.2	B	1.3
		PM		9.2	A		9.6	A	0.4
33	Market Street/Sutter Street	AM	Signal	15.3	B	Signal	15.0	B	-0.3
		PM		12.6	B		13.1	B	0.5
34	Market Street/California Street	AM	Signal	6.7	A	Signal	7.8	A	1.1
		PM		7.1	A		9.0	A	1.9
35	Market Street/American Street	AM	Signal	10.6	B	Signal	12.3	B	1.7
		PM		6.3	A		6.6	A	0.3
36	Market Street/Stanislaus Street	AM	Signal	11.8	B	Signal	12.7	B	0.9
		PM		8.4	A		9.4	A	1.0
37	Market Street/Grant Street	AM	Two-Way Stop	11.4	B	Two-Way Stop	11.4	B	0.0
		PM		10.0	B		10.4	B	0.4
38	Market Street/Aurora Street	AM	Two-Way Stop	10.9	B	Two-Way Stop	11.0	B	0.1
		PM		11.2	B		11.2	B	0.0
39	Market Street/Union Street	AM	Two-Way Stop	10.3	B	Two-Way Stop	10.3	B	0.0
		PM		11.2	B		11.4	B	0.2
40	Market Street/Pilgrim Street	AM	Two-Way Stop	9.7	A	Two-Way Stop	10.1	B	0.4
		PM		9.9	A		10.3	B	0.4
41	Market Street/Airport Way	AM	Signal	4.7	A	Signal	5.1	A	0.4
		PM		5.9	A		6.6	A	0.7
42	Market Street/Sierra Nevada Street	AM	Two-Way Stop	10.1	B	Two-Way Stop	10.7	B	0.6
		PM		11.5	B		12.7	B	1.2
43	Market Street/Wilson Way	AM	Signal	11.8	B	Signal	13.2	B	1.4
		PM		16.8	B		23.4	C	6.6
	<u>Mitigation: Restripe eastbound as shared through+left lane and shared through+right lane and optimize signal timings</u>	AM		-	-		<u>11.6</u>	<u>B</u>	-
		PM		-	-		<u>16.0</u>	<u>B</u>	-
44	Market Street/Eugenia Street	AM	Two-Way Stop	9.5	A	Two-Way Stop	10.5	B	1.0
		PM		10.7	B		13.1	B	2.4
	<u>Restripe eastbound as exclusive through lane and</u>	AM		-	-		<u>9.5</u>	<u>A</u>	-
		PM		-	-		<u>10.7</u>	<u>B</u>	-



#	Intersection	Peak Hour	Existing Conditions			Existing Build Conditions			Change in Delay
			Control	Delay	LOS	Control	Delay	LOS	
	<u>shared through+right lane, and provide receiving lane</u>								
45	Market Street/Della Street	AM	Two-Way Stop	12.8	B	Two-Way Stop	12.9	B	0.1
		PM		17.0	C		19.7	C	2.7

Notes:

1. AM – morning peak hour, PM – afternoon peak hour
 2. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop – controlled intersections.
 3. LOS – Level of Service.
 4. Change in delay between existing conditions and existing Build conditions
- Bold** indicates unacceptable LOS and Delay

The peak-hour signal warrant from the California Manual of Uniform Traffic Control Devices (CA MUTCD) was evaluated for the unsignalized intersection of Main Street/David Avenue, operating at LOS E, to determine if a traffic signal is warranted. Under this scenario, the MUTCD peak hour signal warrant is not met for the unsignalized intersection of Main Street/David Avenue during weekday a.m., and p.m. peak hour. Peak Hour Signal Warrant sheets are provided in **Appendix D**.

95TH PERCENTILE QUEUE ANALYSIS

TJKM conducted a vehicle queuing and turn lane storage analysis for study signalized intersections under existing Build conditions. The 95th percentile queue is determined using statistical analysis to predict the near-worst case situation; that is, queues that exceed only 5 percent of the time. The 95th percentile queues were analyzed using the HCM 6th Queue methodology contained in Synchro 12 software. **Table 11** presents the existing queues (in feet) at the study signalized intersection. **Appendix C** contains the queue output worksheets for existing Build conditions.

Under existing Build conditions, the southbound left-turn movement Market Street/Wilson Way experiences queue lengths that exceed storage lengths for the a.m. and p.m. peak hours.

Table 11: 95th Percentile Queueing Analysis – Existing Build Conditions

#	Intersection	Lane Group	Storage Length	Existing Conditions		Existing Build Conditions		Existing Build Conditions Mitigated	
				AM	PM	AM	PM	AM	PM
1	Main Street/Hunter Street	EBR	-	-	-	-	-	-	-
		WBLT	-	-	-	-	-	-	-
2	Main Street/San Joaquin Street	WBT	-	34	37	60	69	-	-
		NBT	-	42	21	43	22	-	-
		SBT	-	60	40	65	44	-	-
3	Main Street/Sutter Street	WBT	-	16	27	33	54	-	-
		NBT	-	36	55	36	56	-	-
		SBT	-	41	38	41	38	-	-
4		WBT	-	47	47	79	92	-	-



#	Intersection	Lane Group	Storage Length	Existing Conditions		Existing Build Conditions		Existing Build Conditions Mitigated	
				AM	PM	AM	PM	AM	PM
	Main Street/California Street	NBT	-	85	75	181	160	-	-
		SBT	-	70	81	150	177	-	-
5	Main Street/American Street	WBT	-	72	49	141	98	-	-
		NBT	-	11	11	19	16	-	-
		SBT	-	24	14	27	14	-	-
		SBR	-	18	17	20	17	-	-
6	Main Street/Stanslaus Street	WBT	-	36	37	76	81	-	-
		NBT	-	73	40	67	38	-	-
		SBT	-	42	59	42	59	-	-
7	Main Street/Grant Street	NBLT	-	10	5	10	5	-	-
		SBTR	-	5	10	5	10	-	-
8	Main Street/Aurora Street	NBLT	-	25	15	25	15	-	-
		SBTR	-	5	5	10	5	-	-
9	Main Street/Union Street	NBLT	-	15	15	15	15	-	-
		SBTR	-	10	10	10	10	-	-
		WBLTR	-	10	5	15	5	-	-
10	Main Street/Pilgrim Street	NBLT	-	5	5	5	5	-	-
		SBTR	-	5	5	5	5	-	-
		WBLTR	-	0	0	0	0	-	-
11	Main Street/Airport Way	NBLT	-	11	10	11	11	-	-
		SBTR	-	115	130	115	130	-	-
		WBLTR	-	54	51	177	156	-	-
12	Main Street/Sierra Nevada Street	NBLT	-	5	10	5	10	-	-
		SBTR	-	5	10	5	10	-	-
		WBLTR	-	0	5	0	5	-	-
13	Main Street/Wilson Way	WBT	-	91	84	195	179	-	-
		WBR	215	53	72	53	72	-	-
		NBL	70	36	23	34	20	-	-
		NBT	-	215	286	213	283	-	-
		SBTR	-	112	176	112	176	-	-
14	Main Street/Market Street	WBTR	-	26	21	65	50	-	-
		NBT	-	0	0	0	0	-	-
		SBT	-	0	0	10	5	-	-
15	Main Street/B Street	NBLTR	-	10	15	10	15	-	-
		SBLTR	-	0	5	0	5	-	-
		EBL	-	0	0	0	0	-	-
		WBL	-	0	0	0	0	-	-
16	Main Street/Lafayette Street	NBLTR	-	5	10	10	5	-	-
		SBLTR	-	5	5	10	5	-	-
		EBL	-	5	5	5	5	-	-
		WBL	-	0	5	0	5	-	-
17	Main Street/D Street	EBLT	-	20	32	46	80	-	-
		WBTR	-	29	26	75	65	-	-



#	Intersection	Lane Group	Storage Length	Existing Conditions		Existing Build Conditions		Existing Build Conditions Mitigated	
				AM	PM	AM	PM	AM	PM
		SBLR	-	9	10	11	12	-	-
18	Main Street/Marsh Street-E Street	NBLTR	-	0	5	0	5	-	-
		SBLTR	-	10	25	15	25	-	-
		EBL	-	5	0	5	0	-	-
		WBL	-	0	5	0	5	-	-
19	Main Street/Alma Street	NBLTR	-	5	5	5	5	-	-
		SBLTR	-	5	5	5	10	-	-
		EBL	-	0	0	0	5	-	-
		WBL	-	0	5	0	0	-	-
20	Main Street/Filbert Street	EBT	-	95	161	55	155	-	-
		WBT	-	159	138	140	115	-	-
		NBT	-	61	84	15	30	-	-
		SBL	50	193	289	70	155	-	-
		SBT	-	46	47	70	155	-	-
21	Main Street/Burkett Avenue	NBLTR	-	5	10	10	15	-	-
		SBLTR	-	5	5	5	5	-	-
		EBL	-	5	5	5	5	-	-
		WBL	-	0	0	0	0	-	-
22	Main Street/Shasta Avenue	NBLTR	-	5	5	5	10	5	8
		SBLTR	-	0	5	5	5	3	3
		EBL	-	0	0	0	0	0	0
		WBL	-	0	0	0	0	0	0
23	Main Street/David Avenue	NBLTR	-	5	10	5	10	5	8
		SBLTR	-	5	5	5	5	3	3
		EBL	-	0	0	0	0	0	0
		WBL	-	0	0	0	0	0	0
24	Main Street/Rendon Avenue	NBLTR	-	5	15	10	20	8	18
		SBLTR	-	10	5	10	10	10	8
		EBL	-	0	0	0	0	0	0
		WBL	-	0	5	0	5	0	3
25	Main Street/Golden Gate Avenue	EBL	95	9	18	10	21	-	-
		EBT	-	117	185	288	590	-	-
		WBL	95	35	33	41	40	-	-
		WBT	-	137	110	320	246	-	-
		NBT	-	65	122	89	161	-	-
		SBT	-	33	39	45	52	-	-
26	Main Street/Windsor Avenue	NBLTR	-	5	5	5	5	-	-
		SBLTR	-	5	5	5	5	-	-
		EBL	-	0	0	0	0	-	-
		WBL	-	0	0	0	0	-	-
27	Main Street/Netherton Avenue	EBL	90	10	19	12	20	-	-
		EBT	-	100	130	220	311	-	-



#	Intersection	Lane Group	Storage Length	Existing Conditions		Existing Build Conditions		Existing Build Conditions Mitigated	
				AM	PM	AM	PM	AM	PM
		WBL	90	36	40	43	45	-	-
		WBT	-	132	103	309	232	-	-
		NBT	-	28	33	38	40	-	-
		SBT	-	39	35	52	43	-	-
28	Main Street/Broadway Avenue	NBLTR	-	5	5	5	10	-	-
		SBLTR	-	30	10	30	10	-	-
		EBL	-	10	5	10	5	-	-
		WBL	-	0	0	0	0	-	-
29	Market Street/Center Street	EBT	-	32	38	65	78	-	-
		SBT	-	169	281	169	281	-	-
30	Market Street/El Dorado Street	EBT	-	82	33	169	64	-	-
		NBT	-	163	142	236	200	-	-
31	Market Street/Hunter Street	EBT	-	20	10	35	10	-	-
		NBR	-	5	5	5	5	-	-
		SBL	-	15	5	15	5	-	-
		SBT	-	15	5	15	5	-	-
32	Market Street/San Joaquin Street	EBT	-	54	35	125	77	-	-
		NBT	-	35	28	35	28	-	-
		SBT	-	8	7	8	7	-	-
33	Market Street/Sutter Street	EBT	-	42	35	85	89	-	-
		NBT	-	55	59	55	59	-	-
		NBR	-	6	13	6	13	-	-
		SBT	-	5	20	5	20	-	-
34	Market Street/California Street	EBT	-	13	28	27	56	-	-
		NBT	-	43	33	111	74	-	-
		SBT	-	1	0	2	0	-	-
35	Market Street/American Street	EBT	-	27	21	59	39	-	-
		SBT	-	55	28	75	24	-	-
36	Market Street/Stanislaus Street	EBT	-	30	1	140	47	-	-
		NBT	-	106	55	106	55	-	-
		SBT	-	18	32	18	32	-	-
37	Market Street/Grant Street	NBTR	-	5	0	5	0	-	-
		SBLT	-	5	5	5	5	-	-
		EBL	-	5	5	5	5	-	-
38	Market Street/Aurora Street	NBTR	-	20	20	20	20	-	-
		SBLT	-	5	10	5	10	-	-
		EBL	-	0	5	0	5	-	-
39	Market Street/Union Street	NBTR	-	15	15	15	15	-	-
		SBLT	-	10	15	10	15	-	-
		EBL	-	0	0	0	0	-	-
40	Market Street/Pilgrim Street	NBTR	-	5	5	5	5	-	-
		SBLT	-	5	5	5	5	-	-
		EBL	-	0	0	0	0	-	-
41	Market Street/Airport Way	EBT	-	50	72	113	161	-	-



#	Intersection	Lane Group	Storage Length	Existing Conditions		Existing Build Conditions		Existing Build Conditions Mitigated	
				AM	PM	AM	PM	AM	PM
		NBT	-	158	167	159	167	-	-
		SBT	-	56	67	55	69	-	-
		NBTR	-	5	5	5	5	-	-
42	Market Street/Sierra Nevada Street	SBLT	-	5	15	5	15	-	-
		EBL	-	0	0	0	0	-	-
		EBT	-	61	97	156	348	93	148
43	Market Street/Wilson Way	NBT	-	211	286	211	286	232	345
		SBL	90	126	220	126	221	98	97
		SBT	-	135	191	153	205	77	41
44	Market Street/Eugenia Street	NBR	-	5	5	10	10	5	5
		EBTR	-	0	0	0	0	0	0
45	Market Street/Della Street	NBTR	-	0	0	0	0	-	-
		SBLT	-	10	25	10	25	-	-
		EBL	-	0	5	0	5	-	-

Notes: Storage length and 95th percentile queue is expressed in feet per lane.

AM – morning peak hour, PM – afternoon peak hour

L – left turn, T – through, R- right turn

- indicates 95th percentile volume exceeds capacity, queue may be longer.

Bold indicates queue lengths exceeding capacity.

SUGGESTED IMPROVEMENTS

The intersections with unacceptable operating conditions were further analyzed to identify changes that would improve their conditions and reduce their delay under existing Build conditions. In addition to this, mitigation measures were also identified at some of the intersections where there are some significant queues that were observed during the SimTraffic simulation under existing Build conditions. The improvements and their effects on intersection operating conditions are summarized in Error! Reference source not found., & **Table 11**. Detailed calculation sheets for existing Build conditions with mitigations are contained in Error! Reference source not found..

Main Street/David Avenue (Study Intersection 23):

Mitigation measures at this intersection include the roadway improvements such as “Restripe eastbound and westbound as shared through+left lane and shared through+right lane. These measures would reduce intersection delay to acceptable LOS. Proposed lane configuration would be provided for the Main Street segment between Shasta Avenue and Rendon Avenue. On-street parking would be prohibited on both the sides for this section of segment to reduce the congestion at these intersections. **Table 10** shows the improvements at Main Street/Shasta Avenue (Study Intersection 22), and Main Street/Rendon Avenue (Study Intersection 24) and the average delays.

- Intersection 22: Main Street/Shasta Avenue
 - Restripe westbound as shared through+left lane and exclusive right turn lane



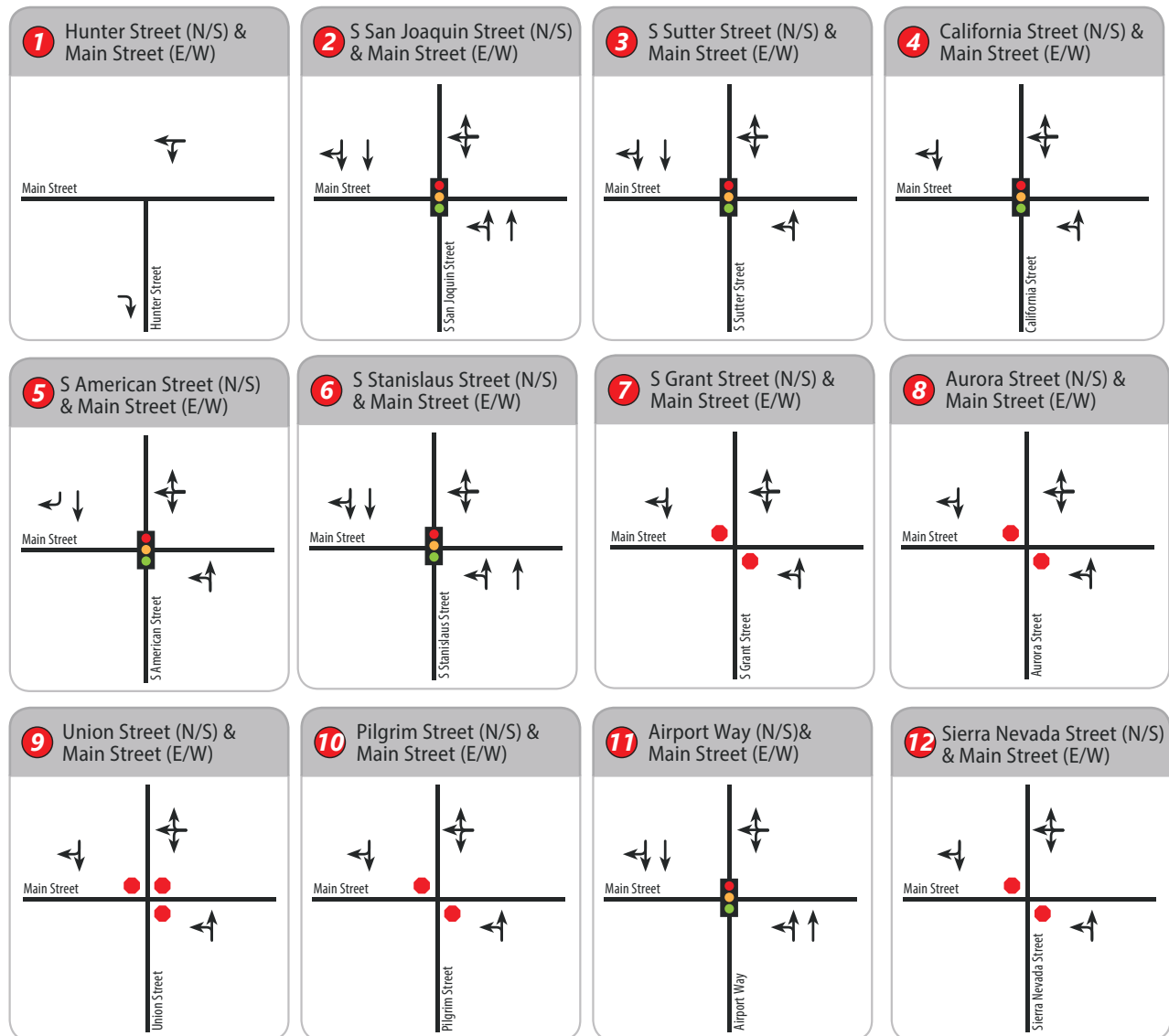
- Intersection 23: Main Street/David Avenue
 - Restripe eastbound and westbound as shared through+left lane and shared through+right lane
- Intersection 24: Main Street/Rendon Avenue
 - Restripe eastbound as shared through+left lane and an exclusive right turn lane

Market Street/Wilson Way (Study Intersection 43):

Main Street/Wilson Way intersection operating at acceptable level of service. However, as per City's review for eastbound approach, some significant queues may appear due to single lane and pedestrians blocking left/right turns. In order to reduce the congestion, lane configuration changes and signal timing optimization might help. Due to this, some improvement measures were also proposed at Main Street/Eugenia Street. These mitigations are feasible but could potentially lead to an increase in crashes at intersections due to right of way limitations and the addition of bike lanes. Recommended signage and lane markings should be implemented to reduce collisions.

- Intersection 43: Market Street/Wilson Way
 - Restripe eastbound as shared through+left lane and shared through+right lane and optimize signal timings.
- Intersection 44: Market Street/Eugenia Street
 - Restripe eastbound as an exclusive through lane and shared with through+right lane, and provide a receiving lane.

Figure 8a: Existing Build Conditions Intersection Lane Geometry and Traffic Control



LEGEND



Study Intersection



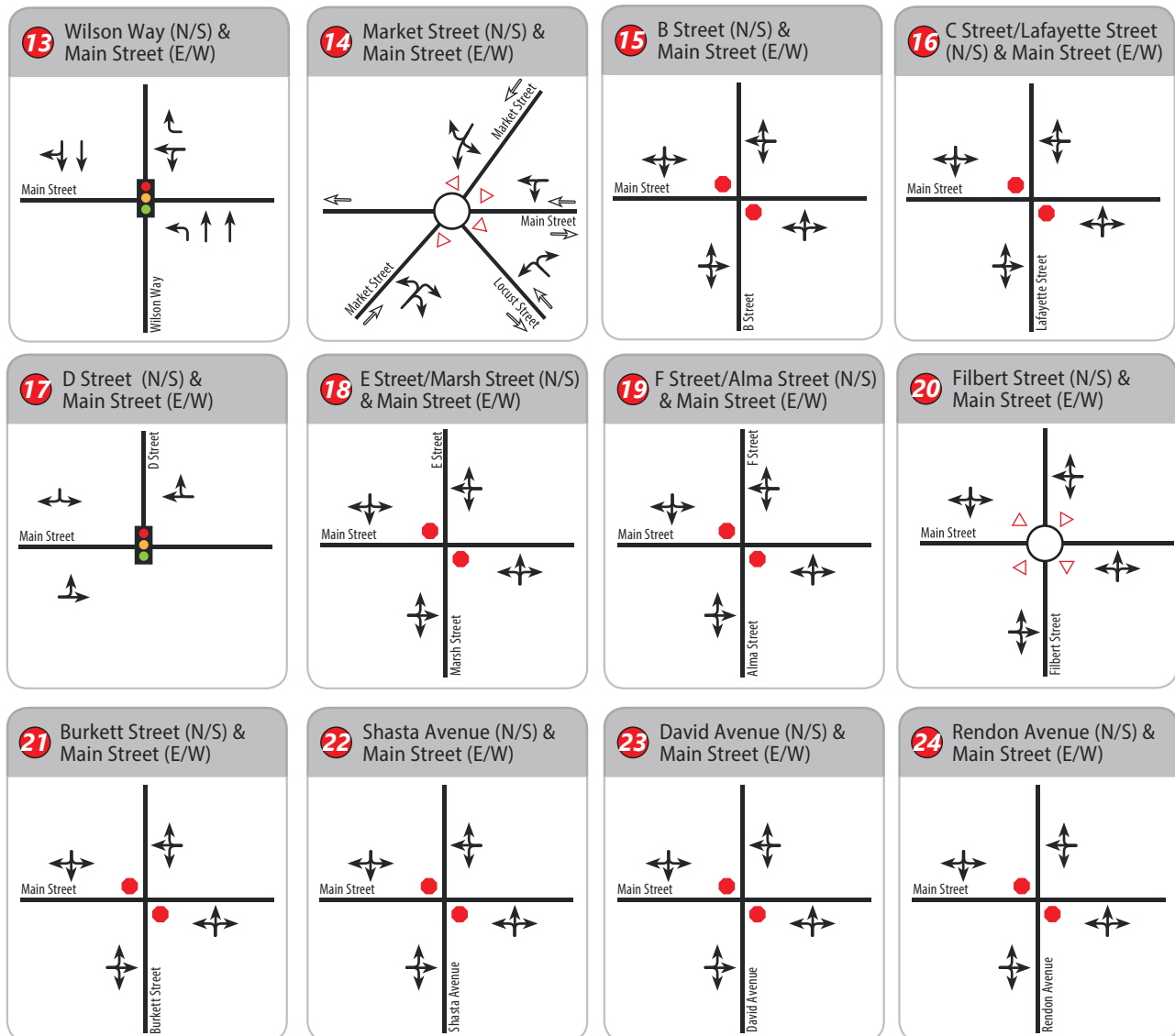
Traffic Signal



Stop Sign



Figure 8b: Existing Build Conditions Intersection Lane Geometry and Traffic Control

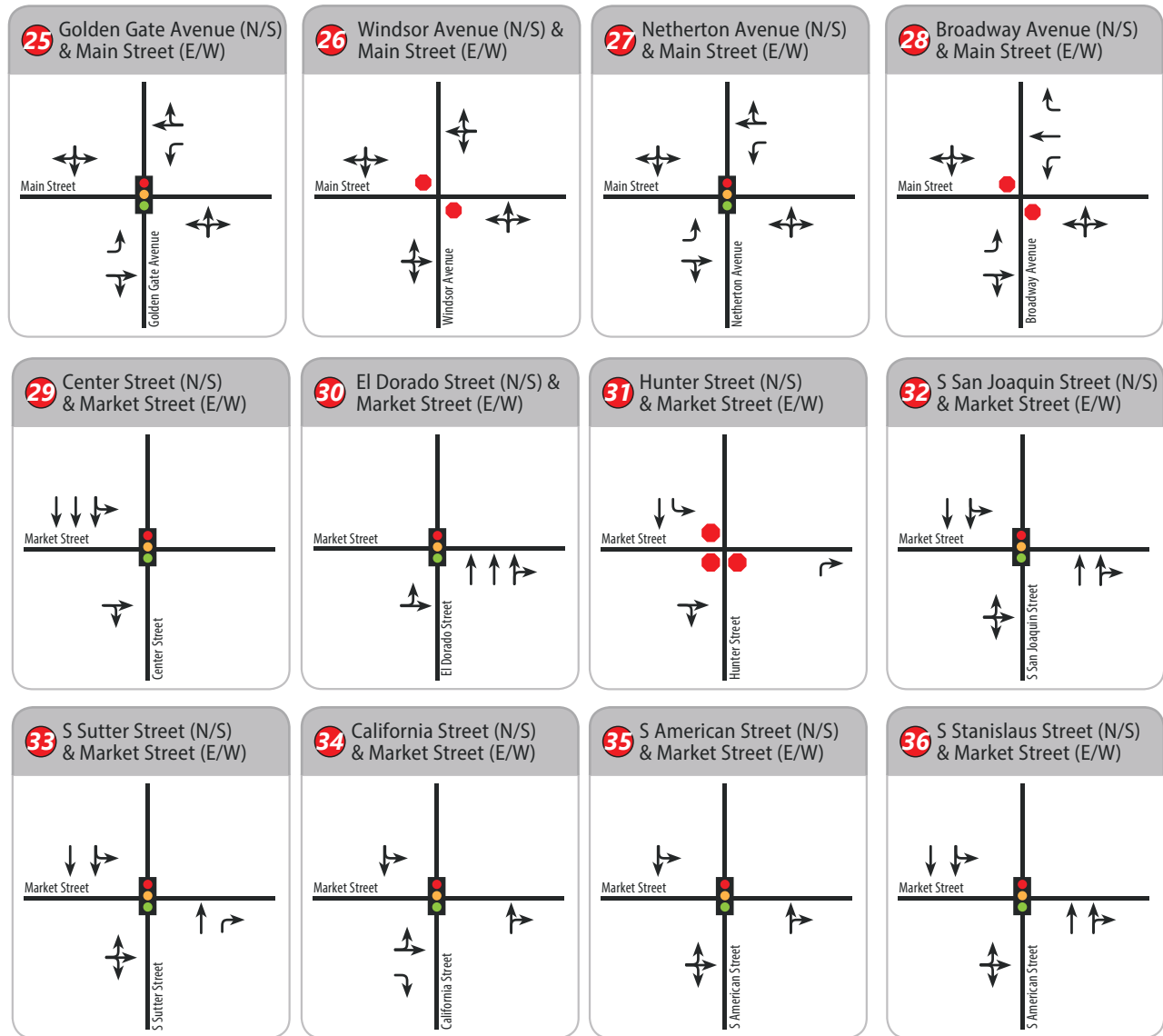


LEGEND

- X Study Intersection
- Stop Sign
-  Traffic Signal
-  Roundabout
- ▽ Yield Sign



Figure 8c: Existing Build Conditions Intersection Lane Geometry and Traffic Control

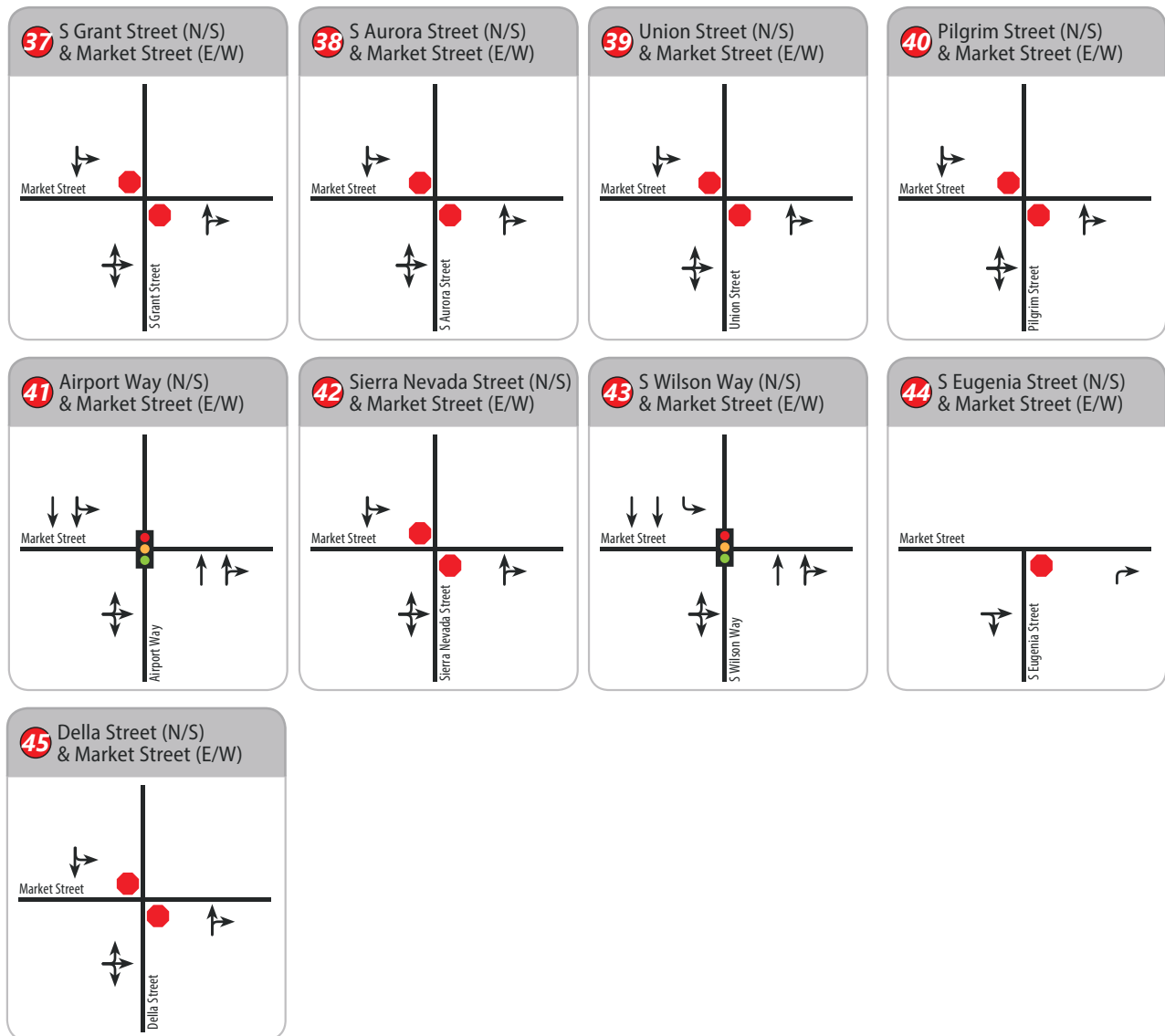


LEGEND

- X Study Intersection
- Stop Sign
-  Traffic Signal



Figure 8d: Existing Build Conditions Intersection Lane Geometry and Traffic Control



LEGEND

- X Study Intersection
- Stop Sign
-  Traffic Signal





BACKGROUND CONDITIONS

This scenario is identical to existing conditions with the addition of trips from the three developments on the east of State Route 99 (SR 99). All the three developments are the single family residential land use. **Figure 9 (a-c)** shows background conditions peak hour volumes. **Appendix E** contains trip estimates and distribution from the following projects.

EASTBROOK ESTATES

Eastbrook Estates is a 70-lot single-family residential development located on a 14.7-acre parcel at 5113 E. Main Street, at the northwest corner of S. Walker Lane and E. Main Street, east of Stockton. The traffic impact study was submitted on July 7, 2006. The traffic study anticipates a total of 749 daily trips, including 58 trips during the a.m. peak hour (15 inbound and 43 outbound) and 78 trips during the p.m. peak hour (49 inbound and 29 outbound). The following trip distribution was considered in the study:

- 3% to and from Main Street.
- 45% of trips are distributed from the north of Main Street along SR 99, accessing the site via Main Street and Golden Gate Avenue.
- 8% of trips are distributed from the south of Main Street along SR 99, also accessing through Main Street and Golden Gate Avenue.

LINGURIAN VILLAGE

Lingurian Village is a development that would feature 117 single-family residential units, situated on 19.9 acres of currently undeveloped land. The project is located at the northwest corner of South Del Mar Avenue and East Main Street, to the east of Stockton. The traffic study for the project, which was submitted on November 7, 2006, estimates a total of 1,201 daily trips, with 91 trips during the a.m. peak hour (23 inbound and 68 outbound) and 123 trips during the p.m. peak hour (77 inbound and 46 outbound). The following trip distribution same as Eastbrook Estates was considered in the study.

LINGURIAN VILLAGE UNIT 2

Lingurian Village Unit 2 would consist of 53 single-family residential units, to be built on 12.38 acres of undeveloped land. The site is located at the northeast corner of South Walker Lane and East Main Street, east of Stockton. The traffic study for the project, submitted on September 25, 2008, estimates a total of 580 daily trips, including 47 trips during the a.m. peak hour (12 inbound and 35 outbound) and 61 trips during the p.m. peak hour (38 inbound and 23 outbound). The following trip distribution was analyzed in the study:

- 56% to and from Main Street.

INTERSECTION LEVEL OF SERVICE ANALYSIS – BACKGROUND CONDITIONS

The results of the LOS analysis using the Synchro 12 software program for background conditions are summarized in **Table 12**. LOS worksheets are provided in **Appendix C**.



Under this scenario, all of the study intersections operate at acceptable service levels (LOS D or better) during a.m., and p.m. peak hours.

Table 12: Intersection Level of Service Analysis – Background Conditions

#	Intersection	Peak Hour ¹	Control	Existing Conditions		Background Conditions		Change in Delay ⁴
				Delay ²	LOS ³	Delay ²	LOS ³	
1	Main Street/S Hunter Street	AM	No Control	-	-	-	-	-
		PM		-	-	-	-	-
2	Main Street/San Joaquin Street	AM	Signal	14.4	B	16.1	B	1.7
		PM		15.5	B	17.2	B	1.7
3	Main Street/Sutter Street	AM	Signal	16.5	B	16.4	B	-0.1
		PM		17.3	B	17.3	B	0.0
4	Main Street/California Street	AM	Signal	21.8	C	22.7	C	0.9
		PM		22.7	C	23.4	C	0.7
5	Main Street/American Street	AM	Signal	30.1	C	32.4	C	2.3
		PM		20.7	C	21.1	C	0.4
6	Main Street/Stanslaus Street	AM	Signal	10.8	B	10.9	B	0.1
		PM		10.2	B	10.3	B	0.1
7	Main Street/Grant Street	AM	Two-Way Stop	10.8	B	11.1	B	0.3
		PM		10.4	B	10.5	B	0.1
8	Main Street/Aurora Street	AM	Two-Way Stop	11.6	B	11.9	B	0.3
		PM		10.7	B	10.9	B	0.2
9	Main Street/Union Street	AM	All-Way Stop	8.1	A	8.2	A	0.1
		PM		8.0	A	8.0	A	0.0
10	Main Street/Pilgrim Street	AM	Two-Way Stop	10.5	B	10.7	B	0.2
		PM		10.1	B	10.2	B	0.1
11	Main Street/Airport Way	AM	Signal	6.3	A	7.2	A	0.9
		PM		5.5	A	5.8	A	0.3
12	Main Street/Sierra Nevada Street	AM	Two-Way Stop	10.6	B	10.8	B	0.2
		PM		11.2	B	11.3	B	0.1
13	Main Street/Wilson Way	AM	Signal	10.5	B	10.8	B	0.3
		PM		8.6	A	8.8	A	0.2
14	Main Street/Market Street	AM	Signal	3.9	A	3.9	A	0.0
		PM		3.7	A	3.6	A	-0.1
15	Main Street/B Street	AM	Two-Way Stop	11.7	B	11.9	B	0.2
		PM		13.6	B	14.0	B	0.4
16	Main Street/C Street-Lafayette Street	AM	Two-Way Stop	13.8	B	14.1	B	0.3
		PM		12.6	B	12.9	B	0.3
17	Main Street/D Street	AM	Signal	3.5	A	3.5	A	0.0
		PM		3.5	A	3.6	A	0.1
18	Main Street/E Street-Marsh Street	AM	Two-Way Stop	16.0	C	16.7	C	0.7
		PM		16.6	C	17.3	C	0.7
19	Main Street/F Street-Alma Street	AM	Two-Way Stop	14.9	B	15.3	C	0.4
		PM		16.8	C	17.5	C	0.7
20	Main Street/Filbert Street*	AM	Signal	15.4	B	15.5	B	0.1
		PM		19.3	B	19.6	B	0.3



#	Intersection	Peak Hour ¹	Control	Existing Conditions		Background Conditions		Change in Delay ⁴
				Delay ²	LOS ³	Delay ²	LOS ³	
21	Main Street/Burkett Avenue	AM	Two-Way Stop	17.4	C	17.8	C	0.4
		PM		19.5	C	20.2	C	0.7
22	Main Street/Shasta Avenue	AM	Two-Way Stop	16.6	C	16.9	C	0.3
		PM		17.7	C	18.3	C	0.6
23	Main Street/David Avenue	AM	Two-Way Stop	17.1	C	17.6	C	0.5
		PM		27.7	D	29.2	D	1.5
24	Main Street/Rendon Avenue	AM	Two-Way Stop	19.1	C	19.7	C	0.6
		PM		25.2	D	26.6	D	1.4
25	Main Street/Golden Gate Avenue	AM	Signal	9.0	A	10.2	B	1.2
		PM		10.8	B	13.4	B	2.6
26	Main Street/Windsor Avenue	AM	Two-Way Stop	14.5	B	15.5	C	1.0
		PM		15.9	C	18.1	C	2.2
27	Main Street/Netherton Avenue	AM	Signal	13.6	B	12.0	B	-1.6
		PM		16.3	B	14.1	B	-2.2
28	Main Street/Broadway Avenue	AM	Two-Way Stop	20.1	C	24.0	C	3.9
		PM		16.0	C	18.1	C	2.1
29	Market Street/Center Street	AM	Signal	10.5	B	10.6	B	0.1
		PM		12.9	B	13.0	B	0.1
30	Market Street/El Dorado Street	AM	Signal	10.8	B	11.0	B	0.2
		PM		10.8	B	10.6	B	-0.2
31	Market Street/Hunter Street	AM	All-Way Stop	8.9	A	9.0	A	0.1
		PM		7.8	A	7.9	A	0.1
32	Market Street/San Joaquin Street	AM	Signal	10.9	B	11.0	B	0.1
		PM		9.2	A	9.6	A	0.4
33	Market Street/Sutter Street	AM	Signal	15.3	B	15.8	B	0.5
		PM		12.6	B	13.5	B	0.9
34	Market Street/California Street	AM	Signal	6.7	A	6.8	A	0.1
		PM		7.1	A	7.7	A	0.6
35	Market Street/American Street	AM	Signal	10.6	B	10.3	B	-0.3
		PM		6.3	A	5.8	A	-0.5
36	Market Street/Stanslaus Street	AM	Signal	11.8	B	11.7	B	-0.1
		PM		8.4	A	8.3	A	-0.1
37	Market Street/Grant Street	AM	Two-Way Stop	11.4	B	11.5	B	0.1
		PM		10.0	B	10.2	B	0.2
38	Market Street/Aurora Street	AM	Two-Way Stop	10.9	B	11.0	B	0.1
		PM		11.2	B	11.4	B	0.2
39	Market Street/Union Street	AM	Two-Way Stop	10.3	B	10.4	B	0.1
		PM		11.2	B	11.5	B	0.3
40	Market Street/Pilgrim Street	AM	Two-Way Stop	9.7	A	9.7	A	0.0
		PM		9.9	A	10.0	B	0.1
41	Market Street/Airport Way	AM	Signal	4.7	A	4.9	A	0.2
		PM		5.9	A	6.4	A	0.5
42		AM		10.1	B	10.1	B	0.0



#	Intersection	Peak Hour ¹	Control	Existing Conditions		Background Conditions		Change in Delay ⁴
				Delay ²	LOS ³	Delay ²	LOS ³	
	Market Street/Sierra Nevada Street	PM	Two-Way Stop	11.5	B	11.7	B	0.2
43	Market Street/Wilson Way	AM	Signal	11.8	B	12.0	B	0.2
		PM		16.8	B	17.2	B	0.4
44	Market Street/Eugenia Street	AM	Two-Way Stop	9.5	A	9.6	A	0.1
		PM		10.7	B	10.8	B	0.1
45	Market Street/Della Street	AM	Two-Way Stop	12.8	B	12.9	B	0.1
		PM		17.0	C	17.5	C	0.5

Notes:

1. AM – morning peak hour, PM – afternoon peak hour

2. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop – controlled intersections.

3. LOS – Level of Service.

4. Change in delay between existing conditions and background conditions

95TH PERCENTILE QUEUE ANALYSIS

TJKM conducted a vehicle queuing and turn lane storage analysis for study signalized intersections existing conditions. The 95th percentile queues were analyzed using the HCM Queue methodology contained in Synchro 12 software. **Table 13** presents the existing queues (in feet) at the study signalized intersections. **Appendix C** contains the queue output worksheets for existing conditions.

Under existing conditions, the southbound left-turn movement at Main Street/Filbert Street & Market Street/Wilson Way experiences queue lengths that exceed storage lengths for the a.m. and p.m. peak hours.

Table 13: 95th Percentile Queueing Analysis – Background Conditions

#	Intersection	Lane Group	Storage Length	Existing Conditions		Background Conditions		Change in Queue	
				AM	PM	AM	PM	AM	PM
1	Main Street/Hunter Street	EBR	-	-	-	-	-	-	-
		WBLT	-	-	-	-	-	-	-
2	Main Street/San Joaquin Street	WBT	-	34	37	43	45	9	8
		NBT	-	42	21	42	21	0	0
		SBT	-	60	40	61	41	1	1
3	Main Street/Sutter Street	WBT	-	16	27	27	34	11	7
		NBT	-	36	55	36	56	0	1
		SBT	-	41	38	41	38	0	0
4	Main Street/California Street	WBT	-	47	47	53	54	6	7
		NBT	-	85	75	85	75	0	0
		SBT	-	70	81	70	81	0	0
5	Main Street/American Street	WBT	-	72	49	80	54	8	5
		NBT	-	11	11	11	12	0	1
		SBT	-	24	14	24	14	0	0



#	Intersection	Lane Group	Storage Length	Existing Conditions		Background Conditions		Change in Queue	
				AM	PM	AM	PM	AM	PM
		SBR	-	18	17	18	17	0	0
6	Main Street/Stanislaus Street	WBT	-	36	37	41	40	5	3
		NBT	-	73	40	73	39	0	-1
		SBT	-	42	59	42	59	0	0
7	Main Street/Grant Street	NBLT	-	10	5	10	5	0	0
		SBTR	-	5	10	5	8	0	-2
8	Main Street/Aurora Street	NBLT	-	25	15	25	15	0	0
		SBTR	-	5	5	5	5	0	0
9	Main Street/Union Street	NBLT	-	15	15	13	13	-2	-2
		SBTR	-	10	10	10	8	0	-2
		WBLTR	-	10	5	10	8	0	-2
10	Main Street/Pilgrim Street	NBLT	-	5	5	3	3	-2	-2
		SBTR	-	5	5	3	3	-2	-2
		WBLTR	-	0	0	0	0	0	0
11	Main Street/Airport Way	NBLT	-	11	10	40	40	29	30
		SBTR	-	115	130	11	10	-104	-120
		WBLTR	-	54	51	115	130	61	79
12	Main Street/Sierra Nevada Street	NBLT	-	5	10	5	8	0	-2
		SBTR	-	5	10	5	10	0	0
		WBLTR	-	0	5	0	3	0	-2
13	Main Street/Wilson Way	WBT	-	91	84	98	90	7	6
		WBR	215	53	72	53	72	0	0
		NBL	70	36	23	36	23	0	0
		NBT	-	215	286	215	287	0	1
		SBTR	-	112	176	112	176	0	0
14	Main Street/Market Street	WBTR	-	26	21	27	22	1	1
		NBT	-	0	0	0	0	0	0
		SBT	-	0	0	0	0	0	0
15	Main Street/B Street	NBLTR	-	10	15	8	13	-2	-2
		SBLTR	-	0	5	0	3	0	-2
		EBL	-	0	0	0	0	0	0
		WBL	-	0	0	0	0	0	0
16	Main Street/Lafayette Street	NBLTR	-	5	10	8	8	3	-2
		SBLTR	-	5	5	5	3	0	-2
		EBL	-	5	5	3	3	-2	-2
		WBL	-	0	5	0	3	0	-2
17	Main Street/D Street	EBLT	-	20	32	20	33	0	1
		WBTR	-	29	26	31	27	2	1
		SBLR	-	9	10	9	10	0	0
18		NBLTR	-	0	5	0	5	0	0



#	Intersection	Lane Group	Storage Length	Existing Conditions		Background Conditions		Change in Queue	
				AM	PM	AM	PM	AM	PM
	Main Street/Marsh Street-E Street	SBLTR	-	10	25	13	23	3	-2
		EBL	-	5	0	3	0	-2	0
		WBL	-	0	5	0	3	0	-2
19	Main Street/Alma Street	NBLTR	-	5	5	3	3	-2	-2
		SBLTR	-	5	5	3	5	-2	0
		EBL	-	0	0	0	0	0	0
		WBL	-	0	5	0	3	0	-2
20	Main Street/Filbert Street	EBT	-	95	161	98	172	3	11
		WBT	-	159	138	176	148	17	10
		NBT	-	61	84	63	86	2	2
		SBL	50	193	289	197	300	4	11
		SBT	-	46	47	46	49	0	2
21	Main Street/Burkett Avenue	NBLTR	-	5	10	5	10	0	0
		SBLTR	-	5	5	5	3	0	-2
		EBL	-	5	5	3	3	-2	-2
		WBL	-	0	0	0	0	0	0
22	Main Street/Shasta Avenue	NBLTR	-	5	5	5	5	0	0
		SBLTR	-	0	5	0	3	0	-2
		EBL	-	0	0	0	0	0	0
		WBL	-	0	0	0	0	0	0
23	Main Street/David Avenue	NBLTR	-	5	10	5	8	0	-2
		SBLTR	-	5	5	3	3	-2	-2
		EBL	-	0	0	0	0	0	0
		WBL	-	0	0	0	0	0	0
24	Main Street/Rendon Avenue	NBLTR	-	5	15	5	15	0	0
		SBLTR	-	10	5	8	8	-2	3
		EBL	-	0	0	0	0	0	0
		WBL	-	0	5	0	3	0	-2
25	Main Street/Golden Gate Avenue	EBL	95	9	18	10	20	1	2
		EBT	-	117	185	129	207	12	22
		WBL	95	35	33	82	72	47	39
		WBT	-	137	110	141	112	4	2
		NBT	-	65	122	80	174	15	52
		SBT	-	33	39	37	45	4	6
26	Main Street/Windsor Avenue	NBLTR	-	5	5	3	5	-2	0
		SBLTR	-	5	5	5	3	0	-2
		EBL	-	0	0	0	0	0	0
		WBL	-	0	0	0	0	0	0
27		EBL	90	10	19	10	18	0	-1
		EBT	-	100	130	107	153	7	23



#	Intersection	Lane Group	Storage Length	Existing Conditions		Background Conditions		Change in Queue	
				AM	PM	AM	PM	AM	PM
	Main Street/Netherton Avenue	WBL	90	36	40	38	40	2	0
		WBT	-	132	103	156	117	24	14
		NBT	-	28	33	30	33	2	0
		SBT	-	39	35	41	35	2	0
28	Main Street/Broadway Avenue	NBLTR	-	5	5	5	8	0	2.5
		SBLTR	-	30	10	33	8	3	-2
		EBL	-	10	5	10	3	0	-2.5
		WBL	-	0	0	0	0	0	0
29	Market Street/Center Street	EBT	-	32	38	34	46	2	8
		SBT	-	169	281	169	281	0	0
30	Market Street/El Dorado Street	EBT	-	82	33	84	33	2	0
		NBT	-	163	142	163	142	0	0
31	Market Street/Hunter Street	EBT	-	20	10	20	10	0	0
		NBR	-	5	5	5	3	0	-2
		SBL	-	15	5	13	5	-2	0
		SBT	-	15	5	15	5	0	0
32	Market Street/San Joaquin Street	EBT	-	54	35	56	41	2	6
		NBT	-	35	28	35	28	0	0
		SBT	-	8	7	8	7	0	0
33	Market Street/Sutter Street	EBT	-	42	35	46	46	4	11
		NBT	-	55	59	55	59	0	0
		NBR	-	6	13	6	13	0	0
		SBT	-	5	20	5	20	0	0
34	Market Street/California Street	EBT	-	13	28	14	28	1	0
		NBT	-	43	33	43	33	0	0
		SBT	-	1	0	1	0	0	0
35	Market Street/American Street	EBT	-	27	21	27	21	0	0
		SBT	-	55	28	56	28	1	0
36	Market Street/Stanslaus Street	EBT	-	30	1	30	1	0	0
		NBT	-	106	55	106	55	0	0
		SBT	-	18	32	18	32	0	0
37	Market Street/Grant Street	NBTR	-	5	0	3	0	-2	0
		SBLT	-	5	5	3	5	-2	0
		EBL	-	5	5	3	3	-2	-2
38	Market Street/Aurora Street	NBTR	-	20	20	18	20	-2	0
		SBLT	-	5	10	5	8	0	-2
		EBL	-	0	5	0	3	0	-2
39	Market Street/Union Street	NBTR	-	15	15	13	15	-2	0
		SBLT	-	10	15	8	15	-2	0
		EBL	-	0	0	0	-	0	-



#	Intersection	Lane Group	Storage Length	Existing Conditions		Background Conditions		Change in Queue	
				AM	PM	AM	PM	AM	PM
40	Market Street/Pilgrim Street	NBTR	-	5	5	3	3	-2	-2
		SBLT	-	5	5	3	3	-2	-2
		EBL	-	0	0	0	-	0	-
41	Market Street/Airport Way	EBT	-	50	72	53	82	3	10
		NBT	-	158	167	158	167	0	0
		SBT	-	56	67	56	66	0	-1
42	Market Street/Sierra Nevada Street	NBTR	-	5	5	3	5	-2	0
		SBLT	-	5	15	3	15	-2	0
		EBL	-	0	0	0	0	0	0
43	Market Street/Wilson Way	EBT	-	61	97	61	111	0	14
		NBT	-	211	286	211	286	0	0
		SBL	90	126	220	126	220	0	0
		SBT	-	135	191	135	191	0	0
44	Market Street/Eugenia Street	NBR	-	5	5	5	5	0	0
		EBTR	-	0	0	-	-	-	-
45	Market Street/Della Street	NBTR	-	0	0	0	0	0	0
		SBLT	-	10	25	10	23	0	-2
		EBL	-	0	5	-	3	-	-2

Notes: Storage length and 95th percentile queue is expressed in feet per lane.

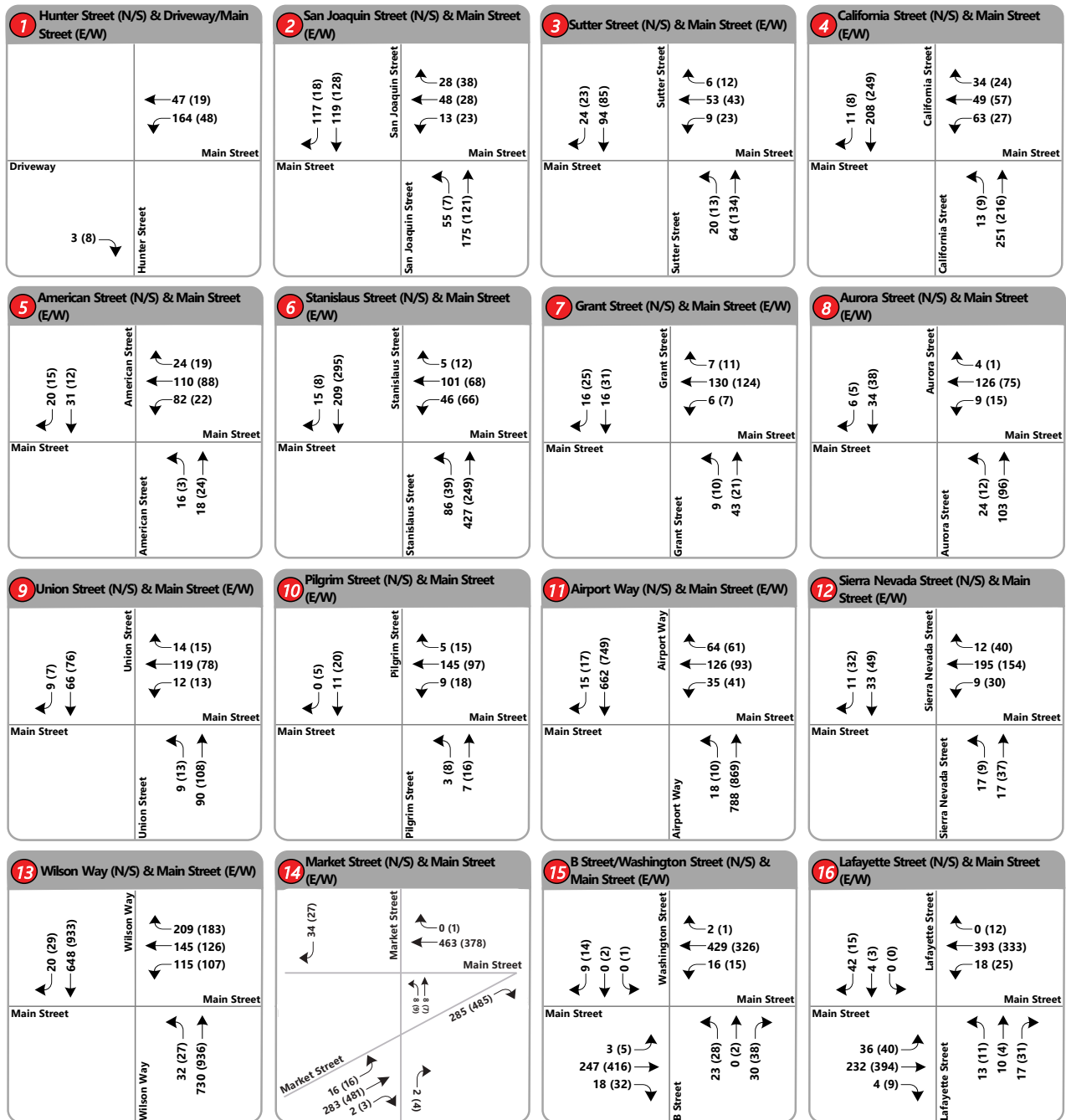
AM – morning peak hour, PM – afternoon peak hour

L – left turn, T – through, R- right turn

- indicates 95th percentile volume exceeds capacity, queue may be longer.

Bold indicates queue lengths exceeding capacity.

Figure 9a: Existing Plus Project Conditions Peak Hour Traffic Volumes and Traffic Control



LEGEND



Study Intersection

XX

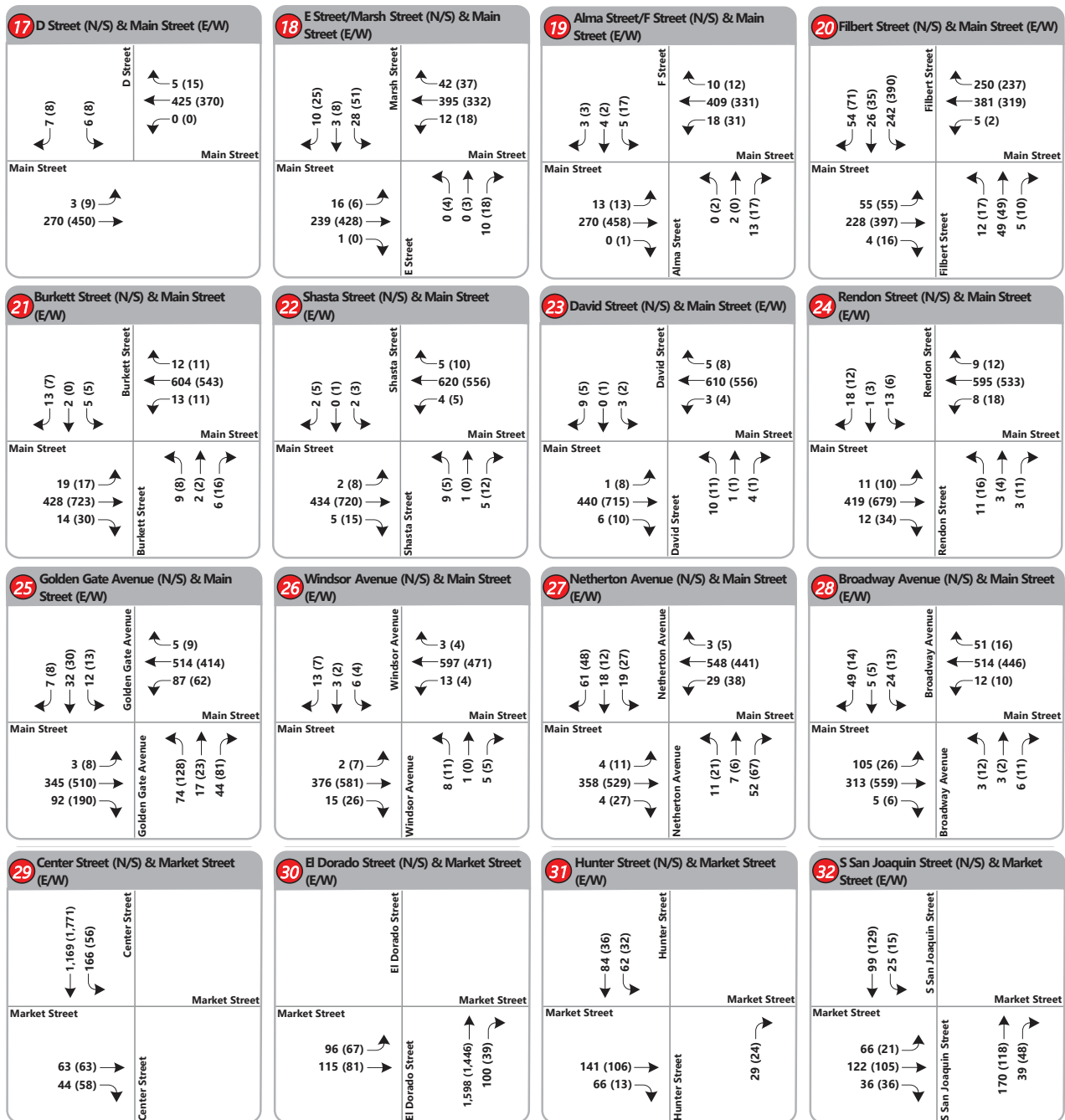
AM Peak Hour Volumes

(XX)

PM Peak Hour Volumes



Figure 9b: Existing Plus Project Conditions Peak Hour Traffic Volumes and Traffic Control



LEGEND



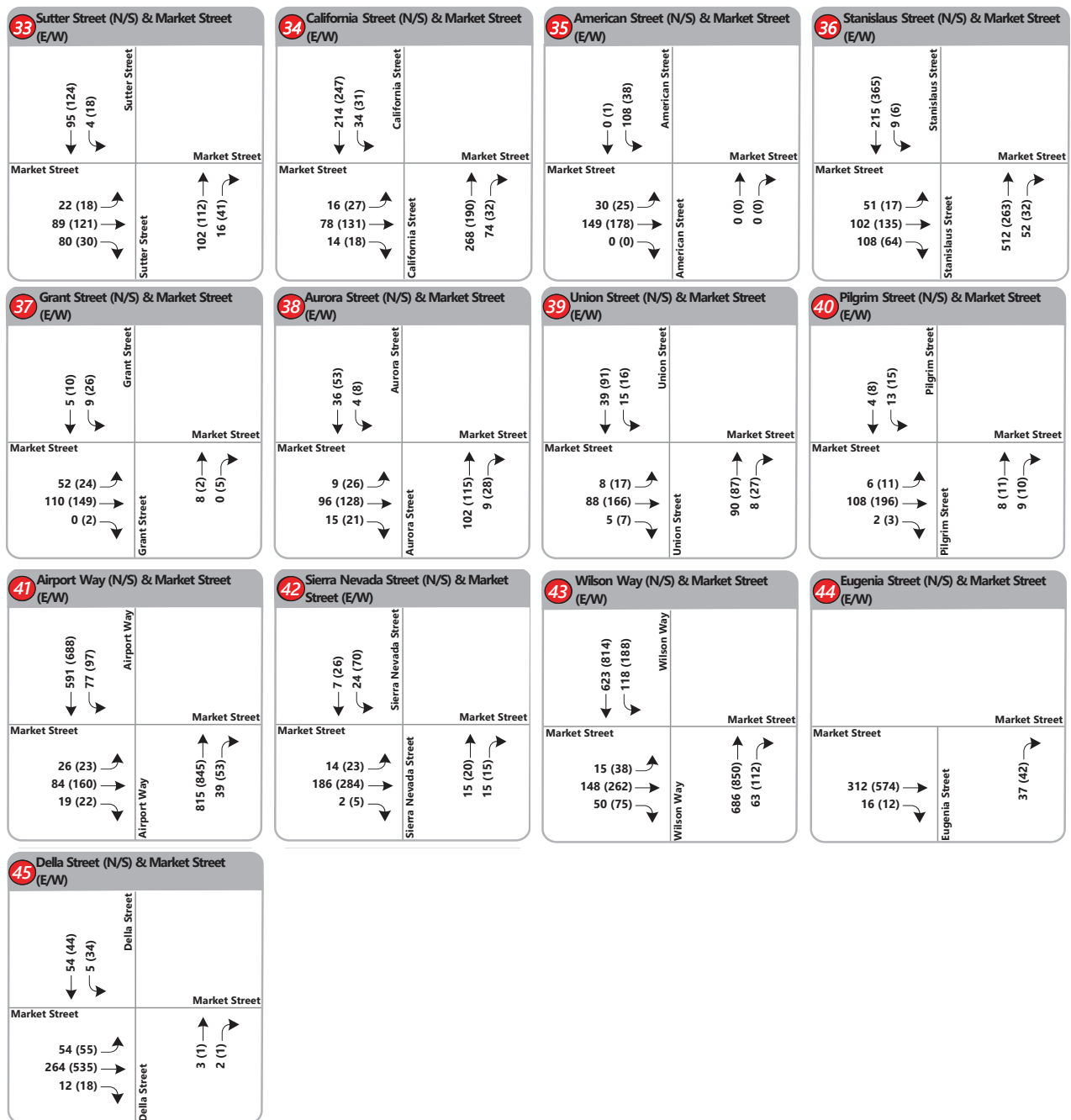
Study Intersection

XX AM Peak Hour Volumes

(XX) PM Peak Hour Volumes



Figure 9c: Existing Plus Project Conditions Peak Hour Traffic Volumes and Traffic Control



LEGEND



Study Intersection

XX AM Peak Hour Volumes

(XX) PM Peak Hour Volumes





BACKGROUND BUILD CONDITIONS

This scenario is identical to existing build conditions with the addition of project trips of the three residential developments as mentioned in background conditions.

INTERSECTION LEVEL OF SERVICE ANALYSIS – BACKGROUND BUILD CONDITIONS

The results of the LOS analysis using the Synchro 12 software program for existing Build conditions are summarized in **Table 14**. LOS worksheets are provided in **Appendix C**.

Under this scenario, all of the study intersections operate at acceptable service levels (LOS D or better) during a.m., and p.m. peak hours, except at the following intersections:

- Main Street/American Street operates at unacceptable LOS E only during the a.m. peak hour
- Main Street/David Avenue operates at unacceptable LOS E only during the p.m. peak hour.
- Main Street/Rendon Avenue operates at unacceptable LOS E only during the p.m. peak hour.

Table 14: Intersection Level of Service Analysis – Background Build Conditions

#	Intersection	Peak Hour	Existing Build Conditions			Background Build Conditions			Change in Delay
			Control	Delay	LOS	Control	Delay	LOS	
1	Main Street/S Hunter Street	AM	No Control	-	-	No Control	-	-	-
		PM		-	-		-	-	-
2	Main Street/San Joaquin Street	AM	Signal	14.8	B	Signal	17.2	B	2.4
		PM		16.1	B		18.5	B	2.4
3	Main Street/Sutter Street	AM	Signal	16.7	B	Signal	16.6	B	-0.1
		PM		17.5	B		17.6	B	0.1
4	Main Street/California Street	AM	Signal	26.1	C	Signal	27.1	C	1.0
		PM		27.1	C		27.7	C	0.6
5	Main Street/American Street	AM	Signal	49.8	D	Signal	66.4	E	16.6
		PM		24.9	C		26.4	C	1.5
	<u>Mitigation: Optimize signal timing</u>	AM		-	-		<u>25.8</u>	<u>C</u>	-
		PM		-	-		<u>26.4</u>	<u>C</u>	-
6	Main Street/Stanslaus Street	AM	Signal	10.7	B	Signal	11.0	B	0.3
		PM		10.3	B		10.5	B	0.2
7	Main Street/Grant Street	AM	Two-Way Stop	10.9	B	Two-Way Stop	11.3	B	0.4
		PM		10.6	B		10.8	B	0.2
8	Main Street/Aurora Street	AM	Two-Way Stop	11.7	B	Two-Way Stop	12.1	B	0.4
		PM		10.7	B		10.9	B	0.2
9	Main Street/Union Street	AM	All-Way Stop	8.1	A	All-Way Stop	8.3	A	0.2
		PM		7.9	A		8.0	A	0.1
10	Main Street/Pilgrim Street	AM	Two-Way Stop	10.5	B	Two-Way Stop	10.7	B	0.2
		PM		10.2	B		10.4	B	0.2
11	Main Street/Airport Way	AM	Signal	7.4	A	Signal	8.3	A	0.9
		PM		6.4	A		6.8	A	0.4
12		AM		11.0	B	Two-Way Stop	11.3	B	0.3



#	Intersection	Peak Hour	Existing Build Conditions			Background Build Conditions			Change in Delay
			Control	Delay	LOS	Control	Delay	LOS	
	Main Street/Sierra Nevada Street	PM	Two-Way Stop	11.2	B		11.3	B	0.1
13	Main Street/Wilson Way	AM	Signal	11.1	B	Signal	11.6	B	0.5
		PM		8.9	A		9.2	A	0.3
14	Main Street/Market Street	AM	Roundabout	2.1	A	Roundabout	2.1	A	0.0
		PM		2.0	A		2.0	A	0.0
15	Main Street/B Street	AM	Two-Way Stop	13.7	B	Two-Way Stop	14.1	B	0.4
		PM		15.8	C		16.5	C	0.7
16	Main Street/C Street-Lafayette Street	AM	Two-Way Stop	15.4	C	Two-Way Stop	16.0	C	0.6
		PM		11.7	B		12.0	B	0.3
17	Main Street/D Street	AM	Signal	4.3	A	Signal	4.3	A	0.0
		PM		4.5	A		4.6	A	0.1
18	Main Street/E Street-Marsh Street	AM	Two-Way Stop	18.0	C	Two-Way Stop	18.9	C	0.9
		PM		20.1	C		20.2	C	0.1
19	Main Street/F Street-Alma Street	AM	Two-Way Stop	16.0	C	Two-Way Stop	16.5	C	0.5
		PM		20.7	C		21.0	C	0.3
20	Main Street/Filbert Street	AM	Roundabout	5.4	A	Roundabout	5.5	A	0.1
		PM		7.4	A		7.7	A	0.3
21	Main Street/Burkett Avenue	AM	Two-Way Stop	22.5	C	Two-Way Stop	23.4	C	0.9
		PM		25.7	D		26.9	D	1.2
22	Main Street/Shasta Avenue	AM	Two-Way Stop	21.9	C	Two-Way Stop	22.9	C	1.0
		PM		23.5	C		24.6	C	1.1
	<u>Restripe westbound as shared through+left lane and exclusive right turn lane</u>	AM		<u>21.9</u>	<u>C</u>		<u>22.9</u>	<u>C</u>	-
		PM		<u>23.3</u>	<u>C</u>		<u>24.4</u>	<u>C</u>	-
23	Main Street/David Avenue	AM	Two-Way Stop	22.8	C	Two-Way Stop	23.9	C	1.1
		PM		37.4	E		40.0	E	2.6
	<u>Mitigation: Restripe eastbound and westbound as shared through+left lane and shared through+right lane</u>	AM		<u>17.1</u>	<u>C</u>		<u>17.6</u>	<u>C</u>	-
		PM		<u>27.7</u>	<u>D</u>		<u>29.2</u>	<u>D</u>	-
24	Main Street/Rendon Avenue	AM	Two-Way Stop	25.2	D	Two-Way Stop	26.4	D	1.2
		PM		33.5	D		36.0	E	2.5
	<u>Restripe eastbound as shared through+left lane and an exclusive right turn lane</u>	AM		<u>24.8</u>	<u>C</u>		<u>19.7</u>	<u>C</u>	-
		PM		<u>32.5</u>	<u>D</u>		<u>26.6</u>	<u>D</u>	-
25	Main Street/Golden Gate Avenue*	AM	Signal	10.7	B	Signal	12.4	B	1.7
		PM		14.4	B		18.9	B	4.5
	<u>Convert the eastbound pocket lane to full lane</u>	AM		-	-		<u>12.4</u>	<u>B</u>	-
		PM		-	-		<u>18.9</u>	<u>B</u>	-
26	Main Street/Windsor Avenue	AM	Two-Way Stop	17.8	C	Two-Way Stop	20.2	C	2.4
		PM		19.4	C		23.0	C	3.6
27	Main Street/Netherton Avenue	AM	Signal	10.8	B	Signal	10.9	B	0.1
		PM		17.6	B		12.2	B	-5.4
28		AM		22.6	C	Two-Way Stop	27.8	D	5.2



#	Intersection	Peak Hour	Existing Build Conditions			Background Build Conditions			Change in Delay
			Control	Delay	LOS	Control	Delay	LOS	
	Main Street/Broadway Avenue	PM	Two-Way Stop	18.9	C		22.3	C	3.4
29	Market Street/Center Street	AM	Signal	10.6	B	Signal	10.7	B	0.1
		PM		12.9	B		13.1	B	0.2
30	Market Street/El Dorado Street	AM	Signal	12.8	B	Signal	13.0	B	0.2
		PM		12.0	B		11.7	B	-0.3
31	Market Street/Hunter Street	AM	All-Way Stop	9.2	A	All-Way Stop	9.3	A	0.1
		PM		7.7	A		7.9	A	0.2
32	Market Street/San Joaquin Street	AM	Signal	12.2	B	Signal	12.4	B	0.2
		PM		9.6	A		10.2	B	0.6
33	Market Street/Sutter Street	AM	Signal	15.0	B	Signal	15.3	B	0.3
		PM		13.1	B		14.2	B	1.1
34	Market Street/California Street	AM	Signal	7.8	A	Signal	8.9	A	1.1
		PM		9.0	A		10.2	B	1.2
35	Market Street/American Street	AM	Signal	12.3	B	Signal	12.0	B	-0.3
		PM		6.6	A		6.2	A	-0.4
36	Market Street/Stanslaus Street	AM	Signal	12.7	B	Signal	12.7	B	0.0
		PM		9.4	A		9.3	A	-0.1
37	Market Street/Grant Street	AM	Two-Way Stop	11.4	B	Two-Way Stop	11.5	B	0.1
		PM		10.4	B		10.7	B	0.3
38	Market Street/Aurora Street	AM	Two-Way Stop	11.0	B	Two-Way Stop	11.1	B	0.1
		PM		11.2	B		11.5	B	0.3
39	Market Street/Union Street	AM	Two-Way Stop	10.3	B	Two-Way Stop	10.4	B	0.1
		PM		11.4	B		11.7	B	0.3
40	Market Street/Pilgrim Street	AM	Two-Way Stop	10.1	B	Two-Way Stop	10.2	B	0.1
		PM		10.3	B		10.6	B	0.3
41	Market Street/Airport Way	AM	Signal	5.1	A	Signal	5.4	A	0.3
		PM		6.6	A		7.2	A	0.6
42	Market Street/Sierra Nevada Street	AM	Two-Way Stop	10.7	B	Two-Way Stop	10.8	B	0.1
		PM		12.7	B		13.0	B	0.3
43	Market Street/Wilson Way	AM	Signal	13.2	B	Signal	13.6	B	0.4
		PM		23.4	C		25.4	C	2.0
	<u>Mitigation: Restripe eastbound as shared through+left lane and shared through+right lane and optimize signal timings</u>	AM		<u>11.6</u>	<u>B</u>		<u>12.0</u>	<u>B</u>	-
		PM		<u>16.0</u>	<u>B</u>		<u>16.8</u>	<u>B</u>	-
44	Market Street/Eugenia Street	AM	Two-Way Stop	10.5	B	Two-Way Stop	10.5	B	0.0
		PM		13.1	B		13.4	B	0.3
	<u>Restripe eastbound as exclusive through lane and shared through+right lane, and provide receiving lane</u>	AM		<u>9.5</u>	<u>A</u>		<u>9.6</u>	<u>A</u>	-
		PM		<u>10.7</u>	<u>B</u>		<u>10.8</u>	<u>B</u>	-
45	Market Street/Della Street	AM	Two-Way Stop	12.9	B	Two-Way Stop	13.0	B	0.1
		PM		19.7	C		20.6	C	0.9



Notes:

1. AM – morning peak hour, PM – afternoon peak hour
 2. Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop – controlled intersections.
 3. LOS – Level of Service.
 4. Change in delay between existing build conditions and background build conditions
- Bold** indicates unacceptable LOS and Delay

The peak-hour signal warrant from the California Manual of Uniform Traffic Control Devices (CA MUTCD) was evaluated for the unsignalized intersection of Main Street/David Avenue and Main Street/Rendon Avenue, operating at LOS E, to determine if a traffic signal is warranted. Under this scenario, the MUTCD peak hour signal warrant is not met for both the unsignalized intersections of Main Street/David Avenue and Main Street/Rendon Avenue during weekday a.m., and p.m. peak hour. Peak Hour Signal Warrant sheets are provided in **Appendix D**.

95TH PERCENTILE QUEUE ANALYSIS

TJKM conducted a vehicle queuing and turn lane storage analysis for study signalized intersections existing conditions. The 95th percentile queues were analyzed using the HCM Queue methodology contained in Synchro 12 software. **Table 15** presents the existing queues (in feet) at the study signalized intersections. **Appendix C** contains the queue output worksheets for existing conditions.

Under existing conditions, the southbound left-turn movement at Main Street/Filbert Street & Market Street/Wilson Way for the a.m. and p.m. peak hours and westbound left-turn movement at Main Street/Golden Gate Avenue for the a.m. peak hour experiences queue lengths that exceed storage lengths.

Table 15: 95th Percentile Queueing Analysis – Background Build Conditions

#	Intersection	Lane Group	Storage Length	Existing Build Conditions		Background Build Conditions		Background Build Conditions Mitigated	
				AM	PM	AM	PM	AM	PM
1	Main Street/Hunter Street	EBR	-	-	-	-	-	-	-
		WBLT	-	-	-	-	-	-	-
2	Main Street/San Joaquin Street	WBT	-	60	69	79	83	-	-
		NBT	-	43	22	44	22	-	-
		SBT	-	65	44	67	45	-	-
3	Main Street/Sutter Street	WBT	-	33	54	56	67	-	-
		NBT	-	36	56	36	56	-	-
		SBT	-	41	38	41	38	-	-
4	Main Street/California Street	WBT	-	79	92	86	105	-	-
		NBT	-	181	160	181	160	-	-
		SBT	-	150	177	150	177	-	-
5	Main Street/American Street	WBT	-	141	98	156	110	137	110
		NBT	-	19	16	20	18	38	18
		SBT	-	27	14	27	14	33	14
		SBR	-	20	17	20	17	25	17
6	Main Street/Stanislaus Street	WBT	-	76	81	88	89	-	-



#	Intersection	Lane Group	Storage Length	Existing Build Conditions		Background Build Conditions		Background Build Conditions Mitigated	
				AM	PM	AM	PM	AM	PM
		NBT	-	67	38	67	38	-	-
		SBT	-	42	59	42	59	-	-
7	Main Street/Grant Street	NBLT	-	10	5	10	5	-	-
		SBTR	-	5	10	5	10	-	-
8	Main Street/Aurora Street	NBLT	-	25	15	25	15	-	-
		SBTR	-	10	5	8	5	-	-
9	Main Street/Union Street	NBLT	-	15	15	13	13	-	-
		SBTR	-	10	10	10	8	-	-
		WBLTR	-	15	5	20	13	-	-
10	Main Street/Pilgrim Street	NBLT	-	5	5	3	3	-	-
		SBTR	-	5	5	3	3	-	-
		WBLTR	-	0	0	0	0	-	-
11	Main Street/Airport Way	NBLT	-	11	11	169	150	-	-
		SBTR	-	115	130	11	11	-	-
		WBLTR	-	177	156	115	130	-	-
12	Main Street/Sierra Nevada Street	NBLT	-	5	10	5	8	-	-
		SBTR	-	5	10	5	10	-	-
		WBLTR	-	0	5	0	3	-	-
13	Main Street/Wilson Way	WBT	-	195	179	213	191	-	-
		WBR	215	53	72	53	72	-	-
		NBL	70	34	20	33	20	-	-
		NBT	-	213	283	213	282	-	-
		SBTR	-	112	176	112	176	-	-
14	Main Street/Market Street	WBTR	-	65	50	70	50	-	-
		NBT	-	0	0	0	0	-	-
		SBT	-	10	5	10	5	-	-
15	Main Street/B Street	NBLTR	-	10	15	10	18	-	-
		SBLTR	-	0	5	3	3	-	-
		EBL	-	0	0	0	0	-	-
		WBL	-	0	0	0	0	-	-
16	Main Street/Lafayette Street	NBLTR	-	10	5	10	-	-	-
		SBLTR	-	10	5	8	-	-	-
		EBL	-	5	5	3	3	-	-
		WBL	-	0	5	0	3	-	-
17	Main Street/D Street	EBLT	-	46	80	48	87	-	-
		WBTR	-	75	65	80	69	-	-
		SBLR	-	11	12	11	13	-	-
18	Main Street/Marsh Street-E Street	NBLTR	-	0	5	0	-	-	-
		SBLTR	-	15	25	15	25	-	-
		EBL	-	5	0	3	0	-	-
		WBL	-	0	5	0	3	-	-
19	Main Street/Alma Street	NBLTR	-	5	5	3	-	-	-



#	Intersection	Lane Group	Storage Length	Existing Build Conditions		Background Build Conditions		Background Build Conditions Mitigated	
				AM	PM	AM	PM	AM	PM
		SBLTR	-	5	10	3	8	-	-
		EBL	-	0	5	0	0	-	-
		WBL	-	0	0	0	3	-	-
20	Main Street/Filbert Street	EBT	-	55	155	60	175	-	-
		WBT	-	140	115	150	120	-	-
		NBT	-	15	30	15	30	-	-
		SBL	50	70	155	75	160	-	-
		SBT	-	70	155	75	160	-	-
21	Main Street/Burkett Avenue	NBLTR	-	10	15	8	13	-	-
		SBLTR	-	5	5	5	5	-	-
		EBL	-	5	5	3	3	-	-
		WBL	-	0	0	0	0	-	-
22	Main Street/Shasta Avenue	NBLTR	-	5	10	5	8	5	8
		SBLTR	-	5	5	3	5	3	5
		EBL	-	0	0	0	0	0	0
		WBL	-	0	0	0	0	0	0
23	Main Street/David Avenue	NBLTR	-	5	10	8	10	5	8
		SBLTR	-	5	5	3	3	3	3
		EBL	-	0	0	0	0	0	0
		WBL	-	0	0	0	0	0	0
24	Main Street/Rendon Avenue	NBLTR	-	10	20	8	20	5	15
		SBLTR	-	10	10	13	10	8	8
		EBL	-	0	0	0	0	0	0
		WBL	-	0	5	0	3	0	3
25	Main Street/Golden Gate Avenue	EBL	95	10	21	11	22	11	22
		EBT	-	288	590	324	687	324	686
		WBL	95	41	40	101	84	101	84
		WBT	-	320	246	331	264	331	263
		NBT	-	89	161	112	212	112	212
		SBT	-	45	52	51	54	51	54
26	Main Street/Windsor Avenue	NBLTR	-	5	5	5	5	-	-
		SBLTR	-	5	5	5	3	-	-
		EBL	-	0	0	0	0	-	-
		WBL	-	0	0	0	0	-	-
27	Main Street/Netherton Avenue	EBL	90	12	20	12	21	-	-
		EBT	-	220	311	236	414	-	-
		WBL	90	43	45	44	47	-	-
		WBT	-	309	232	385	268	-	-
		NBT	-	38	40	39	42	-	-
		SBT	-	52	43	53	46	-	-
28	Main Street/Broadway Avenue	NBLTR	-	5	10	5	10	-	-
		SBLTR	-	30	10	40	10	-	-
		EBL	-	10	5	10	3	-	-



#	Intersection	Lane Group	Storage Length	Existing Build Conditions		Background Build Conditions		Background Build Conditions Mitigated	
				AM	PM	AM	PM	AM	PM
		WBL	-	0	0	0	0	-	-
29	Market Street/Center Street	EBT	-	65	78	74	95	-	-
		SBT	-	169	281	169	281	-	-
30	Market Street/El Dorado Street	EBT	-	169	64	174	64	-	-
		NBT	-	236	200	236	200	-	-
31	Market Street/Hunter Street	EBT	-	35	10	38	15	-	-
		NBR	-	5	5	5	3	-	-
		SBL	-	15	5	13	5	-	-
		SBT	-	15	5	15	5	-	-
32	Market Street/San Joaquin Street	EBT	-	125	77	130	93	-	-
		NBT	-	35	28	35	28	-	-
		SBT	-	8	7	8	7	-	-
33	Market Street/Sutter Street	EBT	-	85	89	92	108	-	-
		NBT	-	55	59	55	59	-	-
		NBR	-	6	13	6	13	-	-
		SBT	-	5	20	5	20	-	-
34	Market Street/California Street	EBT	-	27	56	28	56	-	-
		NBT	-	111	74	111	74	-	-
		SBT	-	2	0	2	0	-	-
35	Market Street/American Street	EBT	-	59	39	59	40	-	-
		SBT	-	75	24	73	24	-	-
36	Market Street/Stanslaus Street	EBT	-	140	47	140	48	-	-
		NBT	-	106	55	106	55	-	-
		SBT	-	18	32	18	32	-	-
37	Market Street/Grant Street	NBTR	-	5	0	3	0	-	-
		SBLT	-	5	5	3	5	-	-
		EBL	-	5	5	3	3	-	-
38	Market Street/Aurora Street	NBTR	-	20	20	18	20	-	-
		SBLT	-	5	10	5	8	-	-
		EBL	-	0	5	0	3	-	-
39	Market Street/Union Street	NBTR	-	15	15	13	15	-	-
		SBLT	-	10	15	8	15	-	-
		EBL	-	0	0	0	-	-	-
40	Market Street/Pilgrim Street	NBTR	-	5	5	3	3	-	-
		SBLT	-	5	5	3	3	-	-
		EBL	-	0	0	0	-	-	-
41	Market Street/Airport Way	EBT	-	113	161	119	182	-	-
		NBT	-	159	167	159	167	-	-
		SBT	-	55	69	54	68	-	-
42	Market Street/Sierra Nevada Street	NBTR	-	5	5	3	5	-	-
		SBLT	-	5	15	5	18	-	-
		EBL	-	0	0	0	0	-	-
43	Market Street/Wilson Way	EBT	-	156	348	171	383	95	159
		NBT	-	211	286	211	286	233	346



#	Intersection	Lane Group	Storage Length	Existing Build Conditions		Background Build Conditions		Background Build Conditions Mitigated	
				AM	PM	AM	PM	AM	PM
		SBL	90	126	221	126	220	80	111
		SBT	-	153	205	154	206	42	51
44	Market Street/Eugenia Street	NBR	-	10	10	5	8	5	5
		EBTR	-	0	0	-	-	0	0
45	Market Street/Della Street	NBTR	-	0	0	0	0	-	-
		SBLT	-	10	25	10	28	-	-
		EBL	-	0	5	-	3	-	-

Notes: Storage length and 95th percentile queue is expressed in feet per lane.

AM – morning peak hour, PM – afternoon peak hour

L – left turn, T – through, R- right turn

- indicates 95th percentile volume exceeds capacity, queue may be longer.

Bold indicates queue lengths exceeding capacity.

SUGGESTED IMPROVEMENTS

The intersections with unacceptable operating conditions were further analyzed to identify changes that would improve their conditions and reduce their delay under background Build conditions. In addition to this, mitigation measures were also identified at some of the intersections where there are some significant queues that were observed during the SimTraffic simulation under background Build conditions. The improvements and their effects on intersection operating conditions are summarized in Error! Reference source not found., & **Table 15**. Detailed calculation sheets for existing Build conditions with mitigations are contained in Error! Reference source not found..

Main Street/American Street (Study Intersection 5):

The signal timing at the Main Street/American Street intersection needs to be optimized to maintain an acceptable level of service due to road diet and increased traffic. Once optimized, the intersection is expected to operate at Level of Service (LOS) C, with a delay of 25.8 seconds per vehicle. Synchro results are attached in **Appendix C**.

Main Street/David Avenue (Study Intersection 23):

Mitigation measures at this intersection include the roadway improvements such as “Restripe eastbound and westbound as shared through+left lane and shared through+right lane. These measures would reduce intersection delay to acceptable LOS. Proposed lane configuration would be provided for the Main Street segment between Shasta Avenue and Rendon Avenue. On-street parking would be prohibited on both the sides for this section of segment to reduce the congestion at these intersections. **Table 14** shows the improvements at Main Street/Shasta Avenue (Study Intersection 22), Main Street/Rendon Avenue (Study Intersection 24), and Main Street/Golden Gate Avenue (Study Intersection 25).



- Intersection 22: Main Street/Shasta Avenue
 - Restripe westbound as shared through+left lane and exclusive right turn lane
- Intersection 23: Main Street/David Avenue
 - Restripe eastbound and westbound as shared through+left lane and shared through+right lane
- Intersection 24: Main Street/Rendon Avenue
 - Restripe eastbound as shared through+left lane and an exclusive right turn lane
- Intersection 25: Main Street/Golden Gate Avenue
 - Convert the eastbound pocket lane to full lane

Market Street/Wilson Way (Study Intersection 43):

Main Street/Wilson Way intersection operating at acceptable level of service. However, some significant queues may appear due to single lane and pedestrians blocking left/right turns. In order to reduce the congestion, lane configuration changes and signal timing optimization might help. Due to this, some improvement measures were also proposed at Main Street/Eugenia Street. These mitigations are feasible but could potentially lead to an increase in crashes at intersections due to right of way limitations and the addition of bike lanes. Recommended signage and lane markings should be implemented to reduce collisions.

- Intersection 43: Market Street/Wilson Way
 - Restripe eastbound as shared through+left lane and shared through+right lane and optimize signal timings.
- Intersection 44: Market Street/Eugenia Street
 - Restripe eastbound as an exclusive through lane and shared with through+right lane, and provide a receiving lane.



EVALUATION OF RRFB AND PHB AT MAIN STREET/ D STREET INTERSECTION

TJKM conducted a warrant analysis to determine pedestrian safety enhancement devices such as Rectangular Rapid Flashing Beacon (RRFB), and Pedestrian Hybrid Beacon (PHB) at Main Street/D Street intersection. TJKM evaluated the feasibility of pedestrian crossing safety enhancements at this location, including High Intensity Activated Crosswalk (HAWK) signal (or Pedestrian Hybrid Beacon (PHB)) and Rectangular Rapid Flashing Beacon (RRFB) systems. To enhance pedestrian safety and evaluate appropriate enhancements, Section 4F.01 and 4N.01 of the 2014 Revision 8 *California Manual on Uniform Traffic Control Devices (CA MUTCD)* was used. The following is a brief description of various pedestrian safety measures:



High Intensity Activated Crosswalk (HAWK) Signal

A HAWK signal, or a Pedestrian Hybrid Beacon (PHB), is a special type of hybrid beacon used to warn and control traffic at an uncontrolled location to assist pedestrians in crossing a street at a marked crosswalk. This type of pedestrian activated traffic control device has a higher compliance rate compared to In-Roadway Warning Lights (IRWL) and RRFB systems.



Rectangular Rapid Flashing Beacon (RRFB)

The RRFB uses rectangular-shaped high intensity light-emitting-diode (LED) based indicators, flashes rapidly in a combination wig-wag and simultaneous flash pattern, and may be mounted immediately adjacent to the crossing sign. Research studies have shown this type of pedestrian activated

traffic control device has a higher compliance rate than IRWL systems.

HIGH INTENSITY ACTIVATED CROSSWALK (HAWK) SIGNAL WARRANT

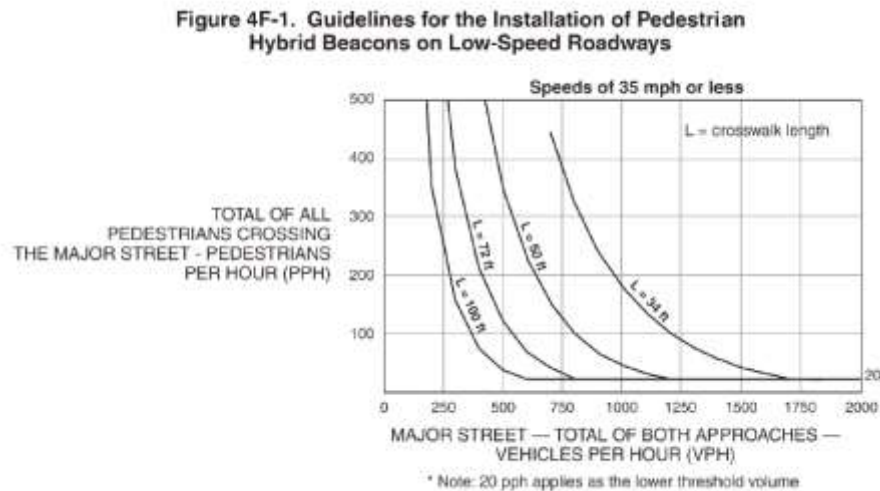
Chapter 4F of the CA MUTCD describes the guidelines for application of HAWK signals. The following refers to the warrant applicable to the study area:

- *For a major street where the posted or statutory speed limit or the 85th-percentile speed is 35 mph or less, the need for a pedestrian hybrid beacon should be considered if the engineering study finds that the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding total of all pedestrians crossing the major street for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4F-1 for the length of the crosswalk.*



Figure 10 is a screenshot of Figure 4F-1 of the CA MUTCD which was used for the HAWK warrant. Detailed HAWK signal warrant guidelines are contained in **Appendix D**.

Figure 10: Pedestrian Hybrid Beacons Guidelines for Low-Speed Roadways



Source: CA MUTCD 2014 Edition Revision 8 (January 11, 2024)

Table 16 shows Pedestrian Hybrid Beacon (PHB) warrant analysis with the max hourly vehicle and pedestrian volume. **Appendix D** contains the detailed graph of the PHB analysis.

Table 16: PHB Warrant Analysis

#	Intersection	Crosswalk Leg	Pedestrian crossing major street per hour	Total vehicular volume for both approaches per hour ¹	Crosswalk Length (ft.)	HAWK Signal Warrant
1	Main Street/D Street	East	4	805	60	Not Met
		North	5	16	45	Not Met

RECTANGULAR RAPID FLASHING BEACON (RRFB) WARRANT

City of Stockton Pedestrian Safety and Crosswalk Installation Guidelines (2020 Update) with regard to installing a RRFB. For the purpose of this analysis, the In-Roadway Warning Lights warrant criteria in Chapter 4N of the CAMUTCD is used to warrant for RRFB's. The following are the applicable standards listed in Section 4N.02 (Line 14) to consider for the IRWL warrant in the study area:

1. Whether the crossing is controlled or uncontrolled.
2. An engineering traffic study to determine if In-Roadway Warning Lights are compatible with the safety and operation of nearby intersections, which may or may not be, controlled by traffic signals or STOP/YIELD signs.
3. Standard traffic signs for crossings and crosswalk pavement markings are provided.



4. At least 40 pedestrians regularly use the crossing during each of any two hours (not necessarily consecutive) during a 24-hour period.
5. The vehicular volume through the crossing exceeds 200 vehicles per hour in urban areas or 140 vehicles per hour in rural areas during peak-hour pedestrian usage.
6. The critical approach speed (85th percentile) is 45 mph or less.
7. In-Roadway Warning Lights are visible to drivers at the minimum stopping sight distance for the posted speed limit.
8. Public education on In-Roadway Warning Lights is conducted for new installations.

Table 17 shows Rectangular Rapid Flashing Beacon (RRFB) warrant analysis with the maximum hourly vehicle and pedestrian volume. Detailed Guidelines are contained in **Appendix D**.

Table 17: RRFB Warrant Analysis

#	Intersection	Crosswalk Leg	Pedestrian crossing major street per hour	Total vehicular volume for both approaches per hour ¹	RRFB Signal Warrant
1	Main Street/D Street	East	4	805	Not Met
		North	5	16	Not Met

EVALUATION OF RRFB OR HAWK AT FAIR OAKS LIBRARY

TJKM did a qualitative analysis of RRFB and HAWK at the existing pedestrian signal crossing at Fair Oaks Library on Main Street. Currently, there is a pedestrian signal operating for crossing the pedestrians and as well as bicycles. There are collisions along Main Street nearby the library but none of them involve pedestrian or bike collisions over a period of 2015-2022. Existing signal present at the midblock crossing is safer than providing RRFB or HAWK. However in future, a detailed analysis should be conducted to see the feasibility to provide RRFB or HAWK.

SUMMARY

The results of the analysis on Main Street and Market Street are summarized here:

- Collision Analysis – during the eight year period, there were 371 collisions, 349 of which occurred at intersections. Broadside (219 collisions, 63 %) and rear-end (49 collisions, 14%) collisions were the most common collisions types at intersections. 72% of collisions at intersections resulted in complaint of pain (250 collisions). Traffic signals and signs violations (124 collisions, 36%), Automobile right-of-way (86 collisions, 25 %) and unsafe speeding (54 collisions, 15%) were the most common collision factors. Market Street/Airport Way, Main Street/Filbert Street, Main Street/Airport Way, Main Street/Wilson Way, and Market Street/Wilson Way experienced the highest number of collisions. 22 out of the 45 study intersections experienced a collision rate higher than the Caltrans' 2021 statewide average.



- Vehicle-pedestrian collisions accounted for 9% (30 collisions) and vehicle-bicycle collisions accounted for 4% (15 collisions) of all collisions.
- Intersection Level of Service – under existing conditions, all of the study intersections operate at acceptable service levels (LOS D or better) during a.m., and p.m. peak hours. Under existing build conditions, all of the study intersections operate at acceptable service levels (LOS D or better) during a.m., and p.m. peak hours, except at Main Street/David Avenue operates at unacceptable LOS E only during the p.m. peak hour. Under background conditions, all of the study intersections operate at acceptable service levels (LOS D or better) during a.m., and p.m. peak hours. Under background build conditions, Main Street/American Street during a.m. peak hour, Main Street/David Avenue during p.m. peak hour, and Main Street/Rendon Avenue during p.m. peak hour, operates at unacceptable LOS E, rest all the other intersection are under acceptable level of service (LOS D or better).
- Main Street/American Street needs optimizing signal timing. After the mitigation, it is expected to operate at acceptable level of service (LOS C).
- Mitigation measures such as lane configuration changes were identified at Shasta Avenue, David Avenue, Rendon Avenue along Main Street to reduce the congestion. In addition to this, improvements were also suggested along Market Street at Wilson Way and Eugenia Street.
- Roadway Segment Level of Service – under existing conditions, all of the study roadway segments are operating at LOS C or better.
- 95th percentile Queueing Analysis – under existing conditions, the southbound left turn movement at Main Street/Filbert Street and Market Street/Wilson Way experiences queue lengths that exceed storage lengths for the a.m. and p.m. peak hours. Under existing build conditions and background conditions, queue length exceeds the available storage length of roadway. Under background build conditions, additional westbound left-turn lane at Main Street/Golden Gate Avenue exceeds the available storage length.
- At Main Street/D Street intersection, Pedestrian Hybrid Beacon and Rectangular Rapid Flashing Beacon is not warranted.



APPENDIX A – COLLISION DATA SET

[illegible]

[illegible]



APPENDIX B – TRAFFIC COUNT SHEETS

Location: Main St, Between San Joaquin Street and Sutter Street
 Date Range: 4/3/2024 - 4/9/2024
 Site Code: 01

Time	Wednesday 4/3/2024			Thursday 4/4/2024			Friday 4/5/2024			Saturday 4/6/2024			Sunday 4/7/2024			Monday 4/8/2024			Tuesday 4/9/2024			Mid-Week Average		
	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total
12:00 AM	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	2
1:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
2:00 AM	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	2
3:00 AM	3	0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0	3
4:00 AM	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0	1
5:00 AM	6	0	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	0	6
6:00 AM	14	0	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	0	14
7:00 AM	34	0	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	0	34
8:00 AM	75	0	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	0	75
9:00 AM	67	0	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	67	0	67
10:00 AM	98	0	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	98	0	98
11:00 AM	96	0	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	96	0	96
12:00 PM	109	0	109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	109	0	109
1:00 PM	116	0	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	116	0	116
2:00 PM	77	0	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	77	0	77
3:00 PM	77	0	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	77	0	77
4:00 PM	64	0	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	0	64
5:00 PM	39	0	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	0	39
6:00 PM	33	0	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	0	33
7:00 PM	12	0	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	0	12
8:00 PM	12	0	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	0	12
9:00 PM	9	0	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	0	9
10:00 PM	3	0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0	3
11:00 PM	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	2
Total	951	-	951	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	951	-	951
Percent	100%	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-	
AM Peak	10:00	-	10:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10:00	-	10:00
Vol.	98	-	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	98	-	98
PM Peak	13:00	-	13:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13:00	-	13:00
Vol.	116	-	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	116	-	116

1. Mid-week average includes data between Tuesday and Thursday.

Location: Main St, Between American Street and Stanislaus Street
 Date Range: 4/3/2024 - 4/9/2024
 Site Code: 02

Time	Wednesday 4/3/2024			Thursday 4/4/2024			Friday 4/5/2024			Saturday 4/6/2024			Sunday 4/7/2024			Monday 4/8/2024			Tuesday 4/9/2024			Mid-Week Average		
	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total
12:00 AM	5	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	0	5
1:00 AM	7	0	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	0	7
2:00 AM	3	0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0	3
3:00 AM	4	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0	4
4:00 AM	6	0	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	0	6
5:00 AM	14	0	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	0	14
6:00 AM	32	0	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	0	32
7:00 AM	181	0	181	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	181	0	181
8:00 AM	106	0	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	106	0	106
9:00 AM	75	0	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	0	75
10:00 AM	69	0	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69	0	69
11:00 AM	110	0	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	110	0	110
12:00 PM	145	0	145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	145	0	145
1:00 PM	90	0	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	0	90
2:00 PM	108	0	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	108	0	108
3:00 PM	98	0	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	98	0	98
4:00 PM	111	0	111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	111	0	111
5:00 PM	65	0	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	0	65
6:00 PM	31	0	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	0	31
7:00 PM	25	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	0	25
8:00 PM	20	0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	0	20
9:00 PM	23	0	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	0	23
10:00 PM	10	0	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	0	10
11:00 PM	5	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	0	5
Total	1,343	-	1,343	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,343	-	1,343
Percent	100%	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-	
AM Peak	07:00	-	07:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	07:00	-	07:00
Vol.	181	-	181	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	181	-	181
PM Peak	12:00	-	12:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12:00	-	12:00
Vol.	145	-	145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	145	-	145

1. Mid-week average includes data between Tuesday and Thursday.

Location: Main St, Between Grant Street and Aurora Street
 Date Range: 4/3/2024 - 4/9/2024
 Site Code: 03

Time	Wednesday 4/3/2024			Thursday 4/4/2024			Friday 4/5/2024			Saturday 4/6/2024			Sunday 4/7/2024			Monday 4/8/2024			Tuesday 4/9/2024			Mid-Week Average		
	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total	WB	EB	Total
12:00 AM	13	0	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	0	13
1:00 AM	13	0	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	0	13
2:00 AM	11	0	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	0	11
3:00 AM	7	0	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	0	7
4:00 AM	13	0	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	0	13
5:00 AM	22	0	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	0	22
6:00 AM	34	0	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	0	34
7:00 AM	91	0	91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	91	0	91
8:00 AM	89	0	89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89	0	89
9:00 AM	77	0	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	77	0	77
10:00 AM	74	0	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74	0	74
11:00 AM	97	0	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	97	0	97
12:00 PM	121	0	121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	121	0	121
1:00 PM	113	0	113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	113	0	113
2:00 PM	118	0	118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	118	0	118
3:00 PM	131	0	131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	131	0	131
4:00 PM	125	0	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	125	0	125
5:00 PM	108	0	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	108	0	108
6:00 PM	68	0	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	68	0	68
7:00 PM	47	0	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47	0	47
8:00 PM	32	0	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	0	32
9:00 PM	36	0	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	0	36
10:00 PM	12	0	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	0	12
11:00 PM	7	0	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	0	7
Total	1,459	-	1,459	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,459	-	1,459
Percent	100%	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-	
AM Peak	11:00	-	11:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11:00	-	11:00
Vol.	97	-	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	97	-	97
PM Peak	15:00	-	15:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15:00	-	15:00
Vol.	131	-	131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	131	-	131

1. Mid-week average includes data between Tuesday and Thursday.

Location: 01 - Main St, Between Aurora Street and Union Street

Date Range: 9/28/2023 - 10/4/2023

Site Code:

Time	Thursday 9/28/2023			Friday 9/29/2023			Saturday 9/30/2023			Sunday 10/1/2023			Monday 10/2/2023			Tuesday 10/3/2023			Wednesday 10/4/2023			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	0	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	6	6
1:00 AM	0	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	4	4
2:00 AM	0	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	3	3
3:00 AM	0	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	3	3
4:00 AM	0	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	10	10
5:00 AM	0	9	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	9	9
6:00 AM	0	27	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	27	27
7:00 AM	0	92	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	92	92
8:00 AM	0	91	91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	91	91
9:00 AM	0	90	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	90	90
10:00 AM	0	68	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	68	68
11:00 AM	0	70	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	70	70
12:00 PM	0	85	85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	85	85
1:00 PM	0	95	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	95	95
2:00 PM	0	104	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	104	104
3:00 PM	0	92	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	92	92
4:00 PM	0	84	84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	84	84
5:00 PM	0	68	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	68	68
6:00 PM	0	44	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	44	44
7:00 PM	0	34	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	34	34
8:00 PM	0	27	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	27	27
9:00 PM	0	27	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	27	27
10:00 PM	0	15	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	15	15
11:00 PM	0	15	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	15	15
Total	-	1,163	1,163	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,163	1,163
Percent	-	100%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	
AM Peak	-	07:00	07:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	07:00	07:00
Vol.	-	92	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	92	92
PM Peak	-	14:00	14:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14:00	14:00
Vol.	-	104	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	104

1. Mid-week average includes data between Tuesday and Thursday.

Location: 02 - Main St, Between Airport Way and Sierra Nevada Street
 Date Range: 9/28/2023 - 10/4/2023
 Site Code:

Time	Thursday 9/28/2023			Friday 9/29/2023			Saturday 9/30/2023			Sunday 10/1/2023			Monday 10/2/2023			Tuesday 10/3/2023			Wednesday 10/4/2023			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	0	18	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	18	18
1:00 AM	0	9	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	9	9
2:00 AM	0	11	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	11	11
3:00 AM	0	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	8	8
4:00 AM	0	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	25	25
5:00 AM	0	41	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	41	41
6:00 AM	0	57	57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	57	57
7:00 AM	0	124	124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	124	124
8:00 AM	0	181	181	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	181	181
9:00 AM	0	157	157	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	157	157
10:00 AM	0	129	129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	129	129
11:00 AM	0	146	146	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	146	146
12:00 PM	0	26	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	26	26
1:00 PM	0	96	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	96	96
2:00 PM	0	207	207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	207	207
3:00 PM	0	169	169	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	169	169
4:00 PM	0	177	177	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	177	177
5:00 PM	0	170	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	170	170
6:00 PM	0	119	119	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	119	119
7:00 PM	0	106	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	106	106
8:00 PM	0	70	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	70	70
9:00 PM	0	70	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	70	70
10:00 PM	0	28	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	28	28
11:00 PM	0	40	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	40	40
Total	-	2,184	2,184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,184	2,184
Percent	-	100%		-	-		-	-		-	-		-	-		-	-		-	-		-	100%	
AM Peak	-	08:00	08:00	-	-		-	-		-	-		-	-		-	-		-	-		-	08:00	08:00
Vol.	-	181	181	-	-		-	-		-	-		-	-		-	-		-	-		-	181	181
PM Peak	-	14:00	14:00	-	-		-	-		-	-		-	-		-	-		-	-		-	14:00	14:00
Vol.	-	207	207	-	-		-	-		-	-		-	-		-	-		-	-		-	207	207

1. Mid-week average includes data between Tuesday and Thursday.

Location: 03 - Main St, Between Wilson Way and Della Street

Date Range: 9/28/2023 - 10/4/2023

Site Code:

Time	Thursday 9/28/2023			Friday 9/29/2023			Saturday 9/30/2023			Sunday 10/1/2023			Monday 10/2/2023			Tuesday 10/3/2023			Wednesday 10/4/2023			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	0	35	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	35	35
1:00 AM	0	27	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	27	27
2:00 AM	0	26	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	26	26
3:00 AM	0	37	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	37	37
4:00 AM	0	66	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	66	66
5:00 AM	0	86	86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	86	86
6:00 AM	0	154	154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	154	154
7:00 AM	0	306	306	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	306	306
8:00 AM	0	435	435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	435	435
9:00 AM	0	296	296	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	296	296
10:00 AM	0	256	256	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	256	256
11:00 AM	0	282	282	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	282	282
12:00 PM	0	306	306	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	306	306
1:00 PM	0	364	364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	364	364
2:00 PM	0	448	448	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	448	448
3:00 PM	0	450	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	450	450
4:00 PM	0	389	389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	389	389
5:00 PM	0	382	382	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	382	382
6:00 PM	0	326	326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	326	326
7:00 PM	0	282	282	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	282	282
8:00 PM	0	195	195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	195	195
9:00 PM	0	189	189	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	189	189
10:00 PM	0	140	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	140	140
11:00 PM	0	72	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	72	72
Total	-	5,549	5,549	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,549	5,549
Percent	-	100%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	
AM Peak	-	08:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	08:00	08:00
Vol.	-	435	435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	435	435
PM Peak	-	15:00	15:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15:00	15:00
Vol.	-	450	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	450	450

1. Mid-week average includes data between Tuesday and Thursday.

Location: 04 - Main St, Between Market Street and A Street

Date Range: 9/28/2023 - 10/4/2023

Site Code:

Time	Thursday 9/28/2023			Friday 9/29/2023			Saturday 9/30/2023			Sunday 10/1/2023			Monday 10/2/2023			Tuesday 10/3/2023			Wednesday 10/4/2023			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	21	35	56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	35	56
1:00 AM	27	28	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	28	55
2:00 AM	14	24	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	24	38
3:00 AM	11	46	57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	46	57
4:00 AM	21	75	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	75	96
5:00 AM	49	101	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49	101	150
6:00 AM	62	156	218	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62	156	218
7:00 AM	89	315	404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89	315	404
8:00 AM	178	383	561	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	178	383	561
9:00 AM	113	277	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	113	277	390
10:00 AM	126	246	372	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	126	246	372
11:00 AM	188	269	457	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	188	269	457
12:00 PM	193	279	472	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	193	279	472
1:00 PM	224	360	584	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	224	360	584
2:00 PM	236	437	673	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	236	437	673
3:00 PM	276	392	668	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	392	668
4:00 PM	281	366	647	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	281	366	647
5:00 PM	284	381	665	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	284	381	665
6:00 PM	229	332	561	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	229	332	561
7:00 PM	194	294	488	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	194	294	488
8:00 PM	135	201	336	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	135	201	336
9:00 PM	111	183	294	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	111	183	294
10:00 PM	59	129	188	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59	129	188
11:00 PM	31	69	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	69	100
Total	3,152	5,378	8,530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,152	5,378	8,530
Percent	37%	63%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37%	63%	
AM Peak	11:00	08:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11:00	08:00	08:00
Vol.	188	383	561	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	188	383	561
PM Peak	17:00	14:00	14:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17:00	14:00	14:00
Vol.	284	437	673	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	284	437	673

1. Mid-week average includes data between Tuesday and Thursday.

Location: 05 - Main St, Between B Street and C Street
 Date Range: 9/28/2023 - 10/4/2023
 Site Code:

Time	Thursday 9/28/2023			Friday 9/29/2023			Saturday 9/30/2023			Sunday 10/1/2023			Monday 10/2/2023			Tuesday 10/3/2023			Wednesday 10/4/2023			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	30	36	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	36	66
1:00 AM	35	27	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	27	62
2:00 AM	20	21	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	21	41
3:00 AM	15	37	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	37	52
4:00 AM	39	68	107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	68	107
5:00 AM	55	95	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	95	150
6:00 AM	104	146	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	146	250
7:00 AM	183	294	477	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	183	294	477
8:00 AM	248	374	622	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	248	374	622
9:00 AM	154	260	414	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	154	260	414
10:00 AM	192	229	421	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	192	229	421
11:00 AM	225	244	469	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	225	244	469
12:00 PM	273	272	545	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	273	272	545
1:00 PM	365	341	706	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	365	341	706
2:00 PM	370	444	814	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	370	444	814
3:00 PM	406	383	789	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	406	383	789
4:00 PM	481	353	834	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	481	353	834
5:00 PM	496	342	838	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	496	342	838
6:00 PM	339	332	671	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	339	332	671
7:00 PM	286	274	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	286	274	560
8:00 PM	226	180	406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	226	180	406
9:00 PM	136	176	312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	136	176	312
10:00 PM	102	125	227	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	102	125	227
11:00 PM	46	65	111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46	65	111
Total	4,826	5,118	9,944	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,826	5,118	9,944
Percent	49%	51%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49%	51%	
AM Peak	08:00	08:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	08:00	08:00	08:00
Vol.	248	374	622	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	248	374	622
PM Peak	17:00	14:00	17:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17:00	14:00	17:00
Vol.	496	444	838	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	496	444	838

1. Mid-week average includes data between Tuesday and Thursday.

Location: 06 - Main St, Between D Street and Sonora Street

Date Range: 9/28/2023 - 10/4/2023

Site Code:

Time	Thursday 9/28/2023			Friday 9/29/2023			Saturday 9/30/2023			Sunday 10/1/2023			Monday 10/2/2023			Tuesday 10/3/2023			Wednesday 10/4/2023			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	29	36	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29	36	65
1:00 AM	31	25	56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	25	56
2:00 AM	20	18	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	18	38
3:00 AM	17	38	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	38	55
4:00 AM	45	60	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45	60	105
5:00 AM	68	84	152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	68	84	152
6:00 AM	117	126	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	126	243
7:00 AM	160	252	412	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	252	412
8:00 AM	239	366	605	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	239	366	605
9:00 AM	161	246	407	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	161	246	407
10:00 AM	195	211	406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	195	211	406
11:00 AM	202	237	439	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	202	237	439
12:00 PM	236	276	512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	236	276	512
1:00 PM	298	346	644	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	298	346	644
2:00 PM	315	428	743	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	315	428	743
3:00 PM	359	362	721	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	359	362	721
4:00 PM	401	348	749	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	401	348	749
5:00 PM	395	359	754	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	395	359	754
6:00 PM	277	319	596	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	277	319	596
7:00 PM	250	275	525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250	275	525
8:00 PM	189	184	373	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	189	184	373
9:00 PM	137	147	284	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	137	147	284
10:00 PM	89	105	194	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89	105	194
11:00 PM	54	60	114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	60	114
Total	4,284	4,908	9,192	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,284	4,908	9,192
Percent	47%	53%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47%	53%	
AM Peak	08:00	08:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	08:00	08:00	08:00
Vol.	239	366	605	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	239	366	605
PM Peak	16:00	14:00	17:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16:00	14:00	17:00
Vol.	401	428	754	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	401	428	754

1. Mid-week average includes data between Tuesday and Thursday.

Location: 07 - Main St, Between E Street and Sharon Avenue
 Date Range: 9/28/2023 - 10/4/2023
 Site Code:

Time	Thursday 9/28/2023			Friday 9/29/2023			Saturday 9/30/2023			Sunday 10/1/2023			Monday 10/2/2023			Tuesday 10/3/2023			Wednesday 10/4/2023			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	24	37	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	37	61
1:00 AM	27	25	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	25	52
2:00 AM	20	16	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	16	36
3:00 AM	15	40	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	40	55
4:00 AM	46	59	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46	59	105
5:00 AM	69	79	148	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69	79	148
6:00 AM	121	122	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	121	122	243
7:00 AM	174	256	430	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	174	256	430
8:00 AM	237	384	621	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	237	384	621
9:00 AM	172	241	413	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	172	241	413
10:00 AM	196	222	418	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	196	222	418
11:00 AM	218	242	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	218	242	460
12:00 PM	246	270	516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	246	270	516
1:00 PM	323	313	636	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	323	313	636
2:00 PM	333	451	784	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	333	451	784
3:00 PM	360	363	723	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	360	363	723
4:00 PM	440	340	780	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	440	340	780
5:00 PM	396	357	753	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	396	357	753
6:00 PM	267	335	602	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	267	335	602
7:00 PM	258	284	542	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	258	284	542
8:00 PM	179	212	391	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	179	212	391
9:00 PM	136	131	267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	136	131	267
10:00 PM	90	99	189	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	99	189
11:00 PM	57	57	114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57	57	114
Total	4,404	4,935	9,339	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,404	4,935	9,339
Percent	47%	53%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47%	53%	
AM Peak	08:00	08:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	08:00	08:00	08:00
Vol.	237	384	621	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	237	384	621
PM Peak	16:00	14:00	14:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16:00	14:00	14:00
Vol.	440	451	784	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	440	451	784

1. Mid-week average includes data between Tuesday and Thursday.

Location: 08 - Main St, Between Searchlight Avenue and Filbert Street

Date Range: 9/28/2023 - 10/4/2023

Site Code:

Time	Thursday 9/28/2023			Friday 9/29/2023			Saturday 9/30/2023			Sunday 10/1/2023			Monday 10/2/2023			Tuesday 10/3/2023			Wednesday 10/4/2023			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	27	35	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	35	62
1:00 AM	27	24	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	24	51
2:00 AM	20	19	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	19	39
3:00 AM	17	36	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	36	53
4:00 AM	69	59	128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69	59	128
5:00 AM	109	64	173	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	109	64	173
6:00 AM	130	112	242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	130	112	242
7:00 AM	207	230	437	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	207	230	437
8:00 AM	254	368	622	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	254	368	622
9:00 AM	198	231	429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	198	231	429
10:00 AM	192	217	409	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	192	217	409
11:00 AM	246	226	472	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	246	226	472
12:00 PM	264	235	499	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	264	235	499
1:00 PM	255	242	497	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	255	242	497
2:00 PM	357	442	799	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	357	442	799
3:00 PM	403	379	782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	403	379	782
4:00 PM	459	363	822	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	459	363	822
5:00 PM	418	344	762	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	418	344	762
6:00 PM	298	318	616	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	298	318	616
7:00 PM	266	290	556	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	266	290	556
8:00 PM	207	195	402	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	207	195	402
9:00 PM	156	134	290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	156	134	290
10:00 PM	99	96	195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	96	195
11:00 PM	56	58	114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	58	114
Total	4,734	4,717	9,451	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,734	4,717	9,451
Percent	50%	50%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50%	50%	
AM Peak	08:00	08:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	08:00	08:00	08:00
Vol.	254	368	622	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	254	368	622
PM Peak	16:00	14:00	16:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16:00	14:00	16:00
Vol.	459	442	822	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	459	442	822

1. Mid-week average includes data between Tuesday and Thursday.

Location: 09 - Main St, Between Sullivan Avenue and Burkett Avenue
 Date Range: 9/28/2023 - 10/4/2023
 Site Code:

Time	Thursday 9/28/2023			Friday 9/29/2023			Saturday 9/30/2023			Sunday 10/1/2023			Monday 10/2/2023			Tuesday 10/3/2023			Wednesday 10/4/2023			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	43	60	103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	60	103
1:00 AM	41	36	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	36	77
2:00 AM	33	45	78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	45	78
3:00 AM	25	85	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	85	110
4:00 AM	63	145	208	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	145	208
5:00 AM	138	147	285	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	138	147	285
6:00 AM	197	242	439	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	197	242	439
7:00 AM	280	431	711	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	280	431	711
8:00 AM	435	546	981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	435	546	981
9:00 AM	316	343	659	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	316	343	659
10:00 AM	322	378	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	322	378	700
11:00 AM	357	370	727	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	357	370	727
12:00 PM	435	406	841	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	435	406	841
1:00 PM	500	431	931	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	431	931
2:00 PM	582	619	1,201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	582	619	1,201
3:00 PM	596	519	1,115	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	596	519	1,115
4:00 PM	733	524	1,257	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	733	524	1,257
5:00 PM	675	498	1,173	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	675	498	1,173
6:00 PM	464	449	913	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	464	449	913
7:00 PM	236	221	457	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	236	221	457
8:00 PM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
9:00 PM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
10:00 PM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
11:00 PM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Total	6,471	6,495	12,966	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,471	6,495	12,966
Percent	50%	50%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50%	50%	
AM Peak	08:00	08:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	08:00	08:00	08:00
Vol.	435	546	981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	435	546	981
PM Peak	16:00	14:00	16:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16:00	14:00	16:00
Vol.	733	619	1,257	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	733	619	1,257

1. Mid-week average includes data between Tuesday and Thursday.

Location: 10 - Main St, Between David Avenue and Rendon Avenue

Date Range: 9/28/2023 - 10/4/2023

Site Code:

Time	Thursday 9/28/2023			Friday 9/29/2023			Saturday 9/30/2023			Sunday 10/1/2023			Monday 10/2/2023			Tuesday 10/3/2023			Wednesday 10/4/2023			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	42	64	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	64	106
1:00 AM	36	36	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	36	72
2:00 AM	36	42	78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	42	78
3:00 AM	33	81	114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	81	114
4:00 AM	57	143	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57	143	200
5:00 AM	143	157	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	143	157	300
6:00 AM	204	236	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	204	236	440
7:00 AM	283	426	709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	283	426	709
8:00 AM	395	550	945	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	395	550	945
9:00 AM	273	355	628	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	273	355	628
10:00 AM	305	394	699	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	305	394	699
11:00 AM	336	396	732	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	336	396	732
12:00 PM	389	438	827	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	389	438	827
1:00 PM	476	435	911	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	476	435	911
2:00 PM	529	646	1,175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	529	646	1,175
3:00 PM	533	577	1,110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	533	577	1,110
4:00 PM	651	560	1,211	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	651	560	1,211
5:00 PM	614	503	1,117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	614	503	1,117
6:00 PM	430	432	862	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	430	432	862
7:00 PM	418	398	816	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	418	398	816
8:00 PM	280	283	563	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	280	283	563
9:00 PM	212	226	438	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	226	438
10:00 PM	129	119	248	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	129	119	248
11:00 PM	72	63	135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72	63	135
Total	6,876	7,560	14,436	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,876	7,560	14,436
Percent	48%	52%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48%	52%	
AM Peak	08:00	08:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	08:00	08:00	08:00
Vol.	395	550	945	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	395	550	945
PM Peak	16:00	14:00	16:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16:00	14:00	16:00
Vol.	651	646	1,211	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	651	646	1,211

1. Mid-week average includes data between Tuesday and Thursday.

Location: 11 - Main St, Between Golden Gate Avenue and Netherton Avenue

Date Range: 9/28/2023 - 10/4/2023

Site Code:

Time	Thursday 9/28/2023			Friday 9/29/2023			Saturday 9/30/2023			Sunday 10/1/2023			Monday 10/2/2023			Tuesday 10/3/2023			Wednesday 10/4/2023			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	39	44	83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	44	83
1:00 AM	30	34	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	34	64
2:00 AM	27	35	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	35	62
3:00 AM	20	71	91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	71	91
4:00 AM	35	104	139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	104	139
5:00 AM	98	121	219	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	98	121	219
6:00 AM	167	185	352	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	167	185	352
7:00 AM	255	338	593	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	255	338	593
8:00 AM	365	445	810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	365	445	810
9:00 AM	247	287	534	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	247	287	534
10:00 AM	245	283	528	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	245	283	528
11:00 AM	289	295	584	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	289	295	584
12:00 PM	333	315	648	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	333	315	648
1:00 PM	394	342	736	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	394	342	736
2:00 PM	469	465	934	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	469	465	934
3:00 PM	436	405	841	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	436	405	841
4:00 PM	475	398	873	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	475	398	873
5:00 PM	476	375	851	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	476	375	851
6:00 PM	356	326	682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	356	326	682
7:00 PM	345	308	653	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	345	308	653
8:00 PM	237	212	449	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	237	212	449
9:00 PM	185	163	348	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	185	163	348
10:00 PM	97	88	185	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	97	88	185
11:00 PM	70	55	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	55	125
Total	5,690	5,694	11,384	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,690	5,694	11,384
Percent	50%	50%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50%	50%	
AM Peak	08:00	08:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	08:00	08:00	08:00
Vol.	365	445	810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	365	445	810
PM Peak	17:00	14:00	14:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17:00	14:00	14:00
Vol.	476	465	934	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	476	465	934

1. Mid-week average includes data between Tuesday and Thursday.

Location: Market St, Between Main Street and Wilson Way
 Date Range: 4/3/2024 - 4/9/2024
 Site Code: 04

Time	Wednesday 4/3/2024			Thursday 4/4/2024			Friday 4/5/2024			Saturday 4/6/2024			Sunday 4/7/2024			Monday 4/8/2024			Tuesday 4/9/2024			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	57	0	57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57	0	57
1:00 AM	35	0	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	0	35
2:00 AM	26	0	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	0	26
3:00 AM	23	0	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	0	23
4:00 AM	40	0	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	0	40
5:00 AM	62	0	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62	0	62
6:00 AM	109	0	109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	109	0	109
7:00 AM	212	0	212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	0	212
8:00 AM	299	0	299	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	299	0	299
9:00 AM	236	0	236	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	236	0	236
10:00 AM	245	0	245	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	245	0	245
11:00 AM	259	0	259	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	259	0	259
12:00 PM	352	0	352	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	352	0	352
1:00 PM	372	0	372	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	372	0	372
2:00 PM	356	0	356	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	356	0	356
3:00 PM	425	0	425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	425	0	425
4:00 PM	532	0	532	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	532	0	532
5:00 PM	501	0	501	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	501	0	501
6:00 PM	362	0	362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	362	0	362
7:00 PM	295	0	295	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	295	0	295
8:00 PM	239	0	239	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	239	0	239
9:00 PM	188	0	188	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	188	0	188
10:00 PM	113	0	113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	113	0	113
11:00 PM	73	0	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73	0	73
Total	5,411	-	5,411	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,411	-	5,411
Percent	100%	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-	
AM Peak	08:00	-	08:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	08:00	-	08:00
Vol.	299	-	299	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	299	-	299
PM Peak	16:00	-	16:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16:00	-	16:00
Vol.	532	-	532	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	532	-	532

1. Mid-week average includes data between Tuesday and Thursday.

Location: Market St, Between Airport Way and Pilgrim Street
 Date Range: 4/3/2024 - 4/9/2024
 Site Code: 05

Time	Wednesday 4/3/2024			Thursday 4/4/2024			Friday 4/5/2024			Saturday 4/6/2024			Sunday 4/7/2024			Monday 4/8/2024			Tuesday 4/9/2024			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	5	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	0	5
1:00 AM	9	0	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	0	9
2:00 AM	5	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	0	5
3:00 AM	13	0	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	0	13
4:00 AM	18	0	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	0	18
5:00 AM	37	0	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	0	37
6:00 AM	40	0	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	0	40
7:00 AM	71	0	71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71	0	71
8:00 AM	100	0	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	0	100
9:00 AM	79	0	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	0	79
10:00 AM	88	0	88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	0	88
11:00 AM	107	0	107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	107	0	107
12:00 PM	161	0	161	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	161	0	161
1:00 PM	125	0	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	125	0	125
2:00 PM	128	0	128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	128	0	128
3:00 PM	146	0	146	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	146	0	146
4:00 PM	179	0	179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	179	0	179
5:00 PM	166	0	166	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	166	0	166
6:00 PM	92	0	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	92	0	92
7:00 PM	77	0	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	77	0	77
8:00 PM	53	0	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53	0	53
9:00 PM	44	0	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	0	44
10:00 PM	31	0	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	0	31
11:00 PM	15	0	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	0	15
Total	1,789	-	1,789	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,789	-	1,789
Percent	100%	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-	
AM Peak	11:00	-	11:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11:00	-	11:00
Vol.	107	-	107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	107	-	107
PM Peak	16:00	-	16:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16:00	-	16:00
Vol.	179	-	179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	179	-	179

1. Mid-week average includes data between Tuesday and Thursday.

Location: Market St, Between Union Street and Aurora Street
 Date Range: 4/3/2024 - 4/9/2024
 Site Code: 06

Time	Wednesday 4/3/2024			Thursday 4/4/2024			Friday 4/5/2024			Saturday 4/6/2024			Sunday 4/7/2024			Monday 4/8/2024			Tuesday 4/9/2024			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	5	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	0	5
1:00 AM	9	0	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	0	9
2:00 AM	5	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	0	5
3:00 AM	13	0	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	0	13
4:00 AM	18	0	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	0	18
5:00 AM	37	0	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	0	37
6:00 AM	40	0	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	0	40
7:00 AM	71	0	71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71	0	71
8:00 AM	100	0	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	0	100
9:00 AM	79	0	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	0	79
10:00 AM	88	0	88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	0	88
11:00 AM	107	0	107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	107	0	107
12:00 PM	161	0	161	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	161	0	161
1:00 PM	125	0	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	125	0	125
2:00 PM	128	0	128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	128	0	128
3:00 PM	146	0	146	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	146	0	146
4:00 PM	179	0	179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	179	0	179
5:00 PM	166	0	166	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	166	0	166
6:00 PM	92	0	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	92	0	92
7:00 PM	77	0	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	77	0	77
8:00 PM	53	0	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53	0	53
9:00 PM	44	0	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	0	44
10:00 PM	31	0	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	0	31
11:00 PM	15	0	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	0	15
Total	1,789	-	1,789	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,789	-	1,789
Percent	100%	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-	
AM Peak	11:00	-	11:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11:00	-	11:00
Vol.	107	-	107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	107	-	107
PM Peak	16:00	-	16:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16:00	-	16:00
Vol.	179	-	179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	179	-	179

1. Mid-week average includes data between Tuesday and Thursday.



Location: Market St, Between Stanislaus Street and California Street
 Date Range: 4/3/2024 - 4/9/2024
 Site Code: 07

Time	Wednesday 4/3/2024			Thursday 4/4/2024			Friday 4/5/2024			Saturday 4/6/2024			Sunday 4/7/2024			Monday 4/8/2024			Tuesday 4/9/2024			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	9	0	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	0	9
1:00 AM	5	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	0	5
2:00 AM	3	0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0	3
3:00 AM	3	0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0	3
4:00 AM	4	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0	4
5:00 AM	17	0	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	0	17
6:00 AM	20	0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	0	20
7:00 AM	113	0	113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	113	0	113
8:00 AM	76	0	76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76	0	76
9:00 AM	62	0	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62	0	62
10:00 AM	69	0	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69	0	69
11:00 AM	93	0	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	93	0	93
12:00 PM	148	0	148	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	148	0	148
1:00 PM	116	0	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	116	0	116
2:00 PM	108	0	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	108	0	108
3:00 PM	124	0	124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	124	0	124
4:00 PM	134	0	134	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	134	0	134
5:00 PM	118	0	118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	118	0	118
6:00 PM	44	0	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	0	44
7:00 PM	30	0	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	0	30
8:00 PM	20	0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	0	20
9:00 PM	28	0	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	0	28
10:00 PM	12	0	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	0	12
11:00 PM	6	0	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	0	6
Total	1,362	-	1,362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,362	-	1,362
Percent	100%	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-	
AM Peak	07:00	-	07:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	07:00	-	07:00
Vol.	113	-	113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	113	-	113
PM Peak	12:00	-	12:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12:00	-	12:00
Vol.	148	-	148	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	148	-	148

1. Mid-week average includes data between Tuesday and Thursday.



Location: Market St, Between California Street and Sutter Street
 Date Range: 4/3/2024 - 4/9/2024
 Site Code: 08

Time	Wednesday 4/3/2024			Thursday 4/4/2024			Friday 4/5/2024			Saturday 4/6/2024			Sunday 4/7/2024			Monday 4/8/2024			Tuesday 4/9/2024			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	8	0	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	0	8
1:00 AM	4	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0	4
2:00 AM	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	2
3:00 AM	5	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	0	5
4:00 AM	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	2
5:00 AM	7	0	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	0	7
6:00 AM	13	0	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	0	13
7:00 AM	74	0	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74	0	74
8:00 AM	80	0	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0	80
9:00 AM	81	0	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81	0	81
10:00 AM	80	0	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0	80
11:00 AM	98	0	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	98	0	98
12:00 PM	140	0	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	0	140
1:00 PM	125	0	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	125	0	125
2:00 PM	99	0	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	0	99
3:00 PM	129	0	129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	129	0	129
4:00 PM	126	0	126	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	126	0	126
5:00 PM	116	0	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	116	0	116
6:00 PM	32	0	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	0	32
7:00 PM	28	0	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	0	28
8:00 PM	20	0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	0	20
9:00 PM	19	0	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	0	19
10:00 PM	10	0	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	0	10
11:00 PM	5	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	0	5
Total	1,303	-	1,303	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,303	-	1,303
Percent	100%	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-	
AM Peak	11:00	-	11:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11:00	-	11:00
Vol.	98	-	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	98	-	98
PM Peak	12:00	-	12:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12:00	-	12:00
Vol.	140	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	-	140

1. Mid-week average includes data between Tuesday and Thursday.



Location: Market St, Between San Joaquin Street and Hunter Street
 Date Range: 4/3/2024 - 4/9/2024
 Site Code: 09

Time	Wednesday 4/3/2024			Thursday 4/4/2024			Friday 4/5/2024			Saturday 4/6/2024			Sunday 4/7/2024			Monday 4/8/2024			Tuesday 4/9/2024			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	9	0	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	0	9
1:00 AM	4	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0	4
2:00 AM	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	2
3:00 AM	7	0	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	0	7
4:00 AM	4	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0	4
5:00 AM	14	0	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	0	14
6:00 AM	41	0	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	0	41
7:00 AM	181	0	181	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	181	0	181
8:00 AM	179	0	179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	179	0	179
9:00 AM	161	0	161	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	161	0	161
10:00 AM	149	0	149	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	149	0	149
11:00 AM	174	0	174	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	174	0	174
12:00 PM	220	0	220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	220	0	220
1:00 PM	190	0	190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	190	0	190
2:00 PM	158	0	158	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	158	0	158
3:00 PM	169	0	169	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	169	0	169
4:00 PM	138	0	138	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	138	0	138
5:00 PM	99	0	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	0	99
6:00 PM	55	0	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	0	55
7:00 PM	27	0	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	0	27
8:00 PM	12	0	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	0	12
9:00 PM	21	0	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	0	21
10:00 PM	8	0	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	0	8
11:00 PM	9	0	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	0	9
Total	2,031	-	2,031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,031	-	2,031
Percent	100%	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-	
AM Peak	07:00	-	07:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	07:00	-	07:00
Vol.	181	-	181	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	181	-	181
PM Peak	12:00	-	12:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12:00	-	12:00
Vol.	220	-	220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	220	-	220

1. Mid-week average includes data between Tuesday and Thursday.

Location: Market St, Between El Dorado Street and Center Street
 Date Range: 4/10/2024 - 4/16/2024
 Site Code: 10

Time	Wednesday 4/10/2024			Thursday 4/11/2024			Friday 4/12/2024			Saturday 4/13/2024			Sunday 4/14/2024			Monday 4/15/2024			Tuesday 4/16/2024			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	11	0	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	0	11
1:00 AM	8	0	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	0	8
2:00 AM	8	0	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	0	8
3:00 AM	6	0	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	0	6
4:00 AM	5	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	0	5
5:00 AM	18	0	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	0	18
6:00 AM	62	0	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62	0	62
7:00 AM	148	0	148	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	148	0	148
8:00 AM	161	0	161	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	161	0	161
9:00 AM	108	0	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	108	0	108
10:00 AM	122	0	122	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	122	0	122
11:00 AM	139	0	139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	139	0	139
12:00 PM	164	0	164	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	164	0	164
1:00 PM	155	0	155	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	155	0	155
2:00 PM	140	0	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	0	140
3:00 PM	144	0	144	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	144	0	144
4:00 PM	109	0	109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	109	0	109
5:00 PM	81	0	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81	0	81
6:00 PM	59	0	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59	0	59
7:00 PM	59	0	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59	0	59
8:00 PM	30	0	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	0	30
9:00 PM	26	0	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	0	26
10:00 PM	21	0	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	0	21
11:00 PM	22	0	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	0	22
Total	1,806	-	1,806	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,806	-	1,806
Percent	100%	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-	
AM Peak	08:00	-	08:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	08:00	-	08:00
Vol.	161	-	161	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	161	-	161
PM Peak	12:00	-	12:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12:00	-	12:00
Vol.	164	-	164	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	164	-	164

1. Mid-week average includes data between Tuesday and Thursday.

S Hunter St W Main St

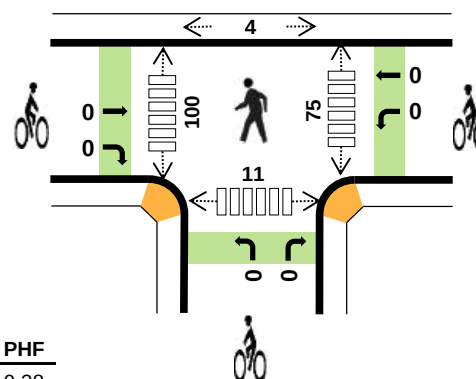
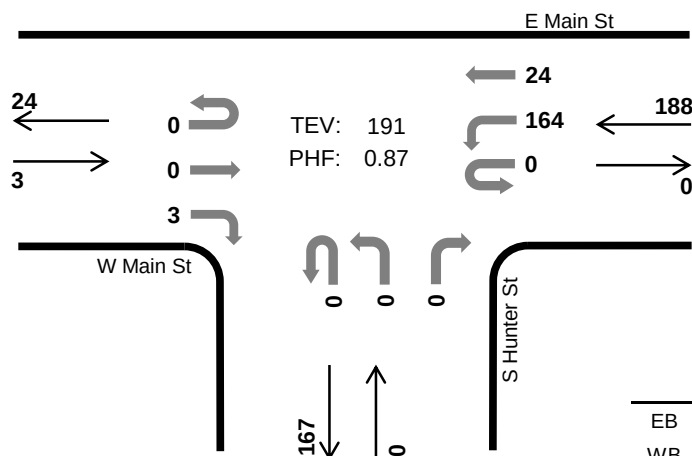


Peak Hour

Date: 04/03/2024

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	0.0%	0.38
WB	0.5%	0.87
NB	-	-
SB	-	-
TOTAL	0.5%	0.87

Two-Hour Count Summaries

Interval Start		W Main St				E Main St				S Hunter St				N/A				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	4	2	0	0	0	0	0	0	0	0	0	6	0
7:15 AM		0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	7	0
7:30 AM		0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	16	0
7:45 AM		0	0	0	0	0	33	3	0	0	0	0	0	0	0	0	0	36	65
8:00 AM		0	0	0	0	0	37	8	0	0	0	0	0	0	0	0	0	45	104
8:15 AM		0	0	0	1	0	44	10	0	0	0	0	0	0	0	0	0	55	152
8:30 AM		0	0	0	2	0	50	3	0	0	0	0	0	0	0	0	0	55	191
8:45 AM		0	0	0	0	0	23	3	0	0	0	0	0	0	0	0	0	26	181
Count Total		0	0	0	3	0	214	29	0	0	0	0	0	0	0	0	0	246	0
Peak Hour	All	0	0	0	3	0	164	24	0	0	0	0	0	0	0	0	0	191	0
	HV	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
	HV%	-	-	-	0%	-	0%	4%	-	-	-	-	-	-	-	-	-	1%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	2	0	0	2	0	0	0	0	0	3	6	0	4	13
7:15 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	1	8
7:30 AM	0	0	0	0	0	0	0	0	0	0	40	13	0	2	55
7:45 AM	0	0	0	0	0	0	0	0	0	0	24	22	3	3	52
8:00 AM	0	1	0	0	1	0	0	0	0	0	15	30	0	3	48
8:15 AM	0	0	0	0	0	0	0	0	0	0	16	25	1	2	44
8:30 AM	0	0	0	0	0	0	0	0	0	0	20	23	0	3	46
8:45 AM	0	0	0	0	0	0	1	0	0	1	15	24	0	6	45
Count Total	0	3	0	0	3	0	1	0	0	1	140	143	4	24	311
Peak Hr	0	1	0	0	1	0	0	0	0	0	75	100	4	11	190

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	W Main St				E Main St				S Hunter St				N/A				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3	0
Peak Hour	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0

Two-Hour Count Summaries - Bikes

Interval Start	W Main St			E Main St			S Hunter St			N/A			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	1
Count Total	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

S Hunter St W Main St

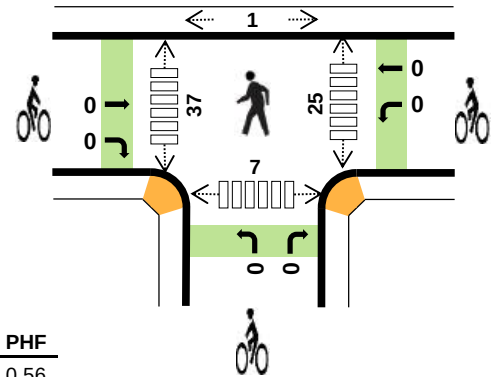
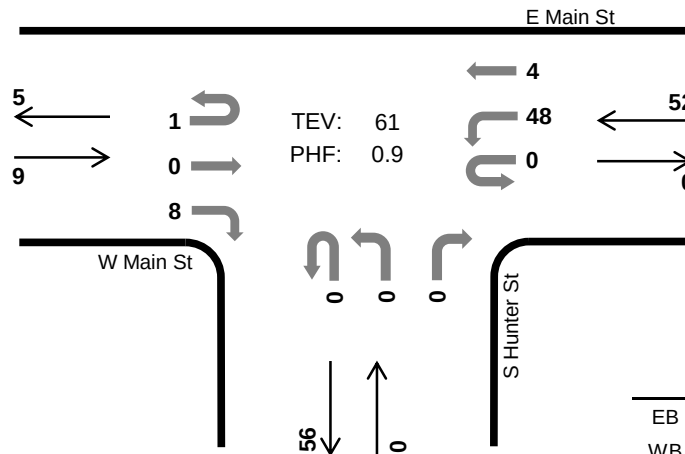


Peak Hour

Date: 04/03/2024

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	11.1%	0.56
WB	1.9%	0.81
NB	-	-
SB	-	-
TOTAL	3.3%	0.90

Two-Hour Count Summaries

Interval Start		W Main St				E Main St				S Hunter St				N/A				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	1	0	13	3	0	0	0	0	0	0	0	0	0	17	0
4:15 PM		1	0	0	3	0	12	1	0	0	0	0	0	0	0	0	0	17	0
4:30 PM		0	0	0	1	0	11	0	0	0	0	0	0	0	0	0	0	12	0
4:45 PM		0	0	0	3	0	12	0	0	0	0	0	0	0	0	0	0	15	61
5:00 PM		0	0	0	1	0	15	0	0	0	0	0	0	0	0	0	0	16	60
5:15 PM		0	0	0	2	0	5	0	0	0	0	0	0	0	0	0	0	7	50
5:30 PM		0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	40
5:45 PM		0	0	0	1	0	6	0	0	0	0	0	0	0	0	0	0	7	32
Count Total		1	0	0	13	0	75	4	0	0	0	0	0	0	0	0	0	93	0
Peak Hour	All	1	0	0	8	0	48	4	0	0	0	0	0	0	0	0	0	61	0
	HV	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	0
	HV%	0%	-	-	13%	-	0%	25%	-	-	-	-	-	-	-	-	-	3%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	6	12	1	0	19
4:15 PM	1	1	0	0	2	0	0	0	0	0	5	9	0	0	14
4:30 PM	0	0	0	0	0	0	0	0	0	0	7	8	0	2	17
4:45 PM	0	0	0	0	0	0	0	0	0	0	7	8	0	5	20
5:00 PM	0	0	0	0	0	0	0	0	0	0	7	8	0	6	21
5:15 PM	0	0	0	0	0	0	0	0	0	0	6	3	1	8	18
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	3	6
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	11	0	11	23
Count Total	1	1	0	0	2	0	0	0	0	0	41	60	2	35	138
Peak Hr	1	1	0	0	2	0	0	0	0	0	25	37	1	7	70

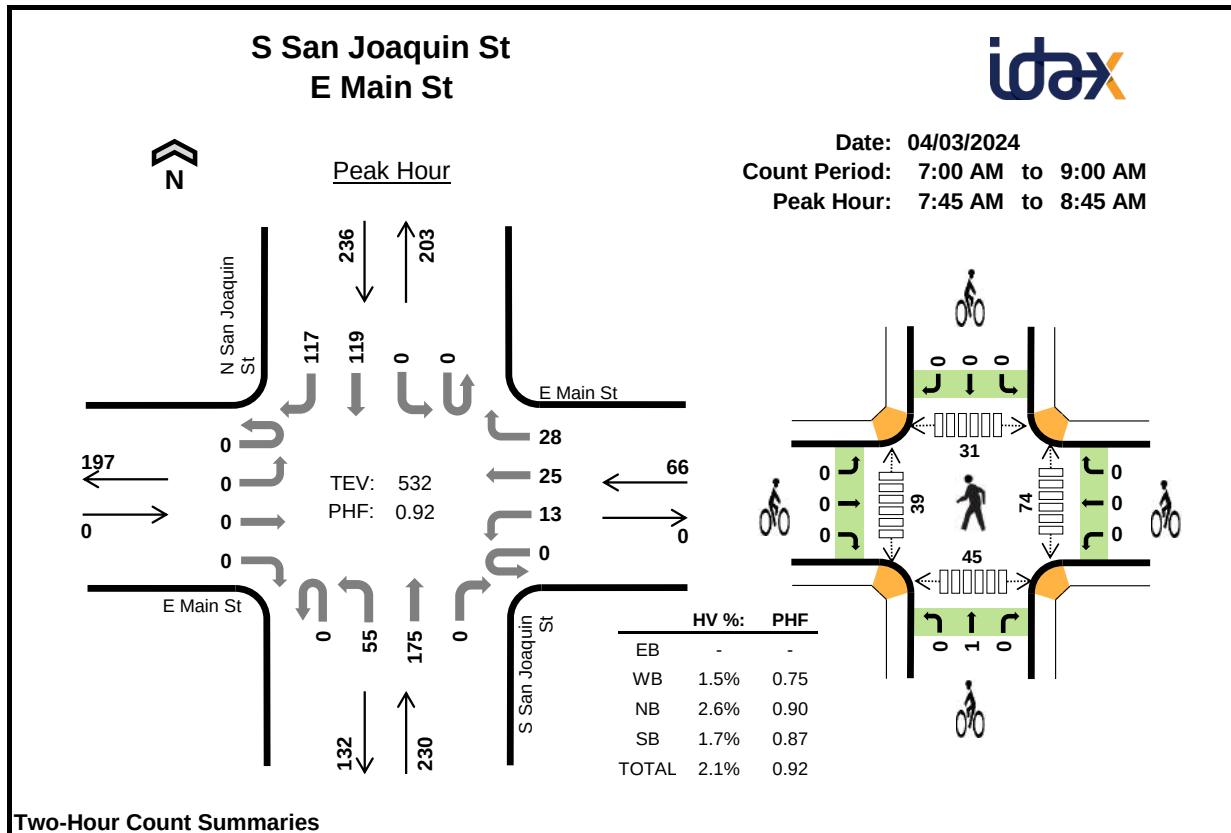
Two-Hour Count Summaries - Heavy Vehicles

Interval Start	W Main St				E Main St				S Hunter St				N/A				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	0
Peak Hour	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	0

Two-Hour Count Summaries - Bikes

Interval Start	W Main St			E Main St			S Hunter St			N/A			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

**Two-Hour Count Summaries**

Interval Start		E Main St				E Main St				S San Joaquin St				N San Joaquin St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	2	0	2	0	8	12	0	0	0	9	2	35	0
7:15 AM		0	0	0	0	0	4	2	2	0	1	40	0	0	0	16	6	71	0
7:30 AM		0	0	0	0	0	1	6	3	0	3	25	0	0	0	28	12	78	0
7:45 AM		0	0	0	0	0	2	6	4	0	10	52	0	0	0	35	24	133	317
8:00 AM		0	0	0	0	0	1	8	5	0	9	44	0	0	0	35	33	135	417
8:15 AM		0	0	0	0	0	6	4	8	0	21	43	0	0	0	31	31	144	490
8:30 AM		0	0	0	0	0	4	7	11	0	15	36	0	0	0	18	29	120	532
8:45 AM		0	0	0	0	0	3	6	8	0	11	32	0	0	0	14	7	81	480
Count Total		0	0	0	0	0	23	39	43	0	78	284	0	0	0	186	144	797	0
Peak Hour	All	0	0	0	0	0	13	25	28	0	55	175	0	0	0	119	117	532	0
	HV	0	0	0	0	0	0	1	0	0	1	5	0	0	0	4	0	11	0
	HV%	-	-	-	-	-	0%	4%	0%	-	2%	3%	-	-	-	3%	0%	2%	0

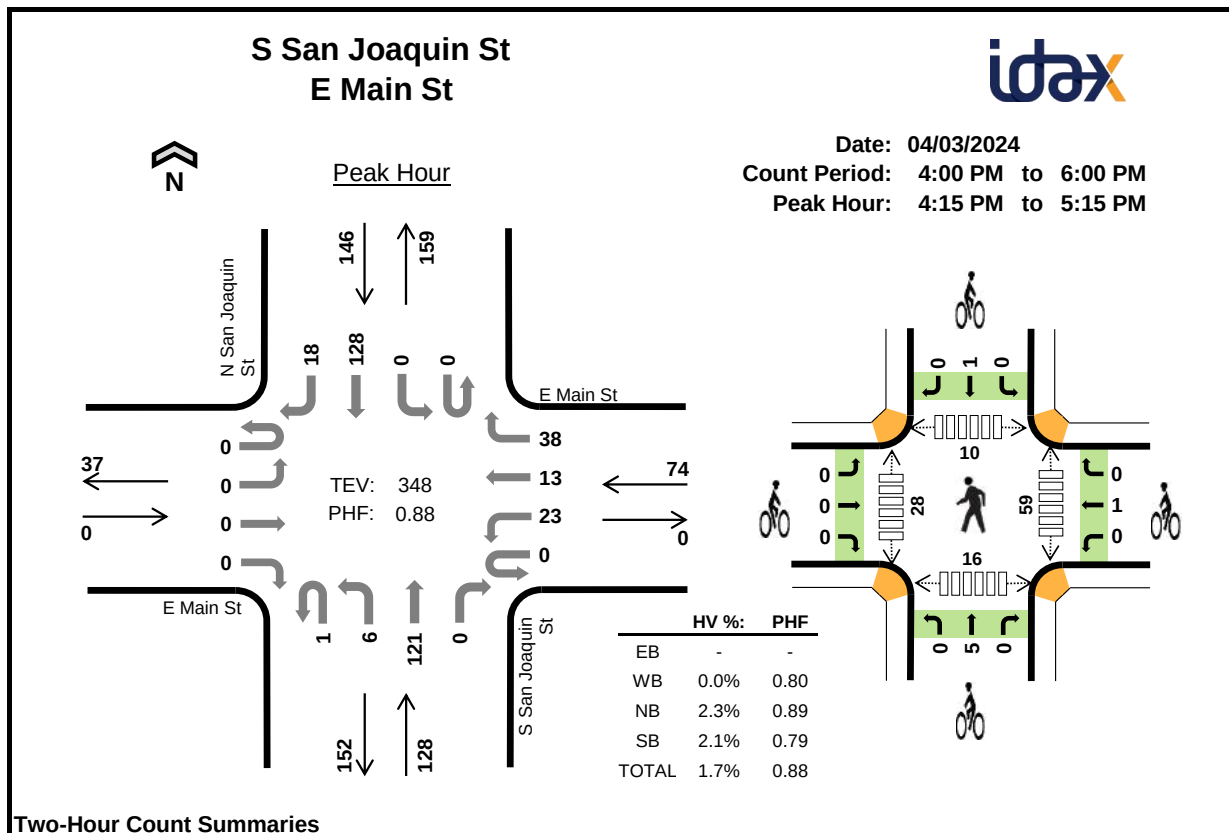
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	3	1	4	0	0	0	0	0	3	4	1	4	12
7:15 AM	0	0	1	1	2	0	0	0	0	0	14	6	1	3	24
7:30 AM	0	1	0	2	3	0	0	1	0	1	8	6	5	4	23
7:45 AM	0	0	1	0	1	0	0	0	0	0	19	7	4	5	35
8:00 AM	0	1	3	1	5	0	0	0	0	0	14	5	1	9	29
8:15 AM	0	0	2	2	4	0	0	1	0	1	25	14	22	17	78
8:30 AM	0	0	0	1	1	0	0	0	0	0	16	13	4	14	47
8:45 AM	0	0	1	0	1	0	1	0	0	1	19	10	9	17	55
Count Total	0	2	11	8	21	0	1	2	0	3	118	65	47	73	303
Peak Hour	0	1	6	4	11	0	0	1	0	1	74	39	31	45	189

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Main St				E Main St				S San Joaquin St				N San Joaquin St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	1	0	4	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	3	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	10
8:00 AM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	1	0	5	11
8:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	13
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	11
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	11
Count Total	0	0	0	0	0	0	2	0	0	3	8	0	0	0	8	0	21	0
Peak Hour	0	0	0	0	0	0	1	0	0	1	5	0	0	0	4	0	11	0

Two-Hour Count Summaries - Bikes																	
Interval Start	E Main St			E Main St			S San Joaquin St			N San Joaquin St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2	2	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	
Count Total	0	0	0	0	1	0	0	2	0	0	0	0	0	3	0	0	
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	

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

**Two-Hour Count Summaries**

Interval Start		E Main St				E Main St				S San Joaquin St				N San Joaquin St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	4:00 PM	0	0	0	0	0	3	3	5	0	5	39	0	0	0	33	6	94	0
	4:15 PM	0	0	0	0	0	7	3	13	0	1	28	0	0	0	32	4	88	0
	4:30 PM	0	0	0	0	0	3	4	11	0	0	28	0	0	0	36	4	86	0
	4:45 PM	0	0	0	0	0	7	3	6	1	1	33	0	0	0	19	5	75	343
	5:00 PM	0	0	0	0	0	6	3	8	0	4	32	0	0	0	41	5	99	348
	5:15 PM	0	0	0	0	0	6	2	4	0	2	25	0	0	0	28	1	68	328
	5:30 PM	0	0	0	0	0	0	1	4	0	2	13	0	0	0	21	0	41	283
	5:45 PM	0	0	0	0	0	3	4	2	0	1	17	0	0	0	14	0	41	249
Count Total		0	0	0	0	0	35	23	53	1	16	215	0	0	0	224	25	592	0
Peak Hour	All	0	0	0	0	0	23	13	38	1	6	121	0	0	0	128	18	348	0
	HV	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	0
	HV%	-	-	-	-	-	0%	0%	0%	0%	0%	2%	-	-	-	2%	0%	2%	0

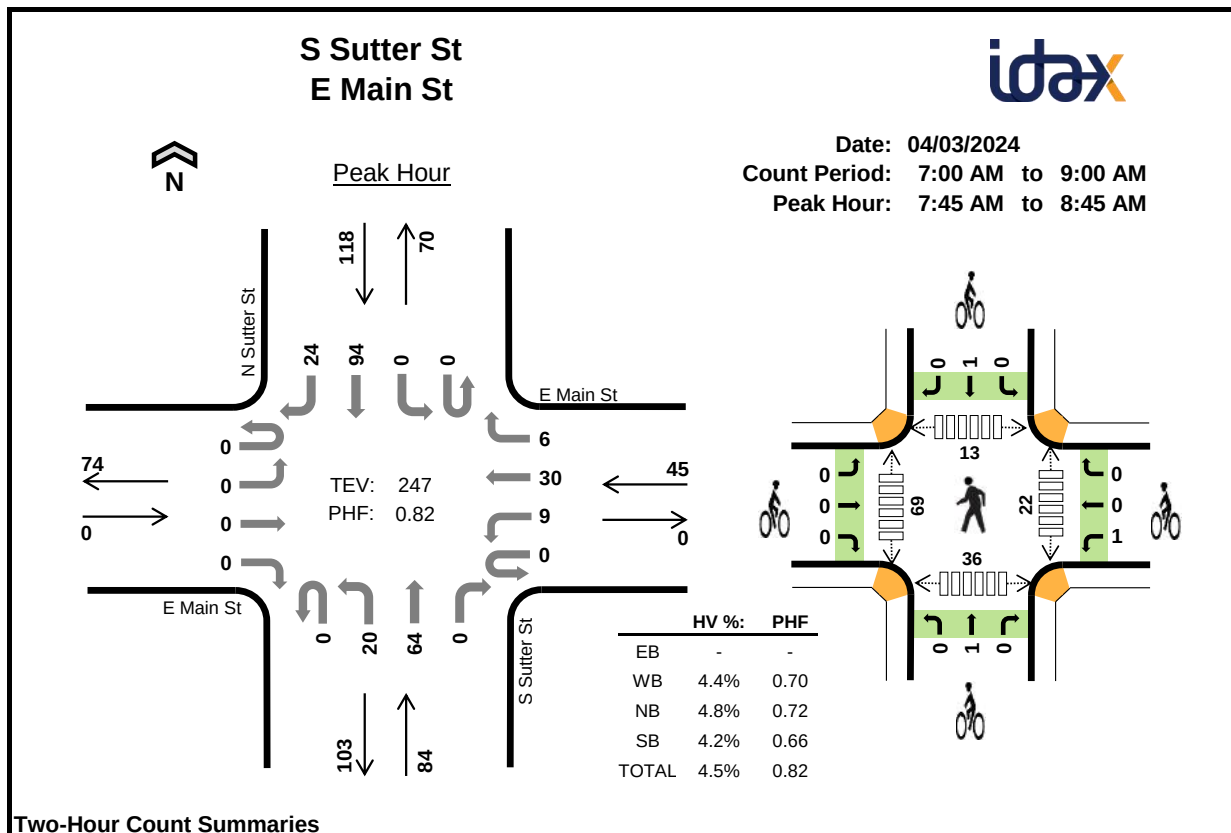
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	1	1	0	2	0	0	0	0	0	17	6	6	10	39
4:15 PM	0	0	2	1	3	0	0	1	1	2	10	9	3	1	23
4:30 PM	0	0	0	1	1	0	0	3	0	3	23	7	2	2	34
4:45 PM	0	0	1	0	1	0	0	0	0	0	11	6	1	4	22
5:00 PM	0	0	0	1	1	0	1	1	0	2	15	6	4	9	34
5:15 PM	0	0	1	0	1	0	0	1	0	1	5	4	1	4	14
5:30 PM	0	0	1	0	1	0	0	1	1	2	2	7	1	4	14
5:45 PM	0	0	1	1	2	0	0	0	0	0	1	4	2	11	18
Count Total	0	1	7	4	12	0	1	7	2	10	84	49	20	45	198
Peak Hour	0	0	3	3	6	0	1	5	1	7	59	28	10	16	113

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Main St				E Main St				S San Joaquin St				N San Joaquin St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	7
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	5
Count Total	0	0	0	0	0	0	1	0	0	0	7	0	0	0	4	0	12	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Main St			E Main St			S San Joaquin St			N San Joaquin St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0				
4:30 PM	0	0	0	0	0	0	0	3	0	0	0	0	3	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5				
5:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	2	7				
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	6				
5:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	5				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5				
Count Total	0	0	0	0	1	0	0	7	0	0	2	0	10	0				
Peak Hour	0	0	0	0	1	0	0	5	0	0	1	0	7	0				

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

**Two-Hour Count Summaries**

Interval Start		E Main St				E Main St				S Sutter St				N Sutter St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	1	1	0	0	4	4	0	0	0	10	2	22	0
7:15 AM		0	0	0	0	0	5	2	1	0	2	11	0	0	0	15	4	40	0
7:30 AM		0	0	0	0	0	6	7	1	0	1	15	0	0	0	20	2	52	0
7:45 AM		0	0	0	0	0	3	6	1	0	5	24	0	0	0	33	3	75	189
8:00 AM		0	0	0	0	0	2	4	1	0	6	12	0	0	0	36	9	70	237
8:15 AM		0	0	0	0	0	2	12	2	0	3	13	0	0	0	10	3	45	242
8:30 AM		0	0	0	0	0	2	8	2	0	6	15	0	0	0	15	9	57	247
8:45 AM		0	0	0	0	0	3	8	1	0	5	14	0	0	0	16	7	54	226
Count Total		0	0	0	0	0	24	48	9	0	32	108	0	0	0	155	39	415	0
Peak Hour	All	0	0	0	0	0	9	30	6	0	20	64	0	0	0	94	24	247	0
	HV	0	0	0	0	0	1	1	0	0	0	4	0	0	0	5	0	11	0
	HV%	-	-	-	-	-	11%	3%	0%	-	0%	6%	-	-	-	5%	0%	4%	0

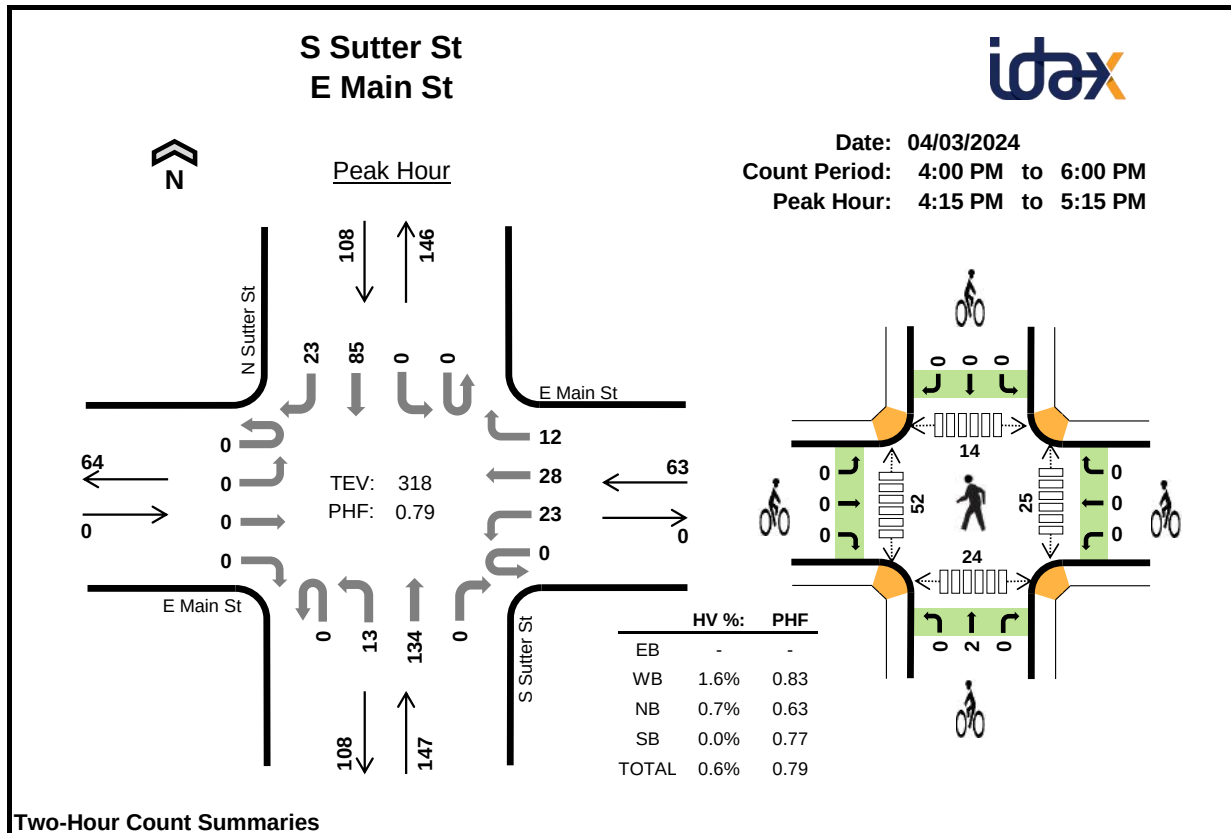
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	1	0	1	0	0	0	0	0	2	8	1	3	14
7:15 AM	0	0	0	1	1	0	0	0	0	0	3	6	1	4	14
7:30 AM	0	1	1	0	2	0	0	1	0	1	6	8	0	7	21
7:45 AM	0	2	2	2	6	0	0	0	0	0	5	11	1	9	26
8:00 AM	0	0	0	1	1	0	0	0	1	1	5	14	1	6	26
8:15 AM	0	0	1	1	2	0	1	1	0	2	5	31	7	11	54
8:30 AM	0	0	1	1	2	0	0	0	0	0	7	13	4	10	34
8:45 AM	0	0	1	0	1	0	0	0	0	0	1	14	4	20	39
Count Total	0	3	7	6	16	0	1	2	1	4	34	105	19	70	228
Peak Hour	0	2	4	5	11	0	1	1	1	3	22	69	13	36	140

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Main St				E Main St				S Sutter St				N Sutter St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2	0
7:45 AM	0	0	0	0	0	1	1	0	0	0	2	0	0	0	2	0	6	10
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	10
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	11
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	11
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	6
Count Total	0	0	0	0	0	2	1	0	0	0	7	0	0	0	6	0	16	0
Peak Hour	0	0	0	0	0	1	1	0	0	0	4	0	0	0	5	0	11	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Main St			E Main St			S Sutter St			N Sutter St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	2				
8:15 AM	0	0	0	1	0	0	0	1	0	0	0	0	2	4				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
Count Total	0	0	0	1	0	0	0	2	0	0	1	0	4	0				
Peak Hour	0	0	0	1	0	0	0	1	0	0	1	0	3	0				

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

**Two-Hour Count Summaries**

Interval Start		E Main St				E Main St				S Sutter St				N Sutter St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	2	4	4	0	3	22	0	1	0	14	4	54	0
4:15 PM		0	0	0	0	0	6	6	1	0	1	21	0	0	0	20	15	70	0
4:30 PM		0	0	0	0	0	6	9	1	0	2	37	0	0	0	21	4	80	0
4:45 PM		0	0	0	0	0	5	8	6	0	5	23	0	0	0	18	2	67	271
5:00 PM		0	0	0	0	0	6	5	4	0	5	53	0	0	0	26	2	101	318
5:15 PM		0	0	0	0	0	2	8	5	0	2	22	0	1	0	26	1	67	315
5:30 PM		0	0	0	0	0	2	3	2	0	3	34	0	0	0	10	0	54	289
5:45 PM		0	0	0	0	0	2	7	1	0	2	16	0	0	0	12	1	41	263
Count Total		0	0	0	0	0	31	50	24	0	23	228	0	2	0	147	29	534	0
Peak Hour	All	0	0	0	0	0	23	28	12	0	13	134	0	0	0	85	23	318	0
	HV	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2	0
	HV%	-	-	-	-	-	4%	0%	0%	-	0%	1%	-	-	-	0%	0%	1%	0

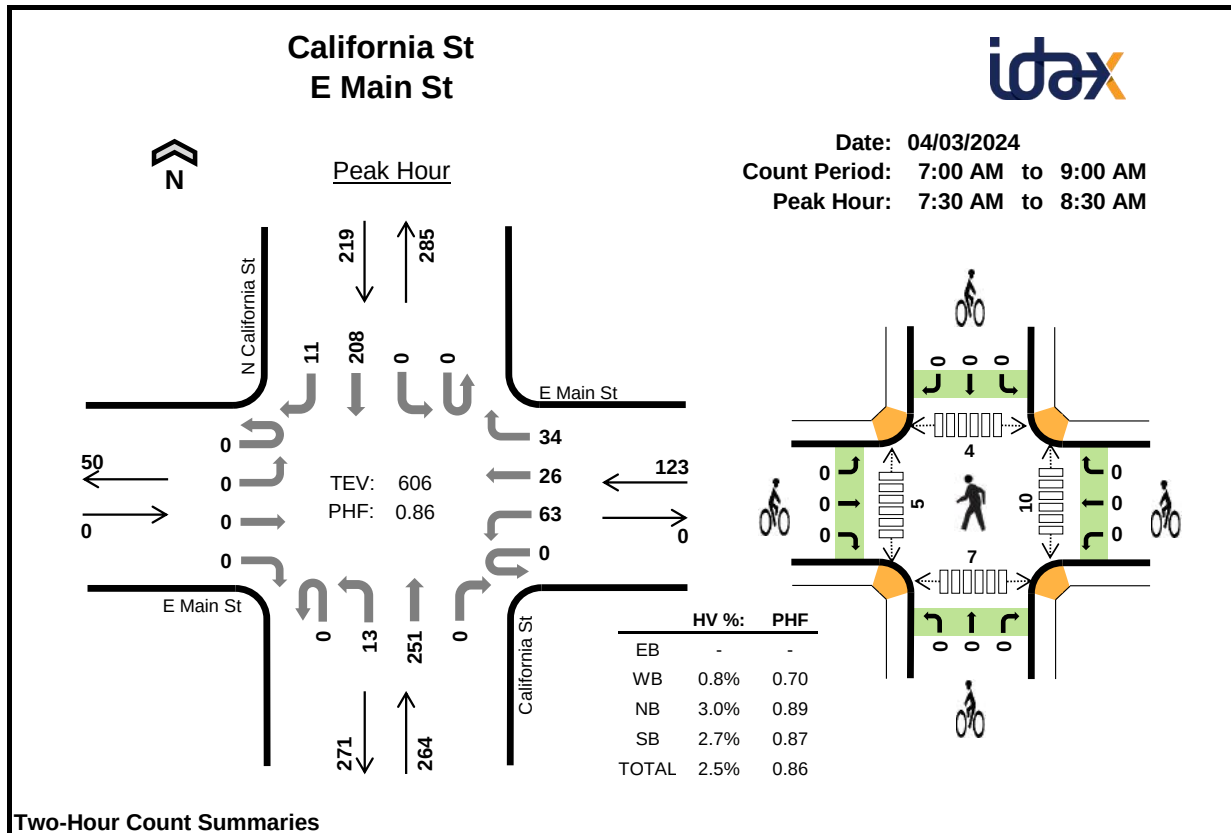
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	1	1	0	0	0	0	0	2	10	0	4	16
4:15 PM	0	1	0	0	1	0	0	1	0	1	6	13	5	5	29
4:30 PM	0	0	1	0	1	0	0	0	0	0	12	11	3	8	34
4:45 PM	0	0	0	0	0	0	0	0	0	0	4	22	1	7	34
5:00 PM	0	0	0	0	0	0	0	1	0	1	3	6	5	4	18
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	9	0	7	17
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	10	1	2	15
5:45 PM	0	0	1	0	1	0	0	0	0	0	4	1	2	2	9
Count Total	0	1	2	1	4	0	0	2	0	2	34	82	17	39	172
Peak Hour	0	1	1	0	2	0	0	2	0	2	25	52	14	24	115

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	E Main St				E Main St				S Sutter St				N Sutter St				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
Count Total	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	1	4	0
Peak Hour	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	2	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Main St			E Main St			S Sutter St			N Sutter St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Count Total	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0			
Peak Hour	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0			

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

**Two-Hour Count Summaries**

Interval Start		E Main St				E Main St				California St				N California St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	0	1	1	0	0	26	0	0	0	34	2	64	0
7:15 AM		0	0	0	0	0	3	4	0	0	2	37	0	0	0	40	3	89	0
7:30 AM		0	0	0	0	0	11	8	8	0	4	51	0	0	0	47	2	131	0
7:45 AM		0	0	0	0	0	23	4	17	0	0	70	0	0	0	58	5	177	461
8:00 AM		0	0	0	0	0	23	5	8	0	2	72	0	0	0	45	4	159	556
8:15 AM		0	0	0	0	0	6	9	1	0	7	58	0	0	0	58	0	139	606
8:30 AM		0	0	0	0	0	6	10	4	0	0	55	0	0	0	44	2	121	596
8:45 AM		0	0	0	0	0	5	9	5	0	2	44	0	0	0	32	1	98	517
Count Total		0	0	0	0	0	77	50	44	0	17	413	0	0	0	358	19	978	0
Peak Hour	All	0	0	0	0	0	63	26	34	0	13	251	0	0	0	208	11	606	0
	HV	0	0	0	0	0	1	0	0	0	1	7	0	0	0	4	2	15	0
	HV%	-	-	-	-	-	2%	0%	0%	-	8%	3%	-	-	-	2%	18%	2%	0

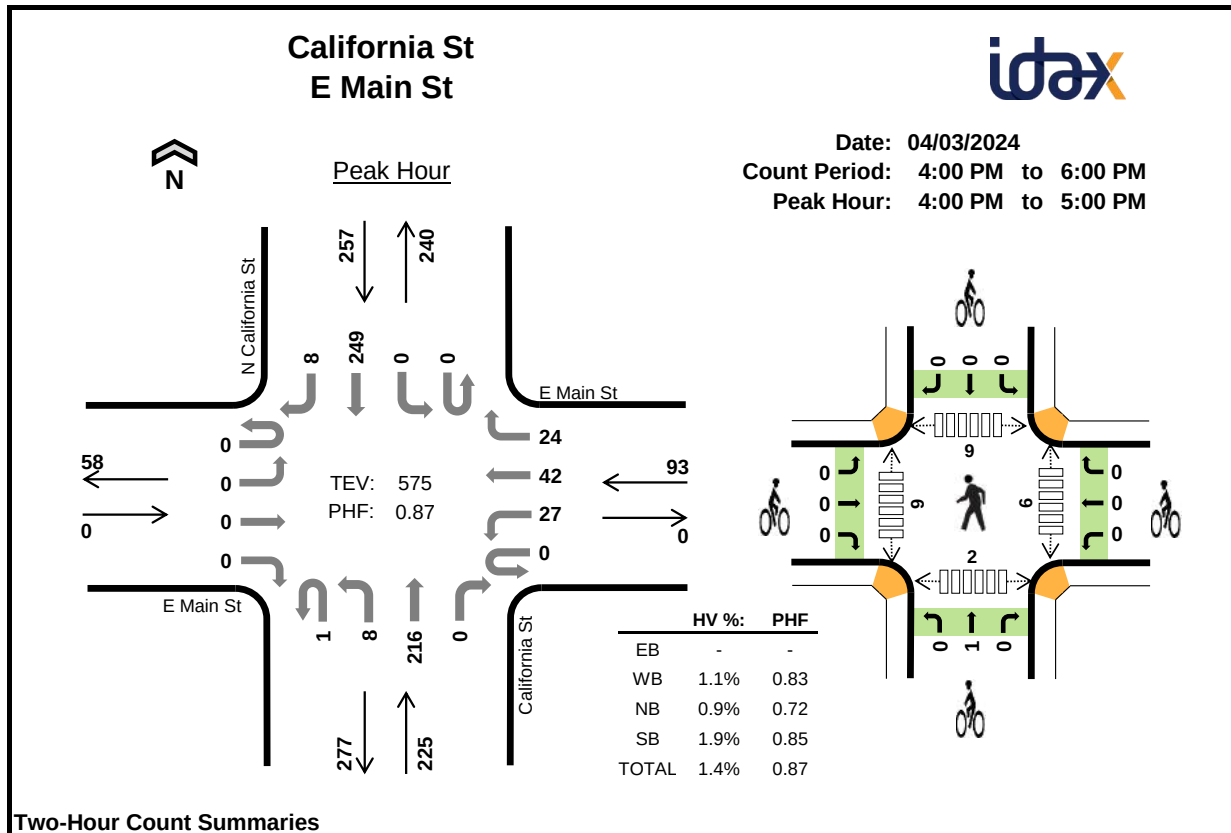
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	1	0	1	0	0	0	0	0	4	2	0	0	6
7:15 AM	0	0	2	0	2	0	0	0	0	0	4	1	0	0	5
7:30 AM	0	0	4	1	5	0	0	0	0	0	3	2	2	1	8
7:45 AM	0	0	3	5	8	0	0	0	0	0	4	2	0	0	6
8:00 AM	0	1	1	0	2	0	0	0	0	0	3	1	2	4	10
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
8:30 AM	0	0	4	1	5	0	0	0	0	0	2	1	2	0	5
8:45 AM	0	0	0	3	3	0	0	0	0	0	3	0	2	0	5
Count Total	0	1	15	10	26	0	0	0	0	0	23	9	8	7	47
Peak Hour	0	1	8	6	15	0	0	0	0	0	10	5	4	7	26

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	E Main St				E Main St				California St				N California St				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	
7:30 AM	0	0	0	0	0	0	0	0	0	1	3	0	0	0	1	0	5	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	2	8	16	
8:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2	17	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
8:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	5	15	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	10	
Count Total	0	0	0	0	0	1	0	0	0	0	1	14	0	0	0	8	2	26	0
Peak Hour	0	0	0	0	0	1	0	0	0	0	1	7	0	0	0	4	2	15	0

Two-Hour Count Summaries - Bikes																	
Interval Start	E Main St			E Main St			California St			N California St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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

**Two-Hour Count Summaries**

Interval Start		E Main St				E Main St				California St				N California St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	7	10	6	0	0	43	0	0	0	76	0	142	0
4:15 PM		0	0	0	0	0	8	10	4	0	1	49	0	0	0	58	2	132	0
4:30 PM		0	0	0	0	0	6	13	9	1	3	74	0	0	0	59	0	165	0
4:45 PM		0	0	0	0	0	6	9	5	0	4	50	0	0	0	56	6	136	575
5:00 PM		0	0	0	0	0	5	5	2	1	2	43	0	0	0	72	2	132	565
5:15 PM		0	0	0	0	0	5	9	0	0	2	52	0	0	0	54	6	128	561
5:30 PM		0	0	0	0	0	3	4	6	0	1	38	0	0	0	37	1	90	486
5:45 PM		0	0	0	0	0	1	10	2	0	0	30	0	0	0	36	1	80	430
Count Total		0	0	0	0	0	41	70	34	2	13	379	0	0	0	448	18	1,005	0
Peak Hour	All	0	0	0	0	0	27	42	24	1	8	216	0	0	0	249	8	575	0
	HV	0	0	0	0	0	0	1	0	0	0	2	0	0	0	5	0	8	0
	HV%	-	-	-	-	-	0%	2%	0%	0%	0%	1%	-	-	-	2%	0%	1%	0

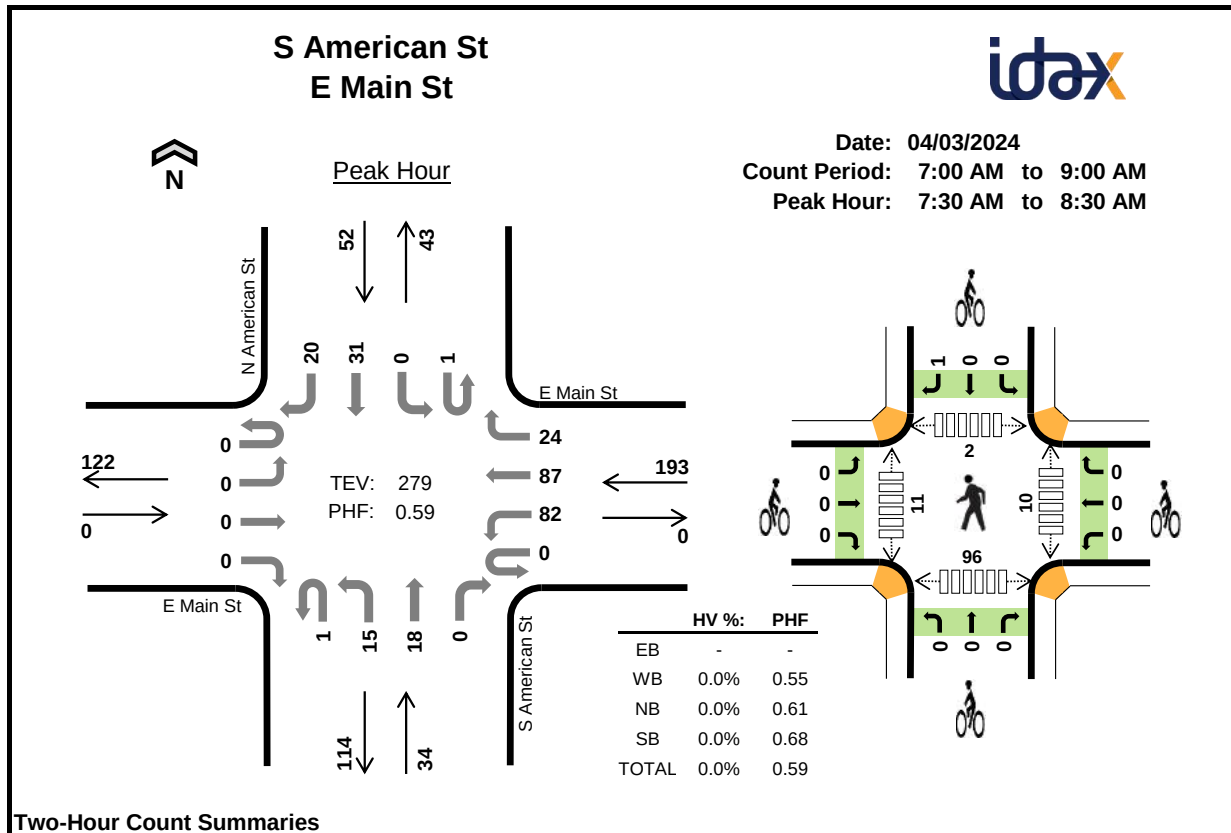
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	1	1	0	0	0	0	0	0	1	0	1	2
4:15 PM	0	1	1	1	3	0	0	1	0	1	4	2	0	1	7
4:30 PM	0	0	1	3	4	0	0	0	0	0	1	2	4	0	7
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	4	5	0	10
5:00 PM	0	0	0	2	2	0	0	0	0	0	1	3	0	0	4
5:15 PM	0	0	0	1	1	0	0	0	0	0	0	3	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3
5:45 PM	0	0	1	0	1	0	0	0	0	0	2	0	0	0	2
Count Total	0	1	3	8	12	0	0	1	0	1	9	17	10	2	38
Peak Hour	0	1	2	5	8	0	0	1	0	1	6	9	9	2	26

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	E Main St				E Main St				California St				N California St				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	3	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	9	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	4	0
Count Total	0	0	0	0	0	0	1	0	0	0	3	0	0	0	8	0	12	0	0
Peak Hour	0	0	0	0	0	0	1	0	0	0	2	0	0	0	5	0	8	0	0

Two-Hour Count Summaries - Bikes																			
Interval Start	E Main St			E Main St			California St			N California St			15-min Total	Rolling One Hour					
	Eastbound			Westbound			Northbound			Southbound									
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT							
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0

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

**Two-Hour Count Summaries**

Interval Start		E Main St				E Main St				S American St				N American St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	1	1	3	0	0	1	0	0	0	1	0	7	0
7:15 AM		0	0	0	0	0	6	7	3	0	0	0	0	0	0	5	1	22	0
7:30 AM		0	0	0	0	0	23	17	6	0	0	4	0	0	0	11	8	69	0
7:45 AM		0	0	0	0	0	44	34	9	0	10	4	0	1	0	13	4	119	217
8:00 AM		0	0	0	0	0	13	20	6	1	4	7	0	0	0	4	8	63	273
8:15 AM		0	0	0	0	0	2	16	3	0	1	3	0	0	0	3	0	28	279
8:30 AM		0	0	0	0	0	6	23	5	0	0	0	0	1	0	0	0	35	245
8:45 AM		0	0	0	0	0	1	15	7	0	0	0	0	2	0	3	4	32	158
Count Total		0	0	0	0	0	96	133	42	1	15	19	0	4	0	40	25	375	0
Peak Hour	All	0	0	0	0	0	82	87	24	1	15	18	0	1	0	31	20	279	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	HV%	-	-	-	-	-	0%	0%	0%	0%	0%	0%	-	0%	-	0%	0%	0%	0

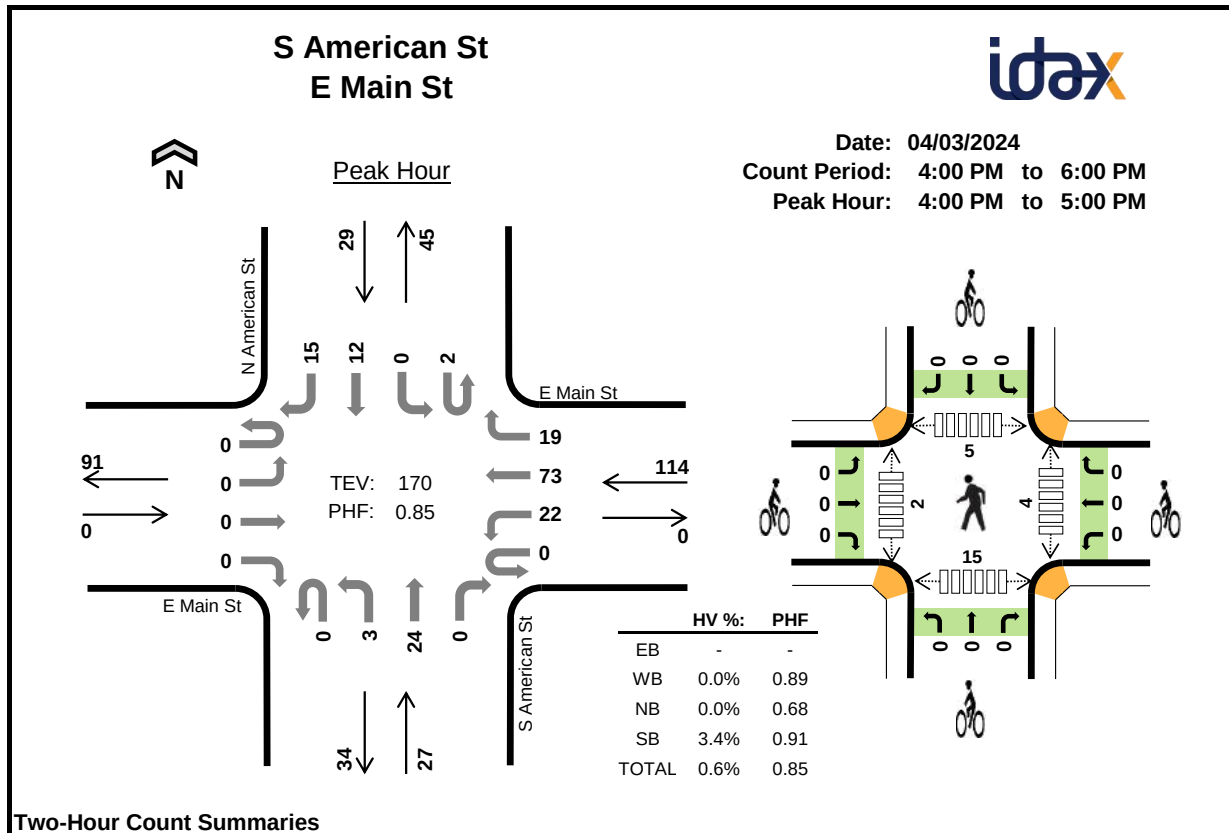
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	3	5
7:15 AM	0	0	0	0	0	0	0	0	0	0	5	3	0	6	14
7:30 AM	0	0	0	0	0	0	0	0	0	0	4	1	0	27	32
7:45 AM	0	0	0	0	0	0	0	0	0	0	4	6	2	47	59
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	15	19
8:15 AM	0	0	0	0	0	0	0	0	1	1	2	0	0	7	9
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	2	24	28
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	4	1	2	8
Count Total	0	0	0	0	0	0	0	0	1	1	17	20	6	131	174
Peak Hour	0	0	0	0	0	0	0	0	1	1	10	11	2	96	119

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Main St				E Main St				S American St				N American St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Two-Hour Count Summaries - Bikes																	
Interval Start	E Main St			E Main St			S American St			N American St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	1			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Count Total	0	0	0	0	0	0	0	0	0	0	0	1	1	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	1	1	0			

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

**Two-Hour Count Summaries**

Interval Start		E Main St				E Main St				S American St				N American St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	6	17	9	0	1	9	0	1	0	3	4	50	0
4:15 PM		0	0	0	0	0	5	19	4	0	1	3	0	0	0	3	2	37	0
4:30 PM		0	0	0	0	0	5	21	3	0	0	4	0	1	0	3	4	41	0
4:45 PM		0	0	0	0	0	6	16	3	0	1	8	0	0	0	3	5	42	170
5:00 PM		0	0	0	0	0	9	8	1	0	2	6	0	0	0	7	4	37	157
5:15 PM		0	0	0	0	0	5	8	1	0	1	3	0	0	0	3	4	25	145
5:30 PM		0	0	0	0	0	3	8	3	1	1	2	0	0	0	6	2	26	130
5:45 PM		0	0	0	0	0	3	11	2	0	1	1	0	0	0	1	0	19	107
Count Total		0	0	0	0	0	42	108	26	1	8	36	0	2	0	29	25	277	0
Peak Hour	All	0	0	0	0	0	22	73	19	0	3	24	0	2	0	12	15	170	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
	HV%	-	-	-	-	-	0%	0%	0%	-	0%	0%	-	0%	-	0%	7%	1%	0

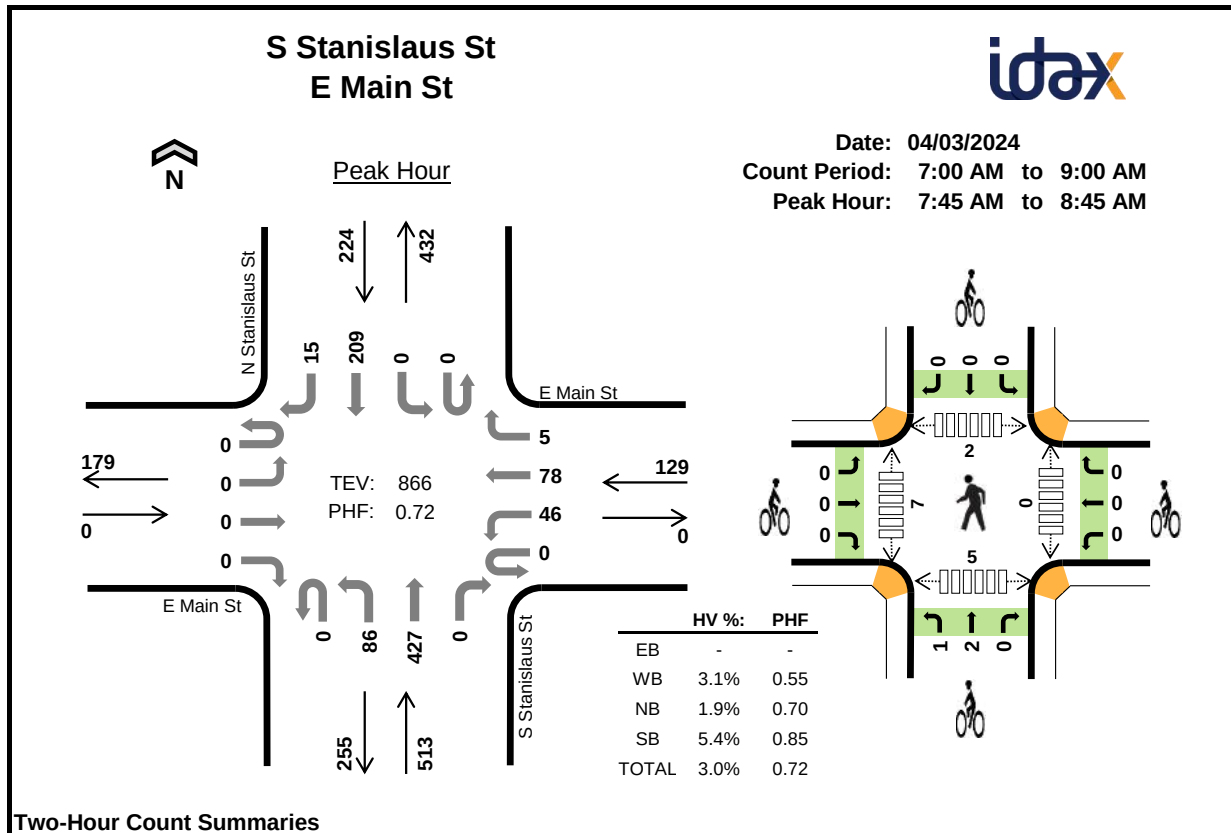
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	4	7
4:15 PM	0	0	0	1	1	0	0	0	0	0	2	0	3	3	8
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	2	6	9
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
5:15 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	2	4
Count Total	0	1	0	1	2	0	0	0	0	0	7	2	7	21	37
Peak Hour	0	0	0	1	1	0	0	0	0	0	4	2	5	15	26

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Main St				E Main St				S American St				N American St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Count Total	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	

Two-Hour Count Summaries - Bikes																	
Interval Start	E Main St			E Main St			S American St			N American St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

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

**Two-Hour Count Summaries**

Interval Start		E Main St				E Main St				S Stanislaus St				N Stanislaus St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	2	2	0	0	4	33	0	0	0	19	2	62	0
7:15 AM		0	0	0	0	0	3	9	0	0	12	65	0	0	0	29	1	119	0
7:30 AM		0	0	0	0	0	9	16	3	0	34	91	0	0	0	37	5	195	0
7:45 AM		0	0	0	0	0	19	39	1	0	48	134	0	0	0	51	7	299	675
8:00 AM		0	0	0	0	0	9	13	3	0	17	108	0	0	0	40	4	194	807
8:15 AM		0	0	0	0	0	7	10	1	0	8	94	0	0	0	55	1	176	864
8:30 AM		0	0	0	0	0	11	16	0	0	13	91	0	0	0	63	3	197	866
8:45 AM		0	0	0	0	0	6	11	3	0	11	69	0	0	0	40	1	141	708
Count Total		0	0	0	0	0	66	116	11	0	147	685	0	0	0	334	24	1,383	0
Peak Hour	All	0	0	0	0	0	46	78	5	0	86	427	0	0	0	209	15	866	0
	HV	0	0	0	0	0	4	0	0	0	0	10	0	0	0	12	0	26	0
	HV%	-	-	-	-	-	9%	0%	0%	-	0%	2%	-	-	-	6%	0%	3%	0

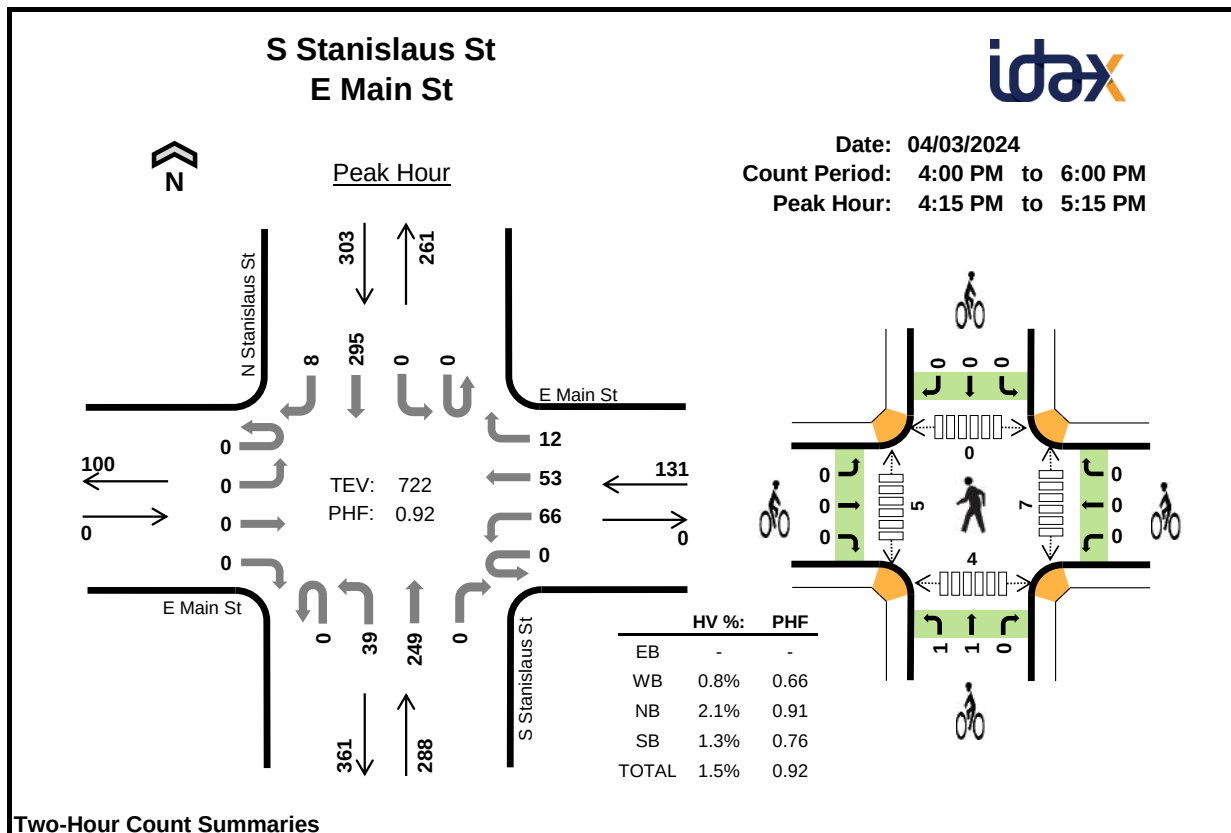
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	1	1	4	6	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	3	1	4	0	0	1	0	1	0	0	0	1	1
7:30 AM	0	1	4	1	6	0	1	0	1	2	0	3	1	1	5
7:45 AM	0	2	2	1	5	0	0	0	0	0	0	3	0	0	3
8:00 AM	0	1	1	5	7	0	0	1	0	1	0	1	0	0	1
8:15 AM	0	1	0	1	2	0	0	1	0	1	0	3	2	1	6
8:30 AM	0	0	7	5	12	0	0	1	0	1	0	0	0	4	4
8:45 AM	0	0	2	2	4	0	0	0	0	0	0	2	1	5	8
Count Total	0	6	20	20	46	0	1	4	1	6	0	12	4	12	28
Peak Hour	0	4	10	12	26	0	0	3	0	3	0	7	2	5	14

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	E Main St				E Main St				S Stanislaus St				N Stanislaus St				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	4	0	6	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	4	0	0	0	1	0	6	0
7:45 AM	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	1	0	5	21
8:00 AM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	5	0	7	22
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2	20
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	5	0	12	26
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	25
Count Total	0	0	0	0	0	6	0	0	0	0	0	20	0	0	0	20	0	46	0
Peak Hour	0	0	0	0	0	4	0	0	0	0	0	10	0	0	0	12	0	26	0

Two-Hour Count Summaries - Bikes																			
Interval Start	E Main St			E Main St			S Stanislaus St			N Stanislaus St			15-min Total	Rolling One Hour					
	Eastbound			Westbound			Northbound			Southbound									
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT							
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0
7:30 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	2	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	4
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	4
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	0	1	0	0	1	3	0	0	1	0	0	6	0	0	0	6	0
Peak Hour	0	0	0	0	0	0	1	2	0	0	0	0	0	3	0	0	0	3	0

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

**Two-Hour Count Summaries**

Interval Start		E Main St				E Main St				S Stanislaus St				N Stanislaus St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	4:00 PM	0	0	0	0	0	11	17	3	0	14	78	0	0	0	54	3	180	0
	4:15 PM	0	0	0	0	0	26	19	5	0	8	68	0	0	0	49	3	178	0
	4:30 PM	0	0	0	0	0	19	12	5	0	10	55	0	0	0	77	3	181	0
	4:45 PM	0	0	0	0	0	11	14	2	0	10	58	0	0	0	69	2	166	705
	5:00 PM	0	0	0	0	0	10	8	0	0	11	68	0	0	0	100	0	197	722
	5:15 PM	0	0	0	0	0	8	7	3	0	5	34	0	0	0	72	2	131	675
	5:30 PM	0	0	0	0	0	9	5	2	0	9	60	0	0	0	49	2	136	630
	5:45 PM	0	0	0	0	0	37	6	9	0	9	35	0	0	0	48	2	146	610
Count Total		0	0	0	0	0	131	88	29	0	76	456	0	0	0	518	17	1,315	0
Peak Hour	All	0	0	0	0	0	66	53	12	0	39	249	0	0	0	295	8	722	0
	HV	0	0	0	0	0	1	0	0	0	0	6	0	0	0	4	0	11	0
	HV%	-	-	-	-	-	2%	0%	0%	-	0%	2%	-	-	-	1%	0%	2%	0

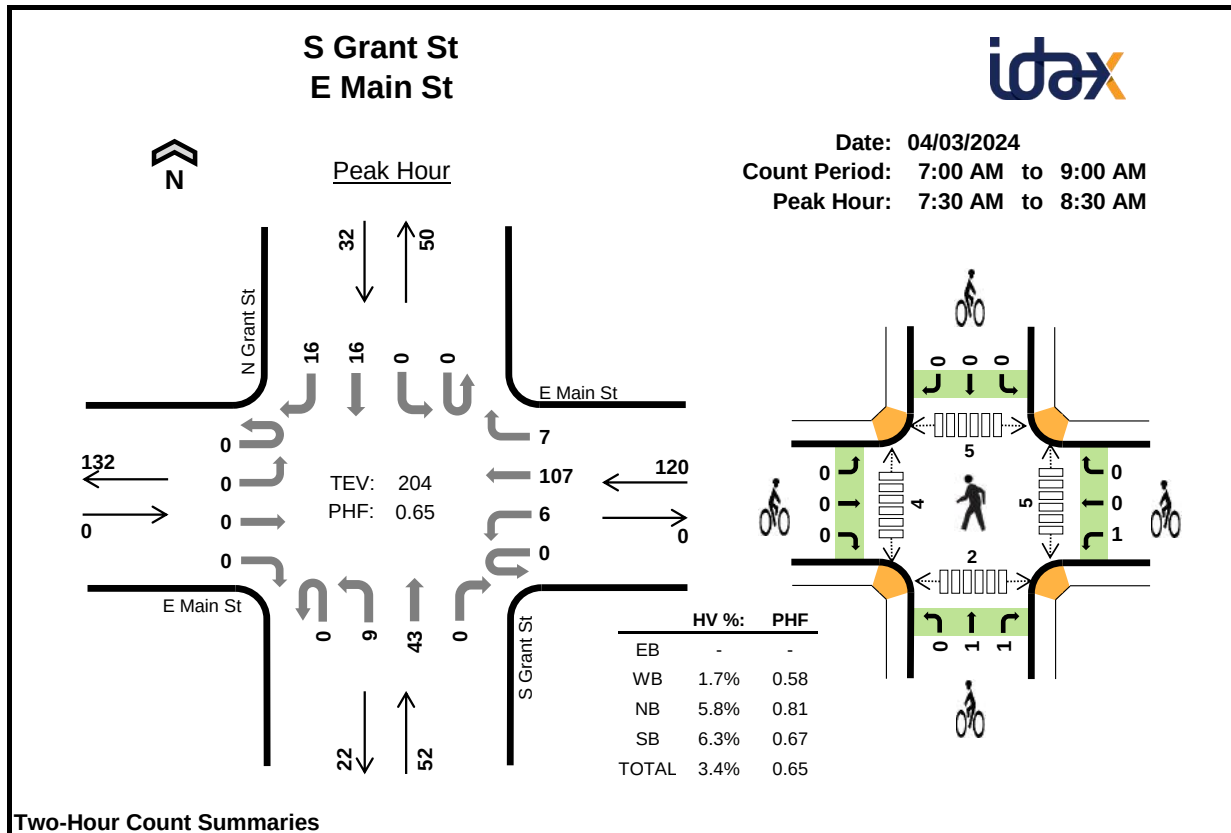
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	1	3	0	0	1	0	1	3	0	0	2	5
4:15 PM	0	0	2	1	3	0	0	0	0	0	4	0	0	3	7
4:30 PM	0	1	1	2	4	0	0	1	0	1	2	0	0	0	2
4:45 PM	0	0	3	0	3	0	0	0	0	0	1	1	0	0	2
5:00 PM	0	0	0	1	1	0	0	1	0	1	0	4	0	1	5
5:15 PM	0	0	2	1	3	0	0	0	0	0	0	2	0	3	5
5:30 PM	0	0	1	1	2	0	2	0	0	2	1	0	2	2	5
5:45 PM	0	0	2	0	2	0	0	0	0	0	0	0	1	0	1
Count Total	0	1	13	7	21	0	2	3	0	5	11	7	3	11	32
Peak Hour	0	1	6	4	11	0	0	2	0	2	7	5	0	4	16

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Main St				E Main St				S Stanislaus St				N Stanislaus St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	0
4:30 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	0	4	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	13
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	11
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	11
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	9
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	8
Count Total	0	0	0	0	0	1	0	0	0	0	13	0	0	0	7	0	21	0
Peak Hour	0	0	0	0	0	1	0	0	0	0	6	0	0	0	4	0	11	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Main St			E Main St			S Stanislaus St			N Stanislaus St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	2				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:30 PM	0	0	0	1	0	1	0	0	0	0	0	0	2	3				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
Count Total	0	0	0	1	0	1	1	2	0	0	0	0	5	0				
Peak Hour	0	0	0	0	0	0	1	1	0	0	0	0	2	0				

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

**Two-Hour Count Summaries**

Interval Start		E Main St				E Main St				S Grant St				N Grant St				15-min Total	Rolling One Hour	
		Eastbound				Westbound				Northbound				Southbound						
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM		0	0	0	0	0	0	2	0	0	0	5	0	0	0	2	2	11	0	
7:15 AM		0	0	0	0	0	1	11	0	0	1	3	0	0	0	2	1	19	0	
7:30 AM		0	0	0	0	0	0	24	1	0	3	9	0	0	0	1	3	41	0	
7:45 AM		0	0	0	0	0	0	50	2	0	1	13	0	0	0	6	6	78	149	
8:00 AM		0	0	0	0	0	4	19	1	0	2	14	0	0	0	4	3	47		185
8:15 AM		0	0	0	0	0	2	14	3	0	3	7	0	0	0	5	4	38		204
8:30 AM		0	0	0	0	0	4	22	4	0	1	3	0	0	0	4	3	41	204	
8:45 AM		0	0	0	0	0	2	15	1	0	2	6	0	0	0	1	1	28	154	
Count Total		0	0	0	0	0	13	157	12	0	13	60	0	0	0	25	23	303	0	
Peak Hour	All	0	0	0	0	0	6	107	7	0	9	43	0	0	0	16	16	204	0	
	HV	0	0	0	0	0	0	2	0	0	1	2	0	0	0	1	1	7	0	
	HV%	-	-	-	-	-	0%	2%	0%	-	11%	5%	-	-	-	6%	6%	3%	0	

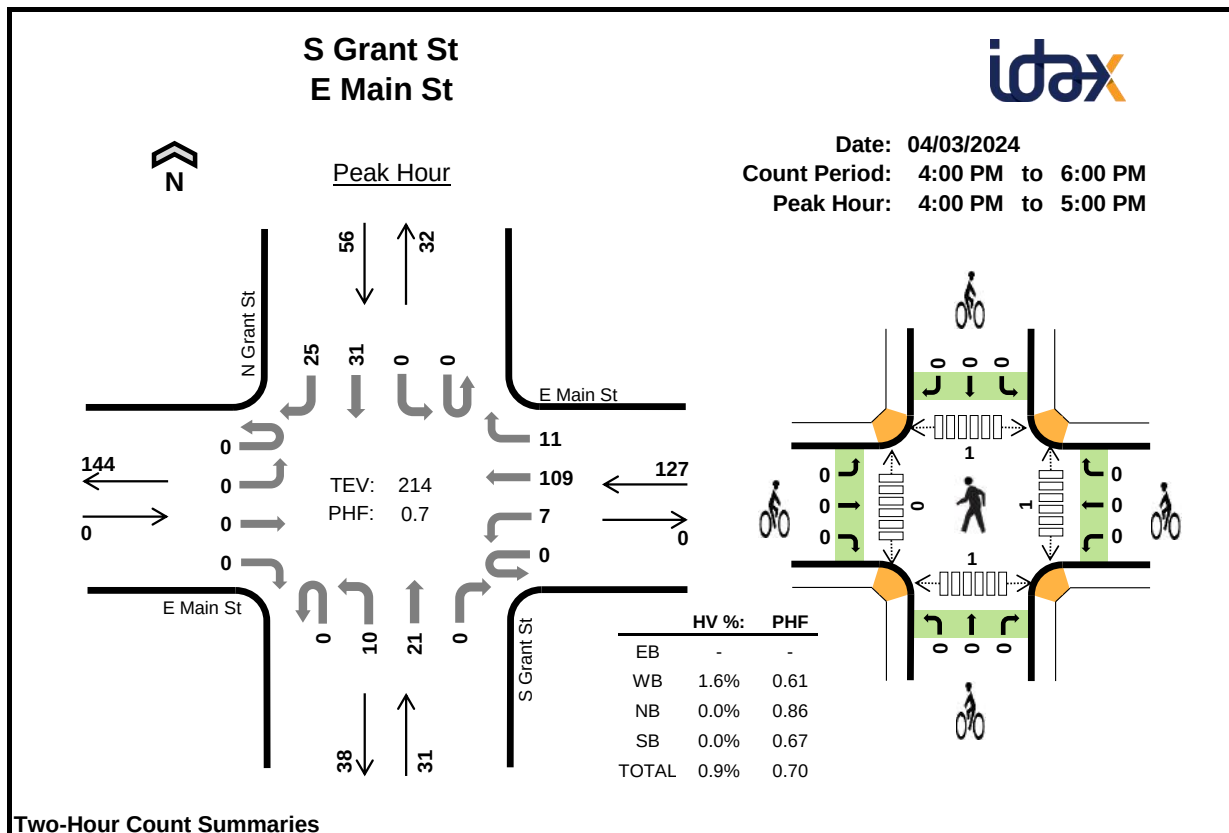
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	1	1	0	2	0	0	1	0	1	0	0	1	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
7:30 AM	0	0	2	0	2	0	0	0	0	0	1	2	1	0	4
7:45 AM	0	2	0	1	3	0	0	0	0	0	0	1	1	0	2
8:00 AM	0	0	0	0	0	0	0	1	0	1	2	1	1	2	6
8:15 AM	0	0	1	1	2	0	1	1	0	2	2	0	2	0	4
8:30 AM	0	0	1	0	1	0	0	1	0	1	1	0	1	1	3
8:45 AM	0	0	0	0	0	0	0	0	1	1	1	0	0	1	2
Count Total	0	3	5	2	10	0	1	4	1	6	7	4	7	5	23
Peak Hour	0	2	3	2	7	0	1	2	0	3	5	4	5	2	16

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Main St				E Main St				S Grant St				N Grant St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0
7:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	3	7
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	7
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	6
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	0	0	0	0	3	0	0	1	4	0	0	0	1	1	10	0
Peak Hour	0	0	0	0	0	0	2	0	0	1	2	0	0	0	1	1	7	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Main St			E Main St			S Grant St			N Grant St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	1				
8:15 AM	0	0	0	1	0	0	0	0	1	0	0	0	2	3				
8:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	4				
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	5				
Count Total	0	0	0	1	0	0	1	1	2	0	1	0	6	0				
Peak Hour	0	0	0	1	0	0	0	1	1	0	0	0	3	0				

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

**Two-Hour Count Summaries**

Interval Start		E Main St				E Main St				S Grant St				N Grant St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	0	25	2	0	1	8	0	0	0	6	4	46	0
4:15 PM		0	0	0	0	0	4	43	5	0	5	4	0	0	0	9	6	76	0
4:30 PM		0	0	0	0	0	1	20	2	0	4	5	0	0	0	12	9	53	0
4:45 PM		0	0	0	0	0	2	21	2	0	0	4	0	0	0	4	6	39	214
5:00 PM		0	0	0	0	0	1	14	3	0	2	4	0	0	0	8	2	34	202
5:15 PM		0	0	0	0	0	0	13	3	0	2	0	1	1	0	3	2	25	151
5:30 PM		0	0	0	0	0	3	16	2	0	0	3	0	0	0	4	2	30	128
5:45 PM		0	0	0	0	0	1	49	3	0	0	3	0	0	0	3	4	63	152
Count Total		0	0	0	0	0	12	201	22	0	14	31	1	1	0	49	35	366	0
Peak Hour	All	0	0	0	0	0	7	109	11	0	10	21	0	0	0	31	25	214	0
	HV	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	0
	HV%	-	-	-	-	-	0%	1%	9%	-	0%	0%	-	-	-	0%	0%	1%	0

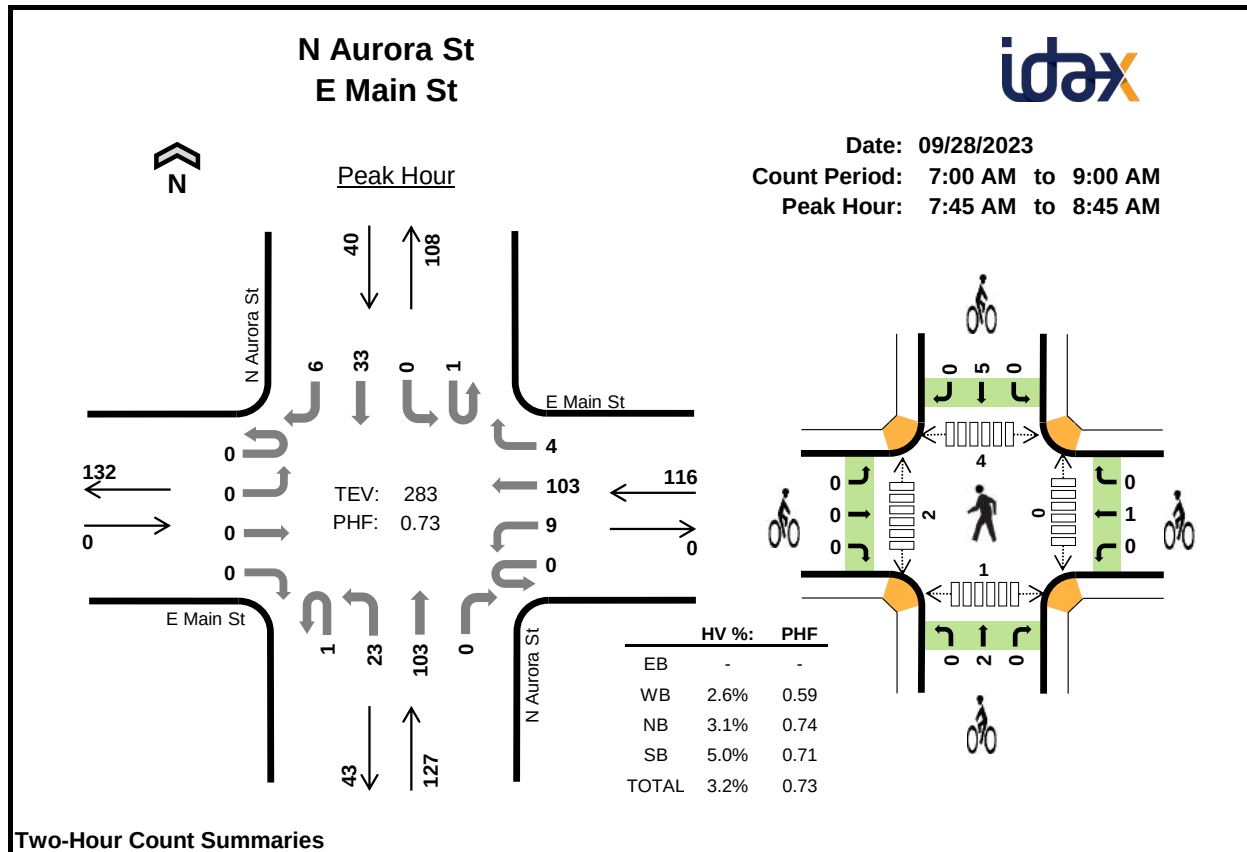
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	1	1	4
5:30 PM	0	0	1	0	1	0	0	2	1	3	0	0	0	38	38
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10
Count Total	0	2	1	0	3	0	0	2	1	3	1	2	2	50	55
Peak Hour	0	2	0	0	2	0	0	0	0	0	1	0	1	1	3

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Main St				E Main St				S Grant St				N Grant St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	3	0
Peak Hour	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	0

Two-Hour Count Summaries - Bikes																	
Interval Start	E Main St			E Main St			S Grant St			N Grant St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:30 PM	0	0	0	0	0	0	1	1	0	0	0	1	3	3			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
Count Total	0	0	0	0	0	0	1	1	0	0	0	1	3	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

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

**Two-Hour Count Summaries**

Interval Start		E Main St				E Main St				N Aurora St				N Aurora St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	2	6	2	0	1	9	0	0	0	4	0	24	0
7:15 AM		0	0	0	0	0	0	12	0	0	1	15	0	0	0	6	1	35	0
7:30 AM		0	0	0	0	0	2	14	0	0	2	19	0	0	0	7	3	47	0
7:45 AM		0	0	0	0	0	3	43	3	0	11	32	0	0	0	5	0	97	203
8:00 AM		0	0	0	0	0	2	32	1	0	3	19	0	0	0	13	1	71	250
8:15 AM		0	0	0	0	0	1	14	0	0	3	26	0	0	0	7	3	54	269
8:30 AM		0	0	0	0	0	3	14	0	1	6	26	0	1	0	8	2	61	283
8:45 AM		0	0	0	0	0	3	20	0	0	3	16	0	1	0	6	2	51	237
Count Total		0	0	0	0	0	16	155	6	1	30	162	0	2	0	56	12	440	0
Peak Hour	All	0	0	0	0	0	9	103	4	1	23	103	0	1	0	33	6	283	0
	HV	0	0	0	0	0	1	2	0	0	3	1	0	0	0	2	0	9	0
	HV%	-	-	-	-	-	11%	2%	0%	0%	13%	1%	-	0%	-	6%	0%	3%	0

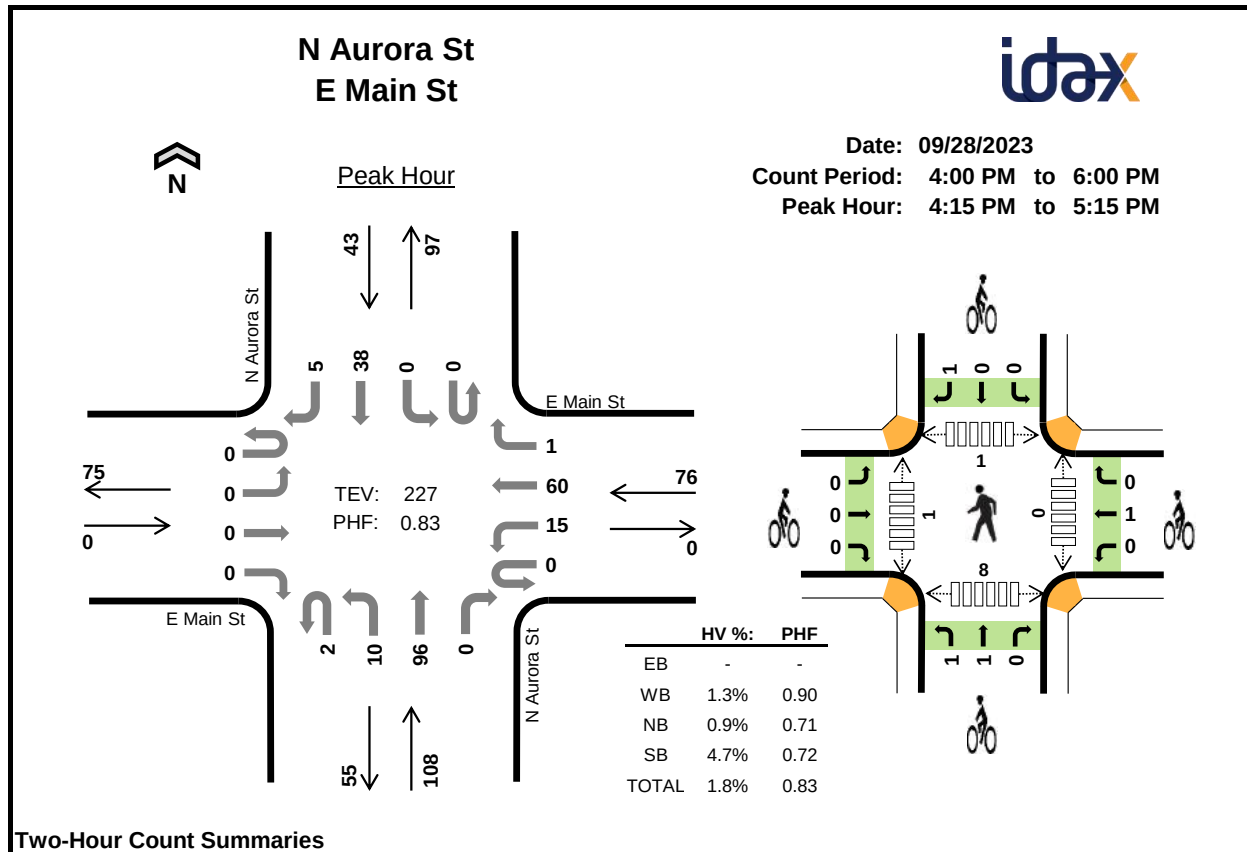
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	0	1	0	0	1	3	4	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
7:45 AM	0	0	1	0	1	0	1	2	3	6	0	0	1	0	1
8:00 AM	0	2	2	2	6	0	0	0	0	0	0	0	1	0	1
8:15 AM	0	1	0	0	1	0	0	0	1	1	0	1	1	1	3
8:30 AM	0	0	1	0	1	0	0	0	1	1	0	1	1	0	2
8:45 AM	0	0	0	0	0	0	0	0	1	1	0	1	0	0	1
Count Total	0	3	5	2	10	0	1	3	9	13	0	3	4	5	12
Peak Hour	0	3	4	2	9	0	1	2	5	8	0	2	4	1	7

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Main St				E Main St				N Aurora St				N Aurora St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
8:00 AM	0	0	0	0	0	1	1	0	0	1	1	0	0	0	2	0	6	
8:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total	0	0	0	0	0	1	2	0	0	3	2	0	0	0	2	0	10	
Peak Hour	0	0	0	0	0	1	2	0	0	3	1	0	0	0	2	0	9	

Two-Hour Count Summaries - Bikes																	
Interval Start	E Main St			E Main St			N Aurora St			N Aurora St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	1	0	0	3	0	4	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	1	0	0	2	0	0	3	0	6	10			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	10			
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	7			
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	8			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	3			
Count Total	0	0	0	0	1	0	0	3	0	0	8	1	13	0			
Peak Hour	0	0	0	0	1	0	0	2	0	0	5	0	8	0			

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

**Two-Hour Count Summaries**

Interval Start		E Main St				E Main St				N Aurora St				N Aurora St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	4	16	1	1	4	31	0	0	0	5	2	64	0
4:15 PM		0	0	0	0	0	2	17	0	0	1	26	0	0	0	12	3	61	0
4:30 PM		0	0	0	0	0	4	17	0	0	2	18	0	0	0	11	1	53	0
4:45 PM		0	0	0	0	0	0	16	0	0	3	20	0	0	0	5	1	45	223
5:00 PM		0	0	0	0	0	9	10	1	2	4	32	0	0	0	10	0	68	227
5:15 PM		0	0	0	0	0	3	14	0	0	1	12	0	0	0	7	1	38	204
5:30 PM		0	0	0	0	0	6	6	1	0	3	17	0	0	0	7	1	41	192
5:45 PM		0	0	0	0	0	3	36	5	1	2	21	0	1	0	6	2	77	224
Count Total		0	0	0	0	0	31	132	8	4	20	177	0	1	0	63	11	447	0
Peak Hour	All	0	0	0	0	0	15	60	1	2	10	96	0	0	0	38	5	227	0
	HV	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0	4	0
	HV%	-	-	-	-	-	0%	2%	0%	0%	0%	1%	-	-	-	5%	0%	2%	0

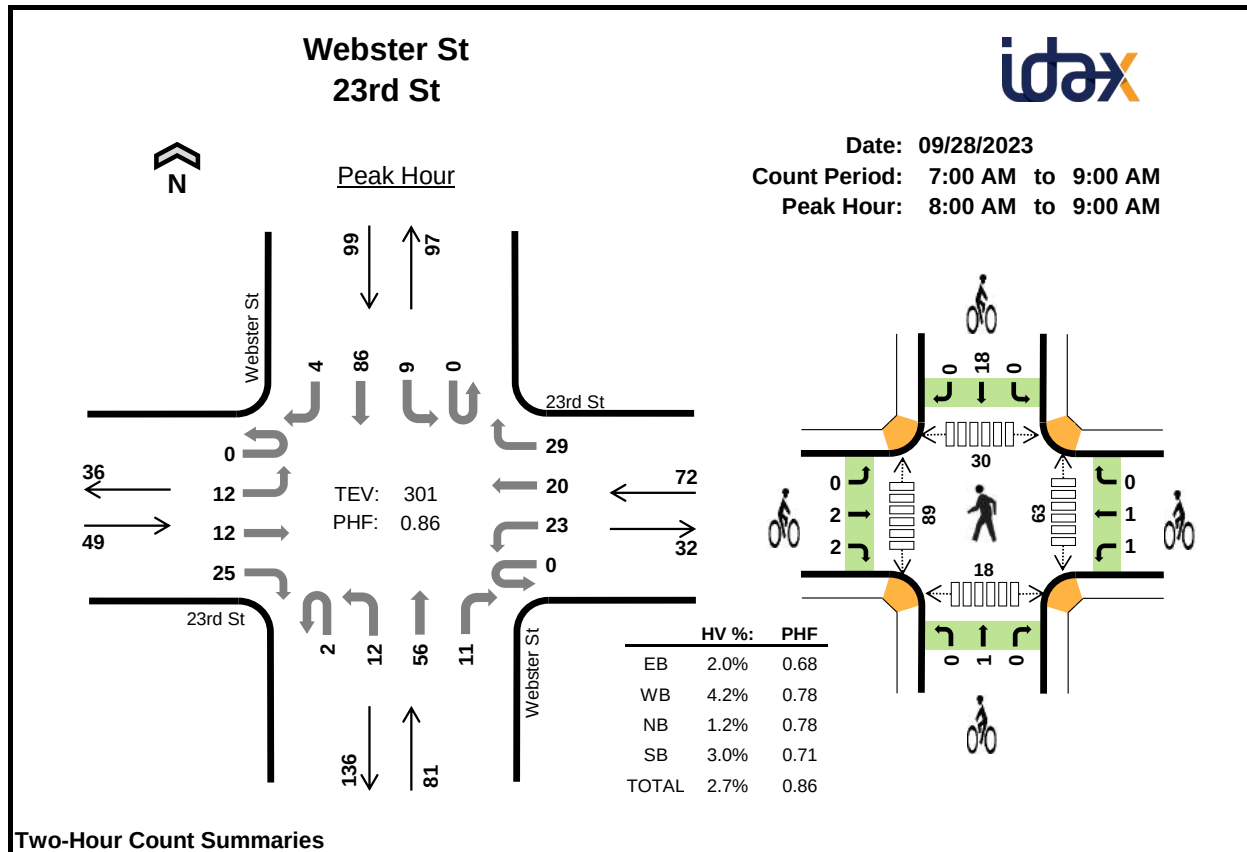
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	1	3	0	0	2	0	2	0	0	0	0	0
4:15 PM	0	0	0	2	2	0	0	1	0	1	0	0	1	1	2
4:30 PM	0	0	1	0	1	0	0	1	1	2	0	0	0	4	4
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	2	2
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	1	2
5:15 PM	0	0	0	0	0	0	0	2	0	2	0	2	1	0	3
5:30 PM	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2
5:45 PM	0	0	1	0	1	0	0	2	0	2	0	0	1	0	1
Count Total	0	1	4	3	8	0	1	9	1	11	0	5	3	8	16
Peak Hour	0	1	1	2	4	0	1	2	1	4	0	1	1	8	10

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Main St				E Main St				N Aurora St				N Aurora St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
Count Total	0	0	0	0	0	0	1	0	0	0	4	0	0	0	3	0	8	0
Peak Hour	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0	4	0

Two-Hour Count Summaries - Bikes																	
Interval Start	E Main St			E Main St			N Aurora St			N Aurora St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0			
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0			
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	2	0			
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	6			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4			
5:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	2	5			
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	4			
5:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	5			
Count Total	0	0	0	0	1	0	3	6	0	0	0	1	11	0			
Peak Hour	0	0	0	0	1	0	1	1	0	0	0	1	4	0			

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



Two-Hour Count Summaries

Interval Start		23rd St				23rd St				Webster St				Webster St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	4	0	3	0	3	5	3	0	1	6	2	0	0	6	1	34	0
7:15 AM		0	4	4	1	0	2	6	3	0	0	6	0	0	0	13	2	41	0
7:30 AM		0	1	3	4	0	5	5	3	0	0	10	2	0	1	19	3	56	0
7:45 AM		0	3	1	5	0	7	4	1	0	1	5	0	0	1	20	1	49	180
8:00 AM		0	2	4	4	0	11	4	8	0	2	9	1	0	2	17	1	65	211
8:15 AM		0	2	2	6	0	4	6	8	0	4	18	3	0	4	30	1	88	258
8:30 AM		0	3	1	7	0	2	5	5	1	4	17	4	0	1	18	1	69	271
8:45 AM		0	5	5	8	0	6	5	8	1	2	12	3	0	2	21	1	79	301
Count Total		0	24	20	38	0	40	40	39	2	14	83	15	0	11	144	11	481	0
Peak Hour	All	0	12	12	25	0	23	20	29	2	12	56	11	0	9	86	4	301	0
	HV	0	1	0	0	0	2	0	1	0	1	0	0	0	2	1	0	8	0
	HV%	-	8%	0%	0%	-	9%	0%	3%	0%	8%	0%	0%	-	22%	1%	0%	3%	0

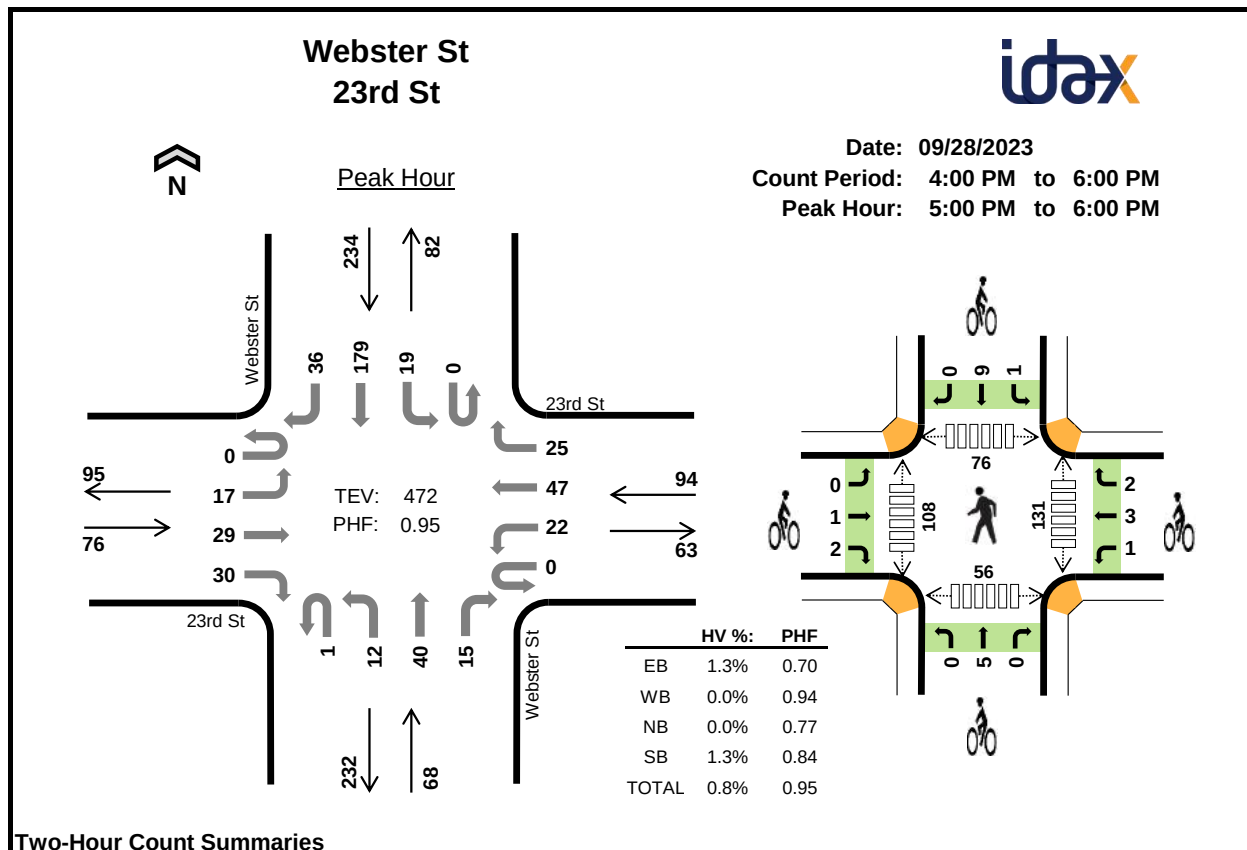
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	3	0	3	0	0	0	0	0	5	8	4	0	17
7:15 AM	0	0	0	2	2	0	0	1	1	2	3	15	5	1	24
7:30 AM	0	0	1	0	1	1	0	0	2	3	10	14	4	1	29
7:45 AM	0	0	0	0	0	0	3	2	3	8	7	23	8	0	38
8:00 AM	0	2	0	0	2	0	1	0	3	4	14	17	8	5	44
8:15 AM	0	0	1	2	3	2	1	0	4	7	21	26	6	6	59
8:30 AM	0	0	0	1	1	0	0	1	5	6	19	20	7	7	53
8:45 AM	1	1	0	0	2	2	0	0	6	8	9	26	9	0	44
Count Total	1	3	5	5	14	5	5	4	24	38	88	149	51	20	308
Peak Hour	1	3	1	3	8	4	2	1	18	25	63	89	30	18	200

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	23rd St				23rd St				Webster St				Webster St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
8:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	5
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	6
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6
8:45 AM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	8
Count Total	0	1	0	0	0	2	0	1	0	1	2	2	0	2	3	0	14	0
Peak Hour	0	1	0	0	0	2	0	1	0	1	0	0	0	2	1	0	8	0

Two-Hour Count Summaries - Bikes																	
Interval Start	23rd St			23rd St			Webster St			Webster St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0			
7:30 AM	0	0	1	0	0	0	0	0	0	0	2	0	3	0			
7:45 AM	0	0	0	0	3	0	1	1	0	0	3	0	8	13			
8:00 AM	0	0	0	0	1	0	0	0	0	0	3	0	4	17			
8:15 AM	0	0	2	1	0	0	0	0	0	0	4	0	7	22			
8:30 AM	0	0	0	0	0	0	0	1	0	0	5	0	6	25			
8:45 AM	0	2	0	0	0	0	0	0	0	0	6	0	8	25			
Count Total	0	2	3	1	4	0	1	3	0	0	24	0	38	0			
Peak Hour	0	2	2	1	1	0	0	1	0	0	18	0	25	0			

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

**Two-Hour Count Summaries**

Interval Start		23rd St				23rd St				Webster St				Webster St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	4	6	7	0	6	5	7	0	1	13	2	0	2	37	0	90	0
4:15 PM		0	5	3	10	0	5	16	7	0	1	9	1	1	5	47	2	112	0
4:30 PM		0	5	7	4	0	3	8	11	0	3	5	1	0	2	35	6	90	0
4:45 PM		0	10	9	3	0	4	11	10	0	1	12	4	0	3	37	5	109	401
5:00 PM		0	5	6	8	0	7	12	6	0	3	13	3	0	3	40	5	111	422
5:15 PM		0	3	5	4	0	6	14	3	0	0	6	3	0	8	49	13	114	424
5:30 PM		0	7	7	13	0	4	9	9	0	1	13	4	0	2	48	7	124	458
5:45 PM		0	2	11	5	0	5	12	7	1	8	8	5	0	6	42	11	123	472
Count Total		0	41	54	54	0	40	87	60	1	18	79	23	1	31	335	49	873	0
Peak Hour	All	0	17	29	30	0	22	47	25	1	12	40	15	0	19	179	36	472	0
	HV	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	4	0
	HV%	-	0%	0%	3%	-	0%	0%	0%	0%	0%	0%	0%	-	0%	2%	0%	1%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	0	0	0	2	2	0	2	1	5	13	24	10	15	62
4:15 PM	0	0	0	2	2	1	0	1	1	3	13	18	10	14	55
4:30 PM	0	0	0	1	1	0	0	2	1	3	17	30	15	8	70
4:45 PM	0	0	0	1	1	1	1	4	1	7	12	35	16	11	74
5:00 PM	0	0	0	1	1	3	1	0	1	5	31	46	27	13	117
5:15 PM	0	0	0	0	0	0	2	0	4	6	29	29	15	16	89
5:30 PM	1	0	0	2	3	0	1	1	3	5	44	22	17	15	98
5:45 PM	0	0	0	0	0	0	2	4	2	8	27	11	17	12	67
Count Total	3	0	0	7	10	7	7	14	14	42	186	215	127	104	632
Peak Hour	1	0	0	3	4	3	6	5	10	24	131	108	76	56	371

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	23rd St				23rd St				Webster St				Webster St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	3	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Count Total	0	0	2	1	0	0	0	0	0	0	0	0	0	2	5	0	10	0
Peak Hour	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	4	0

Two-Hour Count Summaries - Bikes																	
Interval Start	23rd St			23rd St			Webster St			Webster St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	2	0	0	0	0	0	2	0	0	1	0	5	0			
4:15 PM	0	1	0	0	0	0	0	1	0	0	1	0	3	0			
4:30 PM	0	0	0	0	0	0	0	2	0	0	1	0	3	0			
4:45 PM	1	0	0	0	1	0	1	3	0	0	1	0	7	18			
5:00 PM	0	1	2	0	0	1	0	0	0	0	1	0	5	18			
5:15 PM	0	0	0	0	2	0	0	0	0	0	4	0	6	21			
5:30 PM	0	0	0	0	1	0	0	1	0	1	2	0	5	23			
5:45 PM	0	0	0	1	0	1	0	4	0	0	2	0	8	24			
Count Total	1	4	2	1	4	2	1	13	0	1	13	0	42	0			
Peak Hour	0	1	2	1	3	2	0	5	0	1	9	0	24	0			

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



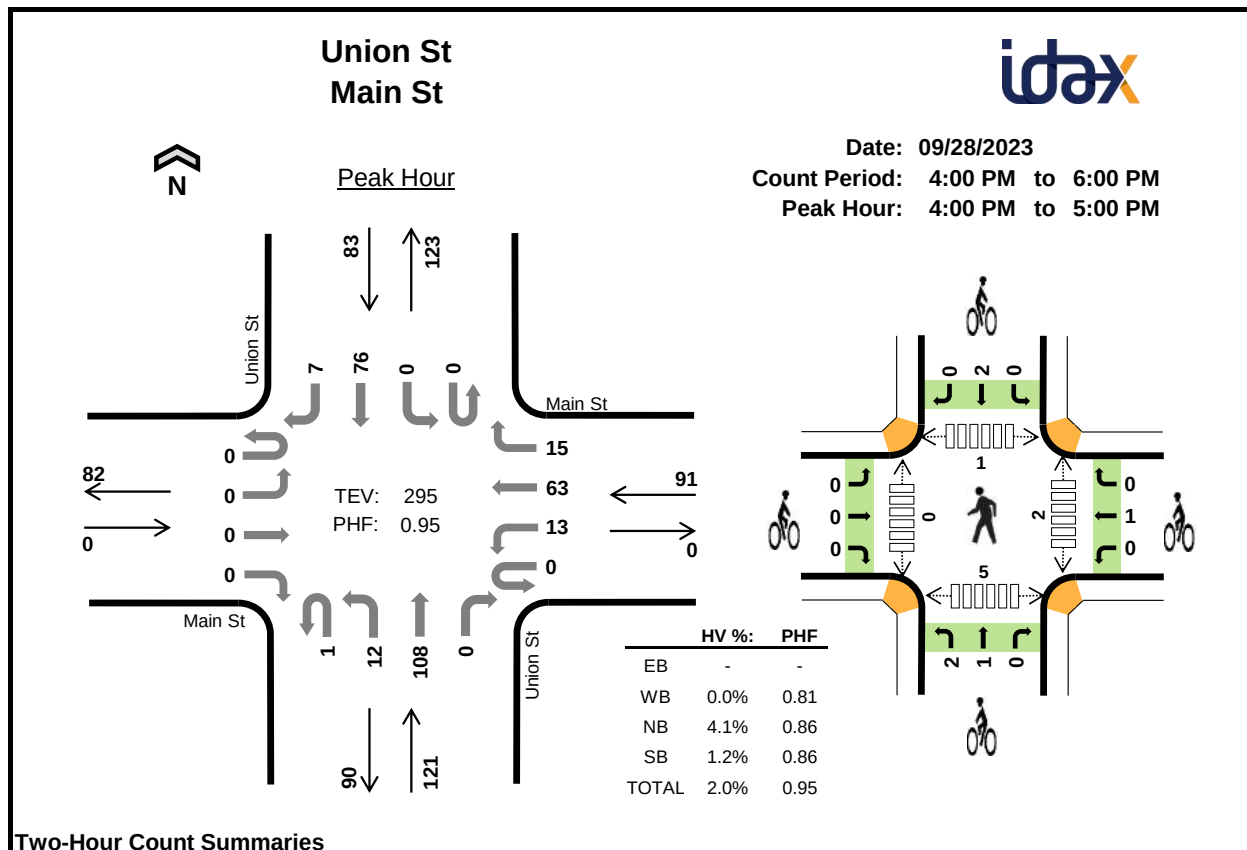
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	3	0	5
7:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	8	1	9
7:30 AM	0	0	0	1	1	0	0	1	0	1	0	0	0	4	4
7:45 AM	0	0	0	0	0	0	0	1	2	3	1	1	1	0	3
8:00 AM	0	1	0	1	2	0	0	0	0	0	0	0	0	4	4
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	2	2
8:30 AM	0	0	3	0	3	0	1	0	1	2	0	0	1	1	2
8:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Count Total	0	2	3	2	7	0	1	3	4	8	3	1	13	12	29
Peak Hour	0	2	3	1	6	0	1	1	3	5	1	1	2	7	11

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Union St				Union St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	
8:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
8:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total	0	0	0	0	0	0	2	0	0	0	3	0	0	0	1	1	7	
Peak Hour	0	0	0	0	0	0	2	0	0	0	3	0	0	0	0	1	6	

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			Union St			Union St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0			
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0			
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	1	3	5			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4			
8:30 AM	0	0	0	0	1	0	0	0	0	0	1	0	2	5			
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	3			
Count Total	0	0	0	0	1	0	0	3	0	0	3	1	8	0			
Peak Hour	0	0	0	0	1	0	0	1	0	0	2	1	5	0			

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Union St				Union St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	1	13	4	0	5	21	0	0	0	21	3	68	0
4:15 PM		0	0	0	0	0	4	16	8	1	4	25	0	0	0	19	0	77	0
4:30 PM		0	0	0	0	0	4	19	2	0	1	29	0	0	0	21	2	78	0
4:45 PM		0	0	0	0	0	4	15	1	0	2	33	0	0	0	15	2	72	295
5:00 PM		0	0	0	0	0	2	13	5	0	1	26	0	0	0	16	4	67	294
5:15 PM		0	0	0	0	0	10	16	3	0	0	25	0	0	0	10	3	67	284
5:30 PM		0	0	0	0	0	4	9	2	0	2	17	0	0	0	24	3	61	267
5:45 PM		0	0	0	0	0	4	10	8	0	4	12	0	0	0	13	1	52	247
Count Total		0	0	0	0	0	33	111	33	1	19	188	0	0	0	139	18	542	0
Peak Hour	All	0	0	0	0	0	13	63	15	1	12	108	0	0	0	76	7	295	0
	HV	0	0	0	0	0	0	0	0	0	2	3	0	0	0	1	0	6	0
	HV%	-	-	-	-	-	0%	0%	0%	0%	17%	3%	-	-	-	1%	0%	2%	0

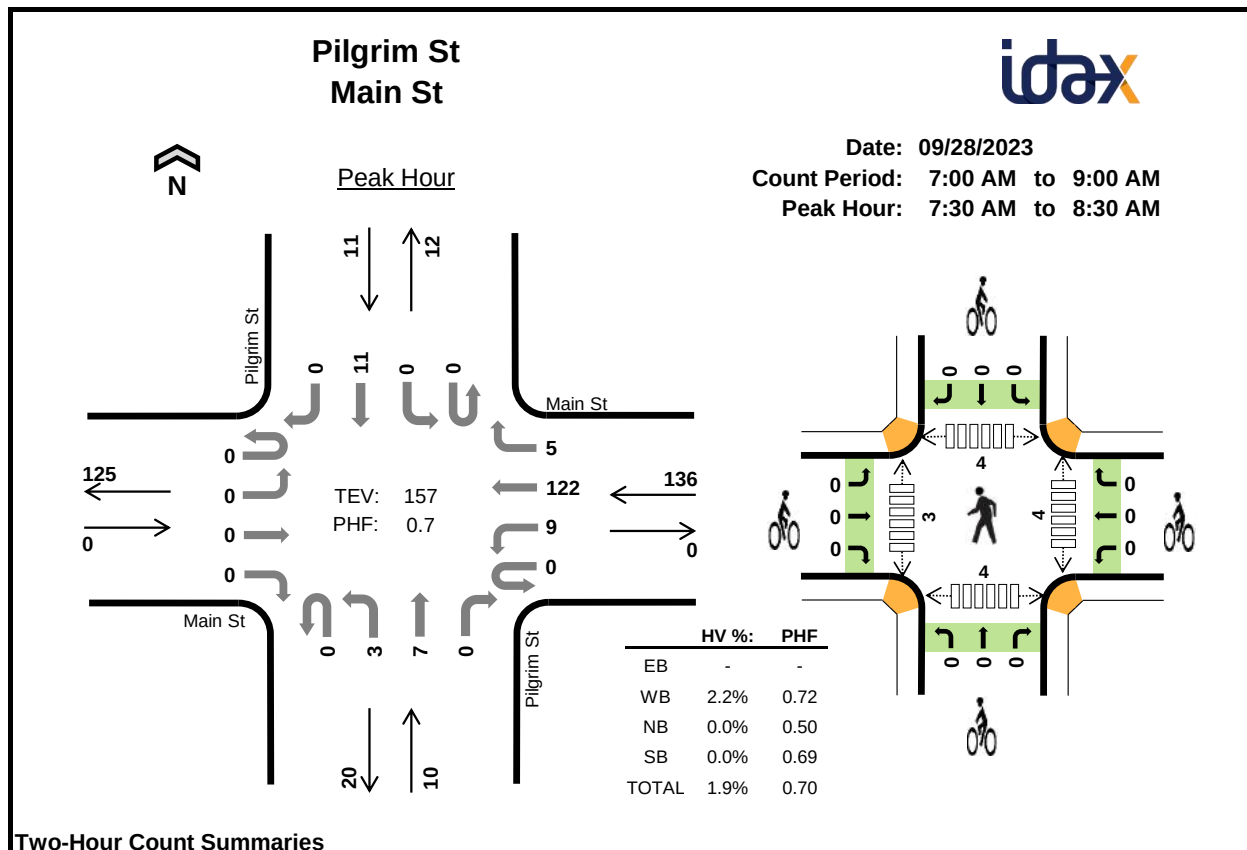
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	0	2	0	1	0	0	1	0	0	0	1	1
4:15 PM	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1
4:30 PM	0	0	0	1	1	0	0	1	0	1	0	0	0	4	4
4:45 PM	0	0	2	0	2	0	0	1	2	3	2	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2
5:30 PM	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0
5:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	6	1	7	0	3	6	2	11	3	0	2	6	11
Peak Hour	0	0	5	1	6	0	1	3	2	6	2	0	1	5	8

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Union St				Union St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	6
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
Count Total	0	0	0	0	0	0	0	0	0	2	4	0	0	0	1	0	7	0
Peak Hour	0	0	0	0	0	0	0	0	0	2	3	0	0	0	1	0	6	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			Union St			Union St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0			
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0			
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0			
4:45 PM	0	0	0	0	0	0	1	0	0	0	2	0	3	6			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5			
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	5			
5:30 PM	0	0	0	2	0	0	0	2	0	0	0	0	4	8			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5			
Count Total	0	0	0	2	1	0	2	4	0	0	2	0	11	0			
Peak Hour	0	0	0	0	1	0	2	1	0	0	2	0	6	0			

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Pilgrim St				Pilgrim St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	1	9	0	0	0	2	0	0	0	0	0	12	0
7:15 AM		0	0	0	0	0	1	9	0	0	2	4	0	0	0	0	0	16	0
7:30 AM		0	0	0	0	0	4	22	0	0	0	1	0	0	0	1	0	28	0
7:45 AM		0	0	0	0	0	2	44	1	0	1	4	0	0	0	4	0	56	112
8:00 AM		0	0	0	0	0	3	37	2	0	1	1	0	0	0	3	0	47	147
8:15 AM		0	0	0	0	0	0	19	2	0	1	1	0	0	0	3	0	26	157
8:30 AM		0	0	0	0	0	3	16	2	0	1	1	0	0	0	1	0	24	153
8:45 AM		0	0	0	0	0	3	22	2	0	0	3	0	0	0	2	3	35	132
Count Total		0	0	0	0	0	17	178	9	0	6	17	0	0	0	14	3	244	0
Peak Hour	All	0	0	0	0	0	9	122	5	0	3	7	0	0	0	11	0	157	0
	HV	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3	0
	HV%	-	-	-	-	-	0%	2%	20%	-	0%	0%	-	-	-	0%	-	2%	0

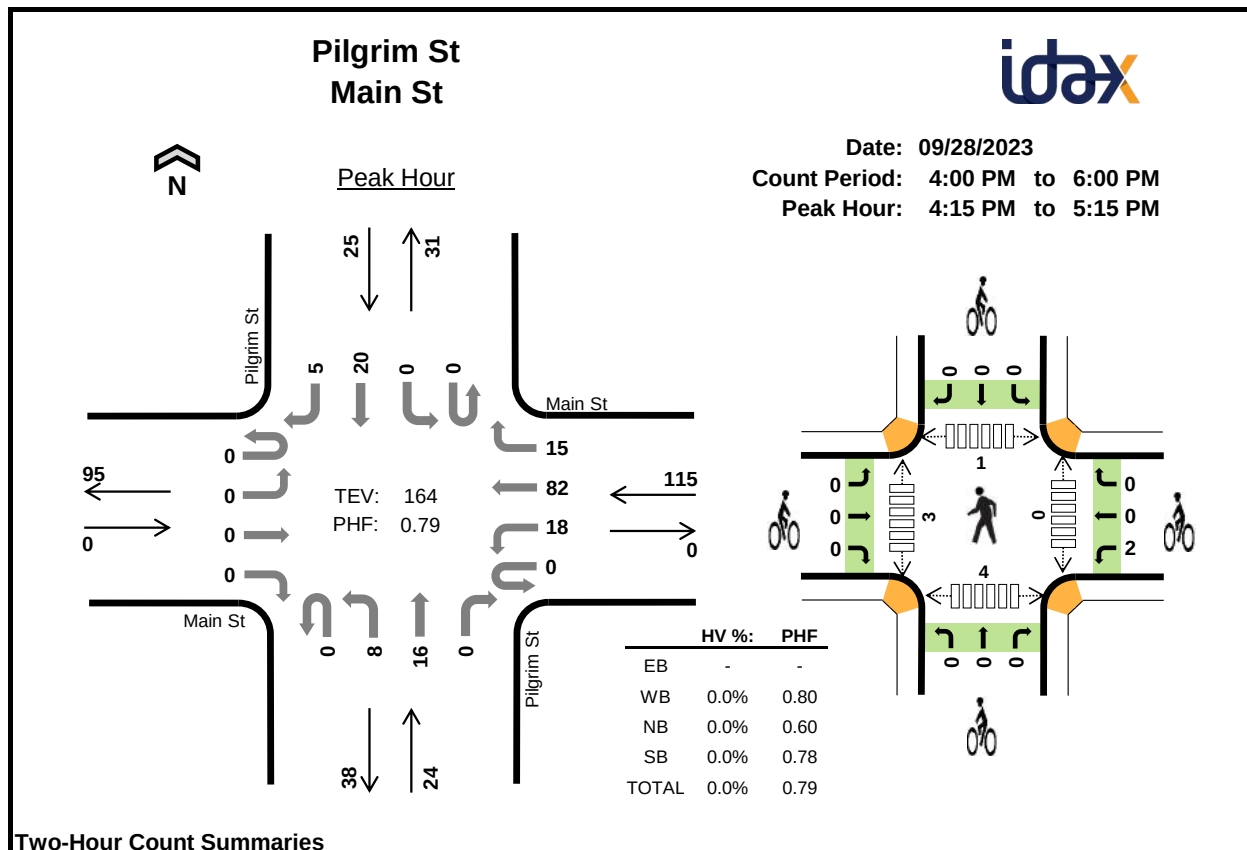
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	2	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	4	8
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	2	0	0	2	0	0	0	0	0	0	0	2	0	2
8:15 AM	0	1	0	0	1	0	0	0	0	0	2	1	2	0	5
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	3
8:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
Count Total	0	3	1	0	4	0	0	0	0	0	7	3	4	7	21
Peak Hour	0	3	0	0	3	0	0	0	0	0	4	3	4	4	15

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Pilgrim St				Pilgrim St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	2	
8:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4	
Count Total	0	0	0	0	0	0	2	1	0	0	1	0	0	0	0	4	0	
Peak Hour	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	3	0	

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			Pilgrim St			Pilgrim St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Pilgrim St				Pilgrim St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	3	14	5	0	2	1	0	0	0	1	0	26	0
4:15 PM		0	0	0	0	0	7	24	5	0	4	6	0	0	0	6	0	52	0
4:30 PM		0	0	0	0	0	4	21	2	0	1	5	0	0	0	4	0	37	0
4:45 PM		0	0	0	0	0	2	19	2	0	3	3	0	0	0	4	4	37	152
5:00 PM		0	0	0	0	0	5	18	6	0	0	2	0	0	0	6	1	38	164
5:15 PM		0	0	0	0	0	6	24	2	0	1	1	0	0	0	1	2	37	149
5:30 PM		0	0	0	0	0	1	17	1	0	1	2	0	0	0	2	0	24	136
5:45 PM		0	0	0	0	0	3	16	1	0	2	3	0	0	0	4	0	29	128
Count Total		0	0	0	0	0	31	153	24	0	14	23	0	0	0	28	7	280	0
Peak Hour	All	0	0	0	0	0	18	82	15	0	8	16	0	0	0	20	5	164	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	HV%	-	-	-	-	-	0%	0%	0%	-	0%	0%	-	-	-	0%	0%	0%	0

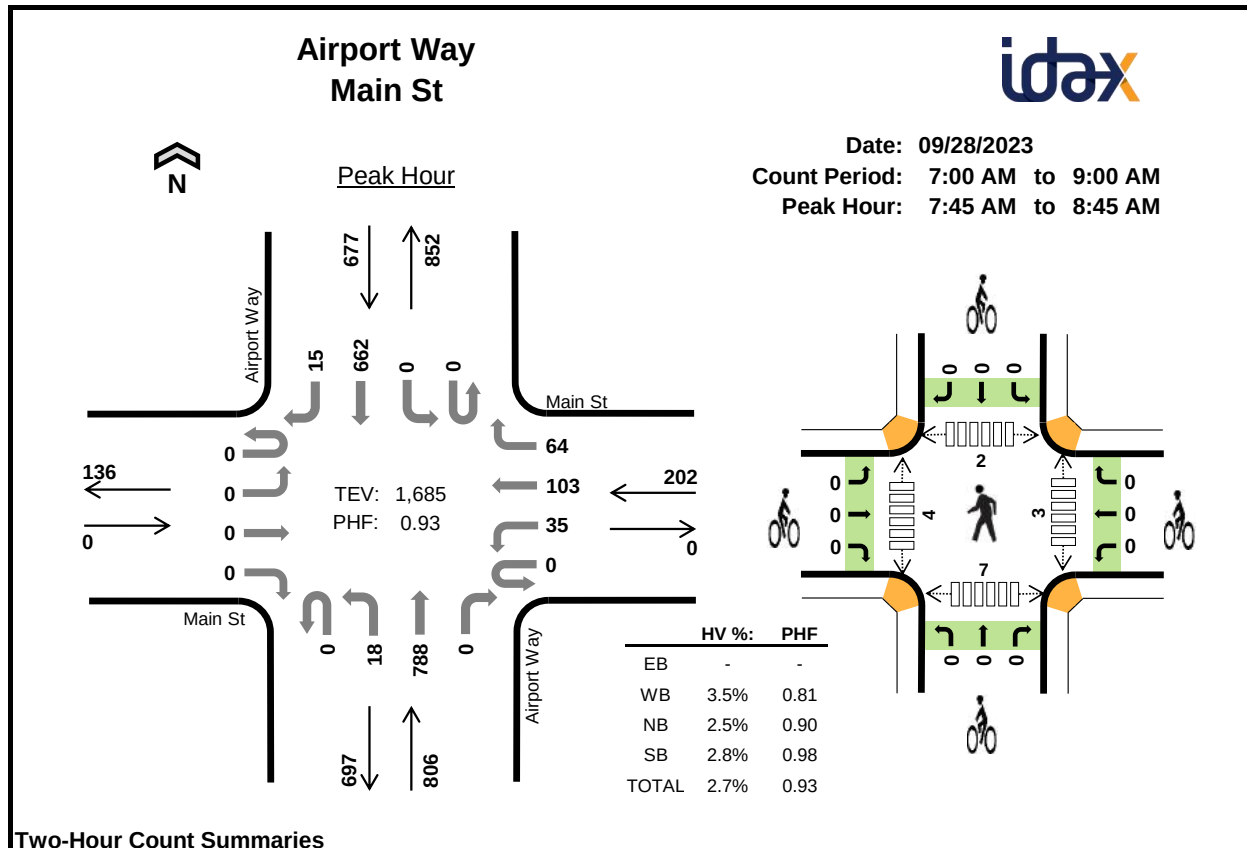
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	4	6
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:30 PM	0	0	0	0	0	0	2	0	0	2	2	2	2	0	6
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Count Total	0	0	0	0	0	0	5	0	0	5	3	6	3	5	17
Peak Hour	0	0	0	0	0	0	2	0	0	2	0	3	1	4	8

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Pilgrim St				Pilgrim St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			Pilgrim St			Pilgrim St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	1	2			
5:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1	2			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
5:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	2	4			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
Count Total	0	0	0	2	3	0	0	0	0	0	0	0	5	0			
Peak Hour	0	0	0	2	0	0	0	0	0	0	0	0	2	0			

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Airport Way				Airport Way				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	1	5	4	0	3	95	0	0	0	59	1	168	0
7:15 AM		0	0	0	0	0	2	9	7	0	4	107	0	0	0	108	1	238	0
7:30 AM		0	0	0	0	0	5	15	16	0	5	157	0	0	0	141	5	344	0
7:45 AM		0	0	0	0	0	4	37	17	0	10	212	0	0	0	166	1	447	1,197
8:00 AM		0	0	0	0	0	11	33	18	0	5	211	0	0	0	166	7	451	1,480
8:15 AM		0	0	0	0	0	10	19	14	0	0	223	0	0	0	163	2	431	1,673
8:30 AM		0	0	0	0	0	10	14	15	0	3	142	0	0	0	167	5	356	1,685
8:45 AM		0	0	0	0	0	7	24	11	0	7	135	0	0	0	113	2	299	1,537
Count Total		0	0	0	0	0	50	156	102	0	37	1,282	0	0	0	1,083	24	2,734	0
Peak Hour	All	0	0	0	0	0	35	103	64	0	18	788	0	0	0	662	15	1,685	0
	HV	0	0	0	0	0	2	2	3	0	1	19	0	0	0	19	0	46	0
	HV%	-	-	-	-	-	6%	2%	5%	-	6%	2%	-	-	-	3%	0%	3%	0

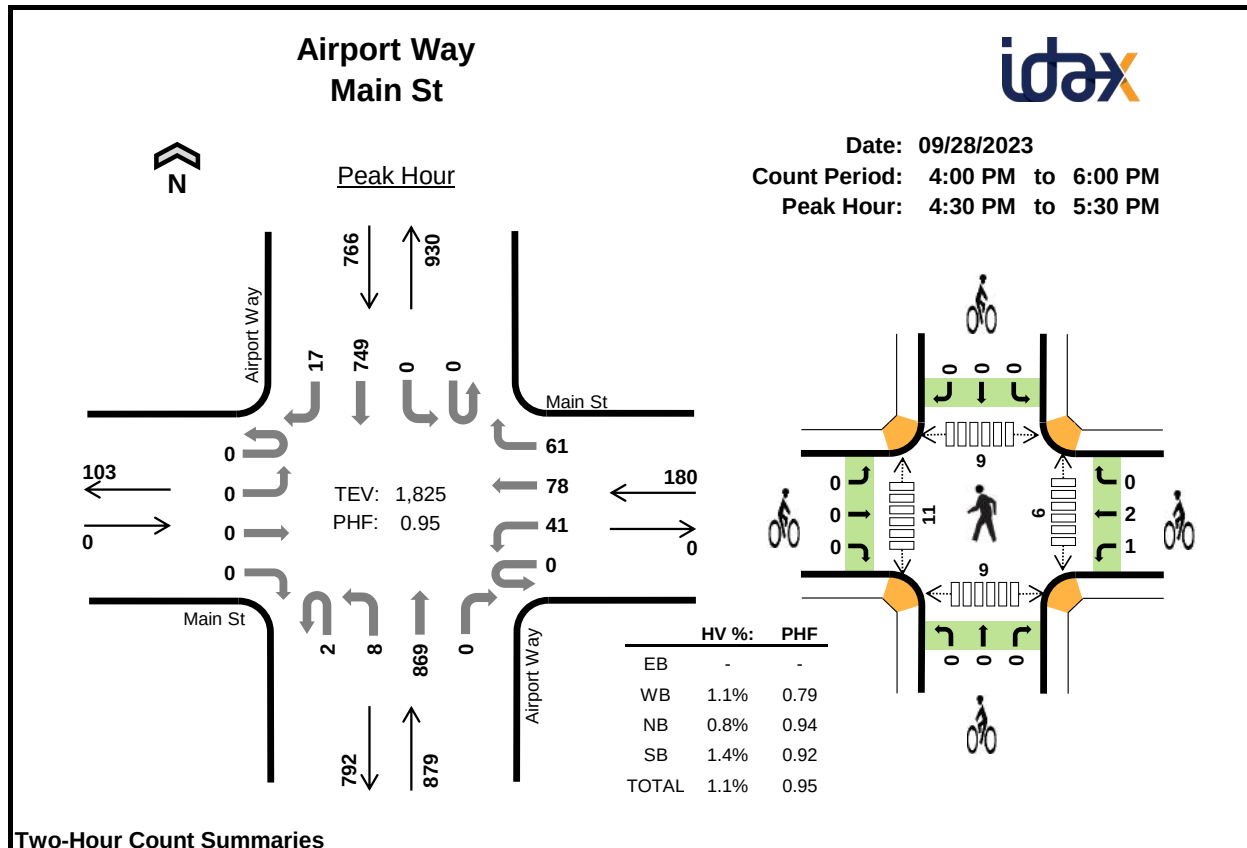
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	1	4	0	5	0	0	0	0	0	0	2	3	2	7
7:15 AM	0	1	3	8	12	0	0	0	0	0	0	0	1	1	2
7:30 AM	0	4	7	1	12	0	0	0	0	0	0	0	0	1	1
7:45 AM	0	1	5	6	12	0	0	0	0	0	0	2	1	1	4
8:00 AM	0	3	7	3	13	0	0	0	0	0	3	0	1	3	7
8:15 AM	0	1	4	9	14	0	0	0	0	0	0	2	0	2	4
8:30 AM	0	2	4	1	7	0	0	0	0	0	0	0	0	1	1
8:45 AM	0	1	5	8	14	0	0	0	0	0	0	0	0	1	1
Count Total	0	14	39	36	89	0	0	0	0	0	3	6	6	12	27
Peak Hour	0	7	20	19	46	0	0	0	0	0	3	4	2	7	16

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Airport Way				Airport Way				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	1	0	0	4	0	0	0	0	0	5	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	8	0	12	0
7:30 AM	0	0	0	0	0	3	0	1	0	0	7	0	0	0	1	0	12	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	5	0	0	0	6	0	12	41
8:00 AM	0	0	0	0	0	1	1	1	0	1	6	0	0	0	3	0	13	49
8:15 AM	0	0	0	0	0	0	1	0	0	0	4	0	0	0	9	0	14	51
8:30 AM	0	0	0	0	0	1	0	1	0	0	4	0	0	0	1	0	7	46
8:45 AM	0	0	0	0	0	0	0	1	0	0	5	0	0	0	8	0	14	48
Count Total	0	0	0	0	0	5	2	7	0	1	38	0	0	0	36	0	89	0
Peak Hour	0	0	0	0	0	2	2	3	0	1	19	0	0	0	19	0	46	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			Airport Way			Airport Way			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Airport Way				Airport Way				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	12	19	16	2	4	196	0	0	0	164	7	420	0
4:15 PM		0	0	0	0	0	13	26	10	1	6	204	0	0	0	172	5	437	0
4:30 PM		0	0	0	0	0	12	19	15	1	2	210	0	0	0	173	2	434	0
4:45 PM		0	0	0	0	0	10	14	12	0	3	230	0	0	0	189	3	461	1,752
5:00 PM		0	0	0	0	0	14	20	23	0	2	202	0	0	0	187	4	452	1,784
5:15 PM		0	0	0	0	0	5	25	11	1	1	227	0	0	0	200	8	478	1,825
5:30 PM		0	0	0	0	0	10	15	20	0	2	164	0	0	0	199	3	413	1,804
5:45 PM		0	0	0	0	0	7	21	11	0	1	153	0	0	0	168	0	361	1,704
Count Total		0	0	0	0	0	83	159	118	5	21	1,586	0	0	0	1,452	32	3,456	0
Peak Hour	All	0	0	0	0	0	41	78	61	2	8	869	0	0	0	749	17	1,825	0
	HV	0	0	0	0	0	0	0	2	0	0	7	0	0	0	11	0	20	0
	HV%	-	-	-	-	-	0%	0%	3%	0%	0%	1%	-	-	-	1%	0%	1%	0

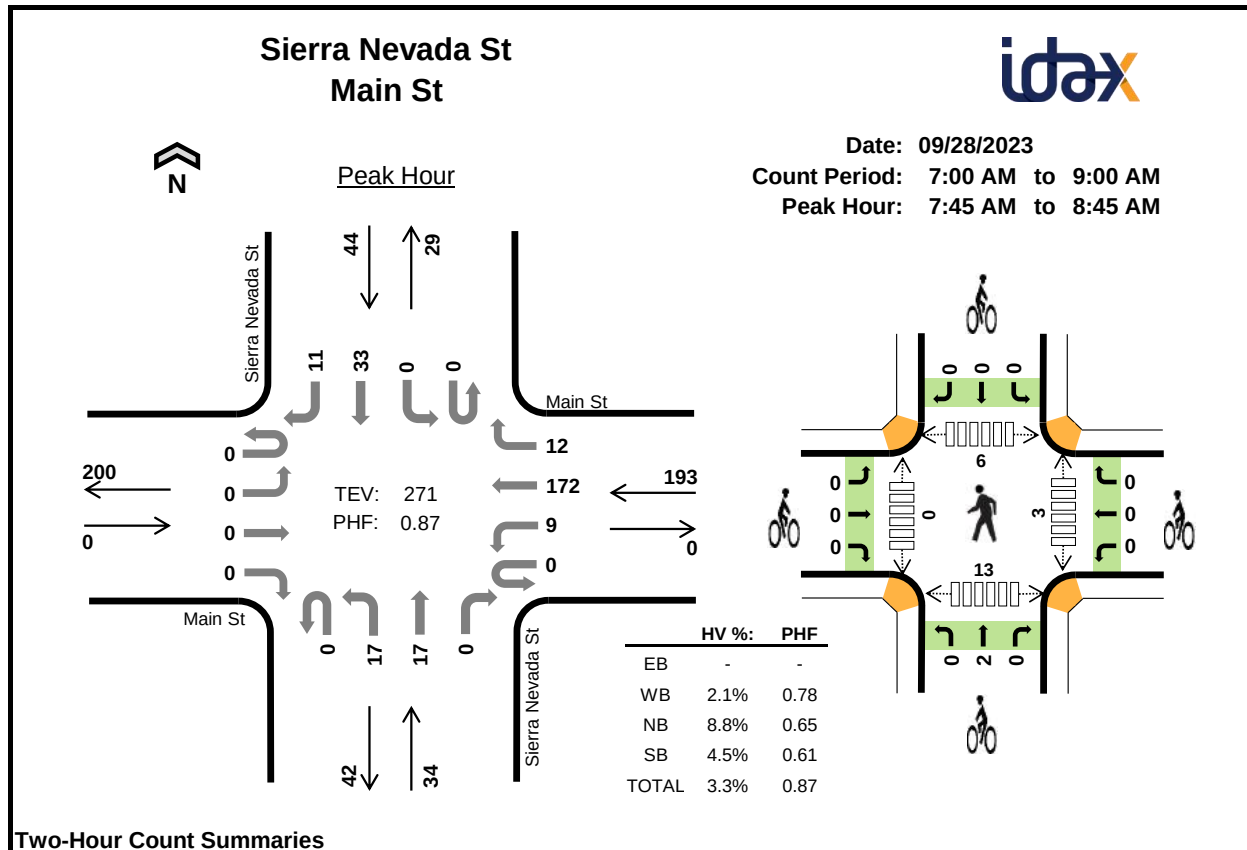
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	4	6	0	1	1	1	3	0	0	2	1	3
4:15 PM	0	1	1	2	4	0	0	0	0	0	3	0	1	1	5
4:30 PM	0	1	2	0	3	0	0	0	0	0	0	2	0	5	7
4:45 PM	0	0	3	5	8	0	2	0	0	2	3	3	5	3	14
5:00 PM	0	0	1	3	4	0	1	0	0	1	2	4	3	0	9
5:15 PM	0	1	1	3	5	0	0	0	0	0	1	2	1	1	5
5:30 PM	0	1	2	1	4	0	2	0	0	2	0	0	6	1	7
5:45 PM	0	1	2	2	5	0	0	0	0	0	0	2	2	6	10
Count Total	0	5	14	20	39	0	6	1	1	8	9	13	20	18	60
Peak Hour	0	2	7	11	20	0	3	0	0	3	6	11	9	9	35

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Airport Way				Airport Way				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	6	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2	0	4	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	3	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0	8	21
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	19
5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	3	0	5	20
5:30 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	1	0	4	21
5:45 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	2	0	5	18
Count Total	0	0	0	0	0	0	0	5	0	0	14	0	0	0	20	0	39	0
Peak Hour	0	0	0	0	0	0	0	2	0	0	7	0	0	0	11	0	20	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			Airport Way			Airport Way			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	1	0	0	1	0	0	1	0	3	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	1	1	0	0	0	0	0	0	0	2	5			
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	3			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
5:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	2	5			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
Count Total	0	0	0	1	5	0	0	1	0	0	1	0	8	0			
Peak Hour	0	0	0	1	2	0	0	0	0	0	0	0	3	0			

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Sierra Nevada St				Sierra Nevada St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	0	9	1	0	0	5	0	0	0	0	1	16	0
7:15 AM		0	0	0	0	0	0	15	1	0	1	4	0	0	0	5	1	27	0
7:30 AM		0	0	0	0	0	2	31	1	0	1	0	0	0	0	4	2	41	0
7:45 AM		0	0	0	0	0	2	55	5	0	2	2	0	0	0	7	1	74	158
8:00 AM		0	0	0	0	0	1	55	3	0	6	4	0	0	0	8	1	78	220
8:15 AM		0	0	0	0	0	1	31	2	0	3	4	0	0	0	12	6	59	252
8:30 AM		0	0	0	0	0	5	31	2	0	6	7	0	0	0	6	3	60	271
8:45 AM		0	0	0	0	0	1	33	5	0	4	7	0	0	0	6	4	60	257
Count Total		0	0	0	0	0	12	260	20	0	23	33	0	0	0	48	19	415	0
Peak Hour	All	0	0	0	0	0	9	172	12	0	17	17	0	0	0	33	11	271	0
	HV	0	0	0	0	0	0	4	0	0	3	0	0	0	0	1	1	9	0
	HV%	-	-	-	-	-	0%	2%	0%	-	18%	0%	-	-	-	3%	9%	3%	0

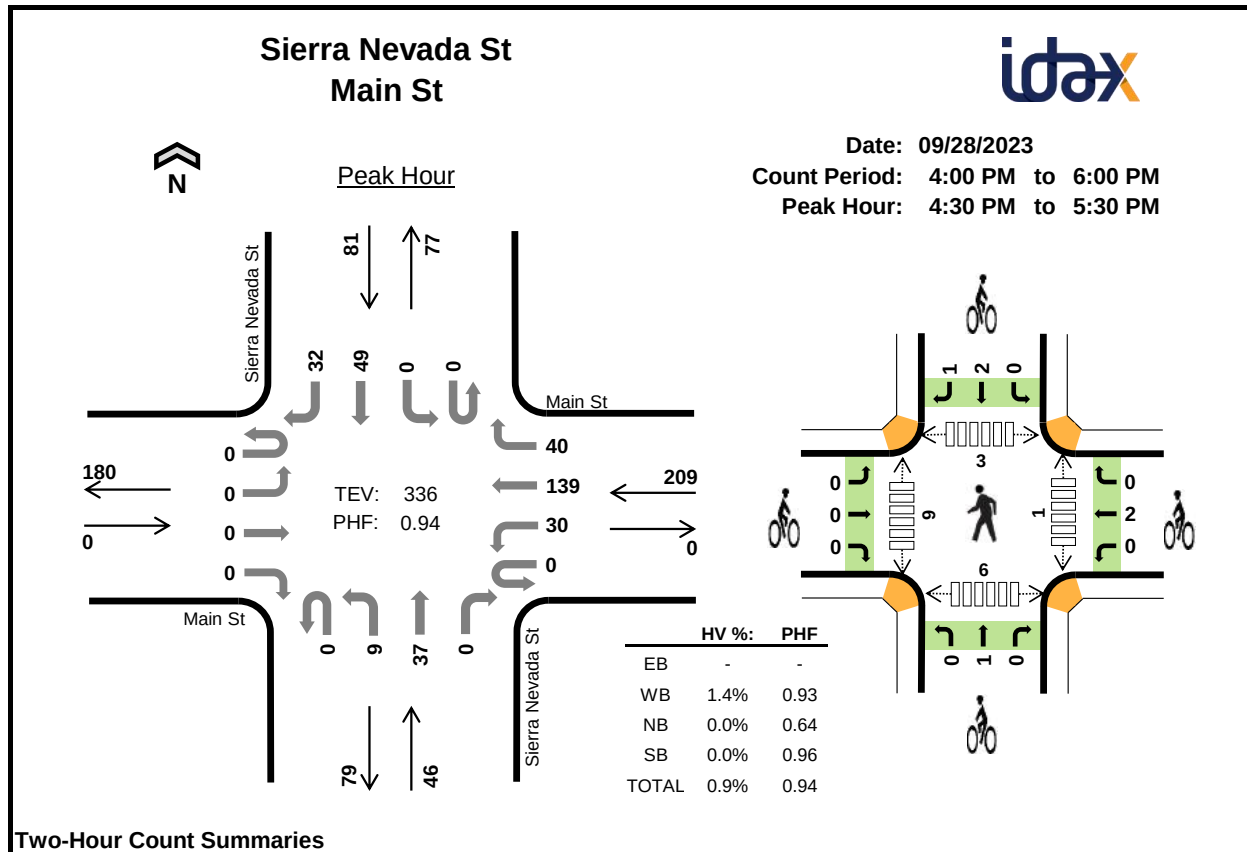
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	1	0	0	1	0	1	0	1	2	0	0	2	1	3
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	4	1	1	6	0	0	0	0	0	1	1	0	0	2
7:45 AM	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1
8:00 AM	0	1	2	0	3	0	0	0	0	0	3	0	5	8	16
8:15 AM	0	0	0	1	1	0	0	1	0	1	0	0	0	4	4
8:30 AM	0	2	1	1	4	0	0	0	0	0	0	0	0	1	1
8:45 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	2	4
Count Total	0	11	4	3	18	0	1	2	1	4	4	3	8	16	31
Peak Hour	0	4	3	2	9	0	0	2	0	2	3	0	6	13	22

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	Main St				Main St				Sierra Nevada St				Sierra Nevada St				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	
7:30 AM	0	0	0	0	0	1	3	0	0	1	0	0	0	0	0	1	6	0	
7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	9	
8:00 AM	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	3	11	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	11	
8:30 AM	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	1	4	9	
8:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	9	
Count Total	0	0	0	0	0	1	10	0	0	4	0	0	0	0	0	2	1	18	0
Peak Hour	0	0	0	0	0	0	4	0	0	3	0	0	0	0	0	1	1	9	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			Sierra Nevada St			Sierra Nevada St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	1	0	0	0	0	0	0	0	1	2	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	3			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	2			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Count Total	0	0	0	1	0	0	0	2	0	0	0	1	4	0			
Peak Hour	0	0	0	0	0	0	0	2	0	0	0	0	2	0			

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Sierra Nevada St				Sierra Nevada St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	1	27	9	0	5	13	0	0	0	15	13	83	0
4:15 PM		0	0	0	0	0	4	34	7	1	3	9	0	0	0	8	11	77	0
4:30 PM		0	0	0	0	0	5	38	8	0	2	8	0	0	0	15	6	82	0
4:45 PM		0	0	0	0	0	10	34	12	0	1	9	0	0	0	14	5	85	327
5:00 PM		0	0	0	0	0	5	38	8	0	5	13	0	0	0	8	12	89	333
5:15 PM		0	0	0	0	0	10	29	12	0	1	7	0	0	0	12	9	80	336
5:30 PM		0	0	0	0	0	6	36	4	0	2	8	0	0	0	12	4	72	326
5:45 PM		0	0	0	0	0	8	31	8	0	1	11	0	2	0	7	5	73	314
Count Total		0	0	0	0	0	49	267	68	1	20	78	0	2	0	91	65	641	0
Peak Hour	All	0	0	0	0	0	30	139	40	0	9	37	0	0	0	49	32	336	0
	HV	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	0
	HV%	-	-	-	-	-	0%	2%	0%	-	0%	0%	-	-	-	0%	0%	1%	0

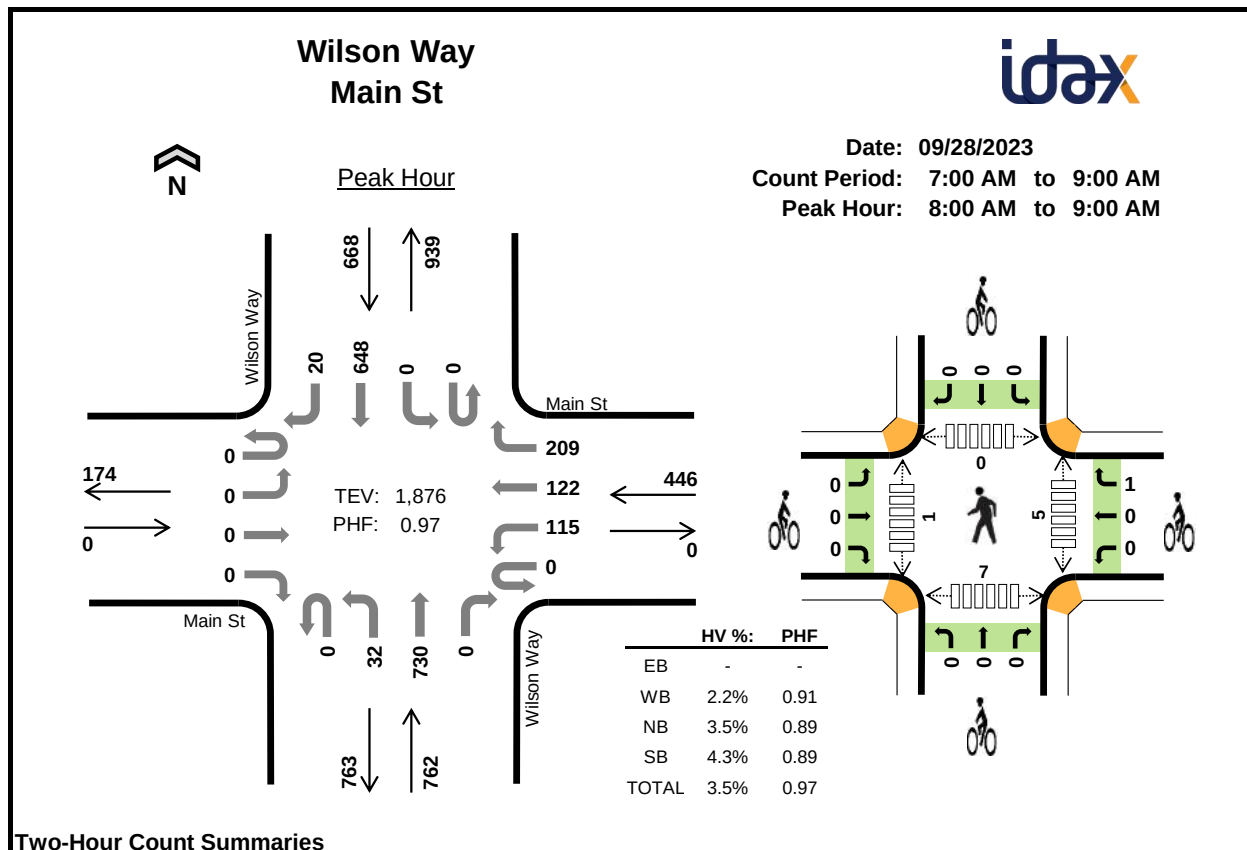
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	1	1	5
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	5	5
4:30 PM	0	1	0	0	1	0	0	0	1	1	1	0	0	0	1
4:45 PM	0	1	0	0	1	0	2	0	0	2	0	4	3	2	9
5:00 PM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	2
5:15 PM	0	1	0	0	1	0	0	1	1	2	0	3	0	4	7
5:30 PM	0	1	0	0	1	0	0	3	0	3	1	3	1	6	11
5:45 PM	0	0	0	0	0	0	1	1	0	2	1	0	0	1	2
Count Total	0	5	0	0	5	0	3	5	3	11	5	13	5	19	42
Peak Hour	0	3	0	0	3	0	2	1	3	6	1	9	3	6	19

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Sierra Nevada St				Sierra Nevada St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	5	
Peak Hour	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			Sierra Nevada St			Sierra Nevada St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	
4:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	3	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	4	
5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	1	0	6	
5:30 PM	0	0	0	0	0	0	2	1	0	0	0	0	3	0	0	8	
5:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	2	0	0	8	
Count Total	0	0	0	0	3	0	2	3	0	0	2	1	11	0	0	0	
Peak Hour	0	0	0	0	2	0	0	1	0	0	2	1	6	0	0	0	

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Wilson Way				Wilson Way				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	16	7	10	0	3	112	0	0	0	113	0	261	0
7:15 AM		0	0	0	0	0	13	10	25	0	4	96	0	0	0	102	2	252	0
7:30 AM		0	0	0	0	0	25	27	43	0	3	116	0	0	0	147	6	367	0
7:45 AM		0	0	0	0	0	22	50	56	0	9	151	0	0	0	152	5	445	1,325
8:00 AM		0	0	0	0	0	31	42	47	0	9	203	0	0	0	144	8	484	1,548
8:15 AM		0	0	0	0	0	30	33	53	0	3	163	0	0	0	159	3	444	1,740
8:30 AM		0	0	0	0	0	35	23	65	0	8	162	0	0	0	183	4	480	1,853
8:45 AM		0	0	0	0	0	19	24	44	0	12	202	0	0	0	162	5	468	1,876
Count Total		0	0	0	0	0	191	216	343	0	51	1,205	0	0	0	1,162	33	3,201	0
Peak Hour	All	0	0	0	0	0	115	122	209	0	32	730	0	0	0	648	20	1,876	0
	HV	0	0	0	0	0	4	4	2	0	0	27	0	0	0	29	0	66	0
	HV%	-	-	-	-	-	3%	3%	1%	-	0%	4%	-	-	-	4%	0%	4%	0

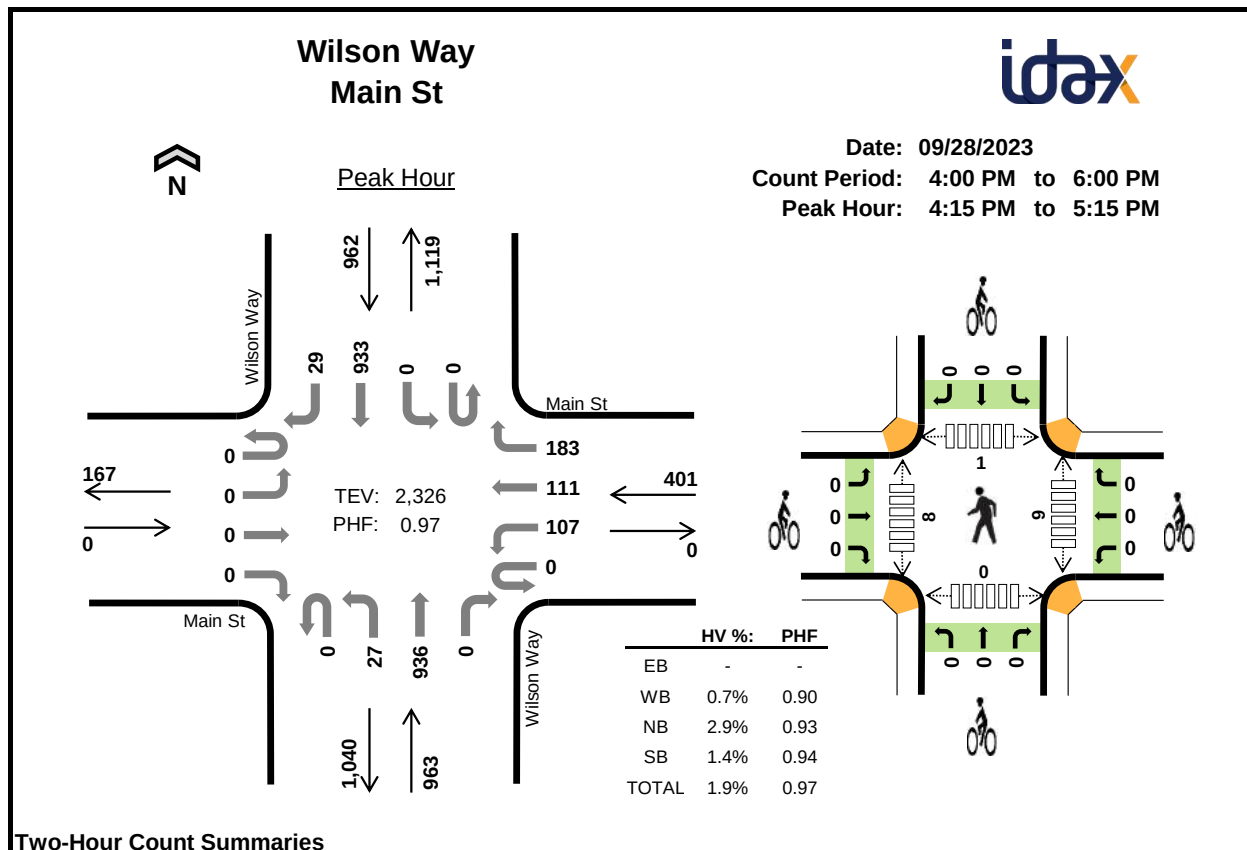
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	3	8	10	21	0	0	0	0	0	0	1	0	0	1
7:15 AM	0	3	10	7	20	0	0	0	0	0	1	0	0	1	2
7:30 AM	0	6	3	12	21	0	0	0	2	2	0	0	0	1	1
7:45 AM	0	5	9	5	19	0	0	0	0	0	1	1	0	14	16
8:00 AM	0	2	8	5	15	0	0	0	0	0	0	0	0	2	2
8:15 AM	0	2	5	7	14	0	0	0	0	0	2	0	0	3	5
8:30 AM	0	5	9	6	20	0	1	0	0	1	3	0	0	1	4
8:45 AM	0	1	5	11	17	0	0	0	0	0	0	1	0	1	2
Count Total	0	27	57	63	147	0	1	0	2	3	7	3	0	24	34
Peak Hour	0	10	27	29	66	0	1	0	0	1	5	1	0	7	13

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Wilson Way				Wilson Way				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	3	0	0	0	1	7	0	0	0	10	0	21	0
7:15 AM	0	0	0	0	0	1	1	1	0	0	10	0	0	0	7	0	20	0
7:30 AM	0	0	0	0	0	3	3	0	0	0	3	0	0	0	11	1	21	0
7:45 AM	0	0	0	0	0	3	1	1	0	0	9	0	0	0	5	0	19	81
8:00 AM	0	0	0	0	0	0	1	1	0	0	8	0	0	0	5	0	15	75
8:15 AM	0	0	0	0	0	0	2	0	0	0	5	0	0	0	7	0	14	69
8:30 AM	0	0	0	0	0	4	0	1	0	0	9	0	0	0	6	0	20	68
8:45 AM	0	0	0	0	0	0	1	0	0	0	5	0	0	0	11	0	17	66
Count Total	0	0	0	0	0	14	9	4	0	1	56	0	0	0	62	1	147	0
Peak Hour	0	0	0	0	0	4	4	2	0	0	27	0	0	0	29	0	66	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			Wilson Way			Wilson Way			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	1				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
Count Total	0	0	0	0	0	1	0	0	0	0	2	0	3	0				
Peak Hour	0	0	0	0	0	1	0	0	0	0	0	0	1	0				

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Wilson Way				Wilson Way				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	38	25	41	0	5	210	0	0	0	218	6	543	0
4:15 PM		0	0	0	0	0	28	24	44	0	4	241	0	0	0	243	14	598	0
4:30 PM		0	0	0	0	0	32	30	49	0	7	219	0	0	0	239	7	583	0
4:45 PM		0	0	0	0	0	18	27	46	0	11	248	0	0	0	238	5	593	2,317
5:00 PM		0	0	0	0	0	29	30	44	0	5	228	0	0	0	213	3	552	2,326
5:15 PM		0	0	0	0	0	29	30	53	0	7	231	0	0	0	215	7	572	2,300
5:30 PM		0	0	0	0	0	26	21	41	0	5	216	0	0	0	234	13	556	2,273
5:45 PM		0	0	0	0	0	29	21	40	0	11	205	0	0	0	187	6	499	2,179
Count Total		0	0	0	0	0	229	208	358	0	55	1,798	0	0	0	1,787	61	4,496	0
Peak Hour	All	0	0	0	0	0	107	111	183	0	27	936	0	0	0	933	29	2,326	0
	HV	0	0	0	0	0	1	2	0	0	0	28	0	0	0	13	0	44	0
	HV%	-	-	-	-	-	1%	2%	0%	-	0%	3%	-	-	-	1%	0%	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	2	4	0	0	0	0	0	3	2	0	5	10
4:15 PM	0	1	11	3	15	0	0	0	0	0	5	3	0	0	8
4:30 PM	0	2	9	4	15	0	0	0	0	0	2	2	0	0	4
4:45 PM	0	0	7	4	11	0	0	0	0	0	1	2	1	0	4
5:00 PM	0	0	1	2	3	0	0	0	0	0	1	1	0	0	2
5:15 PM	0	1	4	4	9	0	0	1	0	1	3	4	1	0	8
5:30 PM	0	1	3	2	6	0	0	0	0	0	2	2	0	2	6
5:45 PM	0	1	4	1	6	0	0	0	0	0	1	0	0	2	3
Count Total	0	6	41	22	69	0	0	1	0	1	18	16	2	9	45
Peak Hour	0	3	28	13	44	0	0	0	0	0	9	8	1	0	18

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Wilson Way				Wilson Way				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	11	0	0	0	3	0	15	0
4:30 PM	0	0	0	0	0	1	1	0	0	0	9	0	0	0	4	0	15	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	4	0	11	45
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	44
5:15 PM	0	0	0	0	0	0	1	0	0	0	4	0	0	0	4	0	9	38
5:30 PM	0	0	0	0	0	0	1	0	0	0	3	0	0	0	2	0	6	29
5:45 PM	0	0	0	0	0	0	1	0	0	0	4	0	0	0	1	0	6	24
Count Total	0	0	0	0	0	1	5	0	0	0	41	0	0	0	22	0	69	0
Peak Hour	0	0	0	0	0	1	2	0	0	0	28	0	0	0	13	0	44	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			Wilson Way			Wilson Way			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	1			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Count Total	0	0	0	0	0	0	0	1	0	0	0	0	1	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

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



Date: 09/28/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



Peak Hour
TEV: 769
PHF: 0.92

Two-Hour Count Summaries

Interval Start	Main St Eastbound					Main St Westbound					Locust St Northbound					Market St Southbound					Market St Northeastbound					15-min Total	Rolling One Hour
	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT	UT	HL	BL	BR	HR		
7:00 AM	0	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	0	0	0	7	0	1	0	23	0	62	0
7:15 AM	0	0	0	0	0	0	0	0	58	0	0	0	0	0	1	0	0	0	0	2	0	2	1	19	1	84	0
7:30 AM	0	0	0	0	0	0	0	0	108	0	0	0	0	0	0	0	0	0	0	7	0	2	0	52	0	169	0
7:45 AM	0	0	0	0	0	0	0	0	128	0	0	0	0	0	0	0	0	0	0	9	0	1	1	57	0	196	511
8:00 AM	0	0	0	0	0	0	0	0	129	0	0	0	0	0	0	0	0	0	0	9	0	4	3	64	0	209	658
8:15 AM	0	0	0	0	0	0	0	0	92	0	0	0	0	0	0	0	0	0	0	8	0	2	2	59	2	165	739
8:30 AM	0	0	0	0	0	0	0	0	91	0	0	1	0	0	1	0	0	0	0	8	0	1	2	95	0	199	769
8:45 AM	0	0	0	0	0	0	0	0	69	0	0	0	0	0	0	0	0	0	0	7	0	0	2	44	1	123	696
Count Total	0	0	0	0	0	0	0	0	706	0	0	1	0	0	2	0	0	0	0	57	0	13	11	413	4	1,207	0
Peak Hour	All	0	0	0	0	0	0	0	440	0	0	1	0	0	1	0	0	0	0	34	0	8	8	275	2	769	0
	HV	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	4	0	1	3	12	0	32	0
	HV%	-	-	-	-	-	-	-	3%	-	-	0%	-	-	0%	-	-	-	-	12%	-	13%	38%	4%	0%	4%	0

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

Interval Start	Heavy Vehicle Totals						Bicycles						Pedestrians (Crossing Leg)					
	EB	WB	NB	SB	NEB	Total	EB	WB	NB	SB	NEB	Total	East	West	North	South	Southwest	Total
7:00 AM	0	0	0	3	3	6	0	0	0	0	0	0	0	0	0	0	1	1
7:15 AM	0	4	0	0	2	6	0	0	0	0	0	0	0	0	1	0	0	1
7:30 AM	0	6	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	3	0	2	3	8	0	0	0	0	0	0	0	0	1	0	0	1
8:00 AM	0	2	0	0	5	7	0	0	0	0	0	0	0	0	1	0	1	2
8:15 AM	0	4	0	0	2	6	0	0	0	0	0	0	0	1	2	0	2	5
8:30 AM	0	3	0	2	6	11	0	0	0	0	0	0	0	0	1	0	0	1
8:45 AM	0	1	0	0	1	2	0	0	0	0	0	0	0	0	1	0	0	1
Count Total	0	23	0	7	23	53	0	0	0	0	0	0	0	1	7	0	4	12
Peak Hr	0	12	0	4	16	32	0	0	0	0	0	0	0	1	5	0	3	9

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Main St Eastbound					Main St Westbound					Locust St Northbound					Market St Southbound					Market St Northeastbound					15-min Total	Rolling One Hour
	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT	UT	HL	BL	BR	HR		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	0
7:15 AM	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	6	0
7:30 AM	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7	0
7:45 AM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	2	0	0	1	2	0	8	27
8:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	0	7	28
8:15 AM	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	6	28
8:30 AM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6	0	11	32
8:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	26
Count Total	0	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	0	0	7	0	1	3	19	0	53	0
Peak Hour	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	4	0	1	3	12	0	32	0

Two-Hour Count Summaries - Bikes

Interval Start	Main St Eastbound					Main St Westbound					Locust St Northbound					Market St Southbound					Market St Northeastbound					15-min Total	Rolling One Hour
	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT	UT	HL	BL	BR	HR		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

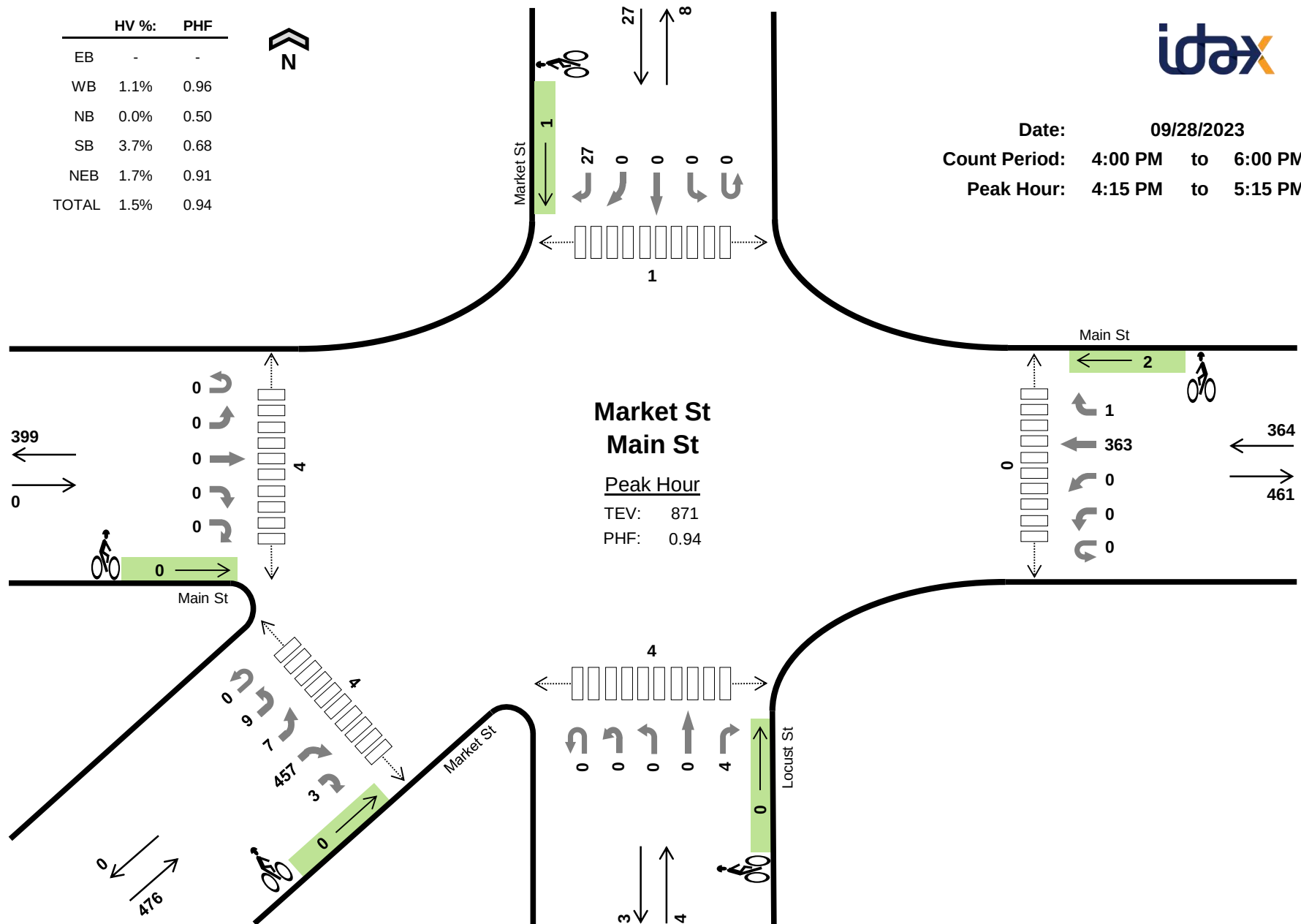
	HV %:	PHF
EB	-	-
WB	1.1%	0.96
NB	0.0%	0.50
SB	3.7%	0.68
NEB	1.7%	0.91
TOTAL	1.5%	0.94



Date: 09/28/2023

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:15 PM to 5:15 PM



Two-Hour Count Summaries

Interval Start	Main St Eastbound					Main St Westbound					Locust St Northbound					Market St Southbound					Market St Northeastbound					15-min Total	Rolling One Hour
	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT	UT	HL	BL	BR	HR		
4:00 PM	0	0	0	0	0	0	0	0	86	0	0	0	0	0	1	0	0	0	0	9	0	3	1	94	0	194	0
4:15 PM	0	0	0	0	0	0	0	0	95	0	0	0	0	0	1	0	0	0	0	8	0	6	0	116	0	226	0
4:30 PM	0	0	0	0	0	0	0	0	90	0	0	0	0	0	0	0	0	0	0	10	0	1	3	112	1	217	0
4:45 PM	0	0	0	0	0	0	0	0	85	0	0	0	0	0	2	0	0	0	0	4	0	2	1	103	0	197	834
5:00 PM	0	0	0	0	0	0	0	0	93	1	0	0	0	0	1	0	0	0	0	5	0	0	3	126	2	231	871
5:15 PM	0	0	0	0	0	0	0	0	103	0	0	0	0	0	0	0	0	0	0	4	0	0	0	95	0	202	847
5:30 PM	0	0	0	0	0	0	0	0	87	0	0	0	0	0	0	0	0	0	0	5	0	1	0	105	2	200	830
5:45 PM	0	0	0	0	0	0	0	0	87	0	0	0	0	0	0	0	0	0	0	7	0	1	1	94	0	190	823
Count Total	0	0	0	0	0	0	0	0	726	1	0	0	0	0	5	0	0	0	0	52	0	14	9	845	5	1,657	0
Peak Hour	All	0	0	0	0	0	0	0	363	1	0	0	0	0	4	0	0	0	0	27	0	9	7	457	3	871	0
	HV	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	1	0	0	1	7	0	13	0
	HV%	-	-	-	-	-	-	-	1%	100%	-	-	-	-	0%	-	-	-	-	4%	-	0%	14%	2%	0%	1%	0

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

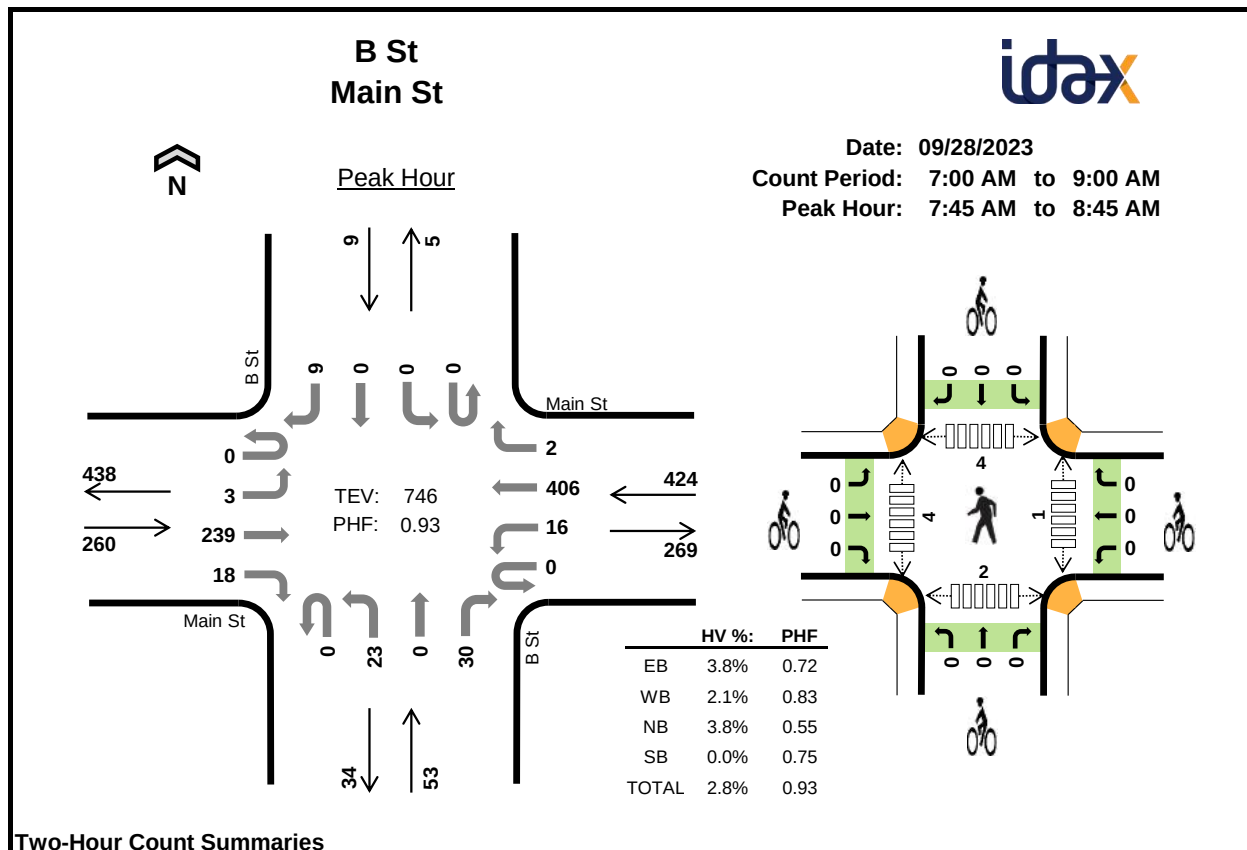
Interval Start	Heavy Vehicle Totals						Bicycles						Pedestrians (Crossing Leg)					
	EB	WB	NB	SB	NEB	Total	EB	WB	NB	SB	NEB	Total	East	West	North	South	Southwest	Total
4:00 PM	0	0	0	0	2	2	0	0	0	0	0	0	0	1	1	2	2	6
4:15 PM	0	2	0	0	0	2	0	1	0	0	0	1	0	2	0	3	3	8
4:30 PM	0	1	0	1	1	3	0	0	0	1	0	1	0	0	0	0	0	0
4:45 PM	0	0	0	0	2	2	0	1	0	0	0	1	0	1	1	0	0	2
5:00 PM	0	1	0	0	5	6	0	0	0	0	0	0	0	1	0	1	1	3
5:15 PM	0	1	0	0	1	2	0	0	0	1	0	1	0	0	0	1	1	2
5:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	2
5:45 PM	0	1	0	0	3	4	0	1	0	0	0	1	1	0	2	0	0	3
Count Total	0	7	0	1	14	22	0	3	0	2	0	5	1	5	6	7	7	26
Peak Hr	0	4	0	1	8	13	0	2	0	1	0	3	0	4	1	4	4	13

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Main St					Main St					Locust St					Market St					Market St					15-min Total	Rolling One Hour
	Eastbound					Westbound					Northbound					Southbound					Northeastbound						
	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT	UT	HL	BL	BR	HR		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0
4:15 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	3	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	9
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	6	13
5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	13
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11
5:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	4	13	
Count Total	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	0	0	0	0	1	0	0	2	12	0	22	0
Peak Hour	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	1	0	0	1	7	0	13	0

Two-Hour Count Summaries - Bikes

Interval Start	Main St					Main St					Locust St					Market St					Market St					15-min Total	Rolling One Hour
	Eastbound					Westbound					Northbound					Southbound					Northeastbound						
	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT	UT	HL	BL	BR	HR		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Count Total	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	5	0
Peak Hour	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				B St				B St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	1	20	3	0	1	27	0	0	2	0	5	0	0	0	2	61	0
7:15 AM		0	0	21	1	0	3	53	0	0	3	0	5	0	0	0	0	86	0
7:30 AM		0	1	42	8	0	2	99	0	0	5	0	7	0	0	1	1	166	0
7:45 AM		0	0	50	4	0	4	110	0	0	8	0	16	0	0	0	2	194	507
8:00 AM		0	0	54	2	0	6	121	0	0	8	0	6	0	0	0	3	200	646
8:15 AM		0	0	53	7	0	4	89	2	0	3	0	4	0	0	0	2	164	724
8:30 AM		0	3	82	5	0	2	86	0	0	4	0	4	0	0	0	2	188	746
8:45 AM		0	1	38	1	0	5	66	1	0	2	0	4	0	0	0	3	121	673
Count Total		0	6	360	31	0	27	651	3	0	35	0	51	0	0	1	15	1,180	0
Peak Hour	All	0	3	239	18	0	16	406	2	0	23	0	30	0	0	0	9	746	0
	HV	0	0	10	0	0	0	9	0	0	1	0	1	0	0	0	0	21	0
	HV%	-	0%	4%	0%	-	0%	2%	0%	-	4%	-	3%	-	-	-	0%	3%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	3	0	2	0	5	0	0	0	0	0	0	0	0	0	0
7:15 AM	2	3	1	0	6	0	0	0	0	0	0	0	1	0	1
7:30 AM	0	6	1	0	7	0	0	0	0	0	0	2	0	0	2
7:45 AM	2	2	0	0	4	0	0	0	0	0	1	2	1	0	4
8:00 AM	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	3	0	0	4	0	0	0	0	0	0	2	2	2	6
8:30 AM	5	2	2	0	9	0	0	0	0	0	0	0	1	0	1
8:45 AM	1	1	0	0	2	0	0	0	1	1	1	2	0	0	3
Count Total	16	19	6	0	41	0	0	0	1	1	2	8	5	2	17
Peak Hour	10	9	2	0	21	0	0	0	0	0	1	4	4	2	11

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				B St				B St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	3	0	0	0	0	0	0	0	0	2	0	0	0	0	5	0
7:15 AM	0	0	2	0	0	0	3	0	0	0	0	1	0	0	0	0	6	0
7:30 AM	0	0	0	0	0	0	6	0	0	0	0	1	0	0	0	0	7	0
7:45 AM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	22
8:00 AM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	21
8:15 AM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	19
8:30 AM	0	0	5	0	0	0	2	0	0	1	0	1	0	0	0	0	9	21
8:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	19
Count Total	0	0	16	0	0	0	19	0	0	1	0	5	0	0	0	0	41	0
Peak Hour	0	0	10	0	0	0	9	0	0	1	0	1	0	0	0	0	21	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			B St			B St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1				
Count Total	0	0	0	0	0	0	0	0	0	0	1	0	1	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

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



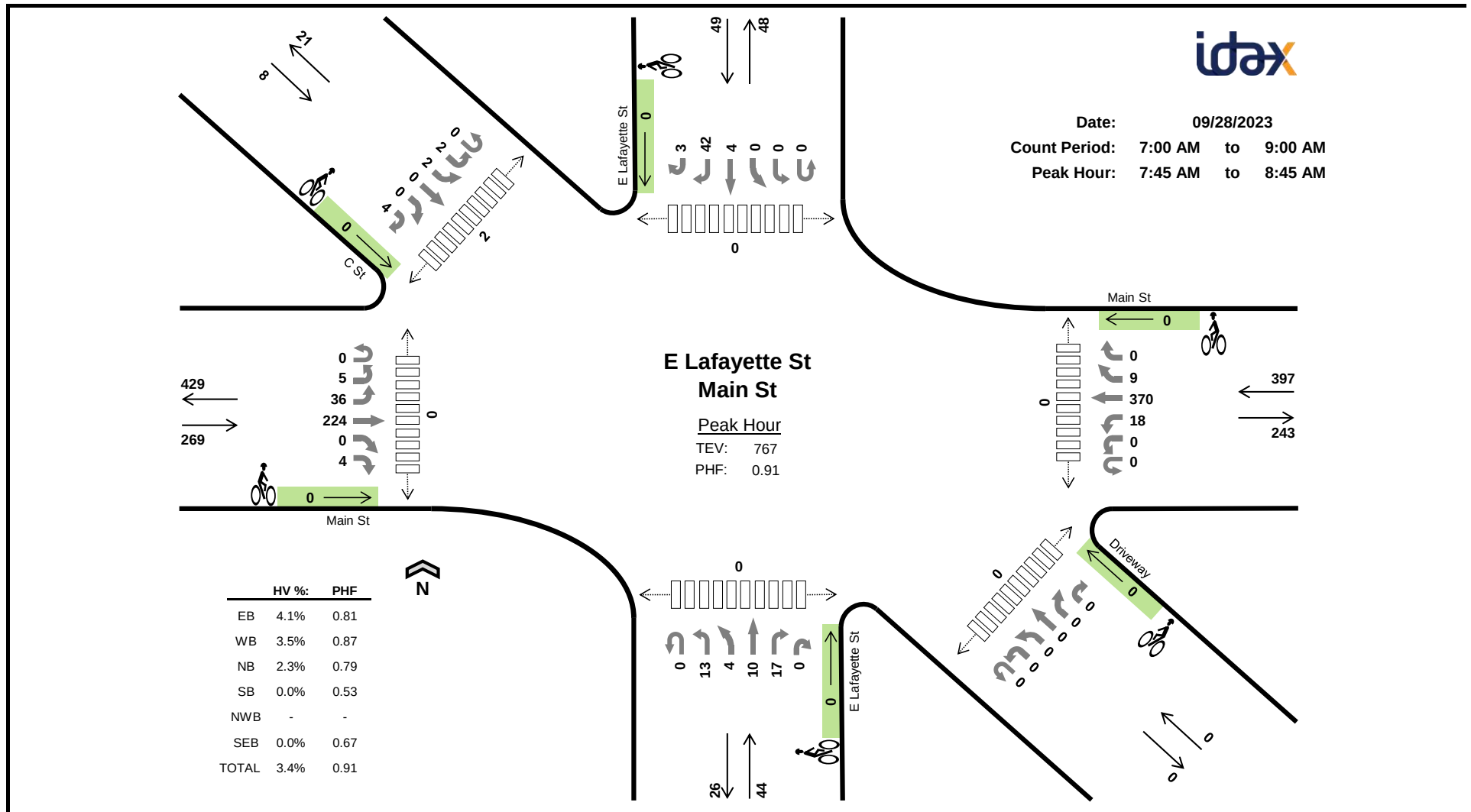
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	0	0	1	0	1	0	0	1	1	0	1	2	4
4:15 PM	0	1	0	1	2	0	0	0	0	0	0	0	1	1	2
4:30 PM	1	1	0	0	2	0	0	0	0	0	0	2	0	0	2
4:45 PM	2	0	0	0	2	0	0	1	1	2	0	0	0	0	0
5:00 PM	3	0	0	0	3	1	0	0	0	1	0	1	0	0	1
5:15 PM	1	1	0	0	2	0	0	0	0	0	0	0	1	0	1
5:30 PM	0	1	0	0	1	0	0	1	1	2	0	1	0	1	2
5:45 PM	1	2	0	0	3	0	0	0	0	0	1	0	0	1	2
Count Total	9	6	0	1	16	1	1	2	2	6	2	4	3	5	14
Peak Hour	6	2	0	1	9	1	0	1	1	3	0	3	1	1	5

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				B St				B St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	0
4:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
4:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7
5:00 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9
5:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	9
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	8
5:45 PM	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	3	9
Count Total	0	0	9	0	0	1	5	0	0	0	0	0	0	0	0	1	16	0
Peak Hour	0	0	6	0	0	0	2	0	0	0	0	0	0	0	0	1	9	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			B St			B St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	2	3			
5:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	3			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	2	5			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
Count Total	1	0	0	0	1	0	0	1	1	0	0	2	6	0			
Peak Hour	1	0	0	0	0	0	0	0	1	0	0	1	3	0			

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



Two-Hour Count Summaries

Interval Start		Main St						Main St						E Lafayette St						E Lafayette St						Driveway						C St						15-min Total	Rolling One Hour
		Eastbound						Westbound						Northbound						Southbound						Northwestbound						Southeastbound							
		UT	HL	LT	TH	BR	RT	UT	HL	LT	TH	BR	RT	UT	LT	BL	TH	RT	HR	UT	LT	BL	TH	RT	HR	UT	HL	BL	TH	BR	HR	UT	HL	BL	TH	BR	HR		
7:00 AM		0	0	2	23	0	0	0	0	0	24	0	0	0	2	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	56	0		
7:15 AM		0	0	3	22	0	1	0	0	1	51	0	0	0	3	0	0	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	86	0			
7:30 AM		0	0	14	35	0	2	0	0	2	82	1	0	0	5	2	3	4	0	0	0	0	2	11	0	0	0	0	0	0	0	0	0	2	168	0			
7:45 AM		0	0	22	50	0	0	0	0	2	99	1	0	0	2	1	0	10	0	0	0	0	1	17	1	0	0	0	0	0	0	0	2	209	519				
8:00 AM		0	0	7	52	0	0	0	0	10	100	4	0	0	5	1	3	3	0	0	0	0	2	19	2	0	0	0	0	0	0	0	2	210	673				
8:15 AM		0	3	4	47	0	1	0	0	3	83	1	0	0	5	1	6	2	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0	162	749			
8:30 AM		0	2	3	75	0	3	0	0	3	88	3	0	0	1	1	1	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	186	767				
8:45 AM		0	0	3	36	0	2	0	0	4	65	1	0	0	4	0	0	3	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	121	679				
Count Total		0	5	58	340	0	9	0	0	25	592	11	0	0	27	7	14	26	0	0	0	0	7	58	3	0	0	0	0	0	0	0	5	2	0	9	1,198	0	
Peak Hour	All HV	0	5	36	224	0	4	0	0	18	370	9	0	0	13	4	10	17	0	0	0	0	4	42	3	0	0	0	0	0	0	2	2	0	0	4	767	0	
	HV	0	0	0	11	0	0	0	0	1	13	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0				
	HV%	-	0%	0%	5%	-	0%	-	-	6%	4%	0%	-	-	0%	0%	0%	6%	-	-	-	-	0%	0%	0%	-	-	-	-	-	0%	0%	-	3%	0				

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

[illegible]

Two-Hour Count Summaries - Heavy Vehicles

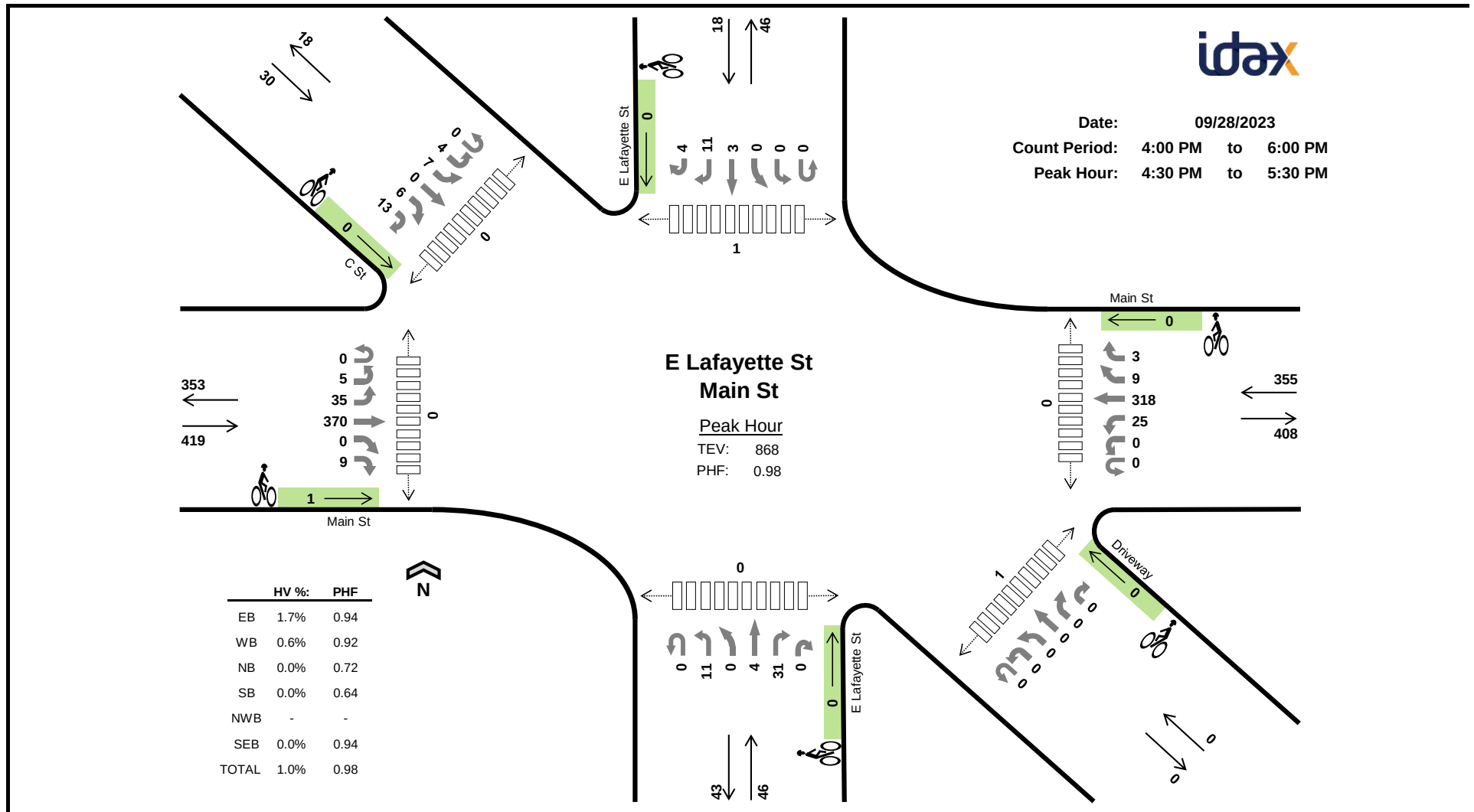
[illegible]

Two-Hour Count Summaries - Bikes

[illegible]







Two-Hour Count Summaries

Interval	Start	Main St						Main St						E Lafayette St						E Lafayette St						Driveway						C St						15-min Total	Rolling One Hour	
		Eastbound						Westbound						Northbound						Southbound						Northwestbound						Southeastbound								
		UT	HL	LT	TH	BR	RT	UT	HL	LT	TH	BR	RT	UT	LT	BL	TH	RT	HR	UT	LT	BL	TH	RT	HR	UT	HL	BL	TH	BR	HR	UT	HL	BL	TH	BR	HR			
4:00 PM	0	1	6	93	0	3	0	0	0	3	71	1	2	0	5	0	1	8	0	0	0	0	0	4	2	0	0	0	0	0	0	0	0	1	0	2	3	206	0	
4:15 PM	0	2	4	99	0	1	0	0	0	5	77	0	0	0	5	1	1	5	0	0	1	0	2	2	0	0	0	0	0	0	0	0	0	1	0	2	3	211	0	
4:30 PM	0	3	6	94	0	1	0	0	0	7	78	2	0	0	3	0	0	13	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	1	0	1	4	217	0	
4:45 PM	0	1	4	92	0	4	0	0	0	8	75	2	3	0	2	0	0	3	4	0	0	0	0	4	0	0	0	0	0	0	0	0	2	1	0	1	3	209	843	
5:00 PM	0	0	12	98	0	2	0	0	0	7	76	1	0	0	3	0	0	8	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	1	0	3	4	220	857	
5:15 PM	0	1	13	86	0	2	0	0	0	3	89	4	0	0	3	0	0	1	6	0	0	0	0	3	4	0	0	0	0	0	0	0	0	4	0	1	2	222	868	
5:30 PM	0	3	9	89	0	3	0	0	0	9	77	2	1	0	1	1	0	11	0	0	0	0	1	4	0	0	0	0	0	0	0	0	1	1	0	0	0	213	864	
5:45 PM	0	2	7	83	0	0	0	0	0	5	70	1	1	0	3	0	0	2	6	0	0	0	0	0	6	0	0	0	0	0	0	0	1	0	1	1	189	844		
Count Total		0	13	61	734	0	16	0	0	0	47	613	13	7	0	25	2	8	61	0	0	4	0	6	27	6	0	0	0	0	0	0	0	5	11	0	11	20	1,687	0
Peak Hour	All HV	0	5	35	370	0	9	0	0	0	25	318	9	3	0	11	0	4	31	0	0	0	3	11	4	0	0	0	0	0	0	0	4	7	0	6	13	868	0	
	HV	0	0	0	7	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0		
	HV%	-	0%	0%	2%	-	0%	-	-	0%	1%	0%	0%	-	-	0%	-	0%	0%	-	-	-	-	0%	0%	0%	-	-	-	-	-	-	0%	0%	-	0%	0%	1%	0	

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

Interval	Heavy Vehicle Totals							Bicycles						Pedestrians (Crossing Leg)							
	EB	WB	NB	SB	NWB	SEB	Total	EB	WB	NB	SB	NWB	SEB	Total	East	West	North	South	NW	SE	Total
4:00 PM	1	0	0	0	0	1	2	0	1	0	0	0	0	1	0	0	1	0	0	2	3
4:15 PM	0	1	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0
4:30 PM	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4:45 PM	2	0	0	0	0	0	2	1	0	0	0	0	0	1	0	0	0	0	0	1	1
5:00 PM	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
5:45 PM	1	2	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	2
Count Total	9	6	0	0	0	1	16	1	1	0	1	0	0	3	2	0	2	0	0	4	8
Peak Hr	7	2	0	0	0	0	9	1	0	0	0	0	0	1	0	0	1	0	0	1	2

Two-Hour Count Summaries - Heavy Vehicles

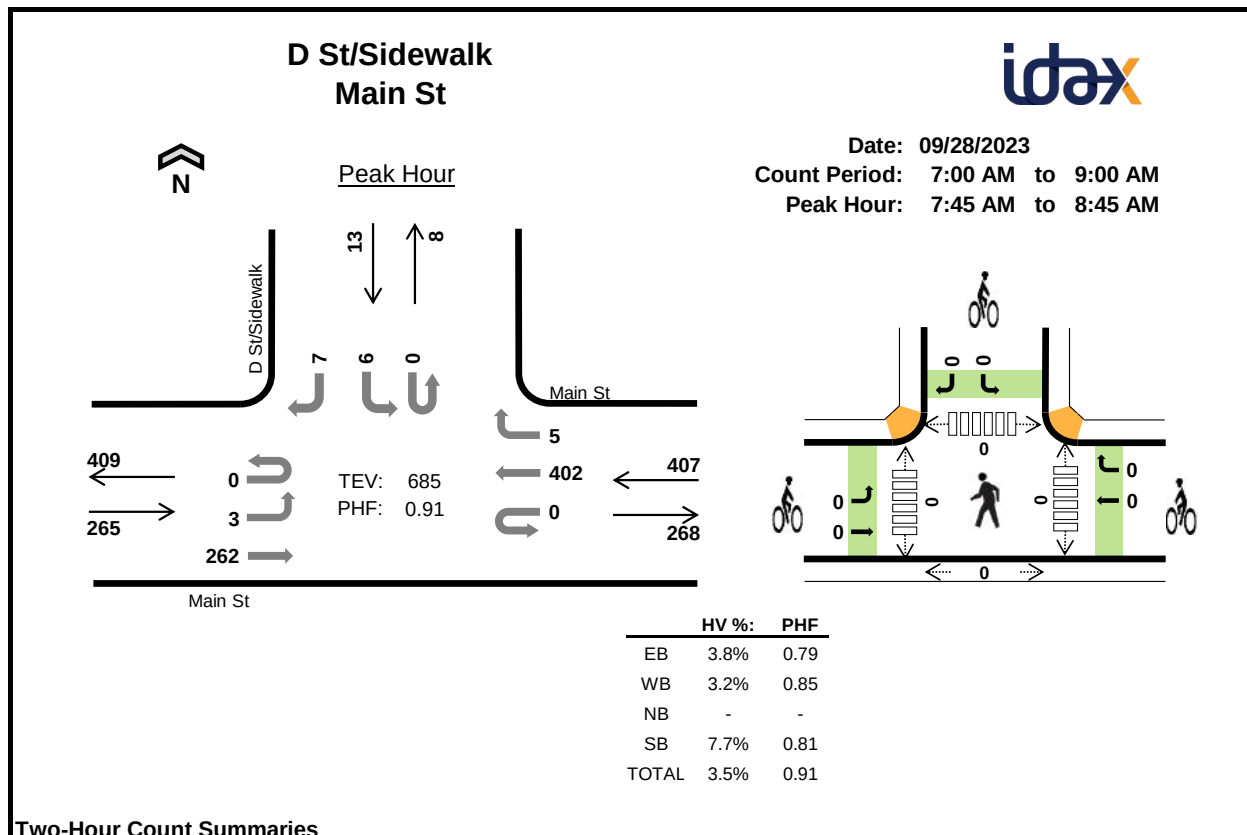
[illegible]

Two-Hour Count Summaries - Bikes

[illegible]





**Two-Hour Count Summaries**

Interval Start		Main St				Main St				n/a				D St/Sidewalk				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	22	0	0	0	22	0	0	0	0	0	0	1	0	1	46	0
7:15 AM		0	1	26	0	0	0	56	0	0	0	0	0	0	0	0	1	84	0
7:30 AM		0	2	46	0	0	0	79	0	0	0	0	0	0	0	0	1	128	0
7:45 AM		0	0	65	0	0	0	101	0	0	0	0	0	0	3	0	1	170	428
8:00 AM		0	3	61	0	0	0	117	3	0	0	0	0	0	0	0	2	186	568
8:15 AM		0	0	52	0	0	0	83	1	0	0	0	0	0	2	0	2	140	624
8:30 AM		0	0	84	0	0	0	101	1	0	0	0	0	0	1	0	2	189	685
8:45 AM		0	1	38	0	0	0	74	1	0	0	0	0	0	0	0	1	115	630
Count Total		0	7	394	0	0	0	633	6	0	0	0	0	0	7	0	11	1,058	0
Peak Hour	All	0	3	262	0	0	0	402	5	0	0	0	0	0	6	0	7	685	0
	HV	0	0	10	0	0	0	12	1	0	0	0	0	0	0	0	1	24	0
	HV%	-	0%	4%	-	-	-	3%	20%	-	-	-	-	-	0%	-	14%	4%	0

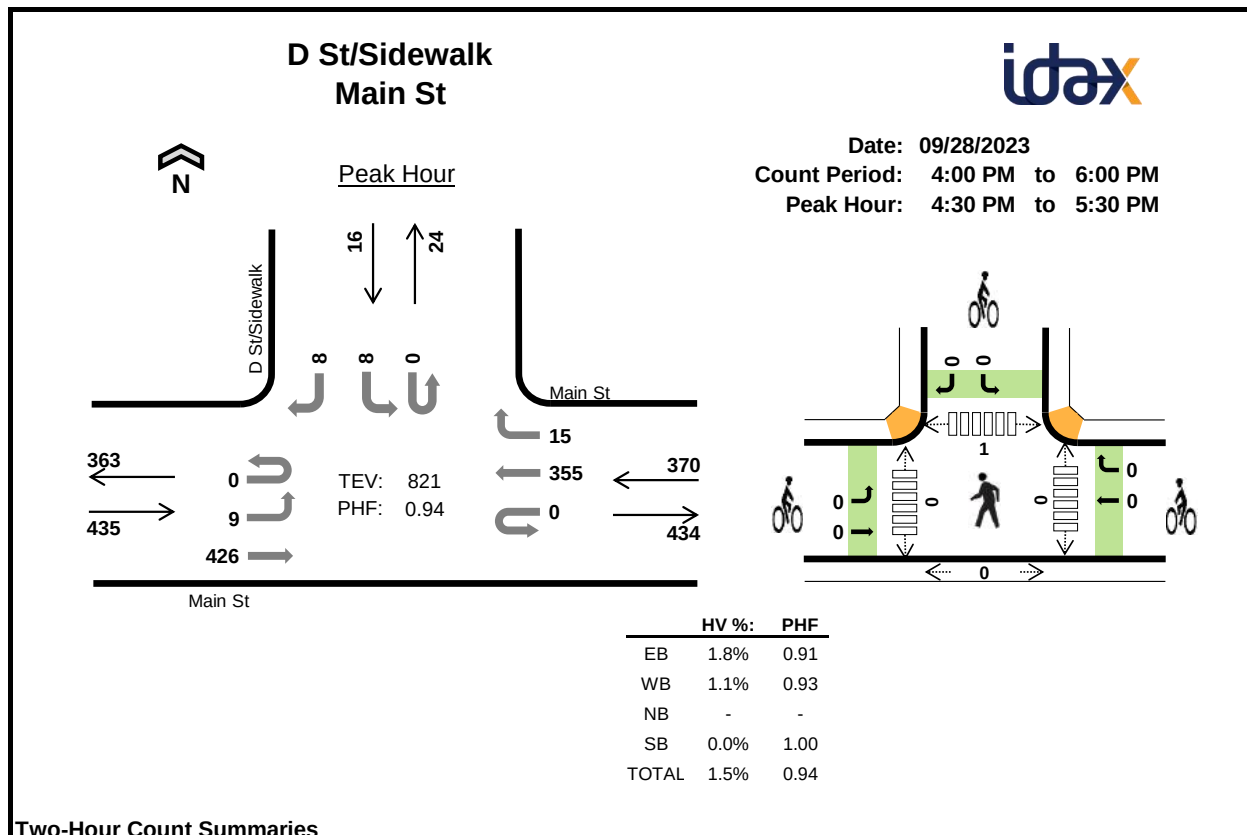
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0
7:15 AM	4	4	0	0	8	1	0	0	0	1	0	0	0	0	0
7:30 AM	5	4	0	0	9	0	0	0	0	0	1	0	1	0	2
7:45 AM	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0
8:00 AM	2	3	0	0	5	0	0	0	0	0	0	0	0	0	0
8:15 AM	2	4	0	1	7	0	0	0	0	0	0	0	0	0	0
8:30 AM	5	3	0	0	8	0	0	0	0	0	0	0	0	0	0
8:45 AM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0
Count Total	25	22	0	1	48	1	0	0	0	1	1	0	1	0	2
Peak Hr	10	13	0	1	24	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				n/a				D St/Sidewalk				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
7:15 AM	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	8	0
7:30 AM	0	0	5	0	0	0	4	0	0	0	0	0	0	0	0	0	9	0
7:45 AM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	26
8:00 AM	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	5	26
8:15 AM	0	0	2	0	0	0	3	1	0	0	0	0	0	0	0	1	7	25
8:30 AM	0	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	8	24
8:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	22
Count Total	0	0	25	0	0	0	21	1	0	0	0	0	0	0	0	1	48	0
Peak Hour	0	0	10	0	0	0	12	1	0	0	0	0	0	0	0	1	24	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			n/a			D St/Sidewalk			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	1	0	0	0	0	0	0	0	0	0	0	0	1	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				n/a				D St/Sidewalk				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	2	98	0	0	0	78	3	0	0	0	0	0	1	0	2	184	0
4:15 PM		0	0	103	0	0	0	84	4	0	0	0	0	0	1	0	3	195	0
4:30 PM		0	4	114	0	0	0	93	3	0	0	0	0	0	2	0	2	218	0
4:45 PM		0	1	97	0	0	0	80	3	0	0	0	0	0	3	0	1	185	782
5:00 PM		0	1	119	0	0	0	87	4	0	0	0	0	0	1	0	3	215	813
5:15 PM		0	3	96	0	0	0	95	5	0	0	0	0	0	2	0	2	203	821
5:30 PM		0	1	93	0	0	0	83	4	0	0	0	0	0	3	0	0	184	787
5:45 PM		0	0	88	0	0	0	82	2	0	0	0	0	0	1	0	1	174	776
Count Total		0	12	808	0	0	0	682	28	0	0	0	0	0	14	0	14	1,558	0
Peak Hour	All	0	9	426	0	0	0	355	15	0	0	0	0	0	8	0	8	821	0
	HV	0	0	8	0	0	0	4	0	0	0	0	0	0	0	0	0	12	0
	HV%	-	0%	2%	-	-	-	1%	0%	-	-	-	-	-	0%	-	0%	1%	0

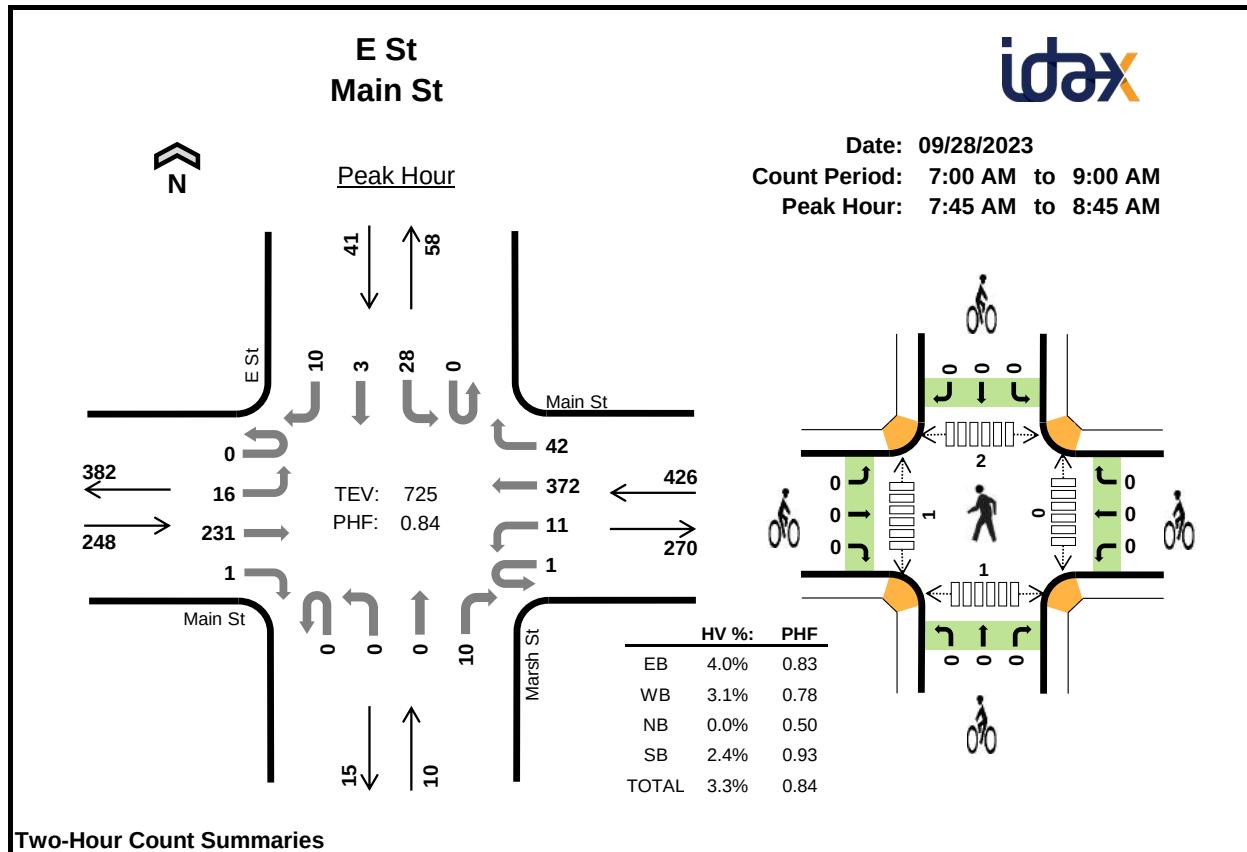
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	0	0	1	0	1	0	0	1	2	0	1	0	3
4:15 PM	0	1	0	0	1	0	0	0	0	0	2	0	3	0	5
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1
4:45 PM	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0
5:00 PM	3	2	0	0	5	0	0	0	0	0	0	0	0	0	0
5:15 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0
5:45 PM	2	3	0	0	5	0	0	0	0	0	0	0	0	0	0
Count Total	11	9	0	0	20	1	1	0	0	2	4	0	5	0	9
Peak Hr	8	4	0	0	12	0	0	0	0	0	0	0	1	0	1

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				n/a				D St/Sidewalk				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	7
5:00 PM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	5	11
5:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	12
5:45 PM	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	5	13
Count Total	0	0	11	0	0	0	9	0	0	0	0	0	0	0	0	0	20	0
Peak Hour	0	0	8	0	0	0	4	0	0	0	0	0	0	0	0	0	12	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			n/a			D St/Sidewalk			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	1			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Count Total	0	1	0	0	0	1	0	0	0	0	0	0	2	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Marsh St				E St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	25	0	0	0	18	4	0	0	0	1	0	3	0	0	51	0
7:15 AM		0	2	25	0	0	0	52	5	0	0	0	0	0	1	0	1	86	0
7:30 AM		0	3	40	0	0	1	66	5	0	1	1	7	0	5	1	2	132	0
7:45 AM		0	6	62	0	0	1	88	12	0	0	0	1	0	8	0	2	180	449
8:00 AM		0	4	59	0	1	6	116	14	0	0	0	5	0	4	1	5	215	613
8:15 AM		0	2	39	1	0	1	76	10	0	0	0	2	0	9	1	0	141	668
8:30 AM		0	4	71	0	0	3	92	6	0	0	0	2	0	7	1	3	189	725
8:45 AM		0	1	33	0	0	1	63	3	0	0	1	0	0	7	3	2	114	659
Count Total		0	22	354	1	1	13	571	59	0	1	2	18	0	44	7	15	1,108	0
Peak Hour	All	0	16	231	1	1	11	372	42	0	0	0	10	0	28	3	10	725	0
	HV	0	0	10	0	0	0	13	0	0	0	0	0	0	0	0	1	24	0
	HV%	-	0%	4%	0%	0%	0%	3%	0%	-	-	-	0%	-	0%	0%	10%	3%	0

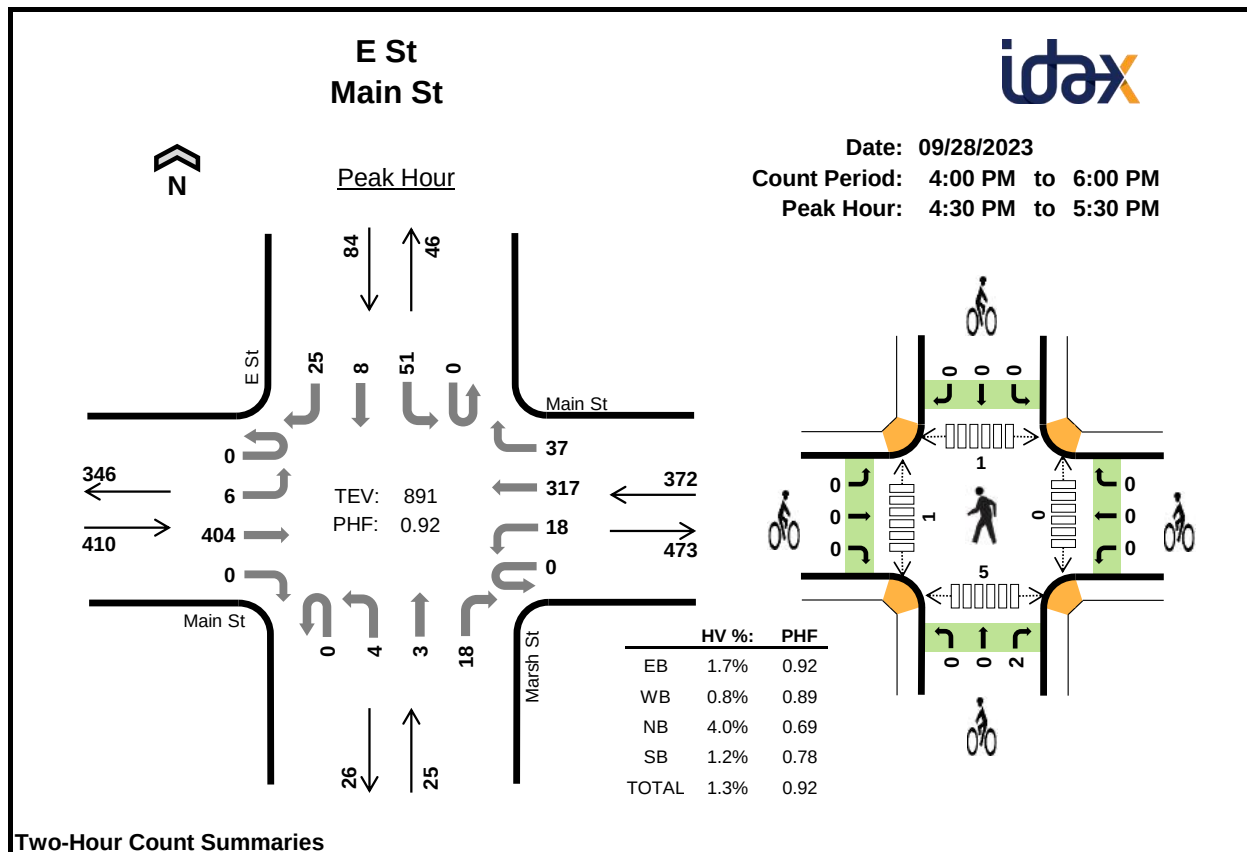
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	4	0	0	1	5	0	0	0	0	0	1	0	1	0	2
7:15 AM	3	6	0	0	9	0	0	0	0	0	0	0	1	0	1
7:30 AM	2	4	0	0	6	0	0	0	0	0	0	1	1	2	4
7:45 AM	2	2	0	0	4	0	0	0	0	0	0	0	0	1	1
8:00 AM	2	2	0	1	5	0	0	0	0	0	0	0	0	0	0
8:15 AM	2	5	0	0	7	0	0	0	0	0	0	0	0	0	0
8:30 AM	4	4	0	0	8	0	0	0	0	0	0	1	2	0	3
8:45 AM	1	1	0	1	3	0	0	0	0	0	0	0	0	0	0
Count Total	20	24	0	3	47	0	0	0	0	0	1	2	5	3	11
Peak Hour	10	13	0	1	24	0	0	0	0	0	0	1	2	1	4

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Marsh St				E St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	5	0
7:15 AM	0	0	3	0	0	0	4	2	0	0	0	0	0	0	0	0	9	0
7:30 AM	0	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	6	0
7:45 AM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	24
8:00 AM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	1	5	24
8:15 AM	0	0	2	0	0	0	5	0	0	0	0	0	0	0	0	0	7	22
8:30 AM	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	8	24
8:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	3	23
Count Total	0	0	20	0	0	0	22	2	0	0	0	0	0	1	0	2	47	0
Peak Hour	0	0	10	0	0	0	13	0	0	0	0	0	0	0	0	1	24	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			Marsh St			E St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

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



Two-Hour Count Summaries

Interval Start		Main St				Main St				Marsh St				E St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	5	88	0	0	4	70	9	0	0	2	1	0	12	2	2	195	0
4:15 PM		0	1	84	0	0	0	73	9	0	0	0	2	0	8	2	3	182	0
4:30 PM		0	1	111	0	0	7	85	9	0	2	2	5	0	10	1	9	242	0
4:45 PM		0	1	95	0	0	3	71	10	0	0	1	5	0	18	3	6	213	832
5:00 PM		0	2	103	0	0	2	70	10	0	0	0	5	0	8	2	3	205	842
5:15 PM		0	2	95	0	0	6	91	8	0	2	0	3	0	15	2	7	231	891
5:30 PM		0	4	89	0	1	7	76	14	0	0	0	0	0	7	3	3	204	853
5:45 PM		0	3	83	0	0	2	69	4	0	0	0	2	0	5	6	1	175	815
Count Total		0	19	748	0	1	31	605	73	0	4	5	23	0	83	21	34	1,647	0
Peak Hour	All	0	6	404	0	0	18	317	37	0	4	3	18	0	51	8	25	891	0
	HV	0	0	7	0	0	0	3	0	0	1	0	0	0	1	0	0	12	0
	HV%	-	0%	2%	-	-	0%	1%	0%	-	25%	0%	0%	-	2%	0%	0%	1%	0

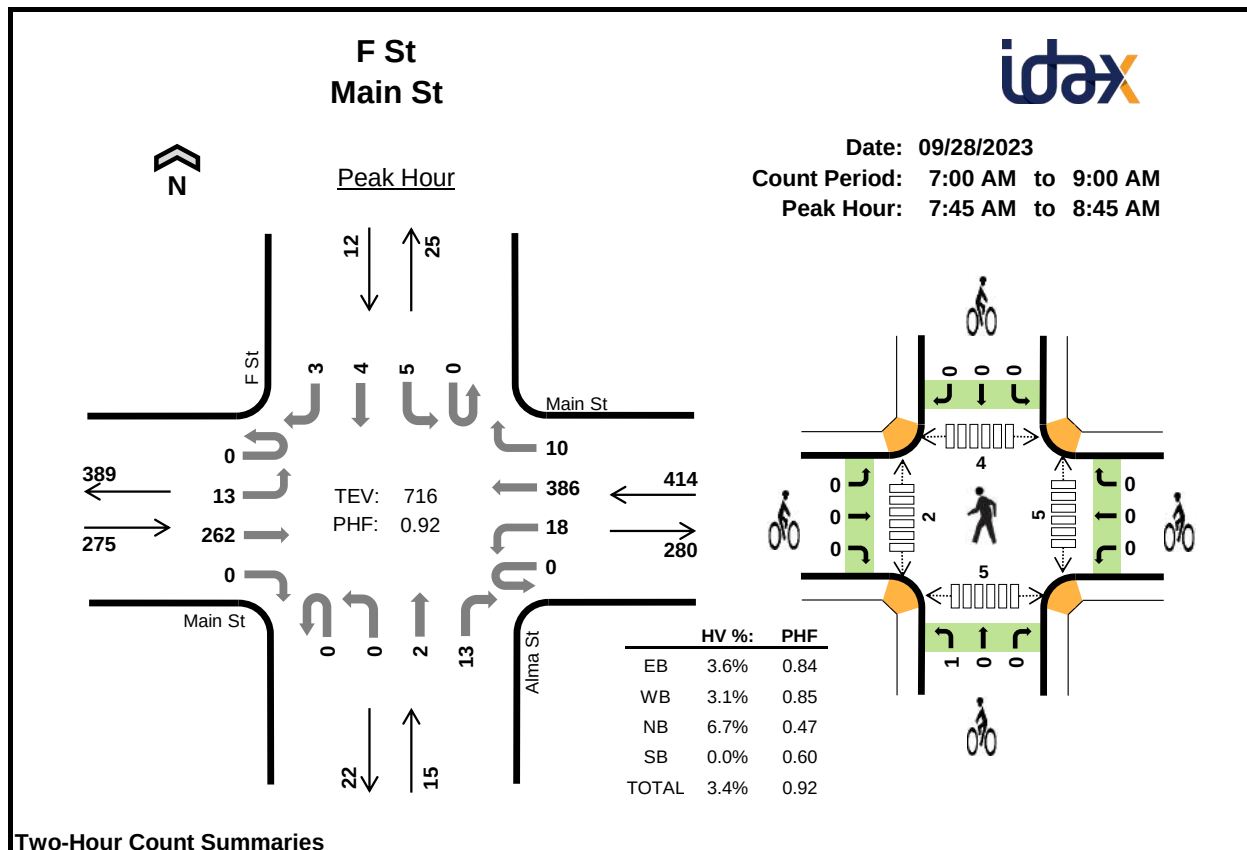
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	0	0	1	0	0	0	0	0	1	0	2	1	4
4:15 PM	0	3	0	1	4	0	0	0	0	0	0	0	3	3	6
4:30 PM	1	1	1	0	3	0	0	0	0	0	0	0	0	1	1
4:45 PM	2	0	0	0	2	0	0	0	0	0	0	1	1	3	5
5:00 PM	3	2	0	1	6	0	0	0	0	0	0	0	0	1	1
5:15 PM	1	0	0	0	1	0	0	2	0	2	0	0	0	0	0
5:30 PM	0	1	0	0	1	0	0	0	1	1	0	0	0	0	0
5:45 PM	1	3	0	1	5	0	0	0	0	0	0	0	0	0	0
Count Total	9	10	1	3	23	0	0	2	1	3	1	1	6	9	17
Peak Hour	7	3	1	1	12	0	0	2	0	2	0	1	1	5	7

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Marsh St				E St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	1	2	0	0	0	0	0	0	1	0	4	0
4:30 PM	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	3	0
4:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	10
5:00 PM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0	6	15
5:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	10
5:45 PM	0	0	1	0	0	0	2	1	0	0	0	0	0	0	0	1	5	13
Count Total	0	0	9	0	0	0	7	3	0	1	0	0	0	2	1	0	23	0
Peak Hour	0	0	7	0	0	0	3	0	0	1	0	0	0	1	0	0	12	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			Marsh St			E St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:15 PM	0	0	0	0	0	0	0	0	2	0	0	0	2	2	2		
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	3	3		
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3		
Count Total	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0		
Peak Hour	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0		

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Alma St				F St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	4	25	0	0	2	21	1	0	0	0	1	0	0	0	0	54	0
7:15 AM		0	0	25	0	0	2	49	0	0	0	1	4	0	1	0	0	82	0
7:30 AM		0	6	47	0	0	7	62	0	0	0	2	4	0	1	2	0	131	0
7:45 AM		0	5	67	0	0	4	90	3	0	0	0	8	0	2	3	0	182	449
8:00 AM		0	5	59	0	0	5	113	4	0	0	0	4	0	1	1	2	194	589
8:15 AM		0	2	55	0	0	6	88	2	0	0	1	0	0	0	0	1	155	662
8:30 AM		0	1	81	0	0	3	95	1	0	0	1	1	0	2	0	0	185	716
8:45 AM		0	1	39	0	0	1	59	2	0	1	0	2	0	0	4	0	109	643
Count Total		0	24	398	0	0	30	577	13	0	1	5	24	0	7	10	3	1,092	0
Peak Hour	All	0	13	262	0	0	18	386	10	0	0	2	13	0	5	4	3	716	0
	HV	0	1	9	0	0	0	13	0	0	0	0	1	0	0	0	0	24	0
	HV%	-	8%	3%	-	-	0%	3%	0%	-	-	0%	8%	-	0%	0%	0%	3%	0

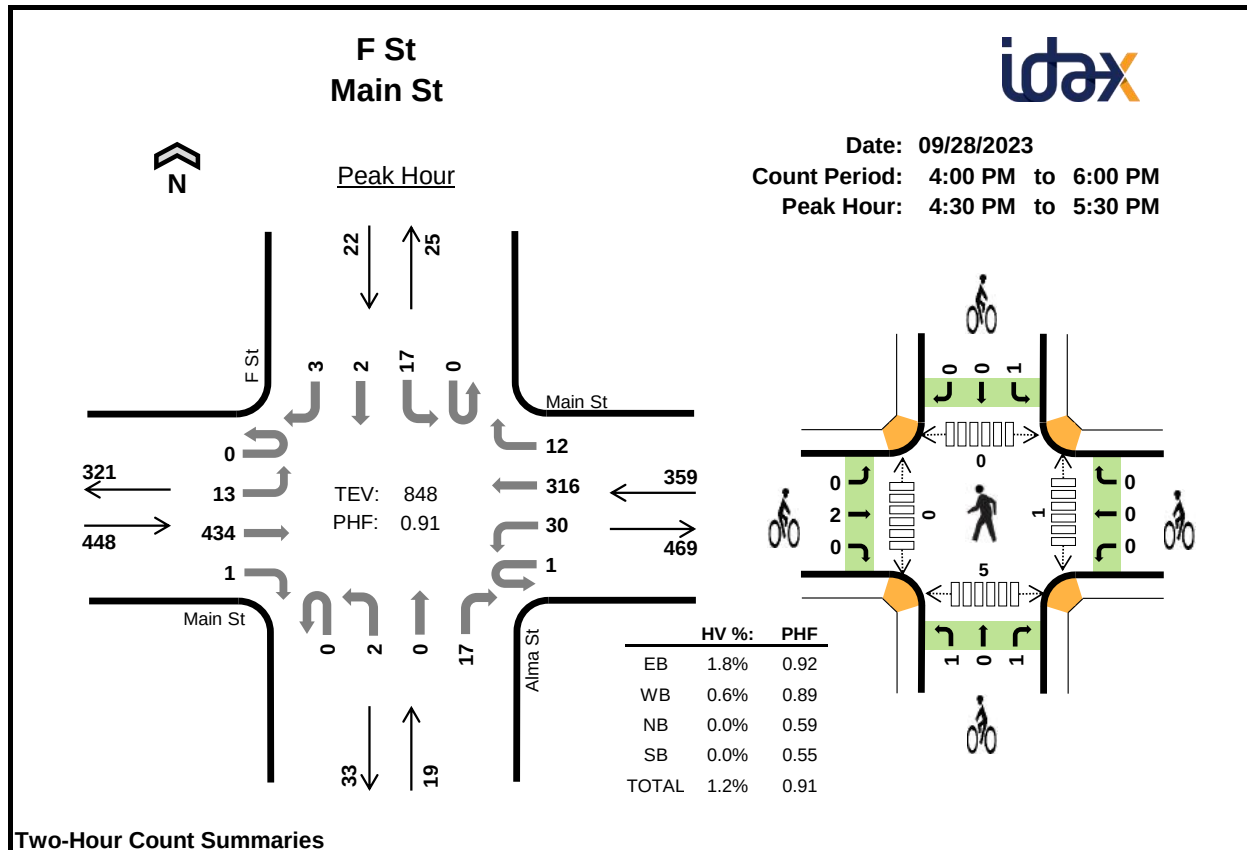
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	5	1	0	0	6	0	0	0	0	0	0	0	0	0	0
7:15 AM	3	6	0	0	9	0	0	0	0	0	0	1	1	0	2
7:30 AM	1	5	0	0	6	0	0	0	0	0	0	2	1	0	3
7:45 AM	1	2	1	0	4	0	0	0	0	0	0	1	2	1	4
8:00 AM	3	2	0	0	5	0	0	1	0	1	4	0	0	4	8
8:15 AM	2	5	0	0	7	0	0	0	0	0	1	1	0	0	2
8:30 AM	4	4	0	0	8	0	0	0	0	0	0	0	2	0	2
8:45 AM	1	1	0	0	2	0	0	0	0	0	0	0	2	0	2
Count Total	20	26	1	0	47	0	0	1	0	1	5	5	8	5	23
Peak Hour	10	13	1	0	24	0	0	1	0	1	5	2	4	5	16

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Alma St				F St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	5	0	0	1	0	0	0	0	0	0	0	0	0	0	6	0
7:15 AM	0	0	3	0	0	0	6	0	0	0	0	0	0	0	0	0	9	0
7:30 AM	0	0	1	0	0	0	5	0	0	0	0	0	0	0	0	0	6	0
7:45 AM	0	0	1	0	0	0	2	0	0	0	0	1	0	0	0	0	4	25
8:00 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	5	24
8:15 AM	0	1	1	0	0	0	5	0	0	0	0	0	0	0	0	0	7	22
8:30 AM	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	8	24
8:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	22
Count Total	0	1	19	0	0	1	25	0	0	0	0	1	0	0	0	0	47	0
Peak Hour	0	1	9	0	0	0	13	0	0	0	0	1	0	0	0	0	24	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			Alma St			F St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	1				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
Count Total	0	0	0	0	0	0	1	0	0	0	0	0	1	0				
Peak Hour	0	0	0	0	0	0	1	0	0	0	0	0	1	0				

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Alma St				F St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	2	99	0	0	5	72	5	0	0	0	3	0	8	0	0	194	0
4:15 PM		0	1	90	0	0	6	71	5	0	0	1	3	0	9	0	1	187	0
4:30 PM		0	2	120	0	0	8	92	1	0	0	0	5	0	5	0	1	234	0
4:45 PM		0	6	104	0	1	9	72	4	0	2	0	1	0	7	1	2	209	824
5:00 PM		0	2	97	1	0	8	68	4	0	0	0	8	0	1	0	0	189	819
5:15 PM		0	3	113	0	0	5	84	3	0	0	0	3	0	4	1	0	216	848
5:30 PM		0	4	90	0	1	6	83	2	0	0	1	7	0	3	1	0	198	812
5:45 PM		0	2	89	0	0	9	62	0	0	0	1	7	0	1	0	0	171	774
Count Total		0	22	802	1	2	56	604	24	0	2	3	37	0	38	3	4	1,598	0
Peak Hour	All	0	13	434	1	1	30	316	12	0	2	0	17	0	17	2	3	848	0
	HV	0	0	8	0	0	0	2	0	0	0	0	0	0	0	0	0	10	0
	HV%	-	0%	2%	0%	0%	0%	1%	0%	-	0%	-	0%	-	0%	0%	0%	1%	0

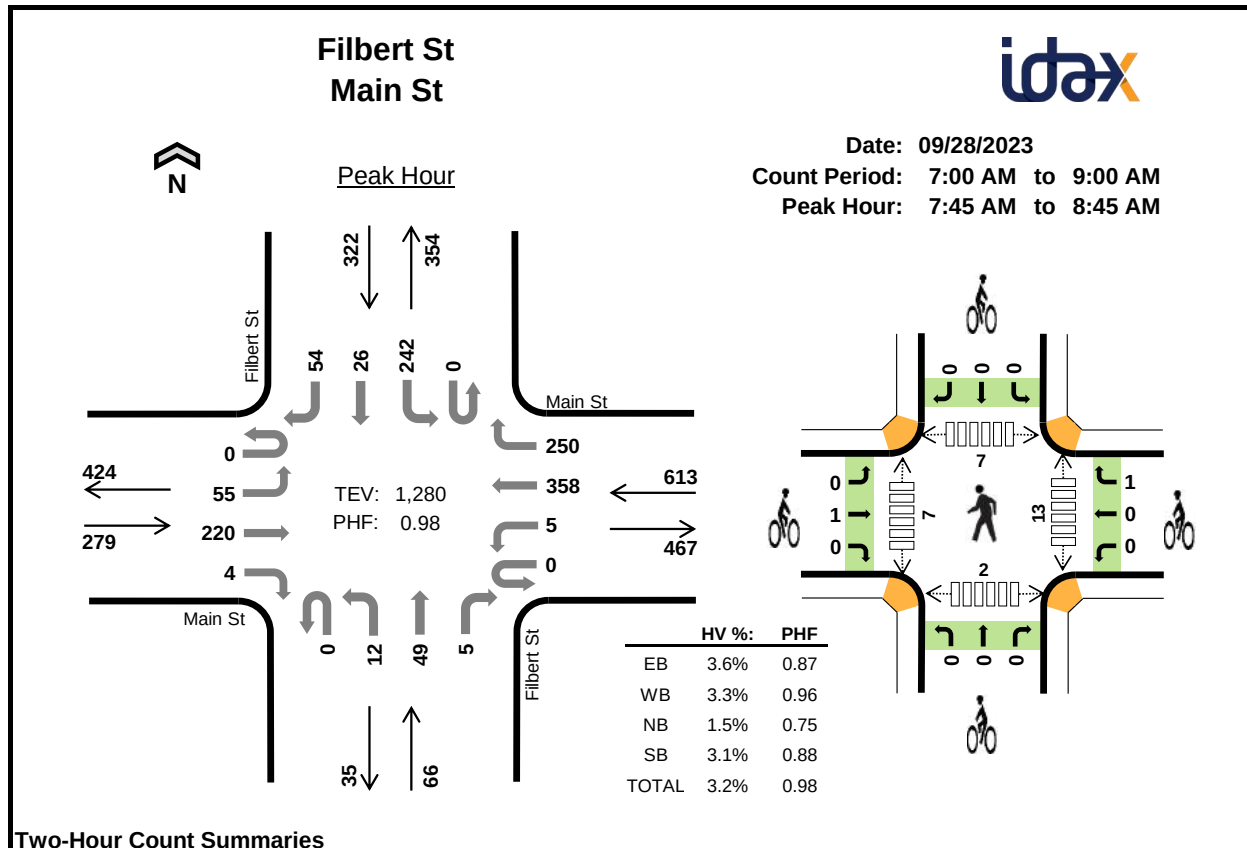
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	0	0	1	1	1	0	0	2	0	0	0	3	3
4:15 PM	1	3	0	0	4	1	0	0	0	1	0	0	0	5	5
4:30 PM	1	1	0	0	2	1	0	0	0	1	1	0	0	1	2
4:45 PM	2	0	0	0	2	0	0	1	0	1	0	0	0	2	2
5:00 PM	3	1	0	0	4	0	0	0	1	1	0	0	0	1	1
5:15 PM	2	0	0	0	2	1	0	1	0	2	0	0	0	1	1
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	3	0	0	4	0	1	1	0	2	1	0	0	0	1
Count Total	11	9	0	0	20	4	2	3	1	10	2	0	0	13	15
Peak Hour	8	2	0	0	10	2	0	2	1	5	1	0	0	5	6

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Alma St				F St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	0
4:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
4:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9
5:00 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	12
5:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	10
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	9
5:45 PM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	11
Count Total	0	0	11	0	0	0	9	0	0	0	0	0	0	0	0	0	20	0
Peak Hour	0	0	8	0	0	0	2	0	0	0	0	0	0	0	0	0	10	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			Alma St			F St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	0			
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0			
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0			
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	5			
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	4			
5:15 PM	0	1	0	0	0	0	0	0	1	0	0	0	2	5			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4			
5:45 PM	0	0	0	1	0	0	0	0	1	0	0	0	2	5			
Count Total	0	4	0	1	1	0	1	0	2	1	0	0	10	0			
Peak Hour	0	2	0	0	0	0	1	0	1	1	0	0	5	0			

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



Two-Hour Count Summaries

Interval Start		Main St				Main St				Filbert St				Filbert St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	6	26	0	0	0	20	42	0	1	6	0	0	37	3	7	148	0
7:15 AM		0	11	22	0	0	0	48	53	0	0	14	0	0	39	3	11	201	0
7:30 AM		0	23	39	1	0	0	63	55	0	4	19	1	0	54	5	7	271	0
7:45 AM		0	23	56	1	0	0	89	71	0	2	19	1	0	43	10	11	326	946
8:00 AM		0	15	52	0	0	3	108	49	0	4	10	1	0	59	6	19	326	1,124
8:15 AM		0	5	45	2	0	1	75	81	0	5	14	0	0	74	7	11	320	1,243
8:30 AM		0	12	67	1	0	1	86	49	0	1	6	3	0	66	3	13	308	1,280
8:45 AM		0	9	40	5	0	0	48	50	0	3	10	2	0	56	5	13	241	1,195
Count Total		0	104	347	10	0	5	537	450	0	20	98	8	0	428	42	92	2,141	0
Peak Hour	All	0	55	220	4	0	5	358	250	0	12	49	5	0	242	26	54	1,280	0
	HV	0	1	9	0	0	1	11	8	0	0	1	0	0	9	0	1	41	0
	HV%	-	2%	4%	0%	-	20%	3%	3%	-	0%	2%	0%	-	4%	0%	2%	3%	0

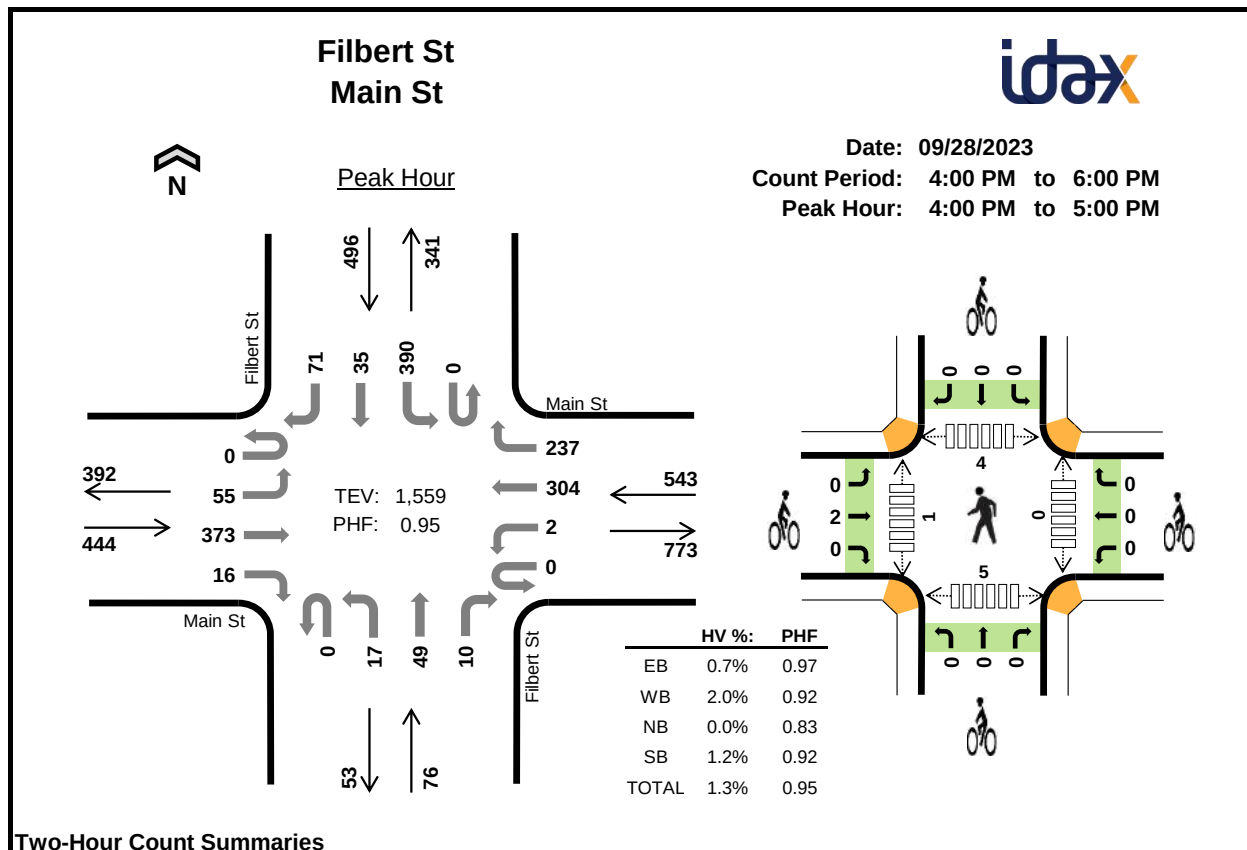
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	6	4	0	14	24	0	0	0	0	0	0	0	0	0	0
7:15 AM	3	16	0	10	29	0	0	0	0	0	0	0	0	1	1
7:30 AM	3	5	1	5	14	0	0	0	0	0	8	1	0	1	10
7:45 AM	3	3	0	0	6	0	0	0	0	0	6	1	2	0	9
8:00 AM	2	7	0	2	11	1	0	0	0	1	3	1	2	0	6
8:15 AM	1	5	1	3	10	0	0	0	0	0	4	4	2	2	12
8:30 AM	4	5	0	5	14	0	1	0	0	1	0	1	1	0	2
8:45 AM	4	6	0	9	19	1	0	0	0	1	0	1	1	0	2
Count Total	26	51	2	48	127	2	1	0	0	3	21	9	8	4	42
Peak Hour	10	20	1	10	41	1	1	0	0	2	13	7	7	2	29

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Filbert St				Filbert St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	6	0	0	0	0	4	0	0	0	0	0	12	1	1	24	0
7:15 AM	0	0	3	0	0	0	6	10	0	0	0	0	0	5	1	4	29	0
7:30 AM	0	2	1	0	0	0	1	4	0	1	0	0	0	4	0	1	14	0
7:45 AM	0	0	3	0	0	0	1	2	0	0	0	0	0	0	0	0	6	73
8:00 AM	0	0	2	0	0	1	2	4	0	0	0	0	0	1	0	1	11	60
8:15 AM	0	0	1	0	0	0	3	2	0	0	1	0	0	3	0	0	10	41
8:30 AM	0	1	3	0	0	0	5	0	0	0	0	0	0	5	0	0	14	41
8:45 AM	0	0	4	0	0	0	2	4	0	0	0	0	0	9	0	0	19	54
Count Total	0	3	23	0	0	1	20	30	0	1	1	0	0	39	2	7	127	0
Peak Hour	0	1	9	0	0	1	11	8	0	0	1	0	0	9	0	1	41	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			Filbert St			Filbert St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	1				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	2				
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	3				
Count Total	0	2	0	0	0	1	0	0	0	0	0	0	3	0				
Peak Hour	0	1	0	0	0	1	0	0	0	0	0	0	2	0				

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Filbert St				Filbert St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	14	96	5	0	1	72	66	0	5	15	3	0	95	8	13	393	0
4:15 PM		0	12	94	3	0	0	76	50	0	4	10	1	0	92	6	14	362	0
4:30 PM		0	15	94	3	0	1	85	61	0	4	11	5	0	103	10	20	412	0
4:45 PM		0	14	89	5	0	0	71	60	0	4	13	1	0	100	11	24	392	1,559
5:00 PM		0	13	97	0	0	0	65	68	0	5	10	1	0	68	9	16	352	1,518
5:15 PM		0	10	104	2	0	2	87	56	0	6	10	2	0	88	12	16	395	1,551
5:30 PM		0	12	91	3	0	1	69	42	0	2	14	4	0	80	2	14	334	1,473
5:45 PM		0	11	83	2	0	0	74	48	0	2	6	2	0	74	9	13	324	1,405
Count Total		0	101	748	23	0	5	599	451	0	32	89	19	0	700	67	130	2,964	0
Peak Hour	All	0	55	373	16	0	2	304	237	0	17	49	10	0	390	35	71	1,559	0
	HV	0	1	2	0	0	0	4	7	0	0	0	0	0	6	0	0	20	0
	HV%	-	2%	1%	0%	-	0%	1%	3%	-	0%	0%	0%	-	2%	0%	0%	1%	0

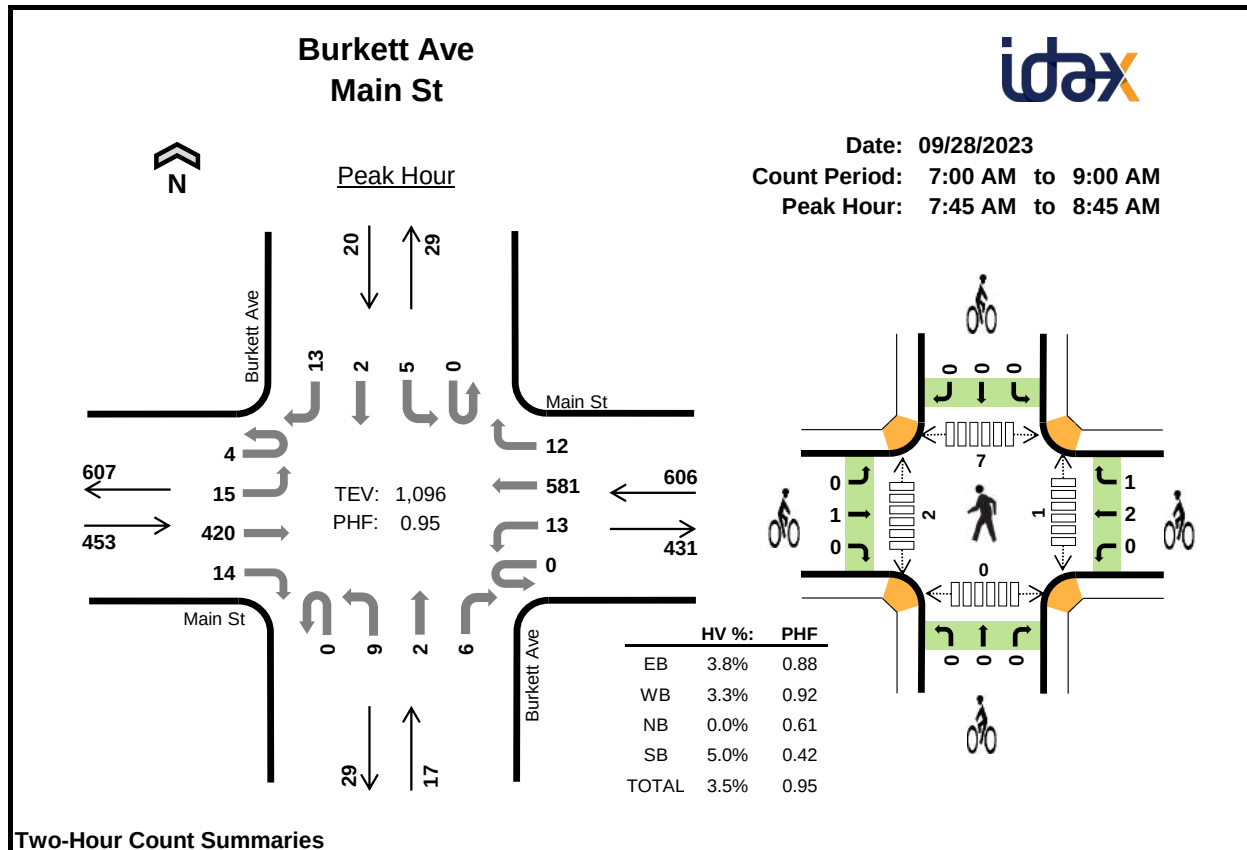
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	2	0	2	5	0	0	0	0	0	0	1	2	1	4
4:15 PM	1	4	0	0	5	1	0	0	0	1	0	0	2	1	3
4:30 PM	1	4	0	1	6	1	0	0	0	1	0	0	0	1	1
4:45 PM	0	1	0	3	4	0	0	0	0	0	0	0	0	2	2
5:00 PM	4	2	0	2	8	0	0	0	0	0	0	0	0	3	3
5:15 PM	1	2	0	1	4	3	0	0	2	5	0	2	0	1	3
5:30 PM	0	2	0	3	5	0	0	0	0	0	0	1	0	1	2
5:45 PM	2	4	0	0	6	1	0	0	0	1	1	0	5	2	8
Count Total	10	21	0	12	43	6	0	0	2	8	1	4	9	12	26
Peak Hour	3	11	0	6	20	2	0	0	0	2	0	1	4	5	10

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Filbert St				Filbert St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	1	1	0	0	0	0	0	2	0	0	5	0
4:15 PM	0	0	1	0	0	0	2	2	0	0	0	0	0	0	0	0	5	0
4:30 PM	0	1	0	0	0	0	1	3	0	0	0	0	0	1	0	0	6	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	4	20
5:00 PM	0	0	4	0	0	0	1	1	0	0	0	0	0	1	1	0	8	23
5:15 PM	0	0	1	0	0	0	0	2	0	0	0	0	0	1	0	0	4	22
5:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	3	0	0	5	21
5:45 PM	0	0	2	0	0	0	3	1	0	0	0	0	0	0	0	0	6	23
Count Total	0	1	9	0	0	0	9	12	0	0	0	0	0	11	1	0	43	0
Peak Hour	0	1	2	0	0	0	4	7	0	0	0	0	0	6	0	0	20	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Main St			Main St			Filbert St			Filbert St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	5	6
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
Count Total	1	4	1	0	0	0	0	0	0	0	0	0	0	1	1	8	0
Peak Hour	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Burkett Ave				Burkett Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	1	53	1	0	0	62	0	0	1	1	3	0	1	0	1	124	0
7:15 AM		0	2	58	2	0	0	93	2	0	1	0	0	0	0	0	0	158	0
7:30 AM		1	2	84	3	0	1	117	4	0	0	2	0	0	1	0	0	215	0
7:45 AM		1	8	86	0	0	1	145	4	0	1	2	1	0	1	0	3	253	750
8:00 AM		0	6	106	4	0	4	147	2	0	1	0	2	0	2	0	10	284	910
8:15 AM		1	0	109	4	0	3	160	2	0	4	0	3	0	1	0	0	287	1,039
8:30 AM		2	1	119	6	0	5	129	4	0	3	0	0	0	1	2	0	272	1,096
8:45 AM		0	1	76	4	0	2	88	3	0	1	0	3	0	1	0	1	180	1,023
Count Total		5	21	691	24	0	16	941	21	0	12	5	12	0	8	2	15	1,773	0
Peak Hour	All	4	15	420	14	0	13	581	12	0	9	2	6	0	5	2	13	1,096	0
	HV	0	0	17	0	0	0	20	0	0	0	0	0	0	1	0	0	38	0
	HV%	0%	0%	4%	0%	-	0%	3%	0%	-	0%	0%	0%	-	20%	0%	0%	3%	0

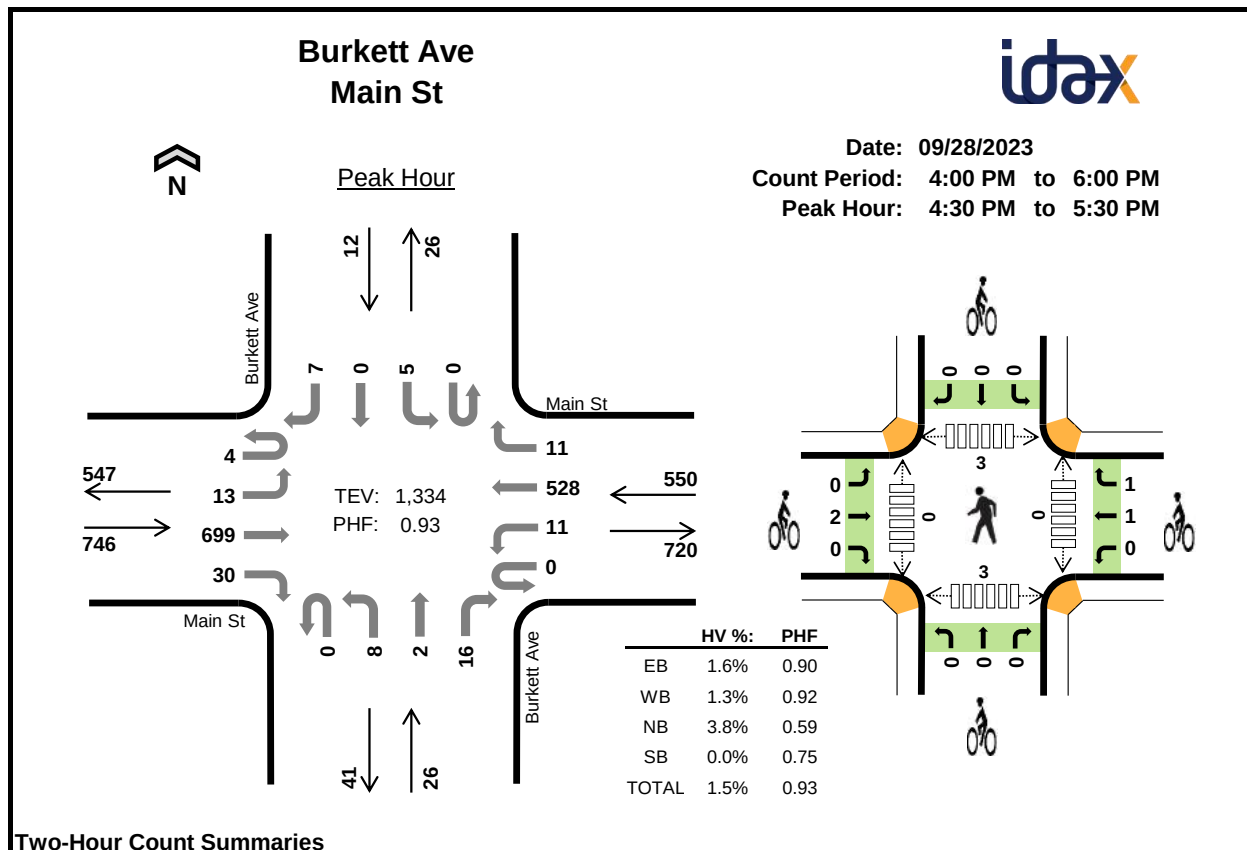
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	20	5	1	0	26	0	0	0	0	0	0	1	1	0	2
7:15 AM	7	17	0	0	24	0	0	0	0	0	0	0	0	0	0
7:30 AM	5	5	0	0	10	0	1	0	0	1	2	0	0	1	3
7:45 AM	2	3	0	0	5	0	1	0	0	1	0	1	3	0	4
8:00 AM	4	6	0	0	10	1	1	0	0	2	1	1	2	0	4
8:15 AM	4	7	0	0	11	0	0	0	0	0	0	0	0	0	0
8:30 AM	7	4	0	1	12	0	1	0	0	1	0	0	2	0	2
8:45 AM	11	5	0	1	17	0	0	0	0	0	0	0	0	0	0
Count Total	60	52	1	2	115	1	4	0	0	5	3	3	8	1	15
Peak Hour	17	20	0	1	38	1	3	0	0	4	1	2	7	0	10

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Burkett Ave				Burkett Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	20	0	0	0	5	0	0	0	0	1	0	0	0	0	26	0
7:15 AM	0	0	7	0	0	0	17	0	0	0	0	0	0	0	0	0	24	0
7:30 AM	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	10	0
7:45 AM	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	5	65
8:00 AM	0	0	4	0	0	0	6	0	0	0	0	0	0	0	0	0	10	49
8:15 AM	0	0	4	0	0	0	7	0	0	0	0	0	0	0	0	0	11	36
8:30 AM	0	0	7	0	0	0	4	0	0	0	0	0	0	1	0	0	12	38
8:45 AM	0	1	10	0	0	0	5	0	0	0	0	0	0	0	0	1	17	50
Count Total	0	1	59	0	0	0	52	0	0	0	0	1	0	1	0	1	115	0
Peak Hour	0	0	17	0	0	0	20	0	0	0	0	0	0	1	0	0	38	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			Burkett Ave			Burkett Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0			
7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2			
8:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	2	4			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4			
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	4			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
Count Total	0	1	0	0	3	1	0	0	0	0	0	0	0	5	0			
Peak Hour	0	1	0	0	2	1	0	0	0	0	0	0	0	4	0			

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



Two-Hour Count Summaries

Interval Start		Main St				Main St				Burkett Ave				Burkett Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	1	164	17	0	2	137	5	0	2	0	3	0	1	0	2	334	0
4:15 PM		1	4	163	8	0	5	122	0	0	1	0	2	0	3	0	1	310	0
4:30 PM		1	5	195	6	0	3	138	2	0	3	0	5	0	1	0	1	360	0
4:45 PM		2	2	172	12	0	0	125	2	0	0	0	3	0	2	0	2	322	1,326
5:00 PM		1	2	161	5	0	5	125	1	0	2	1	1	0	2	0	1	307	1,299
5:15 PM		0	4	171	7	0	3	140	6	0	3	1	7	0	0	0	3	345	1,334
5:30 PM		0	1	161	8	0	5	103	2	0	1	0	2	0	0	0	2	285	1,259
5:45 PM		0	3	152	10	0	4	114	0	0	4	0	2	0	0	0	1	290	1,227
Count Total		5	22	1,339	73	0	27	1,004	18	0	16	2	25	0	9	0	13	2,553	0
Peak Hour	All	4	13	699	30	0	11	528	11	0	8	2	16	0	5	0	7	1,334	0
	HV	0	0	11	1	0	0	7	0	0	0	1	0	0	0	0	0	20	0
	HV%	0%	0%	2%	3%	-	0%	1%	0%	-	0%	50%	0%	-	0%	-	0%	1%	0

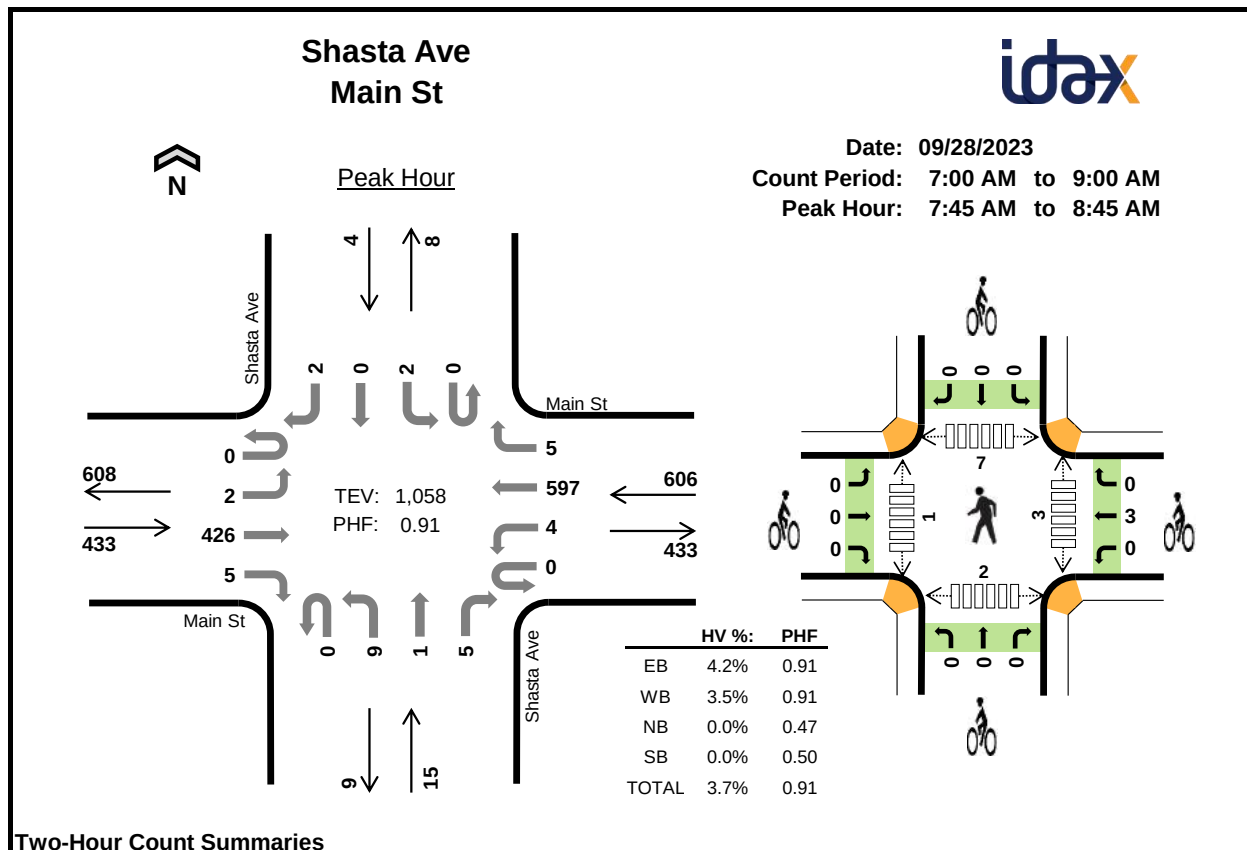
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	2	0	0	3	1	1	0	0	2	0	0	1	1	2
4:15 PM	2	4	0	0	6	1	0	0	0	1	0	0	2	0	2
4:30 PM	1	3	0	0	4	1	1	0	0	2	0	0	3	1	4
4:45 PM	4	0	0	0	4	0	1	0	0	1	0	0	0	0	0
5:00 PM	5	2	0	0	7	0	0	0	0	0	0	0	0	0	0
5:15 PM	2	2	1	0	5	1	0	0	0	1	0	0	0	2	2
5:30 PM	3	2	1	0	6	0	0	0	0	0	0	0	2	1	3
5:45 PM	1	2	1	0	4	2	1	0	1	4	0	0	2	1	3
Count Total	19	17	3	0	39	6	4	0	1	11	0	0	10	6	16
Peak Hour	12	7	1	0	20	2	2	0	0	4	0	0	3	3	6

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Burkett Ave				Burkett Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0
4:15 PM	0	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	6	0
4:30 PM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	0
4:45 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	17
5:00 PM	0	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	7	21
5:15 PM	0	0	1	1	0	0	2	0	0	0	1	0	0	0	0	0	5	20
5:30 PM	0	0	3	0	0	0	2	0	0	0	0	1	0	0	0	0	6	22
5:45 PM	0	0	1	0	0	0	2	0	0	1	0	0	0	0	0	0	4	22
Count Total	0	0	18	1	0	0	17	0	0	1	1	1	0	0	0	0	39	0
Peak Hour	0	0	11	1	0	0	7	0	0	0	1	0	0	0	0	0	20	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			Burkett Ave			Burkett Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	0				
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	0				
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	6				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4				
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	4				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:45 PM	0	2	0	0	1	0	0	0	0	1	0	0	4	5				
Count Total	0	6	0	0	3	1	0	0	0	1	0	0	11	0				
Peak Hour	0	2	0	0	1	1	0	0	0	0	0	0	4	0				

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Shasta Ave				Shasta Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	54	1	0	1	58	0	0	1	0	1	0	1	0	1	118	0
7:15 AM		0	0	54	0	0	0	95	0	0	4	0	0	0	0	0	0	153	0
7:30 AM		0	0	84	1	0	0	114	1	0	3	0	1	0	0	0	1	205	0
7:45 AM		0	0	95	0	0	1	142	1	0	5	1	2	0	0	0	2	249	725
8:00 AM		0	2	100	2	0	1	151	0	0	0	0	0	0	1	0	0	257	864
8:15 AM		0	0	119	0	0	1	163	2	0	3	0	2	0	0	0	0	290	1,001
8:30 AM		0	0	112	3	0	1	141	2	0	1	0	1	0	1	0	0	262	1,058
8:45 AM		0	0	86	0	0	1	92	1	0	0	0	0	0	1	0	0	181	990
Count Total		0	2	704	7	0	6	956	7	0	17	1	7	0	4	0	4	1,715	0
Peak Hour	All	0	2	426	5	0	4	597	5	0	9	1	5	0	2	0	2	1,058	0
	HV	0	0	18	0	0	0	20	1	0	0	0	0	0	0	0	0	39	0
	HV%	-	0%	4%	0%	-	0%	3%	20%	-	0%	0%	0%	-	0%	-	0%	4%	0

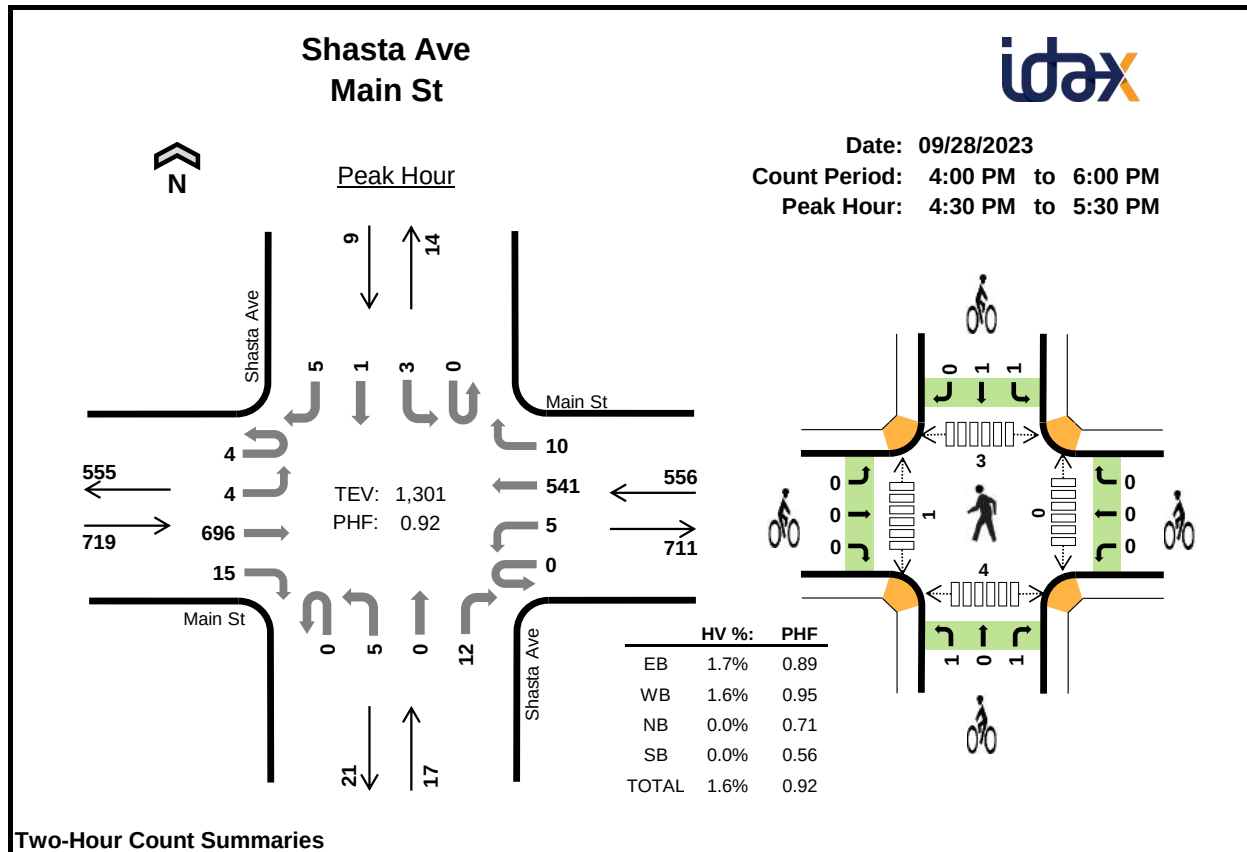
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	21	5	0	0	26	0	0	0	0	0	0	0	0	0	0
7:15 AM	8	17	0	0	25	0	0	0	0	0	0	0	1	0	1
7:30 AM	3	5	1	0	9	0	1	0	1	2	0	0	0	1	1
7:45 AM	4	3	0	0	7	0	2	0	0	2	0	1	1	2	4
8:00 AM	4	6	0	0	10	0	1	0	0	1	3	0	4	0	7
8:15 AM	3	8	0	0	11	0	0	0	0	0	0	0	1	0	1
8:30 AM	7	4	0	0	11	0	0	0	0	0	0	0	1	0	1
8:45 AM	12	6	0	0	18	0	0	0	0	0	0	0	1	0	1
Count Total	62	54	1	0	117	0	4	0	1	5	3	1	9	3	16
Peak Hour	18	21	0	0	39	0	3	0	0	3	3	1	7	2	13

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Shasta Ave				Shasta Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	20	1	0	1	4	0	0	0	0	0	0	0	0	0	26	0
7:15 AM	0	0	8	0	0	0	17	0	0	0	0	0	0	0	0	0	25	0
7:30 AM	0	0	3	0	0	0	5	0	0	0	0	1	0	0	0	0	9	0
7:45 AM	0	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	7	67
8:00 AM	0	0	4	0	0	0	6	0	0	0	0	0	0	0	0	0	10	51
8:15 AM	0	0	3	0	0	0	7	1	0	0	0	0	0	0	0	0	11	37
8:30 AM	0	0	7	0	0	0	4	0	0	0	0	0	0	0	0	0	11	39
8:45 AM	0	0	12	0	0	0	5	1	0	0	0	0	0	0	0	0	18	50
Count Total	0	0	61	1	0	1	51	2	0	0	0	1	0	0	0	0	117	0
Peak Hour	0	0	18	0	0	0	20	1	0	0	0	0	0	0	0	0	39	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			Shasta Ave			Shasta Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	1	0	0	0	0	1	0	0	2	0				
7:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2	4				
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	5				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
Count Total	0	0	0	0	4	0	0	0	0	1	0	0	5	0				
Peak Hour	0	0	0	0	3	0	0	0	0	0	0	0	3	0				

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Shasta Ave				Shasta Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	2	162	2	0	3	134	1	0	3	0	1	0	1	0	1	310	0
4:15 PM		1	0	165	5	0	2	126	1	0	1	0	0	0	0	0	0	301	0
4:30 PM		2	2	193	4	0	1	142	2	0	1	0	5	0	0	1	0	353	0
4:45 PM		1	0	170	4	0	1	125	2	0	0	0	3	0	0	0	1	307	1,271
5:00 PM		0	1	161	3	0	2	130	5	0	3	0	3	0	1	0	2	311	1,272
5:15 PM		1	1	172	4	0	1	144	1	0	1	0	1	0	2	0	2	330	1,301
5:30 PM		1	3	165	0	0	1	111	1	0	2	0	0	0	0	0	3	287	1,235
5:45 PM		2	4	143	6	0	4	108	3	0	1	0	0	0	1	0	1	273	1,201
Count Total		8	13	1,331	28	0	15	1,020	16	0	12	0	13	0	5	1	10	2,472	0
Peak Hour	All	4	4	696	15	0	5	541	10	0	5	0	12	0	3	1	5	1,301	0
	HV	0	0	11	1	0	0	8	1	0	0	0	0	0	0	0	0	21	0
	HV%	0%	0%	2%	7%	-	0%	1%	10%	-	0%	-	0%	-	0%	0%	0%	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	2	0	0	3	0	1	0	0	1	0	0	1	1	2
4:15 PM	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0
4:30 PM	2	3	0	0	5	0	0	1	0	1	0	1	2	1	4
4:45 PM	4	1	0	0	5	0	0	0	1	1	0	0	1	0	1
5:00 PM	4	3	0	0	7	0	0	0	0	0	0	0	0	2	2
5:15 PM	2	2	0	0	4	0	0	1	1	2	0	0	0	1	1
5:30 PM	4	2	0	0	6	0	0	0	1	1	0	1	1	0	2
5:45 PM	1	3	0	0	4	1	0	0	0	1	0	0	4	3	7
Count Total	19	20	0	0	39	1	1	2	3	7	0	2	9	8	19
Peak Hour	12	9	0	0	21	0	0	2	2	4	0	1	3	4	8

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Shasta Ave				Shasta Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0
4:15 PM	0	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	5	0
4:30 PM	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	5	0
4:45 PM	0	0	4	0	0	0	0	1	0	0	0	0	0	0	0	0	5	18
5:00 PM	0	0	3	1	0	0	3	0	0	0	0	0	0	0	0	0	7	22
5:15 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	21
5:30 PM	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	6	22
5:45 PM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	21
Count Total	0	0	18	1	0	0	19	1	0	0	0	0	0	0	0	0	39	0
Peak Hour	0	0	11	1	0	0	8	1	0	0	0	0	0	0	0	0	21	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			Shasta Ave			Shasta Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0				
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	3				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:15 PM	0	0	0	0	0	0	0	0	1	0	1	0	2	4				
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	4				
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	4				
Count Total	0	1	0	0	1	0	1	0	1	1	2	0	7	0				
Peak Hour	0	0	0	0	0	0	1	0	1	1	1	0	4	0				

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



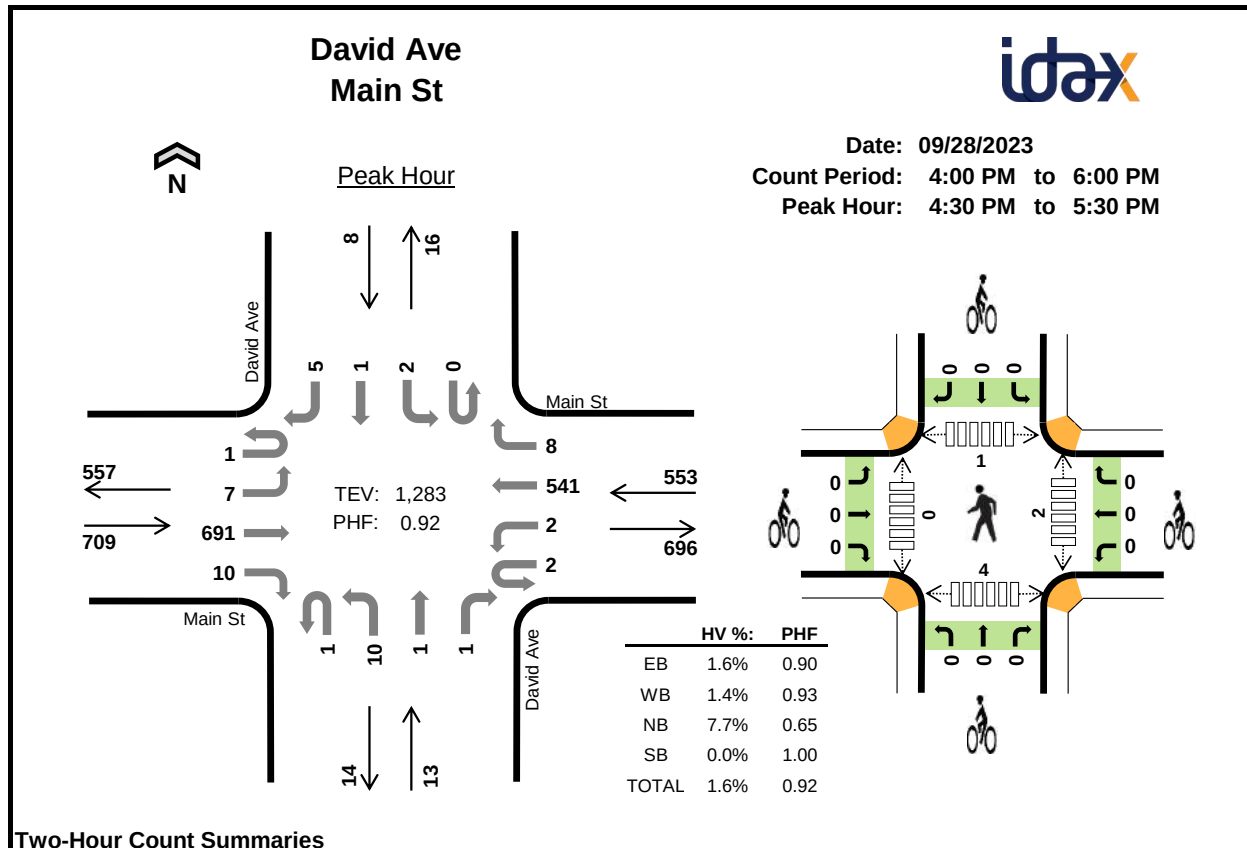
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	20	5	1	0	26	0	0	0	0	0	0	0	1	0	1
7:15 AM	8	17	0	0	25	0	0	0	0	0	0	0	1	0	1
7:30 AM	4	5	0	0	9	0	0	0	0	0	3	3	0	0	6
7:45 AM	4	3	0	0	7	0	2	0	0	2	0	1	0	2	3
8:00 AM	4	6	0	0	10	1	1	0	0	2	1	2	1	1	5
8:15 AM	3	8	0	0	11	0	0	0	0	0	0	0	0	0	0
8:30 AM	7	3	0	1	11	0	1	0	0	1	0	0	2	0	2
8:45 AM	11	6	0	0	17	0	0	0	0	0	0	0	2	0	2
Count Total	61	53	1	1	116	1	4	0	0	5	4	6	7	3	20
Peak Hour	18	20	0	1	39	1	4	0	0	5	1	3	3	3	10

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				David Ave				David Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	20	0	0	0	5	0	0	0	0	1	0	0	0	0	26	0
7:15 AM	0	0	8	0	0	0	17	0	0	0	0	0	0	0	0	0	25	0
7:30 AM	0	0	3	1	0	0	5	0	0	0	0	0	0	0	0	0	9	0
7:45 AM	0	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	7	67
8:00 AM	0	0	4	0	0	0	6	0	0	0	0	0	0	0	0	0	10	51
8:15 AM	0	0	3	0	0	0	8	0	0	0	0	0	0	0	0	0	11	37
8:30 AM	0	0	7	0	0	0	3	0	0	0	0	0	0	0	0	1	11	39
8:45 AM	0	0	11	0	0	0	6	0	0	0	0	0	0	0	0	0	17	49
Count Total	0	0	60	1	0	0	53	0	0	0	0	1	0	0	0	1	116	0
Peak Hour	0	0	18	0	0	0	20	0	0	0	0	0	0	0	0	1	39	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			David Ave			David Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2	2				
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	2	4				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4				
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	5				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
Count Total	0	1	0	0	4	0	0	0	0	0	0	0	5	0				
Peak Hour	0	1	0	0	4	0	0	0	0	0	0	0	5	0				

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				David Ave				David Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	164	1	0	0	135	3	0	2	0	0	0	2	0	1	308	0
4:15 PM		1	2	157	5	0	0	126	3	0	2	0	0	0	2	0	1	299	0
4:30 PM		1	3	192	2	2	1	142	3	0	1	0	0	0	0	0	2	349	0
4:45 PM		0	2	167	3	0	1	123	1	0	2	0	1	0	0	1	1	302	1,258
5:00 PM		0	1	160	2	0	0	134	2	0	4	0	0	0	1	0	1	305	1,255
5:15 PM		0	1	172	3	0	0	142	2	1	3	1	0	0	1	0	1	327	1,283
5:30 PM		1	1	163	1	0	0	110	1	0	0	0	3	0	1	0	0	281	1,215
5:45 PM		0	3	137	1	1	2	111	4	0	3	1	2	0	0	0	1	266	1,179
Count Total		3	13	1,312	18	3	4	1,023	19	1	17	2	6	0	7	1	8	2,437	0
Peak Hour	All	1	7	691	10	2	2	541	8	1	10	1	1	0	2	1	5	1,283	0
	HV	0	0	11	0	0	0	8	0	0	0	1	0	0	0	0	0	20	0
	HV%	0%	0%	2%	0%	0%	0%	1%	0%	0%	0%	100%	0%	-	0%	0%	0%	2%	0

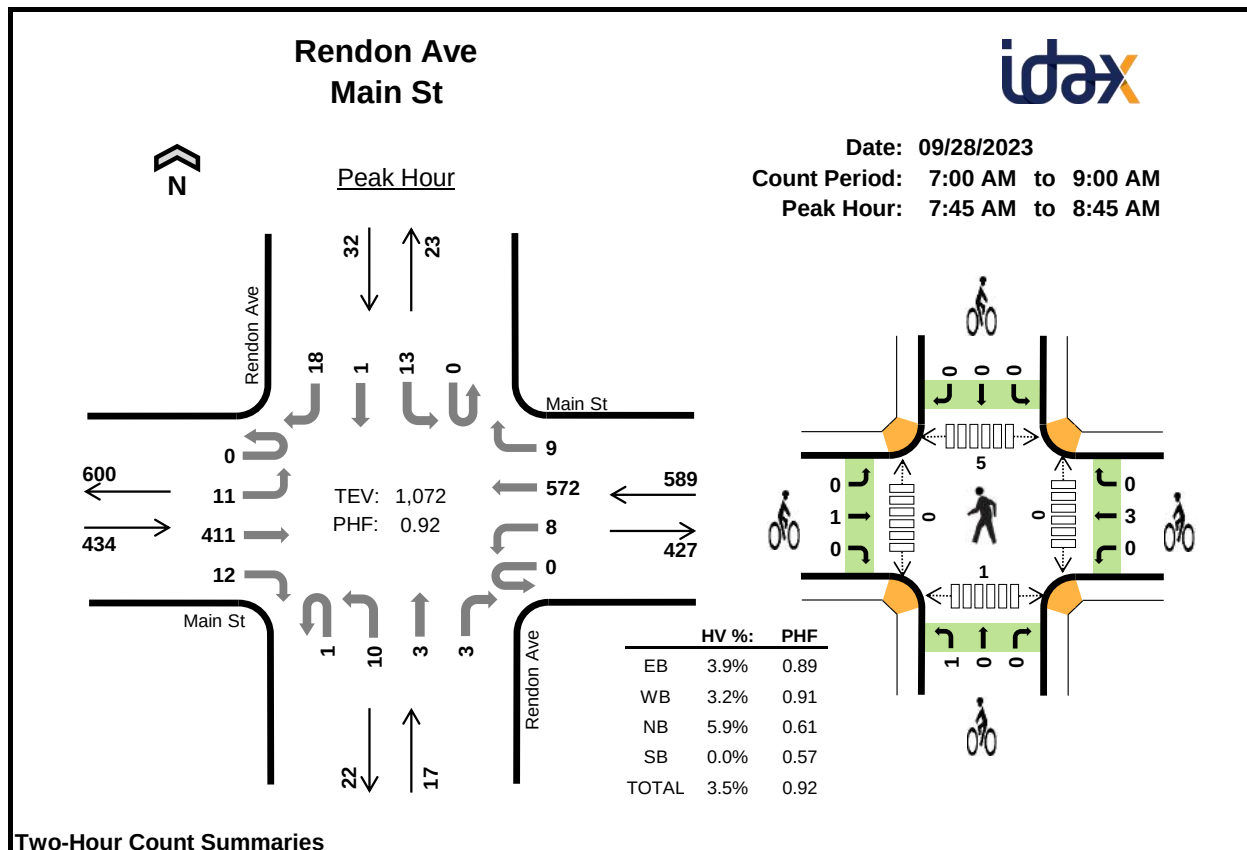
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	2	0	0	4	1	0	0	0	1	2	0	2	0	4
4:15 PM	2	4	0	0	6	0	0	0	0	0	0	0	0	0	0
4:30 PM	2	4	0	0	6	0	0	0	0	0	2	0	0	1	3
4:45 PM	4	0	0	0	4	0	0	0	0	0	0	0	1	0	1
5:00 PM	3	2	0	0	5	0	0	0	0	0	0	0	0	2	2
5:15 PM	2	2	1	0	5	0	0	0	0	0	0	0	0	1	1
5:30 PM	4	2	0	0	6	0	0	0	0	0	1	0	1	1	3
5:45 PM	2	2	0	0	4	1	0	0	1	2	2	0	5	0	7
Count Total	21	18	1	0	40	2	0	0	1	3	7	0	9	5	21
Peak Hour	11	8	1	0	20	0	0	0	0	0	2	0	1	4	7

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				David Ave				David Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	0
4:15 PM	0	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	6	0
4:30 PM	0	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	6	0
4:45 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	20
5:00 PM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	5	21
5:15 PM	0	0	2	0	0	0	2	0	0	0	1	0	0	0	0	0	5	20
5:30 PM	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	6	20
5:45 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	4	20
Count Total	0	1	20	0	0	0	18	0	0	0	1	0	0	0	0	0	40	0
Peak Hour	0	0	11	0	0	0	8	0	0	0	1	0	0	0	0	0	20	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			David Ave			David Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	2	2				
Count Total	0	2	0	0	0	0	0	0	0	1	0	0	3	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Rendon Ave				Rendon Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	3	54	1	0	0	55	0	0	1	0	0	0	2	0	2	118	0
7:15 AM		0	0	58	0	0	1	90	0	0	3	0	1	0	1	0	3	157	0
7:30 AM		0	0	84	0	0	1	98	2	0	4	1	0	0	1	1	5	197	0
7:45 AM		0	10	82	2	0	1	135	2	0	4	2	1	0	7	0	7	253	725
8:00 AM		0	1	101	1	0	2	142	3	1	3	0	0	0	3	0	9	266	873
8:15 AM		0	0	120	2	0	3	157	2	0	2	0	1	0	3	0	2	292	1,008
8:30 AM		0	0	108	7	0	2	138	2	0	1	1	1	0	0	1	0	261	1,072
8:45 AM		0	0	81	3	0	0	94	1	0	1	1	1	0	0	0	0	182	1,001
Count Total		0	14	688	16	0	10	909	12	1	19	5	5	0	17	2	28	1,726	0
Peak Hour	All	0	11	411	12	0	8	572	9	1	10	3	3	0	13	1	18	1,072	0
	HV	0	0	15	2	0	0	18	1	0	0	0	1	0	0	0	0	37	0
	HV%	-	0%	4%	17%	-	0%	3%	11%	0%	0%	0%	33%	-	0%	0%	0%	3%	0

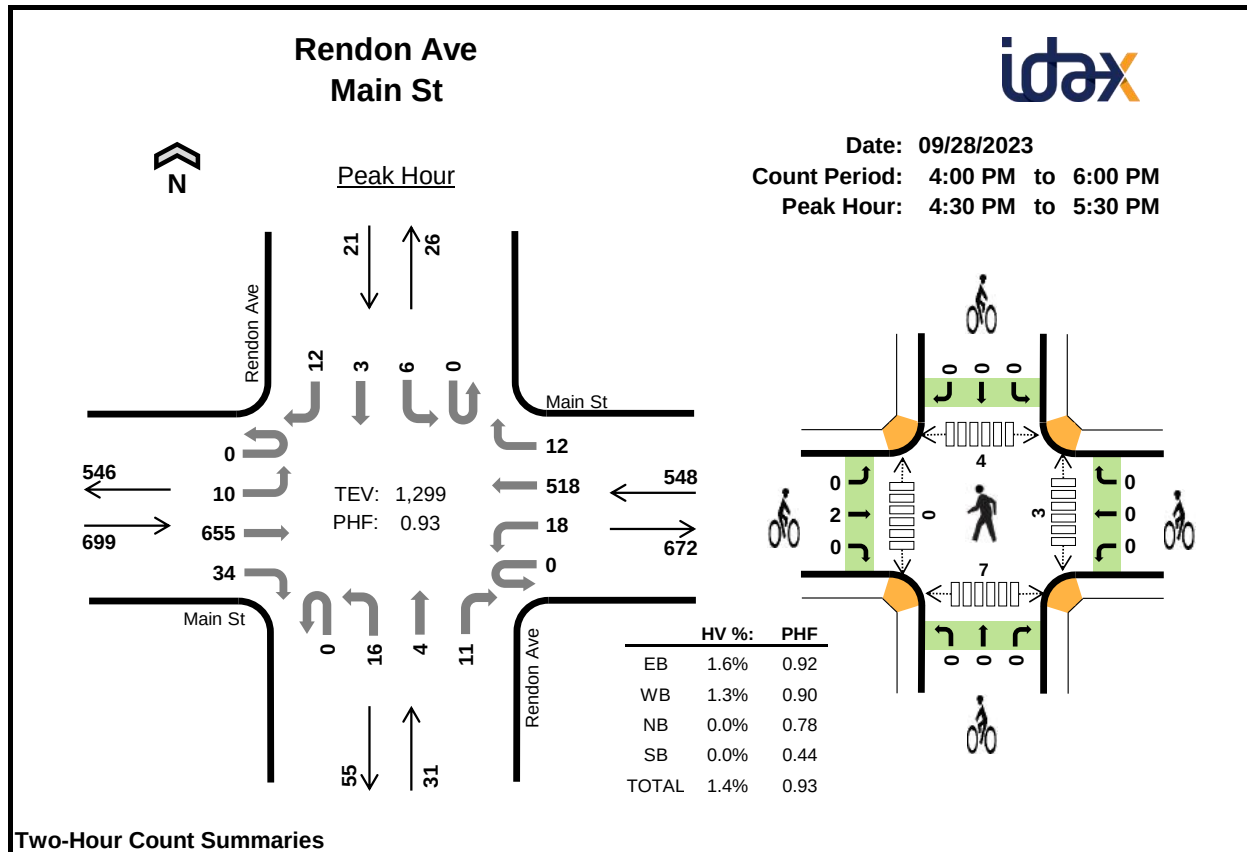
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	21	5	0	0	26	0	0	0	0	0	0	1	0	1	2
7:15 AM	8	15	0	2	25	0	0	0	0	0	0	0	1	0	1
7:30 AM	3	4	1	0	8	0	0	0	0	0	0	0	0	0	0
7:45 AM	3	2	1	0	6	0	2	1	0	3	0	0	0	0	0
8:00 AM	4	7	0	0	11	0	1	0	0	1	0	0	2	1	3
8:15 AM	3	7	0	0	10	1	0	0	0	1	0	0	1	0	1
8:30 AM	7	3	0	0	10	0	0	0	0	0	0	0	2	0	2
8:45 AM	10	6	0	0	16	0	0	0	0	0	0	0	2	0	2
Count Total	59	49	2	2	112	1	3	1	0	5	0	1	8	2	11
Peak Hour	17	19	1	0	37	1	3	1	0	5	0	0	5	1	6

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Rendon Ave				Rendon Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	20	1	0	0	5	0	0	0	0	0	0	0	0	0	26	0
7:15 AM	0	0	8	0	0	0	15	0	0	0	0	0	0	0	0	2	25	0
7:30 AM	0	0	3	0	0	0	4	0	0	1	0	0	0	0	0	0	8	0
7:45 AM	0	0	2	1	0	0	2	0	0	0	0	1	0	0	0	0	6	65
8:00 AM	0	0	4	0	0	0	6	1	0	0	0	0	0	0	0	0	11	50
8:15 AM	0	0	3	0	0	0	7	0	0	0	0	0	0	0	0	0	10	35
8:30 AM	0	0	6	1	0	0	3	0	0	0	0	0	0	0	0	0	10	37
8:45 AM	0	0	10	0	0	0	6	0	0	0	0	0	0	0	0	0	16	47
Count Total	0	0	56	3	0	0	48	1	0	1	0	1	0	0	0	2	112	0
Peak Hour	0	0	15	2	0	0	18	1	0	0	0	1	0	0	0	0	37	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			Rendon Ave			Rendon Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	2	0	1	0	0	0	0	0	3	3				
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	4				
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	5				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
Count Total	0	1	0	0	3	0	1	0	0	0	0	0	5	0				
Peak Hour	0	1	0	0	3	0	1	0	0	0	0	0	5	0				

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



Two-Hour Count Summaries

Interval Start		Main St				Main St				Rendon Ave				Rendon Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	2	154	6	0	1	133	6	0	3	0	1	0	1	0	3	310	0
4:15 PM		0	2	148	8	0	6	122	2	0	5	0	2	0	0	0	1	296	0
4:30 PM		0	1	179	9	0	10	141	2	0	2	2	0	0	0	0	3	349	0
4:45 PM		0	4	157	9	0	5	118	4	0	6	1	3	0	0	1	0	308	1,263
5:00 PM		0	2	155	8	0	2	130	2	0	2	1	4	0	2	0	3	311	1,264
5:15 PM		0	3	164	8	0	1	129	4	0	6	0	4	0	4	2	6	331	1,299
5:30 PM		0	1	156	8	0	8	109	2	0	2	1	3	0	3	0	1	294	1,244
5:45 PM		0	2	133	4	0	2	117	1	0	5	0	2	0	2	1	0	269	1,205
Count Total		0	17	1,246	60	0	35	999	23	0	31	5	19	0	12	4	17	2,468	0
Peak Hour	All	0	10	655	34	0	18	518	12	0	16	4	11	0	6	3	12	1,299	0
	HV	0	0	11	0	0	0	7	0	0	0	0	0	0	0	0	0	18	0
	HV%	-	0%	2%	0%	-	0%	1%	0%	-	0%	0%	0%	-	0%	0%	0%	1%	0

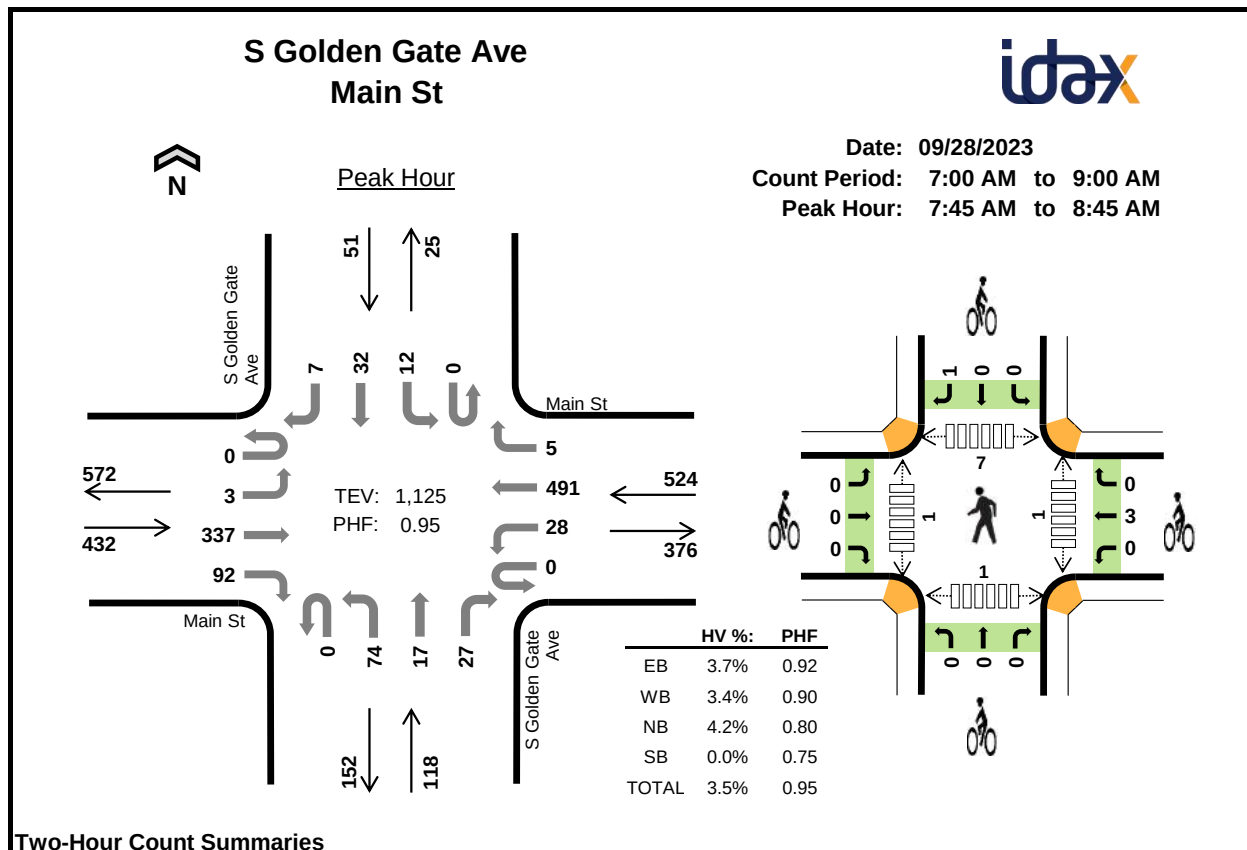
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	2	0	0	3	1	0	0	0	1	0	0	2	2	4
4:15 PM	1	4	0	0	5	0	0	0	0	0	5	0	4	0	9
4:30 PM	2	3	0	0	5	1	0	0	0	1	0	0	2	0	2
4:45 PM	4	0	0	0	4	0	0	0	0	0	0	0	1	0	1
5:00 PM	3	2	0	0	5	0	0	0	0	0	1	0	1	4	6
5:15 PM	2	2	0	0	4	1	0	0	0	1	2	0	0	3	5
5:30 PM	3	2	0	0	5	0	0	0	0	0	0	0	0	1	1
5:45 PM	2	2	0	0	4	4	0	0	0	4	1	0	1	1	3
Count Total	18	17	0	0	35	7	0	0	0	7	9	0	11	11	31
Peak Hour	11	7	0	0	18	2	0	0	0	2	3	0	4	7	14

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Rendon Ave				Rendon Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0
4:15 PM	0	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	5	0
4:30 PM	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	5	0
4:45 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	17
5:00 PM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	5	19
5:15 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	18
5:30 PM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	5	18
5:45 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	18
Count Total	0	0	18	0	0	0	17	0	0	0	0	0	0	0	0	0	35	0
Peak Hour	0	0	11	0	0	0	7	0	0	0	0	0	0	0	0	0	18	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			Rendon Ave			Rendon Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	2				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:45 PM	1	2	1	0	0	0	0	0	0	0	0	0	4	5				
Count Total	1	5	1	0	0	0	0	0	0	0	0	0	7	0				
Peak Hour	0	2	0	0	0	0	0	0	0	0	0	0	2	0				

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				S Golden Gate Ave				S Golden Gate Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	49	8	0	4	40	1	0	10	1	1	0	0	2	3	119	0
7:15 AM		0	1	47	17	0	2	77	2	0	13	7	6	0	0	0	1	173	0
7:30 AM		0	1	68	10	0	4	97	3	0	18	10	3	0	2	12	0	228	0
7:45 AM		0	0	72	21	0	5	110	2	0	19	9	4	0	5	8	1	256	776
8:00 AM		0	2	92	16	0	6	140	0	0	13	4	7	0	3	12	2	297	954
8:15 AM		0	0	91	26	0	5	119	1	0	28	2	7	0	2	5	3	289	1,070
8:30 AM		0	1	82	29	0	12	122	2	0	14	2	9	0	2	7	1	283	1,125
8:45 AM		0	1	52	19	0	5	77	0	0	19	3	2	0	2	3	1	184	1,053
Count Total		0	6	553	146	0	43	782	11	0	134	38	39	0	16	49	12	1,829	0
Peak Hour	All	0	3	337	92	0	28	491	5	0	74	17	27	0	12	32	7	1,125	0
	HV	0	0	14	2	0	1	17	0	0	4	1	0	0	0	0	0	39	0
	HV%	-	0%	4%	2%	-	4%	3%	0%	-	5%	6%	0%	-	0%	0%	0%	3%	0

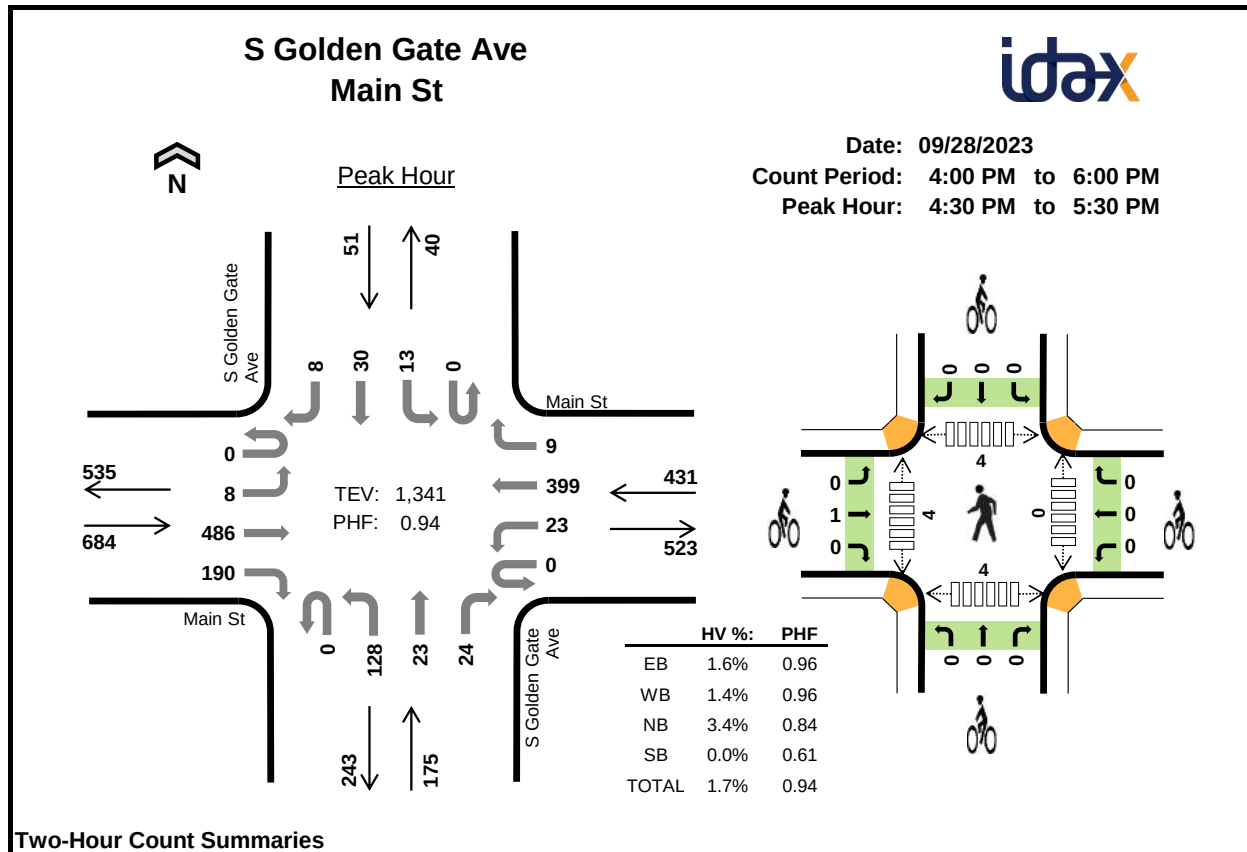
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	20	6	2	1	29	0	0	0	0	0	0	0	0	0	0
7:15 AM	8	12	4	0	24	0	0	0	0	0	0	0	2	0	2
7:30 AM	4	5	1	0	10	0	0	0	0	0	0	0	0	0	0
7:45 AM	3	4	1	0	8	0	2	0	0	2	1	0	1	0	2
8:00 AM	4	3	2	0	9	0	0	0	1	1	0	1	3	0	4
8:15 AM	4	6	2	0	12	0	0	0	0	0	0	0	3	1	4
8:30 AM	5	5	0	0	10	0	1	0	0	1	0	0	0	0	0
8:45 AM	10	7	2	1	20	0	0	0	0	0	0	1	0	1	2
Count Total	58	48	14	2	122	0	3	0	1	4	1	2	9	2	14
Peak Hour	16	18	5	0	39	0	3	0	1	4	1	1	7	1	10

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	Main St				Main St				S Golden Gate Ave				S Golden Gate Ave				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	18	2	0	1	4	1	0	2	0	0	0	0	0	0	1	29	0
7:15 AM	0	0	5	3	0	0	11	1	0	2	0	2	0	0	0	0	0	24	0
7:30 AM	0	0	4	0	0	0	5	0	0	1	0	0	0	0	0	0	0	10	0
7:45 AM	0	0	3	0	0	1	3	0	0	1	0	0	0	0	0	0	0	8	71
8:00 AM	0	0	3	1	0	0	3	0	0	1	1	0	0	0	0	0	0	9	51
8:15 AM	0	0	4	0	0	0	6	0	0	2	0	0	0	0	0	0	0	12	39
8:30 AM	0	0	4	1	0	0	5	0	0	0	0	0	0	0	0	0	0	10	39
8:45 AM	0	1	9	0	0	2	5	0	0	1	1	0	0	0	1	0	0	20	51
Count Total	0	1	50	7	0	4	42	2	0	10	2	2	0	0	1	1	0	122	0
Peak Hour	0	0	14	2	0	1	17	0	0	4	1	0	0	0	0	0	0	39	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			S Golden Gate Ave			S Golden Gate Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	2	2			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
Count Total	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0			
Peak Hour	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0			

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



Two-Hour Count Summaries

Interval Start		Main St				Main St				S Golden Gate Ave				S Golden Gate Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	4	124	32	0	8	115	1	0	31	9	5	0	3	5	1	338	0
4:15 PM		0	2	119	34	0	10	97	0	0	29	5	6	0	2	7	2	313	0
4:30 PM		0	5	130	43	0	7	104	1	0	38	7	7	0	1	7	5	355	0
4:45 PM		0	3	116	49	0	5	96	3	0	31	5	6	0	2	6	0	322	1,328
5:00 PM		0	0	120	50	0	5	95	5	0	33	3	5	0	3	5	1	325	1,315
5:15 PM		0	0	120	48	0	6	104	0	0	26	8	6	0	7	12	2	339	1,341
5:30 PM		0	2	121	46	0	0	90	4	0	23	6	7	0	2	4	3	308	1,294
5:45 PM		0	3	106	34	0	3	88	0	0	27	8	5	0	2	4	3	283	1,255
Count Total		0	19	956	336	0	44	789	14	0	238	51	47	0	22	50	17	2,583	0
Peak Hour	All	0	8	486	190	0	23	399	9	0	128	23	24	0	13	30	8	1,341	0
	HV	0	0	9	2	0	1	5	0	0	4	0	2	0	0	0	0	23	0
	HV%	-	0%	2%	1%	-	4%	1%	0%	-	3%	0%	8%	-	0%	0%	0%	2%	0

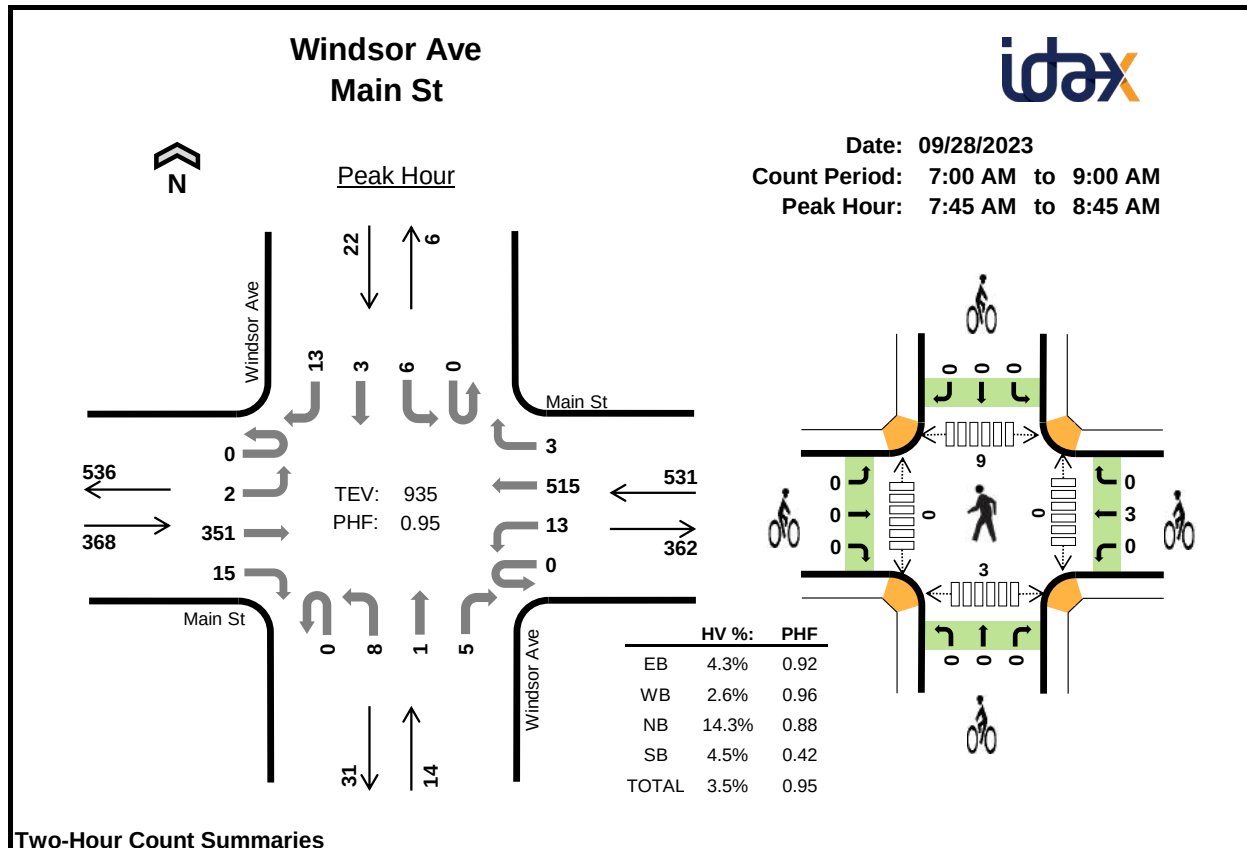
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	2	1	0	4	0	1	0	0	1	0	1	3	0	4
4:15 PM	2	1	4	0	7	0	0	0	0	0	0	2	1	1	4
4:30 PM	2	3	2	0	7	1	0	0	0	1	0	0	2	0	2
4:45 PM	4	0	1	0	5	0	0	0	0	0	0	0	2	3	5
5:00 PM	4	3	1	0	8	0	0	0	0	0	0	4	0	1	5
5:15 PM	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0
5:30 PM	4	2	1	0	7	0	0	2	0	2	2	0	5	0	7
5:45 PM	3	2	0	0	5	1	0	0	0	1	0	0	1	3	4
Count Total	21	13	12	0	46	2	1	2	0	5	2	7	14	8	31
Peak Hour	11	6	6	0	23	1	0	0	0	1	0	4	4	4	12

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				S Golden Gate Ave				S Golden Gate Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	2	0	0	0	0	1	0	0	0	0	4	0
4:15 PM	0	0	1	1	0	0	1	0	0	4	0	0	0	0	0	0	7	0
4:30 PM	0	0	2	0	0	1	2	0	0	1	0	1	0	0	0	0	7	0
4:45 PM	0	0	3	1	0	0	0	0	0	0	0	1	0	0	0	0	5	23
5:00 PM	0	0	3	1	0	0	3	0	0	1	0	0	0	0	0	0	8	27
5:15 PM	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3	23
5:30 PM	0	0	3	1	0	0	2	0	0	0	0	1	0	0	0	0	7	23
5:45 PM	0	0	2	1	0	0	2	0	0	0	0	0	0	0	0	0	5	23
Count Total	0	0	16	5	0	1	12	0	0	8	0	4	0	0	0	0	46	0
Peak Hour	0	0	9	2	0	1	5	0	0	4	0	2	0	0	0	0	23	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			S Golden Gate Ave			S Golden Gate Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:30 PM	0	0	0	0	0	0	0	1	1	0	0	0	2	2				
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	3				
Count Total	0	1	1	0	1	0	0	1	1	0	0	0	5	0				
Peak Hour	0	1	0	0	0	0	0	0	0	0	0	0	1	0				

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				Windsor Ave				Windsor Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	1	39	4	0	0	47	0	0	1	0	0	0	0	0	1	93	0
7:15 AM		0	10	47	0	0	0	74	1	0	4	1	1	0	0	0	1	139	0
7:30 AM		0	5	61	2	0	1	94	1	0	0	1	0	0	1	1	1	168	0
7:45 AM		0	1	72	3	0	4	120	1	0	0	1	1	0	0	0	1	204	604
8:00 AM		0	0	96	4	0	1	136	1	0	1	0	3	0	1	1	1	245	756
8:15 AM		0	0	92	4	0	4	133	1	0	4	0	0	0	2	1	2	243	860
8:30 AM		0	1	91	4	0	4	126	0	0	3	0	1	0	3	1	9	243	935
8:45 AM		0	4	59	2	0	2	74	0	0	3	0	0	0	2	1	3	150	881
Count Total		0	22	557	23	0	16	804	5	0	16	3	6	0	9	5	19	1,485	0
Peak Hour	All	0	2	351	15	0	13	515	3	0	8	1	5	0	6	3	13	935	0
	HV	0	0	14	2	0	1	12	1	0	0	0	2	0	0	0	1	33	0
	HV%	-	0%	4%	13%	-	8%	2%	33%	-	0%	0%	40%	-	0%	0%	8%	4%	0

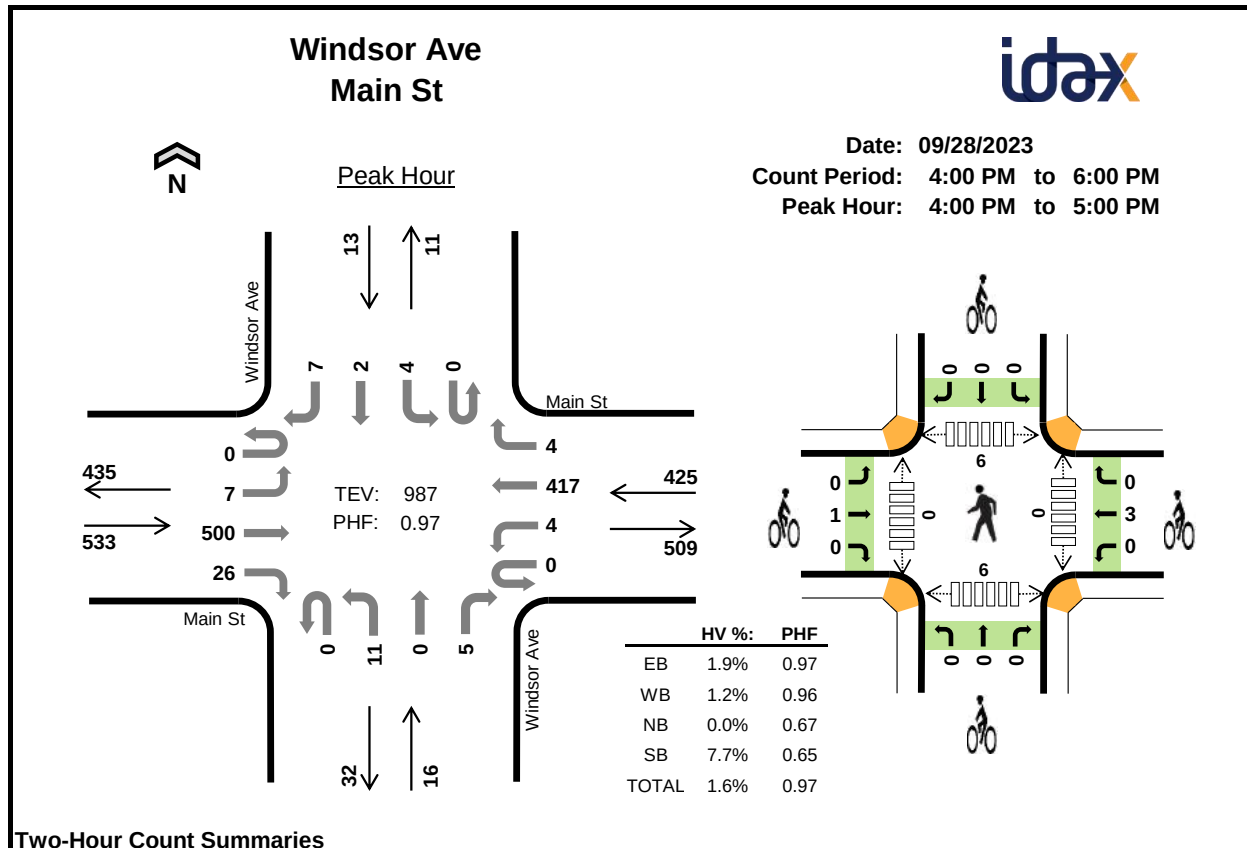
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	16	4	0	0	20	0	0	0	0	0	0	0	0	0	0
7:15 AM	8	14	0	0	22	0	0	0	0	0	0	0	0	0	0
7:30 AM	2	3	0	0	5	0	0	0	0	0	0	0	0	0	0
7:45 AM	2	3	1	0	6	0	2	0	0	2	0	0	0	1	1
8:00 AM	4	3	0	1	8	0	0	0	0	0	0	0	1	0	1
8:15 AM	5	5	0	0	10	0	0	0	0	0	0	0	7	2	9
8:30 AM	5	3	1	0	9	0	1	0	0	1	0	0	1	0	1
8:45 AM	9	7	0	0	16	0	0	0	0	0	1	0	0	0	1
Count Total	51	42	2	1	96	0	3	0	0	3	1	0	9	3	13
Peak Hour	16	14	2	1	33	0	3	0	0	3	0	0	9	3	12

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Windsor Ave				Windsor Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	13	3	0	0	4	0	0	0	0	0	0	0	0	0	20	0
7:15 AM	0	0	8	0	0	0	14	0	0	0	0	0	0	0	0	0	22	0
7:30 AM	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	5	0
7:45 AM	0	0	1	1	0	0	2	1	0	0	0	1	0	0	0	0	6	53
8:00 AM	0	0	3	1	0	0	3	0	0	0	0	0	0	0	0	1	8	41
8:15 AM	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	10	29
8:30 AM	0	0	5	0	0	1	2	0	0	0	0	1	0	0	0	0	9	33
8:45 AM	0	0	9	0	0	0	7	0	0	0	0	0	0	0	0	0	16	43
Count Total	0	0	46	5	0	1	40	1	0	0	0	2	0	0	0	1	96	0
Peak Hour	0	0	14	2	0	1	12	1	0	0	0	2	0	0	0	1	33	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			Windsor Ave			Windsor Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2	2				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	3				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
Count Total	0	0	0	0	3	0	0	0	0	0	0	0	3	0				
Peak Hour	0	0	0	0	3	0	0	0	0	0	0	0	3	0				

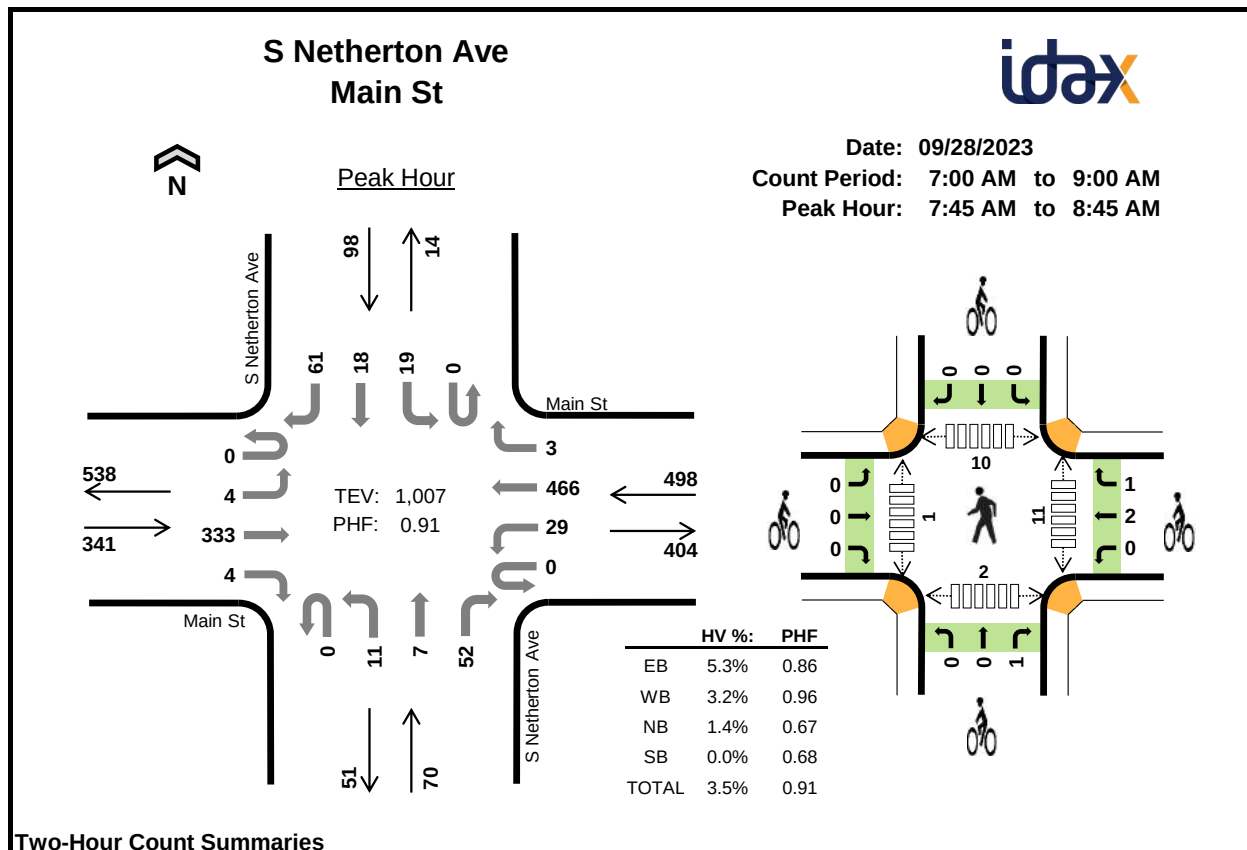
Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				Windsor Ave				Windsor Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	5	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	1	1	0	0	0	3	0	0	0	0	0	0	0	0	1	6	0
4:45 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	16
5:00 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	4	15
5:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	16
5:30 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	13
5:45 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	1	5	14
Count Total	0	3	16	0	0	0	9	0	0	0	0	0	0	0	0	2	30	0
Peak Hour	0	2	8	0	0	0	5	0	0	0	0	0	0	0	0	1	16	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			Windsor Ave			Windsor Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
4:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2	4				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Count Total	0	1	0	0	3	0	0	0	0	0	0	0	4	0				
Peak Hour	0	1	0	0	3	0	0	0	0	0	0	0	4	0				

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



Interval Start		Main St				Main St				S Netherton Ave				S Netherton Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	38	0	0	2	44	1	0	2	1	0	0	0	0	1	89	0
7:15 AM		0	2	47	0	0	1	66	0	0	6	0	0	0	1	0	1	124	0
7:30 AM		0	1	61	1	0	2	95	0	0	0	0	1	0	1	1	5	168	0
7:45 AM		0	0	69	0	0	7	122	1	0	1	2	9	0	5	0	3	219	600
8:00 AM		0	2	95	2	0	5	118	0	0	4	1	14	0	3	1	16	261	772
8:15 AM		0	1	90	1	0	6	116	1	0	1	2	23	0	5	9	22	277	925
8:30 AM		0	1	79	1	0	11	110	1	0	5	2	6	0	6	8	20	250	1,007
8:45 AM		0	2	63	2	0	6	65	1	0	2	0	12	0	3	2	13	171	959
Count Total		0	9	542	7	0	40	736	5	0	21	8	65	0	24	21	81	1,559	0
Peak Hour	All	0	4	333	4	0	29	466	3	0	11	7	52	0	19	18	61	1,007	0
	HV	0	1	17	0	0	0	16	0	0	0	0	1	0	0	0	0	35	0
	HV%	-	25%	5%	0%	-	0%	3%	0%	-	0%	0%	2%	-	0%	0%	0%	3%	0

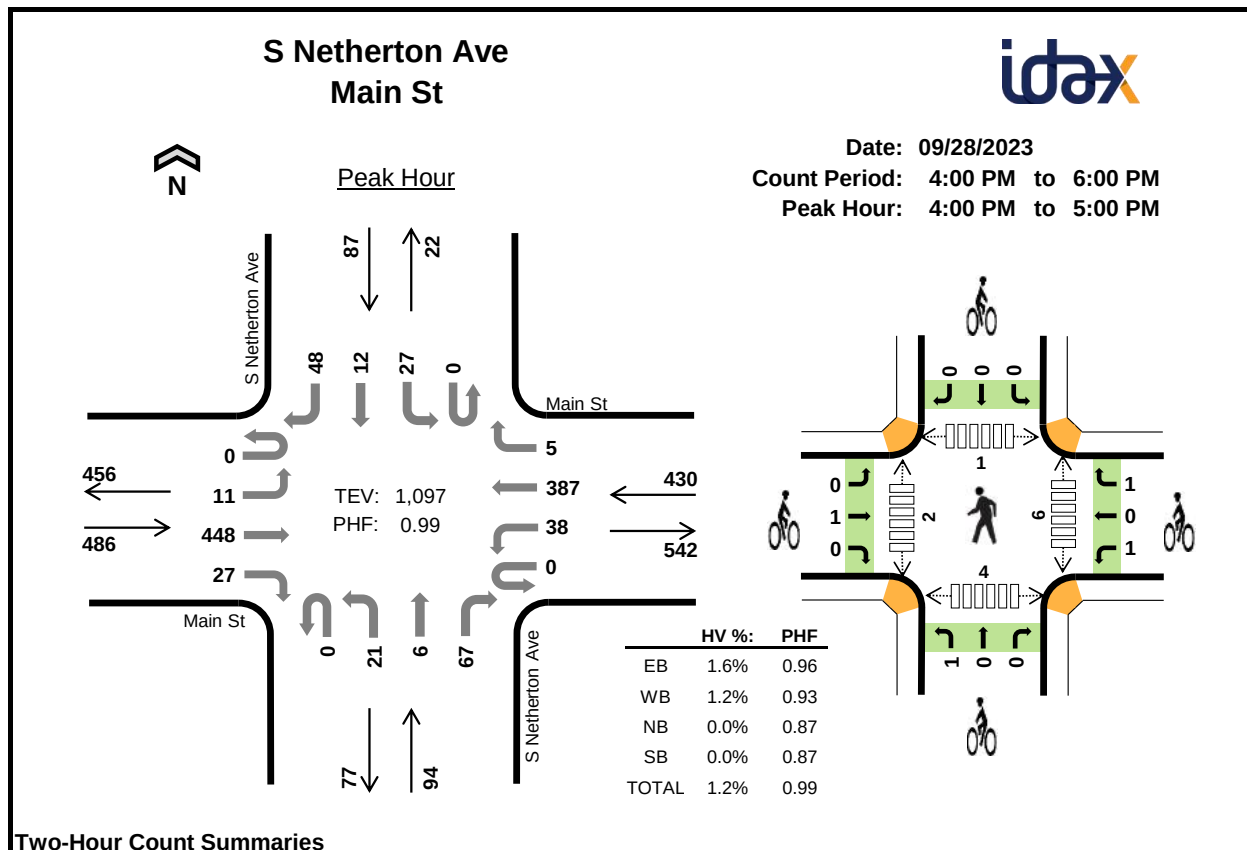
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	13	2	2	0	17	0	0	0	0	0	0	0	0	0	0
7:15 AM	8	13	1	0	22	0	0	0	0	0	0	0	0	0	0
7:30 AM	2	3	0	0	5	0	0	0	0	0	0	0	0	0	0
7:45 AM	2	4	0	0	6	0	2	0	0	2	0	0	0	1	1
8:00 AM	3	3	0	0	6	0	0	0	0	0	2	1	3	1	7
8:15 AM	6	6	0	0	12	0	0	0	0	0	8	0	7	0	15
8:30 AM	7	3	1	0	11	0	1	1	0	2	1	0	0	0	1
8:45 AM	11	7	1	0	19	0	0	0	0	0	0	0	0	0	0
Count Total	52	41	5	0	98	0	3	1	0	4	11	1	10	2	24
Peak Hour	18	16	1	0	35	0	3	1	0	4	11	1	10	2	24

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	Main St				Main St				S Netherton Ave				S Netherton Ave				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	13	0	0	0	2	0	0	2	0	0	0	0	0	0	0	17	0
7:15 AM	0	2	6	0	0	0	13	0	0	1	0	0	0	0	0	0	0	22	0
7:30 AM	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	5	0
7:45 AM	0	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	0	6	50
8:00 AM	0	1	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6	39
8:15 AM	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	12	29
8:30 AM	0	0	7	0	0	0	3	0	0	0	0	1	0	0	0	0	0	11	35
8:45 AM	0	0	11	0	0	0	7	0	0	0	0	1	0	0	0	0	0	19	48
Count Total	0	3	49	0	0	0	41	0	0	3	0	2	0	0	0	0	0	98	0
Peak Hour	0	1	17	0	0	0	16	0	0	0	0	1	0	0	0	0	0	35	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			S Netherton Ave			S Netherton Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	2		
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
8:30 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	4		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
Count Total	0	0	0	0	2	1	0	0	1	0	0	0	0	0	4	0		
Peak Hour	0	0	0	0	2	1	0	0	1	0	0	0	0	0	4	0		

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				S Netherton Ave				S Netherton Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	4	108	6	0	12	101	2	0	6	3	14	0	4	1	12	273	0
4:15 PM		0	3	117	6	0	10	90	1	0	6	1	16	0	6	2	13	271	0
4:30 PM		0	1	116	9	0	6	99	2	0	3	0	18	0	5	7	12	278	0
4:45 PM		0	3	107	6	0	10	97	0	0	6	2	19	0	12	2	11	275	1,097
5:00 PM		0	2	93	7	0	11	96	3	0	5	1	23	0	3	2	3	249	1,073
5:15 PM		0	1	121	4	0	9	91	0	0	9	3	10	0	2	2	4	256	1,058
5:30 PM		0	1	109	1	0	12	88	0	0	9	1	20	0	1	1	0	243	1,023
5:45 PM		0	0	99	6	0	6	80	0	0	4	1	17	0	0	2	3	218	966
Count Total		0	15	870	45	0	76	742	8	0	48	12	137	0	33	19	58	2,063	0
Peak Hour	All	0	11	448	27	0	38	387	5	0	21	6	67	0	27	12	48	1,097	0
	HV	0	0	8	0	0	0	5	0	0	0	0	0	0	0	0	0	13	0
	HV%	-	0%	2%	0%	-	0%	1%	0%	-	0%	0%	0%	-	0%	0%	0%	1%	0

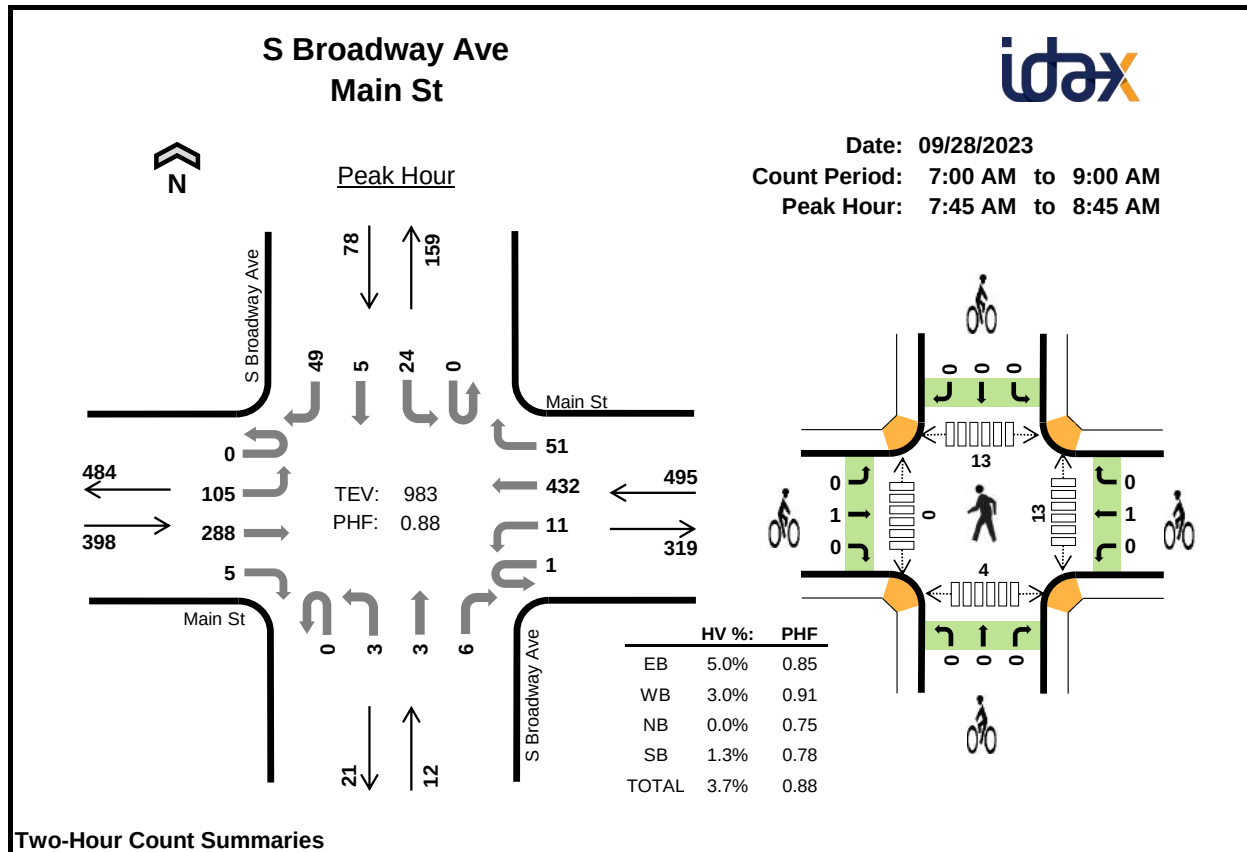
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	2	0	0	3	0	1	0	0	1	0	0	0	0	0
4:15 PM	2	0	0	0	2	0	0	0	0	0	1	0	0	0	1
4:30 PM	1	3	0	0	4	1	1	0	0	2	5	0	0	2	7
4:45 PM	4	0	0	0	4	0	0	1	0	1	0	2	1	2	5
5:00 PM	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0
5:15 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
5:30 PM	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0
5:45 PM	2	1	0	0	3	0	0	0	0	0	0	0	1	0	1
Count Total	15	10	0	0	25	1	2	1	0	4	6	2	2	4	14
Peak Hour	8	5	0	0	13	1	2	1	0	4	6	2	1	4	13

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				S Netherton Ave				S Netherton Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0
4:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
4:30 PM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	0
4:45 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	13
5:00 PM	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	3	13
5:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	13
5:30 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	4	13
5:45 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	12
Count Total	0	1	13	1	0	0	10	0	0	0	0	0	0	0	0	0	25	0
Peak Hour	0	0	8	0	0	0	5	0	0	0	0	0	0	0	0	0	13	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			S Netherton Ave			S Netherton Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	2	0				
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	4				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Count Total	0	1	0	1	0	1	1	0	0	0	0	0	4	0				
Peak Hour	0	1	0	1	0	1	1	0	0	0	0	0	4	0				

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

**Two-Hour Count Summaries**

Interval Start		Main St				Main St				S Broadway Ave				S Broadway Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		1	1	38	0	0	0	43	0	0	1	0	0	0	0	0	0	84	0
7:15 AM		0	0	40	0	1	1	61	5	0	2	0	2	0	0	0	1	113	0
7:30 AM		0	3	61	0	0	0	95	5	0	1	0	0	0	1	0	1	167	0
7:45 AM		0	8	66	3	1	2	113	8	0	1	0	1	0	6	0	8	217	581
8:00 AM		0	36	77	0	0	4	112	20	0	2	1	1	0	9	0	16	278	775
8:15 AM		0	43	73	1	0	2	105	14	0	0	2	1	0	4	4	10	259	921
8:30 AM		0	18	72	1	0	3	102	9	0	0	0	3	0	5	1	15	229	983
8:45 AM		0	4	59	3	0	2	55	1	0	0	0	0	1	3	0	7	135	901
Count Total		1	113	486	8	2	14	686	62	0	7	3	8	1	28	5	58	1,482	0
Peak Hour	All	0	105	288	5	1	11	432	51	0	3	3	6	0	24	5	49	983	0
	HV	0	2	17	1	0	1	14	0	0	0	0	0	0	1	0	0	36	0
	HV%	-	2%	6%	20%	0%	9%	3%	0%	-	0%	0%	0%	-	4%	0%	0%	4%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	15	4	0	0	19	0	0	0	0	0	0	0	0	1	1
7:15 AM	5	10	1	0	16	0	0	0	0	0	0	0	0	1	1
7:30 AM	1	5	0	0	6	0	0	0	0	0	0	0	0	0	0
7:45 AM	3	1	0	0	4	0	1	0	0	1	0	0	1	0	1
8:00 AM	2	4	0	1	7	0	0	0	0	0	3	0	3	1	7
8:15 AM	6	4	0	0	10	1	0	0	0	1	10	0	8	2	20
8:30 AM	9	6	0	0	15	0	0	0	0	0	0	0	1	1	2
8:45 AM	10	4	0	3	17	0	0	0	0	0	0	0	0	1	1
Count Total	51	38	1	4	94	1	1	0	0	2	13	0	13	7	33
Peak Hour	20	15	0	1	36	1	1	0	0	2	13	0	13	4	30

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				S Broadway Ave				S Broadway Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0	19	0
7:15 AM	0	0	5	0	0	0	10	0	0	1	0	0	0	0	0	0	16	0
7:30 AM	0	0	1	0	0	0	5	0	0	0	0	0	0	0	0	0	6	0
7:45 AM	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	4	45
8:00 AM	0	0	2	0	0	0	4	0	0	0	0	0	0	0	1	0	7	33
8:15 AM	0	2	4	0	0	0	4	0	0	0	0	0	0	0	0	0	10	27
8:30 AM	0	0	9	0	0	1	5	0	0	0	0	0	0	0	0	0	15	36
8:45 AM	0	0	9	1	0	0	4	0	0	0	0	0	1	1	0	1	17	49
Count Total	0	2	47	2	0	1	37	0	0	1	0	0	1	2	0	1	94	0
Peak Hour	0	2	17	1	0	1	14	0	0	0	0	0	0	1	0	0	36	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			S Broadway Ave			S Broadway Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	1				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	2				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
Count Total	0	1	0	0	1	0	0	0	0	0	0	0	2	0				
Peak Hour	0	1	0	0	1	0	0	0	0	0	0	0	2	0				

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



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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	2	0	0	3	0	1	0	0	1	0	0	1	1	2
4:15 PM	1	1	0	0	2	0	2	0	0	2	3	0	1	7	11
4:30 PM	1	2	0	0	3	1	1	0	0	2	0	0	6	3	9
4:45 PM	4	0	0	0	4	0	0	0	0	0	0	0	0	3	3
5:00 PM	0	2	0	0	2	1	0	0	0	1	0	0	0	2	2
5:15 PM	2	0	0	0	2	0	1	0	0	1	0	0	0	1	1
5:30 PM	1	1	0	0	2	1	1	0	0	2	0	0	0	2	2
5:45 PM	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0
Count Total	13	9	0	0	22	3	6	0	0	9	3	0	8	19	30
Peak Hour	7	5	0	0	12	1	4	0	0	5	3	0	8	14	25

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Main St				Main St				S Broadway Ave				S Broadway Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0
4:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
4:30 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0
4:45 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	12
5:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	11
5:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	11
5:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	10
5:45 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	10
Count Total	0	0	13	0	0	0	9	0	0	0	0	0	0	0	0	0	22	0
Peak Hour	0	0	7	0	0	0	5	0	0	0	0	0	0	0	0	0	12	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Main St			Main St			S Broadway Ave			S Broadway Ave			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0				
4:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2	0				
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5				
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	5				
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	4				
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	4				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4				
Count Total	0	3	0	0	6	0	0	0	0	0	0	0	9	0				
Peak Hour	0	1	0	0	4	0	0	0	0	0	0	0	5	0				

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



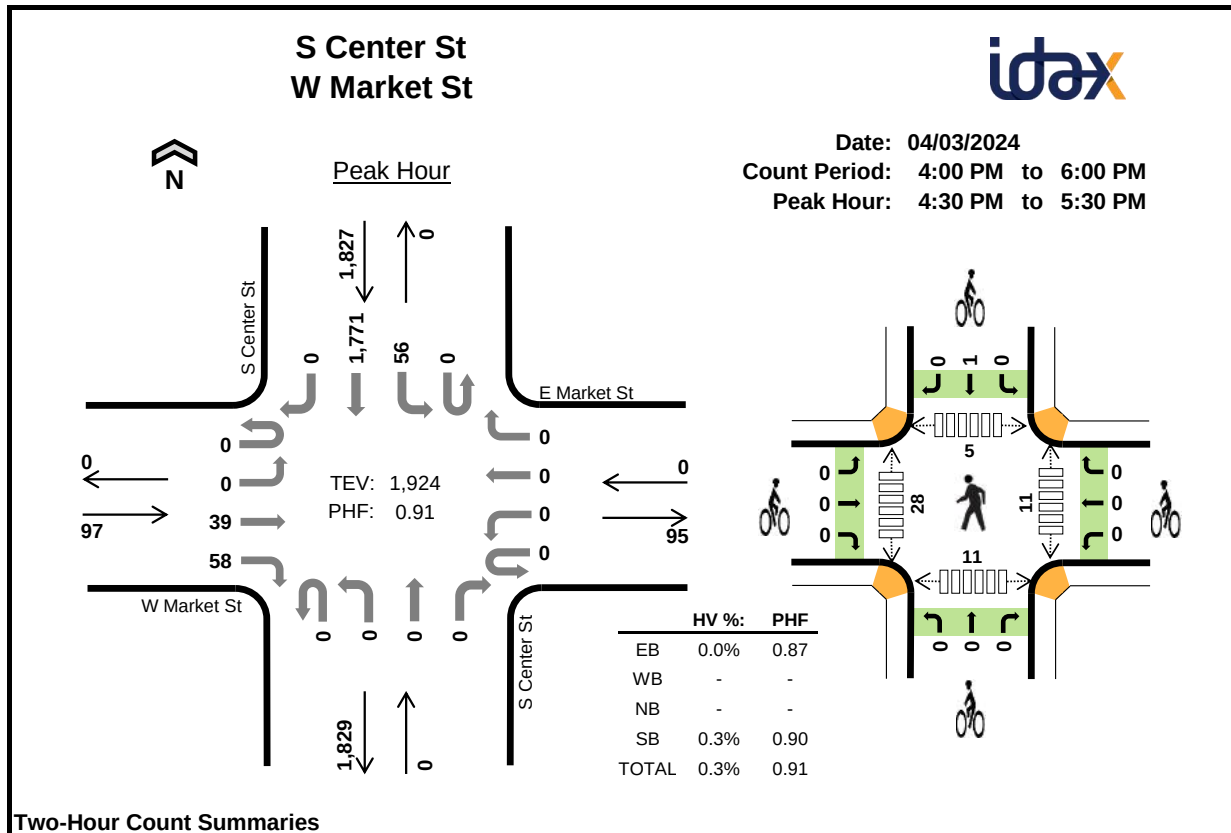
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	6	6	0	0	0	0	0	0	3	1	3	7
7:15 AM	0	0	0	5	5	0	0	0	0	0	3	2	1	1	7
7:30 AM	0	0	0	3	3	0	0	0	0	0	0	2	0	0	2
7:45 AM	1	0	0	6	7	0	0	0	1	1	0	2	0	1	3
8:00 AM	0	0	0	9	9	0	0	0	1	1	5	2	1	0	8
8:15 AM	0	0	0	9	9	0	0	0	0	0	1	4	1	1	7
8:30 AM	2	0	0	11	13	0	0	0	0	0	3	4	3	6	16
8:45 AM	0	0	0	7	7	0	0	0	0	0	7	7	0	5	19
Count Total	3	0	0	56	59	0	0	0	2	2	19	26	7	17	69
Peak Hour	1	0	0	27	28	0	0	0	2	2	6	10	2	2	20

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	W Market St				E Market St				S Center St				S Center St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	
7:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	5	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	
8:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	11	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	
Count Total	0	0	1	2	0	0	0	0	0	0	0	0	0	1	55	0	0	
Peak Hour	0	0	0	1	0	0	0	0	0	0	0	0	0	1	26	0	0	

Two-Hour Count Summaries - Bikes																	
Interval Start	W Market St			E Market St			S Center St			S Center St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1			
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	2			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Count Total	0	0	0	0	0	0	0	0	0	0	2	0	2	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	2	0	2	0			

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

**Two-Hour Count Summaries**

Interval Start		W Market St				E Market St				S Center St				S Center St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	12	24	0	0	0	0	0	0	0	0	0	20	394	0	450	0
4:15 PM		0	0	5	19	0	0	0	0	0	0	0	0	0	15	418	0	457	0
4:30 PM		0	0	11	17	0	0	0	0	0	0	0	0	0	14	439	0	481	0
4:45 PM		0	0	11	13	0	0	0	0	0	0	0	0	0	18	396	0	438	1,826
5:00 PM		0	0	8	16	0	0	0	0	0	0	0	0	0	11	495	0	530	1,906
5:15 PM		0	0	9	12	0	0	0	0	0	0	0	0	0	13	441	0	475	1,924
5:30 PM		0	0	8	13	0	0	0	0	0	0	0	0	0	10	392	0	423	1,866
5:45 PM		0	0	12	7	0	0	0	0	0	0	0	0	0	8	296	0	323	1,751
Count Total		0	0	76	121	0	0	0	0	0	0	0	0	0	109	3,271	0	3,577	0
Peak Hour	All	0	0	39	58	0	0	0	0	0	0	0	0	0	56	1,771	0	1,924	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	0
	HV%	-	-	0%	0%	-	-	-	-	-	-	-	-	-	0%	0%	-	0%	0

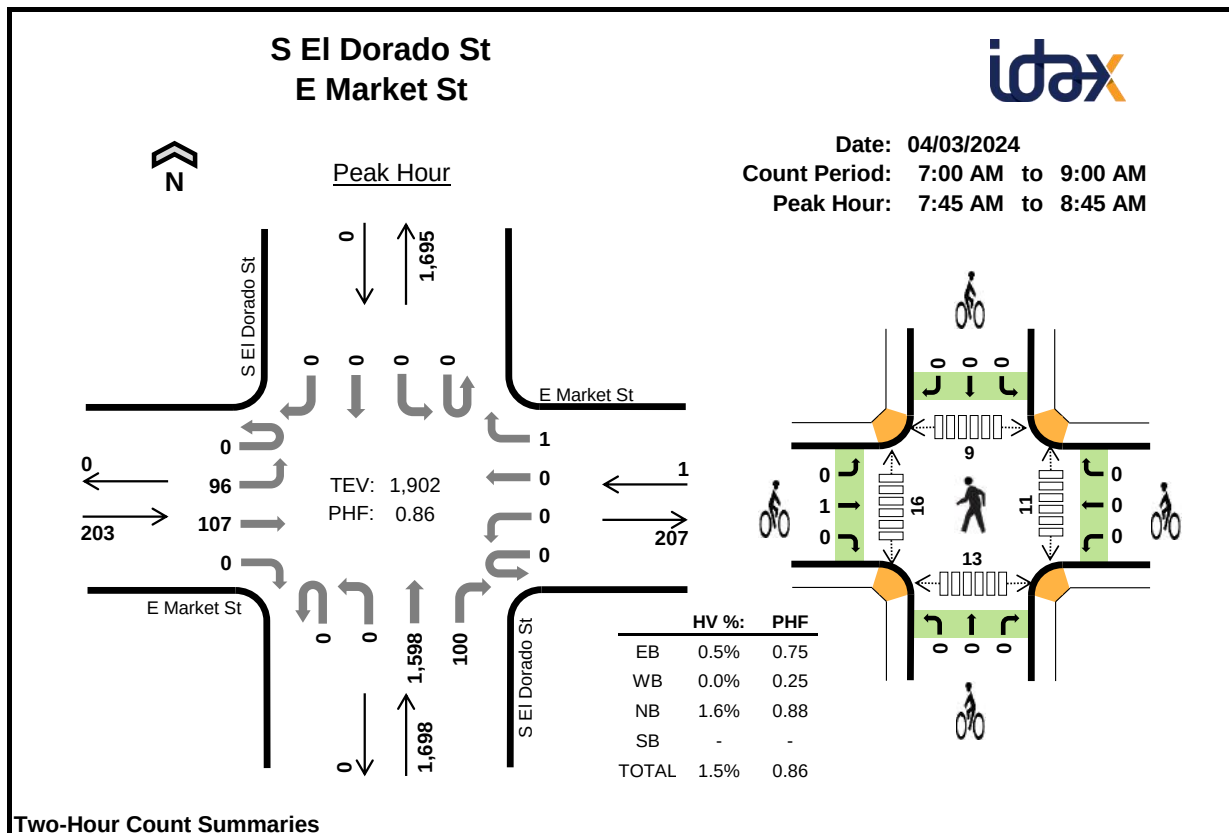
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	0	3	4	0	0	0	1	1	2	3	4	3	12
4:15 PM	1	0	0	2	3	0	0	0	0	0	1	3	2	2	8
4:30 PM	0	0	0	3	3	0	0	0	0	0	2	8	1	1	12
4:45 PM	0	0	0	3	3	0	0	0	1	1	0	3	1	2	6
5:00 PM	0	0	0	0	0	0	0	0	0	0	7	9	2	7	25
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	8	1	1	12
5:30 PM	0	0	0	2	2	0	0	0	0	0	1	4	1	0	6
5:45 PM	0	0	0	1	1	0	0	0	0	0	1	10	2	0	13
Count Total	2	0	0	14	16	0	0	0	2	2	16	48	14	16	94
Peak Hour	0	0	0	6	6	0	0	0	1	1	11	28	5	11	55

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	W Market St				E Market St				S Center St				S Center St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2	0	4	0
4:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	3	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	13
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
Count Total	0	0	0	2	0	0	0	0	0	0	0	0	0	2	12	0	16	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	0

Two-Hour Count Summaries - Bikes																		
Interval Start	W Market St			E Market St			S Center St			S Center St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	2				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Count Total	0	0	0	0	0	0	0	0	0	0	2	0	2	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	1	0	1	0				

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				S El Dorado St				S El Dorado St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	10	14	0	0	0	0	0	0	0	175	18	0	0	0	0	217	0
7:15 AM		0	19	32	0	0	0	0	1	0	0	240	18	0	0	0	0	310	0
7:30 AM		0	16	41	0	0	0	0	0	0	0	323	21	0	0	0	0	401	0
7:45 AM		0	19	49	0	0	0	0	0	0	0	446	39	0	0	0	0	553	1,481
8:00 AM		0	30	24	0	0	0	0	0	0	0	369	20	0	0	0	0	443	1,707
8:15 AM		0	23	21	0	0	0	0	1	0	0	388	19	0	0	0	0	452	1,849
8:30 AM		0	24	13	0	0	0	0	0	0	0	395	22	0	0	0	0	454	1,902
8:45 AM		0	10	17	0	0	0	0	0	0	0	354	16	0	0	0	0	397	1,746
Count Total		0	151	211	0	0	0	0	2	0	0	2,690	173	0	0	0	0	3,227	0
Peak Hour	All	0	96	107	0	0	0	0	1	0	0	1,598	100	0	0	0	0	1,902	0
	HV	0	0	1	0	0	0	0	0	0	0	27	1	0	0	0	0	29	0
	HV%	-	0%	1%	-	-	-	-	0%	-	-	2%	1%	-	-	-	-	2%	0

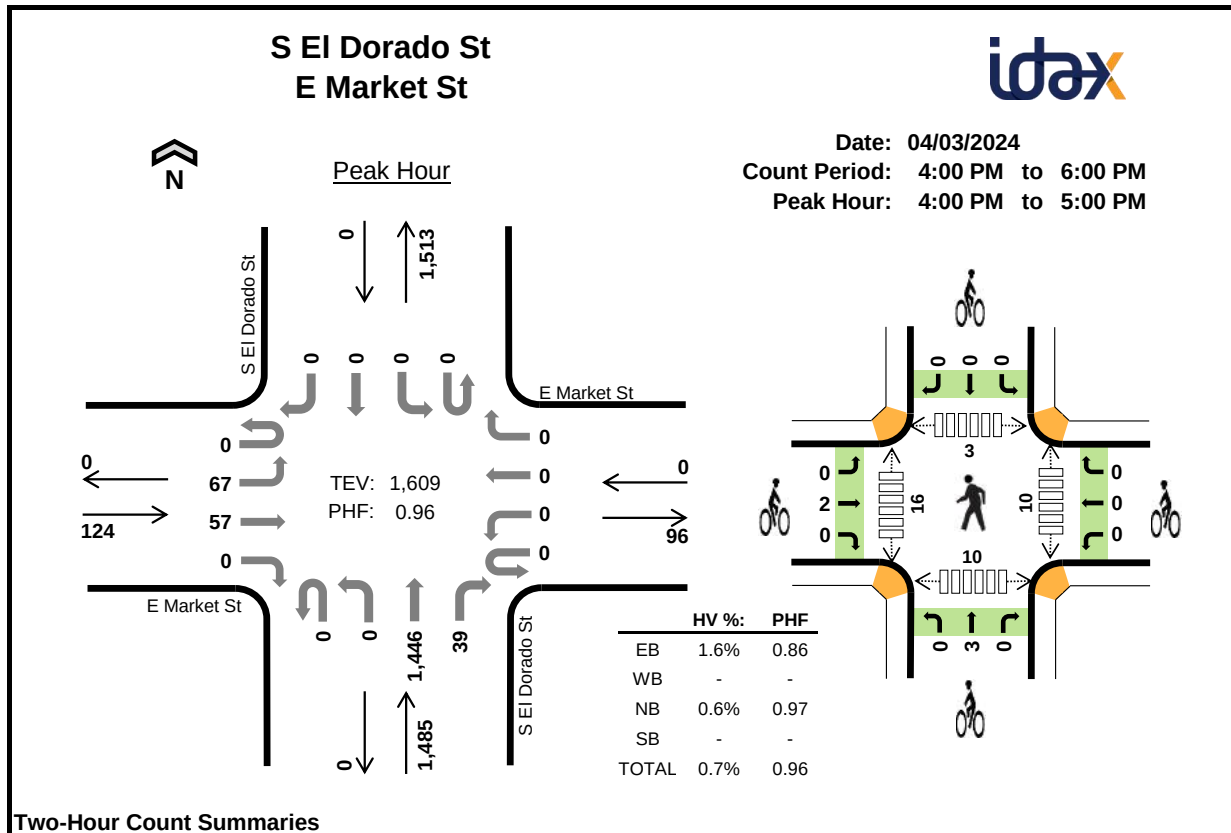
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	5	0	5	0	0	0	0	0	2	0	1	1	4
7:15 AM	0	0	4	0	4	0	0	0	0	0	0	1	4	0	5
7:30 AM	0	0	5	0	5	2	0	0	0	2	0	3	0	1	4
7:45 AM	1	0	1	0	2	0	0	0	0	0	2	2	0	4	8
8:00 AM	0	0	10	0	10	0	0	0	0	0	1	3	1	2	7
8:15 AM	0	0	11	0	11	1	0	0	0	1	1	5	1	1	8
8:30 AM	0	0	6	0	6	0	0	0	0	0	7	6	7	6	26
8:45 AM	1	0	6	0	7	0	0	0	0	0	4	3	3	1	11
Count Total	2	0	48	0	50	3	0	0	0	3	17	23	17	16	73
Peak Hour	1	0	28	0	29	1	0	0	0	1	11	16	9	13	49

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S El Dorado St				S El Dorado St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	5	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2	16
8:00 AM	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	0	10	21
8:15 AM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11	28
8:30 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	29
8:45 AM	0	1	0	0	0	0	0	0	0	0	6	0	0	0	0	0	7	34
Count Total	0	1	1	0	0	0	0	0	0	0	46	2	0	0	0	0	50	0
Peak Hour	0	0	1	0	0	0	0	0	0	0	27	1	0	0	0	0	29	0

Two-Hour Count Summaries - Bikes																	
Interval Start	E Market St			E Market St			S El Dorado St			S El Dorado St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	1	1	0	0	0	0	0	0	0	0	0	0	2	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	3			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Count Total	1	2	0	0	0	0	0	0	0	0	0	0	3	0			
Peak Hour	0	1	0	0	0	0	0	0	0	0	0	0	1	0			

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

**Two-Hour Count Summaries**

Interval Start	E Market St Eastbound				E Market St Westbound				S El Dorado St Northbound				S El Dorado St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	22	14	0	0	0	0	0	0	0	374	8	0	0	0	0	418	0
4:15 PM	0	14	10	0	0	0	0	0	0	0	376	8	0	0	0	0	408	0
4:30 PM	0	17	11	0	0	0	0	0	0	0	339	10	0	0	0	0	377	0
4:45 PM	0	14	22	0	0	0	0	0	0	0	357	13	0	0	0	0	406	1,609
5:00 PM	0	12	15	0	0	0	0	0	0	0	321	7	0	0	0	0	355	1,546
5:15 PM	0	14	17	0	0	0	0	0	0	0	303	2	0	0	0	0	336	1,474
5:30 PM	0	13	10	0	0	0	0	0	0	0	283	2	0	0	0	0	308	1,405
5:45 PM	0	11	12	0	0	0	0	0	0	0	241	2	0	0	0	0	266	1,265
Count Total	0	117	111	0	0	0	0	0	0	0	2,594	52	0	0	0	0	2,874	0
Peak Hour	All	0	67	57	0	0	0	0	0	0	1,446	39	0	0	0	0	1,609	0
	HV	0	0	2	0	0	0	0	0	0	9	0	0	0	0	0	11	0
	HV%	-	0%	4%	-	-	-	-	-	-	1%	0%	-	-	-	-	1%	0

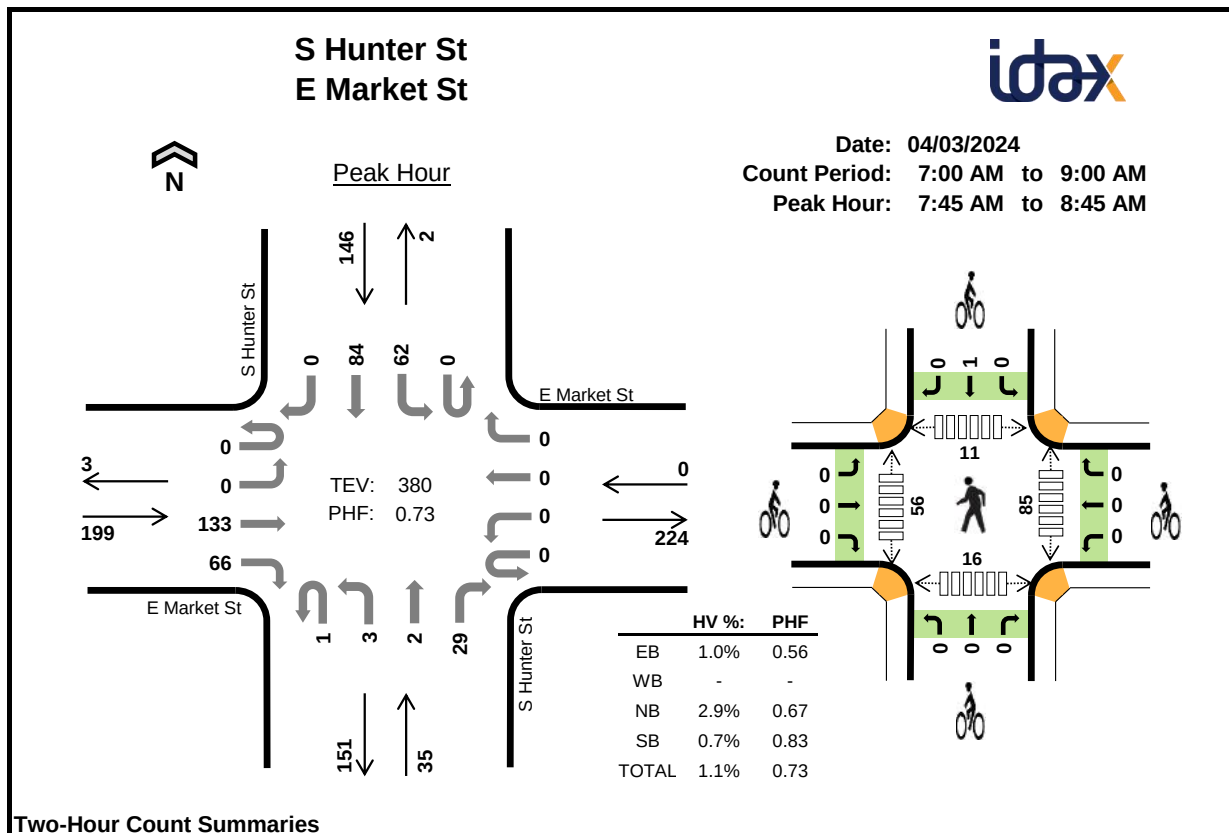
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	3	0	4	1	0	2	0	3	4	2	2	2	10
4:15 PM	1	0	2	0	3	0	0	0	0	0	3	7	0	5	15
4:30 PM	0	0	4	0	4	1	0	0	0	1	1	2	1	0	4
4:45 PM	0	0	0	0	0	0	0	1	0	1	2	5	0	3	10
5:00 PM	0	0	2	0	2	0	0	0	0	0	3	4	1	4	12
5:15 PM	0	0	2	0	2	1	0	0	0	1	5	0	2	2	9
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
5:45 PM	0	0	5	0	5	0	0	0	0	0	0	0	2	0	2
Count Total	2	0	18	0	20	3	0	3	0	6	18	20	8	18	64
Peak Hour	2	0	9	0	11	2	0	3	0	5	10	16	3	10	39

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S El Dorado St				S El Dorado St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	4	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	3	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	9
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	8
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	9
Count Total	0	0	2	0	0	0	0	0	0	0	18	0	0	0	0	0	20	0
Peak Hour	0	0	2	0	0	0	0	0	0	0	9	0	0	0	0	0	11	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			S El Dorado St			S El Dorado St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	1	0	0	0	0	0	2	0	0	0	0	3	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	5				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	3				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
Count Total	0	3	0	0	0	0	0	3	0	0	0	0	6	0				
Peak Hour	0	2	0	0	0	0	0	3	0	0	0	0	5	0				

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



Interval Start		E Market St				E Market St				S Hunter St				S Hunter St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	7:00 AM	0	0	13	15	0	0	0	0	0	0	0	1	0	2	3	0	34	0
	7:15 AM	0	0	33	19	0	0	0	0	0	0	0	7	0	2	6	0	67	0
	7:30 AM	0	0	40	18	0	0	0	0	0	0	0	2	0	4	9	0	73	0
	7:45 AM	0	0	61	28	0	0	0	0	0	1	0	12	0	9	19	0	130	304
	8:00 AM	0	0	30	13	0	0	0	0	1	1	0	6	0	10	21	0	82	352
	8:15 AM	0	0	26	10	0	0	0	0	0	1	1	8	0	21	23	0	90	375
	8:30 AM	0	0	16	15	0	0	0	0	0	0	1	3	0	22	21	0	78	380
	8:45 AM	0	0	23	11	0	0	0	0	1	0	0	7	0	17	11	0	70	320
Count Total		0	0	242	129	0	0	0	0	2	3	2	46	0	87	113	0	624	0
Peak Hour	All	0	0	133	66	0	0	0	0	1	3	2	29	0	62	84	0	380	0
	HV	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	4	0
	HV%	-	-	2%	0%	-	-	-	-	0%	0%	0%	3%	-	0%	1%	-	1%	0

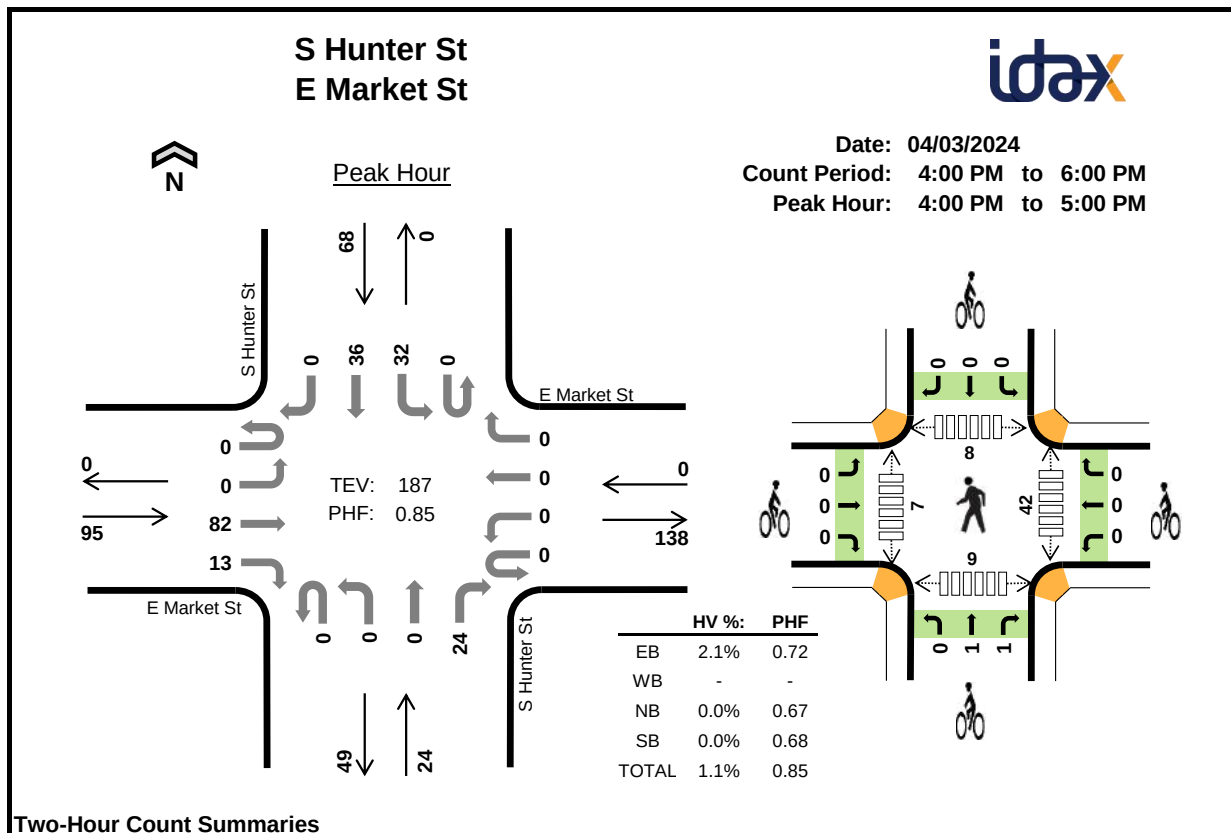
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	1	1	0	0	0	0	0	17	2	1	2	22
7:15 AM	0	0	0	0	0	0	0	0	0	0	18	3	3	3	27
7:30 AM	1	0	0	0	1	0	0	0	0	0	43	4	2	6	55
7:45 AM	1	0	0	0	1	0	0	0	0	0	28	8	1	3	40
8:00 AM	1	0	0	0	1	0	0	0	0	0	16	11	4	2	33
8:15 AM	0	0	1	1	2	0	0	0	1	1	22	25	2	6	55
8:30 AM	0	0	0	0	0	0	0	0	0	0	19	12	4	5	40
8:45 AM	0	0	0	0	0	0	0	0	0	0	12	12	7	8	39
Count Total	3	0	1	2	6	0	0	0	1	1	175	77	24	35	311
Peak Hour	2	0	1	1	4	0	0	0	1	1	85	56	11	16	168

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	E Market St				E Market St				S Hunter St				S Hunter St				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	5
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	2	1	0	0	0	0	0	0	0	0	1	0	0	2	0	6	0
Peak Hour	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			S Hunter St			S Hunter St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Count Total	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0			

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

**Two-Hour Count Summaries**

Interval Start	E Market St Eastbound				E Market St Westbound				S Hunter St Northbound				S Hunter St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	19	2	0	0	0	0	0	0	0	9	0	13	12	0	55	0
4:15 PM	0	0	17	3	0	0	0	0	0	0	0	2	0	8	7	0	37	0
4:30 PM	0	0	20	1	0	0	0	0	0	0	0	8	0	3	10	0	42	0
4:45 PM	0	0	26	7	0	0	0	0	0	0	0	5	0	8	7	0	53	187
5:00 PM	0	0	19	6	0	0	0	0	0	0	0	8	0	8	12	0	53	185
5:15 PM	0	0	12	6	0	0	0	0	0	0	0	8	0	3	5	0	34	182
5:30 PM	0	0	10	3	0	0	0	0	0	0	0	8	0	2	2	0	25	165
5:45 PM	0	0	11	1	0	0	0	0	0	0	0	4	0	2	4	0	22	134
Count Total	0	0	134	29	0	0	0	0	0	0	0	52	0	47	59	0	321	0
Peak Hour	All	0	0	82	13	0	0	0	0	0	0	24	0	32	36	0	187	0
	HV	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0
	HV%	-	-	2%	0%	-	-	-	-	-	-	0%	-	0%	0%	-	1%	0

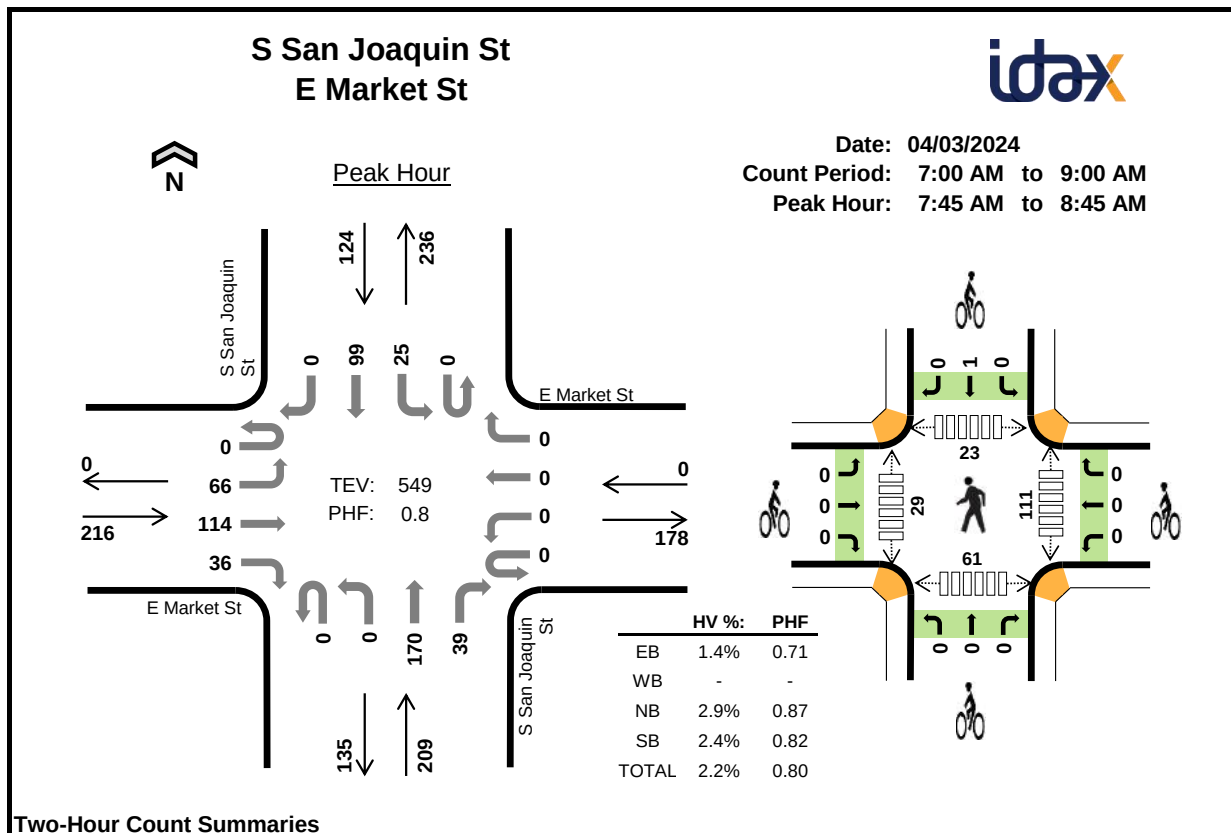
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	0	0	1	0	0	0	0	0	13	1	2	4	20
4:15 PM	1	0	0	0	1	0	0	2	0	2	8	2	0	4	14
4:30 PM	0	0	0	0	0	0	0	0	0	0	10	1	2	0	13
4:45 PM	0	0	0	0	0	0	0	0	0	0	11	3	4	1	19
5:00 PM	0	0	0	0	0	0	0	0	0	0	10	1	1	2	14
5:15 PM	0	0	0	0	0	1	0	0	1	2	12	1	0	2	15
5:30 PM	0	0	0	0	0	0	0	0	1	1	8	0	0	1	9
5:45 PM	0	0	0	0	0	0	0	1	1	2	5	2	0	1	8
Count Total	2	0	0	0	2	1	0	3	3	7	77	11	9	15	112
Peak Hour	2	0	0	0	2	0	0	2	0	2	42	7	8	9	66

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Hunter St				S Hunter St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Peak Hour	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0

Two-Hour Count Summaries - Bikes																	
Interval Start	E Market St			E Market St			S Hunter St			S Hunter St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:15 PM	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0		
5:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	2	2	0		
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	3	0		
5:45 PM	0	0	0	0	0	0	1	0	0	0	1	0	2	5	0		
Count Total	0	1	0	0	0	0	1	1	1	0	3	0	7	0	0		
Peak Hour	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0		

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				S San Joaquin St				S San Joaquin St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	1	8	6	0	0	0	0	0	0	19	5	0	1	11	0	51	0
7:15 AM		0	4	27	10	0	0	0	0	0	0	26	1	0	8	11	0	87	0
7:30 AM		0	3	34	8	0	0	0	0	0	0	28	5	0	8	17	0	103	0
7:45 AM		0	13	46	17	0	0	0	0	0	0	50	10	0	9	26	0	171	412
8:00 AM		0	12	22	10	0	0	0	0	0	0	48	8	0	3	29	0	132	493
8:15 AM		0	22	29	5	0	0	0	0	0	0	39	8	0	10	28	0	141	547
8:30 AM		0	19	17	4	0	0	0	0	0	0	33	13	0	3	16	0	105	549
8:45 AM		0	17	21	8	0	0	0	0	0	0	26	6	0	10	15	0	103	481
Count Total		0	91	204	68	0	0	0	0	0	0	269	56	0	52	153	0	893	0
Peak Hour	All	0	66	114	36	0	0	0	0	0	0	170	39	0	25	99	0	549	0
	HV	0	1	2	0	0	0	0	0	0	0	6	0	0	1	2	0	12	0
	HV%	-	2%	2%	0%	-	-	-	-	-	-	4%	0%	-	4%	2%	-	2%	0

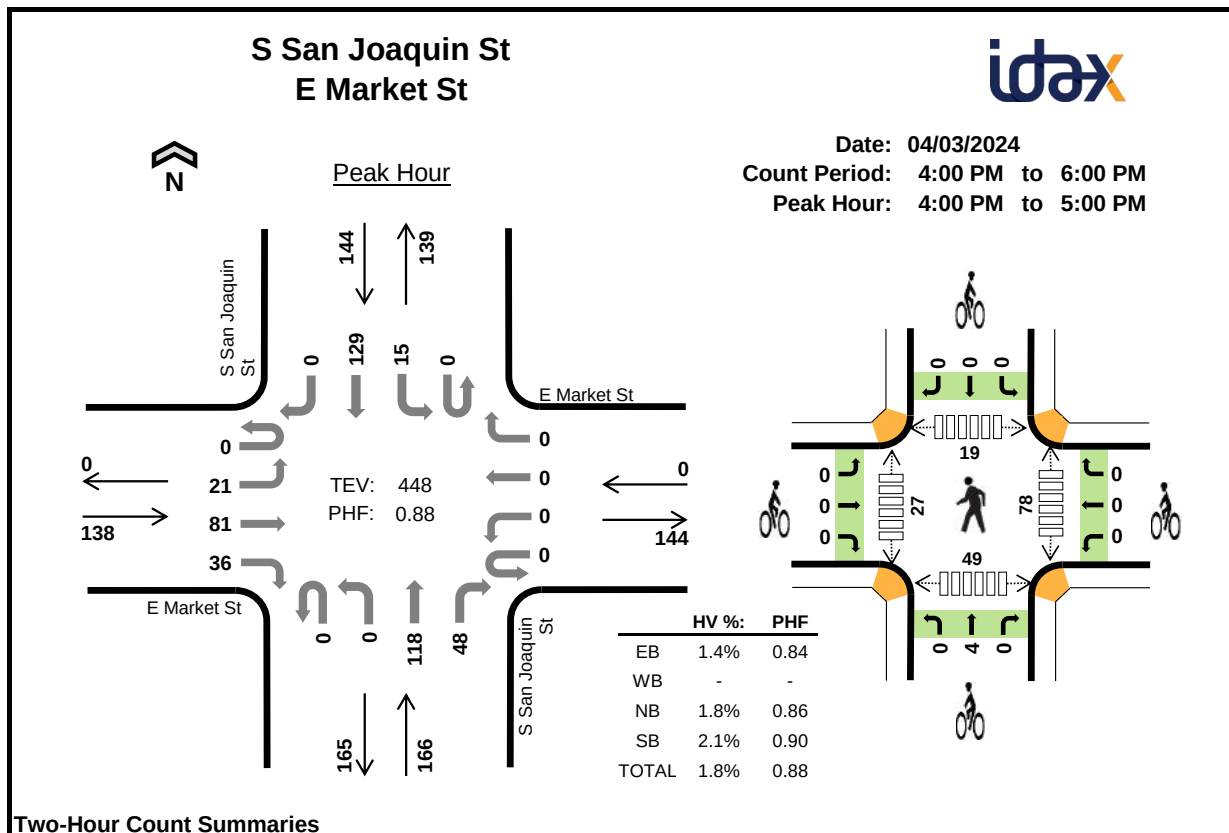
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	3	1	4	0	0	0	0	0	9	3	6	3	21
7:15 AM	0	0	1	0	1	0	0	1	0	1	18	9	4	10	41
7:30 AM	0	0	0	3	3	1	0	0	0	1	10	1	2	16	29
7:45 AM	1	0	0	0	1	0	0	0	0	0	29	9	6	12	56
8:00 AM	1	0	3	2	6	0	0	0	0	0	25	4	3	7	39
8:15 AM	1	0	2	1	4	0	0	0	0	0	29	9	7	25	70
8:30 AM	0	0	1	0	1	0	0	0	1	1	28	7	7	17	59
8:45 AM	0	0	0	0	0	0	0	0	1	1	17	2	5	17	41
Count Total	3	0	10	7	20	1	0	1	2	4	165	44	40	107	356
Peak Hour	3	0	6	3	12	0	0	0	1	1	111	29	23	61	224

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S San Joaquin St				S San Joaquin St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9
8:00 AM	0	1	0	0	0	0	0	0	0	0	3	0	0	1	1	0	6	11
8:15 AM	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	0	4	14
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	12
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Count Total	0	1	2	0	0	0	0	0	0	0	10	0	0	1	6	0	20	0
Peak Hour	0	1	2	0	0	0	0	0	0	0	6	0	0	1	2	0	12	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			S San Joaquin St			S San Joaquin St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0				
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1				
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	2				
Count Total	0	1	0	0	0	0	0	1	0	0	2	0	4	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	1	0	1	0				

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

**Two-Hour Count Summaries**

Interval Start	E Market St Eastbound				E Market St Westbound				S San Joaquin St Northbound				S San Joaquin St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	10	24	7	0	0	0	0	0	0	33	15	0	3	35	0	127	0
4:15 PM	0	1	16	12	0	0	0	0	0	0	26	11	0	3	36	0	105	0
4:30 PM	0	7	14	8	0	0	0	0	0	0	26	12	0	5	35	0	107	0
4:45 PM	0	3	27	9	0	0	0	0	0	0	33	10	0	4	23	0	109	448
5:00 PM	0	6	28	6	0	0	0	0	0	0	27	4	0	3	44	0	118	439
5:15 PM	0	4	19	1	0	0	0	0	0	0	20	6	0	9	26	0	85	419
5:30 PM	0	2	13	5	0	0	0	0	0	0	12	5	0	5	15	0	57	369
5:45 PM	0	4	11	4	0	0	0	0	0	0	13	3	0	0	16	0	51	311
Count Total	0	37	152	52	0	0	0	0	0	0	190	66	0	32	230	0	759	0
Peak Hour	All	0	21	81	36	0	0	0	0	0	118	48	0	15	129	0	448	0
	HV	0	1	1	0	0	0	0	0	0	3	0	0	0	3	0	8	0
	HV%	-	5%	1%	0%	-	-	-	-	-	3%	0%	-	0%	2%	-	2%	0

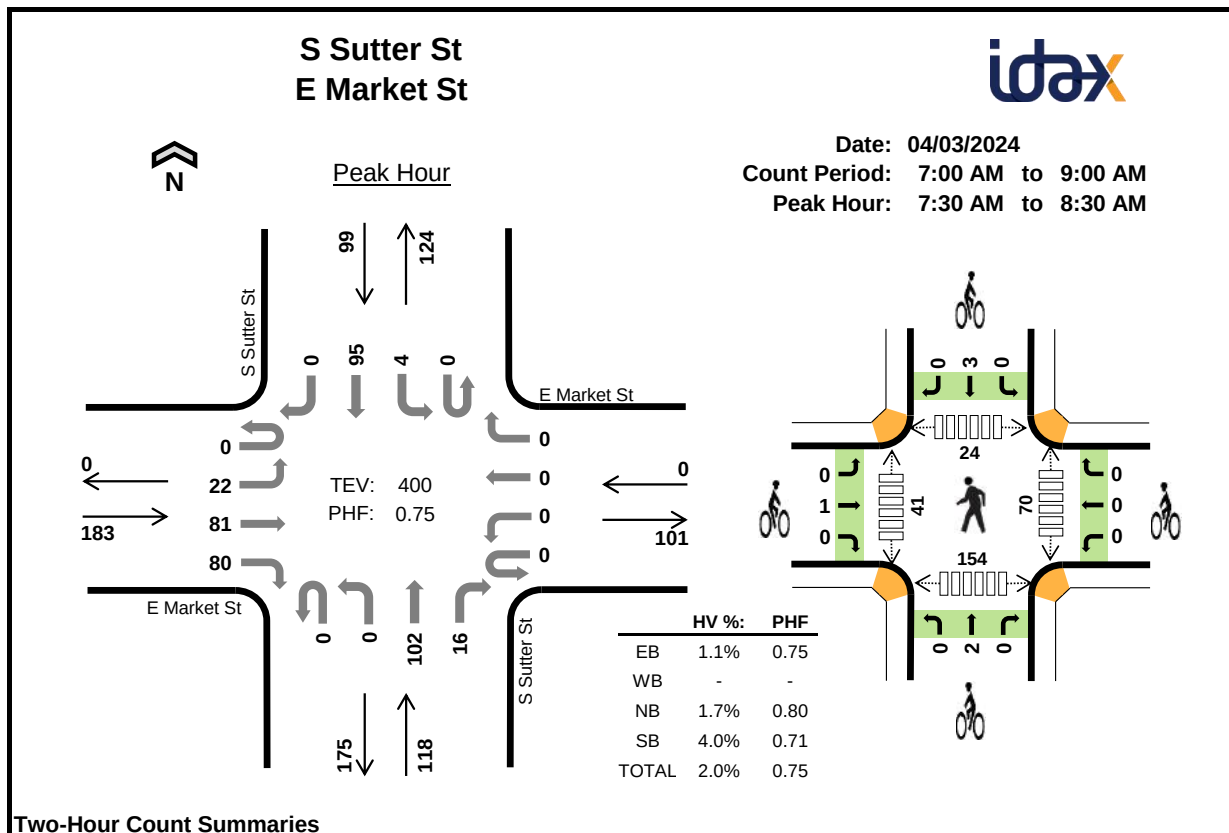
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	0	1	2	0	0	0	0	0	33	10	2	10	55
4:15 PM	1	0	2	1	4	0	0	0	0	0	14	9	7	13	43
4:30 PM	0	0	0	1	1	0	0	3	0	3	21	4	4	16	45
4:45 PM	0	0	1	0	1	0	0	1	0	1	10	4	6	10	30
5:00 PM	0	0	0	1	1	0	0	0	0	0	16	0	8	8	32
5:15 PM	0	0	1	0	1	0	0	1	0	1	6	3	6	13	28
5:30 PM	0	0	1	0	1	1	0	0	1	2	2	4	1	6	13
5:45 PM	0	0	1	1	2	0	0	0	0	0	2	3	2	2	9
Count Total	2	0	6	5	13	1	0	5	1	7	104	37	36	78	255
Peak Hour	2	0	3	3	8	0	0	4	0	4	78	27	19	49	173

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S San Joaquin St				S San Joaquin St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	0	4	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	8
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	5
Count Total	0	1	1	0	0	0	0	0	0	0	6	0	0	0	5	0	13	0
Peak Hour	0	1	1	0	0	0	0	0	0	0	3	0	0	0	3	0	8	0

Two-Hour Count Summaries - Bikes																	
Interval Start	E Market St			E Market St			S San Joaquin St			S San Joaquin St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	4	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	5	
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	2	4	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
Count Total	0	1	0	0	0	0	0	5	0	0	1	0	0	1	7	0	
Peak Hour	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	0	

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

**Two-Hour Count Summaries**

Interval Start	E Market St Eastbound				E Market St Westbound				S Sutter St Northbound				S Sutter St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	2	13	0	0	0	0	0	0	14	0	0	0	8	0	39	0
7:15 AM	0	7	11	14	0	0	0	0	0	0	24	1	0	2	13	0	72	0
7:30 AM	0	2	20	23	0	0	0	0	0	0	23	4	0	0	19	0	91	0
7:45 AM	0	5	28	28	0	0	0	0	0	0	34	3	0	1	34	0	133	335
8:00 AM	0	5	12	14	0	0	0	0	0	0	22	7	0	3	30	0	93	389
8:15 AM	0	10	21	15	0	0	0	0	0	0	23	2	0	0	12	0	83	400
8:30 AM	0	8	9	12	0	0	0	0	0	0	11	1	0	0	13	0	54	363
8:45 AM	0	6	26	10	0	0	0	0	0	0	20	1	0	0	22	0	85	315
Count Total	0	45	129	129	0	0	0	0	0	0	171	19	0	6	151	0	650	0
Peak Hour	All	0	22	81	80	0	0	0	0	0	0	102	16	0	4	95	400	0
	HV	0	1	1	0	0	0	0	0	0	0	2	0	0	1	3	8	0
	HV%	-	5%	1%	0%	-	-	-	-	-	-	2%	0%	-	25%	3%	2%	0

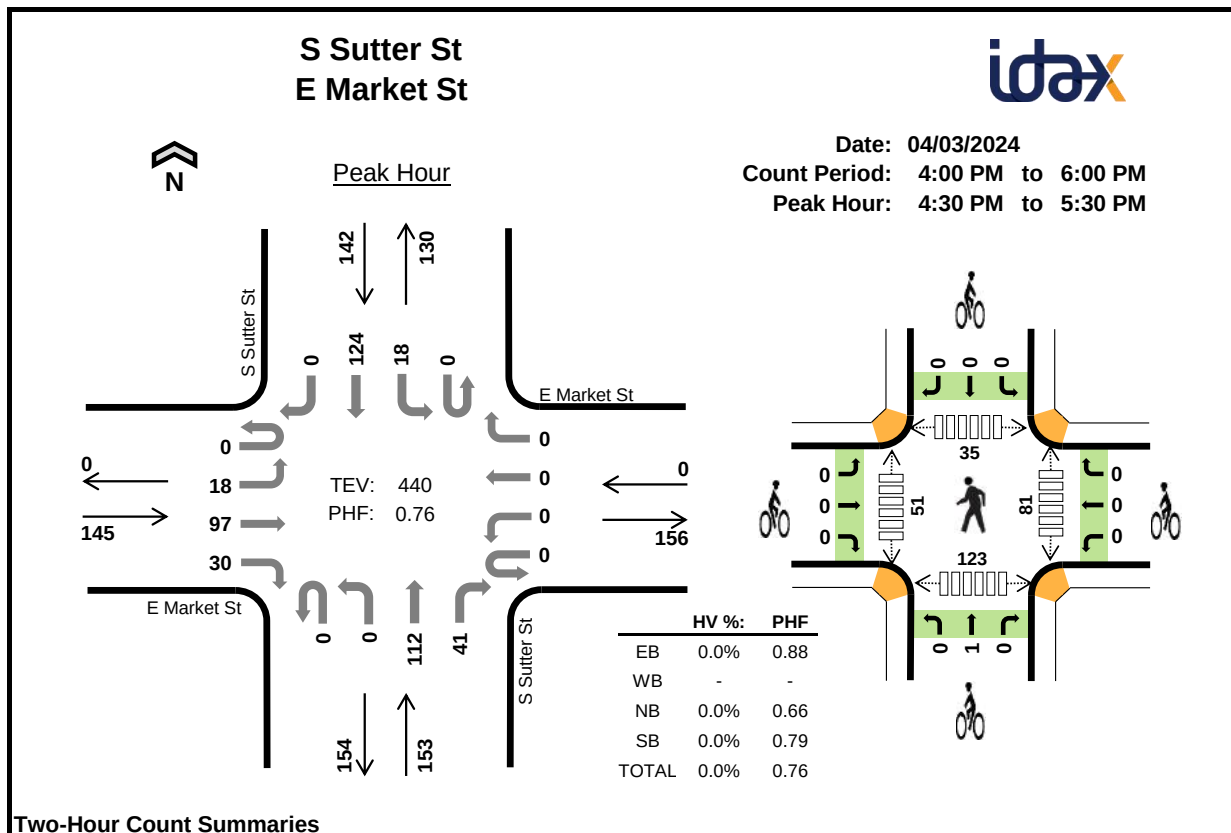
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	1	0	1	0	0	0	0	0	12	1	6	20	39
7:15 AM	0	0	0	1	1	0	0	0	0	0	19	5	3	16	43
7:30 AM	0	0	1	0	1	1	0	1	0	2	18	9	2	36	65
7:45 AM	1	0	1	2	4	0	0	0	0	0	21	16	3	71	111
8:00 AM	0	0	0	1	1	0	0	0	1	1	14	10	10	32	66
8:15 AM	1	0	0	1	2	0	0	1	2	3	17	6	9	15	47
8:30 AM	0	0	1	1	2	0	0	0	0	0	5	10	3	16	34
8:45 AM	0	0	0	1	1	0	0	0	0	0	10	10	7	11	38
Count Total	2	0	4	7	13	1	0	2	3	6	116	67	43	217	443
Peak Hour	2	0	2	4	8	1	0	2	3	6	70	41	24	154	289

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Sutter St				S Sutter St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	0	4	7
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	8
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	9
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6
Count Total	0	1	1	0	0	0	0	0	0	0	4	0	0	1	6	0	13	0
Peak Hour	0	1	1	0	0	0	0	0	0	0	2	0	0	1	3	0	8	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			S Sutter St			S Sutter St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	1	0	0	0	0	0	1	0	0	0	0	2	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	3				
8:15 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	6				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4				
Count Total	0	1	0	0	0	0	0	2	0	0	3	0	6	0				
Peak Hour	0	1	0	0	0	0	0	2	0	0	3	0	6	0				

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



Interval Start		E Market St				E Market St				S Sutter St				S Sutter St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	6	27	9	0	0	0	0	0	0	13	2	0	2	16	0	75	0
4:15 PM		0	5	16	8	0	0	0	0	0	0	18	3	0	2	26	0	78	0
4:30 PM		0	5	22	10	0	0	0	0	0	0	29	13	0	5	32	0	116	0
4:45 PM		0	7	24	6	0	0	0	0	0	0	24	8	0	3	22	0	94	363
5:00 PM		0	4	29	8	0	0	0	0	0	0	42	16	0	8	37	0	144	432
5:15 PM		0	2	22	6	0	0	0	0	0	0	17	4	0	2	33	0	86	440
5:30 PM		0	3	16	8	0	0	0	0	0	0	26	4	0	1	19	0	77	401
5:45 PM		0	0	11	4	0	0	0	0	0	0	12	0	0	4	18	0	49	356
Count Total		0	32	167	59	0	0	0	0	0	0	181	50	0	27	203	0	719	0
Peak Hour	All	0	18	97	30	0	0	0	0	0	0	112	41	0	18	124	0	440	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	HV%	-	0%	0%	0%	-	-	-	-	-	-	0%	0%	-	0%	0%	-	0%	0

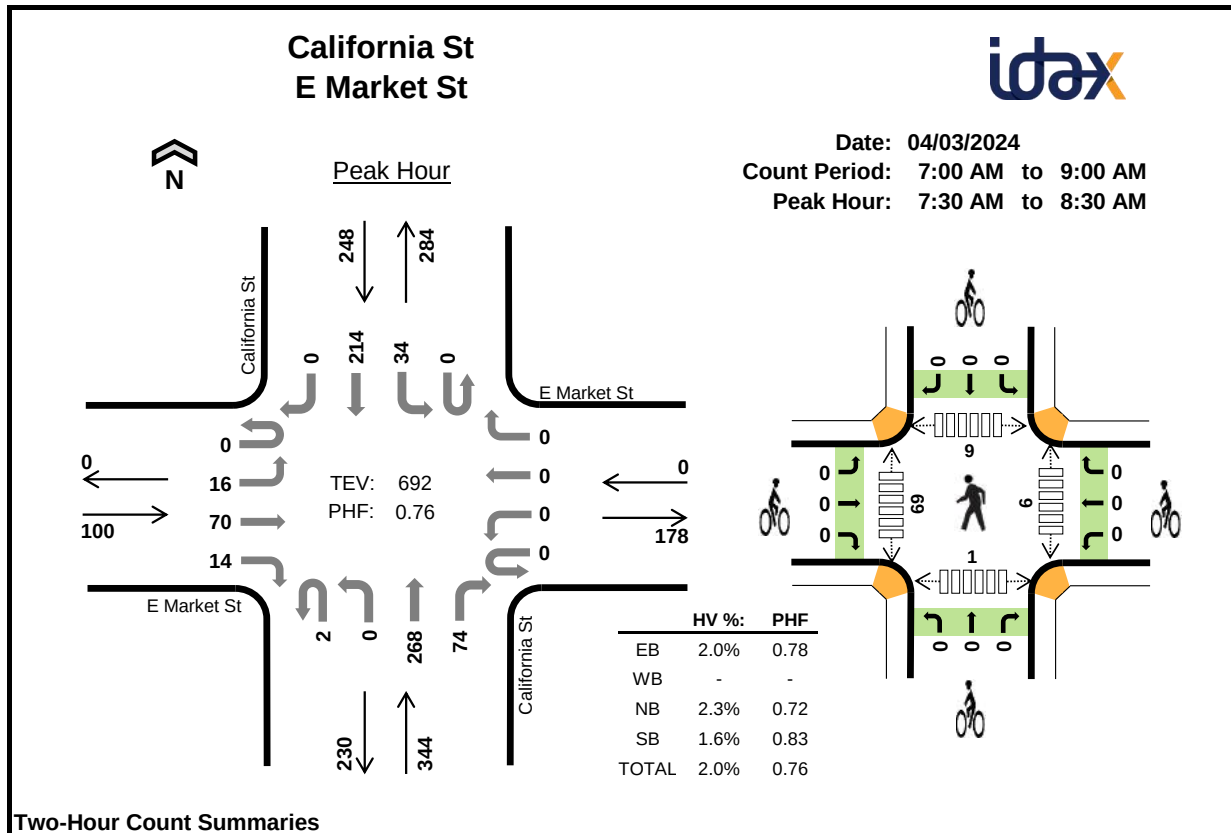
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	10	13	5	5	33
4:15 PM	1	0	0	1	2	0	0	0	0	0	8	16	9	19	52
4:30 PM	0	0	0	0	0	0	0	0	0	0	24	17	7	34	82
4:45 PM	0	0	0	0	0	0	0	0	0	0	13	19	10	32	74
5:00 PM	0	0	0	0	0	0	0	1	0	1	38	9	14	49	110
5:15 PM	0	0	0	0	0	0	0	0	0	0	6	6	4	8	24
5:30 PM	0	0	0	0	0	0	0	1	0	1	13	10	3	24	50
5:45 PM	0	0	1	0	1	0	0	0	0	0	6	4	1	12	23
Count Total	1	0	1	1	3	0	0	2	0	2	118	94	53	183	448
Peak Hour	0	0	0	0	0	0	0	1	0	1	81	51	35	123	290

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Sutter St				S Sutter St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
Count Total	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	3	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			S Sutter St			S Sutter St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	1				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	2				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
Count Total	0	0	0	0	0	0	0	2	0	0	0	0	2	0				
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	0	1	0				

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				California St				California St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	1	1	0	0	0	0	0	0	30	2	0	3	33	0	70	0
7:15 AM		0	3	9	3	0	0	0	0	0	0	44	8	0	3	32	0	102	0
7:30 AM		0	6	14	3	0	0	0	0	1	0	57	20	0	10	39	0	150	0
7:45 AM		0	5	21	6	0	0	0	0	0	0	75	45	0	15	60	0	227	549
8:00 AM		0	3	14	3	0	0	0	0	1	0	69	7	0	5	61	0	163	642
8:15 AM		0	2	21	2	0	0	0	0	0	0	67	2	0	4	54	0	152	692
8:30 AM		0	4	5	1	0	0	0	0	0	0	54	7	0	4	42	0	117	659
8:45 AM		0	2	21	3	0	0	0	0	0	0	46	3	0	2	35	0	112	544
Count Total		0	25	106	22	0	0	0	0	2	0	442	94	0	46	356	0	1,093	0
Peak Hour	All	0	16	70	14	0	0	0	0	2	0	268	74	0	34	214	0	692	0
	HV	0	1	1	0	0	0	0	0	0	0	7	1	0	0	4	0	14	0
	HV%	-	6%	1%	0%	-	-	-	-	0%	-	3%	1%	-	0%	2%	-	2%	0

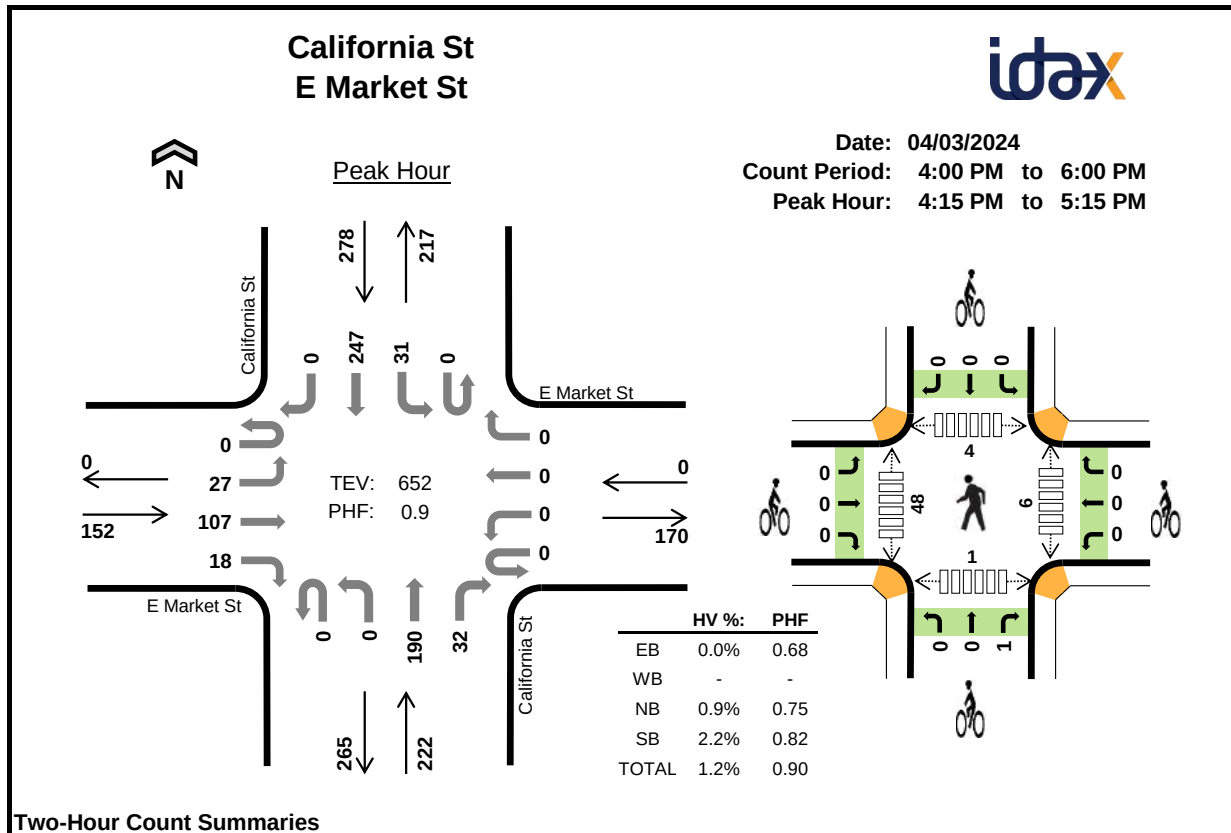
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	1	2	3	0	0	0	0	0	6	11	0	0	17
7:15 AM	0	0	2	0	2	0	0	0	0	0	6	15	1	2	24
7:30 AM	0	0	4	1	5	0	0	0	0	0	2	18	2	1	23
7:45 AM	0	0	4	2	6	0	0	0	0	0	1	25	0	0	26
8:00 AM	1	0	0	1	2	0	0	0	0	0	3	13	4	0	20
8:15 AM	1	0	0	0	1	0	0	0	0	0	0	13	3	0	16
8:30 AM	0	0	4	1	5	0	0	0	0	0	0	10	0	0	10
8:45 AM	0	0	0	2	2	1	0	0	0	1	0	2	1	0	3
Count Total	2	0	15	9	26	1	0	0	0	1	18	107	11	3	139
Peak Hour	2	0	8	4	14	0	0	0	0	0	6	69	9	1	85

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				California St				California St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	5	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	2	0	6	16
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	15
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	14
8:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	5	14
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	10
Count Total	0	1	1	0	0	0	0	0	0	0	14	1	0	0	9	0	26	0
Peak Hour	0	1	1	0	0	0	0	0	0	0	7	1	0	0	4	0	14	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			California St			California St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	1				
Count Total	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				California St				California St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	6	17	7	0	0	0	0	0	0	40	7	0	6	73	0	156	0
4:15 PM		0	2	18	3	0	0	0	0	0	0	47	6	0	6	60	0	142	0
4:30 PM		0	7	28	3	0	0	0	0	0	0	62	12	0	5	60	0	177	0
4:45 PM		0	9	24	2	0	0	0	0	0	0	46	9	0	4	58	0	152	627
5:00 PM		0	9	37	10	0	0	0	0	0	0	35	5	0	16	69	0	181	652
5:15 PM		0	4	18	4	0	0	0	0	0	0	47	3	0	6	52	0	134	644
5:30 PM		0	5	14	3	0	0	0	0	0	0	27	7	0	10	43	0	109	576
5:45 PM		0	0	13	1	0	0	0	0	0	0	28	5	0	7	40	0	94	518
Count Total		0	42	169	33	0	0	0	0	0	0	332	54	0	60	455	0	1,145	0
Peak Hour	All	0	27	107	18	0	0	0	0	0	0	190	32	0	31	247	0	652	0
	HV	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6	0	8	0
	HV%	-	0%	0%	0%	-	-	-	-	-	-	1%	0%	-	0%	2%	-	1%	0

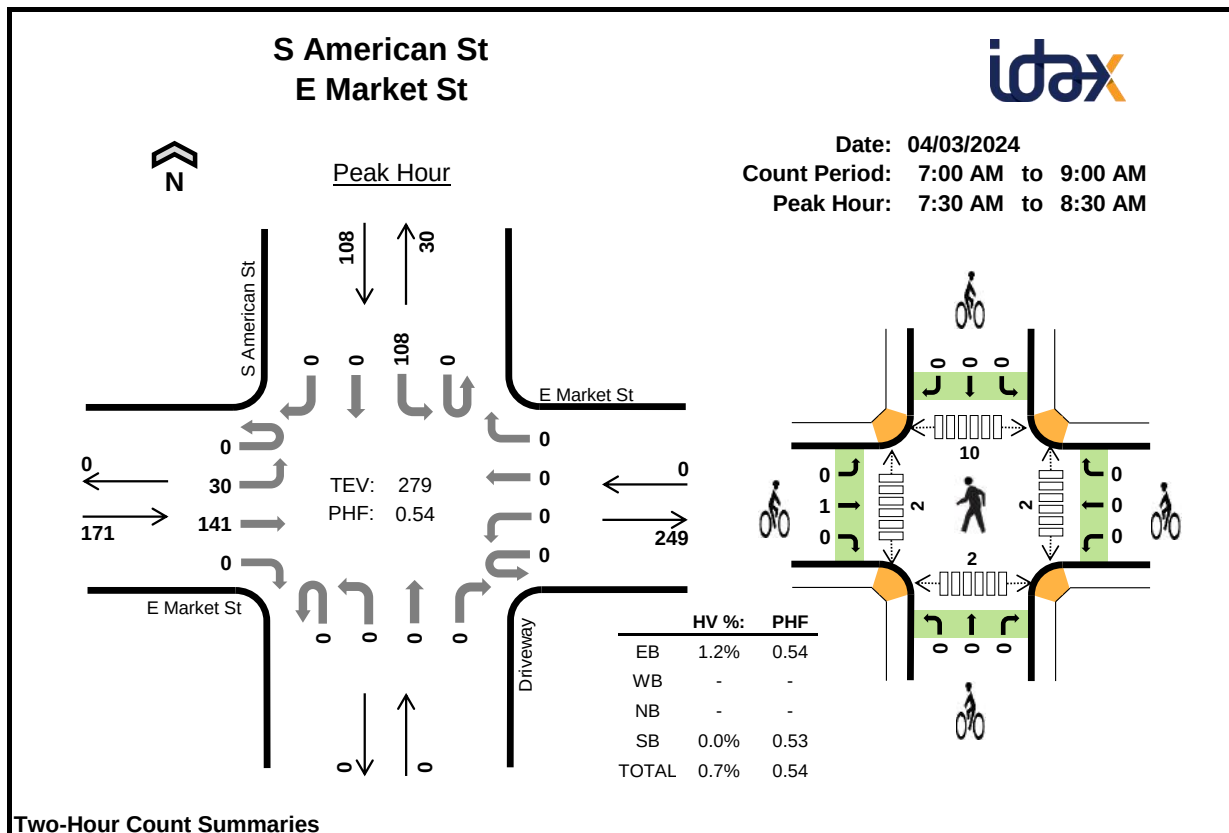
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	1	1	0	0	0	0	0	0	4	0	0	4
4:15 PM	0	0	1	1	2	0	0	0	0	0	4	8	3	1	16
4:30 PM	0	0	1	3	4	0	0	0	0	0	0	11	0	0	11
4:45 PM	0	0	0	1	1	0	0	1	0	1	1	6	1	0	8
5:00 PM	0	0	0	1	1	0	0	0	0	0	1	23	0	0	24
5:15 PM	0	0	0	1	1	0	0	0	0	0	0	4	1	0	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	23	1	1	25
5:45 PM	0	0	1	0	1	0	0	0	0	0	2	5	1	1	9
Count Total	0	0	3	8	11	0	0	1	0	1	8	84	7	3	102
Peak Hour	0	0	2	6	8	0	0	1	0	1	6	48	4	1	59

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	E Market St				E Market St				California St				California St				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	8	8
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	8	8
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7	7
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	3	3
Count Total	0	0	0	0	0	0	0	0	0	0	3	0	0	0	8	0	11	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6	0	8	0	0

Two-Hour Count Summaries - Bikes																			
Interval Start	E Market St			E Market St			California St			California St			15-min Total	Rolling One Hour					
	Eastbound			Westbound			Northbound			Southbound									
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT							
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0
Peak Hour	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				Driveway				S American St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	1	4	0	0	0	0	0	0	0	0	0	0	2	0	0	7	0
7:15 AM		0	0	13	0	0	0	0	0	0	0	0	0	0	7	0	0	20	0
7:30 AM		0	3	33	0	0	0	0	0	0	0	0	0	0	36	0	0	72	0
7:45 AM		0	17	62	0	0	0	0	0	0	0	0	0	0	51	0	0	130	229
8:00 AM		0	8	20	0	0	0	0	0	0	0	0	0	0	20	0	0	48	270
8:15 AM		0	2	26	0	0	0	0	0	0	0	0	0	0	1	0	0	29	279
8:30 AM		0	1	13	0	0	0	0	0	0	0	0	0	0	6	0	0	20	227
8:45 AM		0	1	24	0	0	0	0	0	0	0	0	0	0	5	0	0	30	127
Count Total		0	33	195	0	0	0	0	0	0	0	0	0	0	128	0	0	356	0
Peak Hour	All	0	30	141	0	0	0	0	0	0	0	0	0	0	108	0	0	279	0
	HV	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
	HV%	-	0%	1%	-	-	-	-	-	-	-	-	-	-	0%	-	-	1%	0

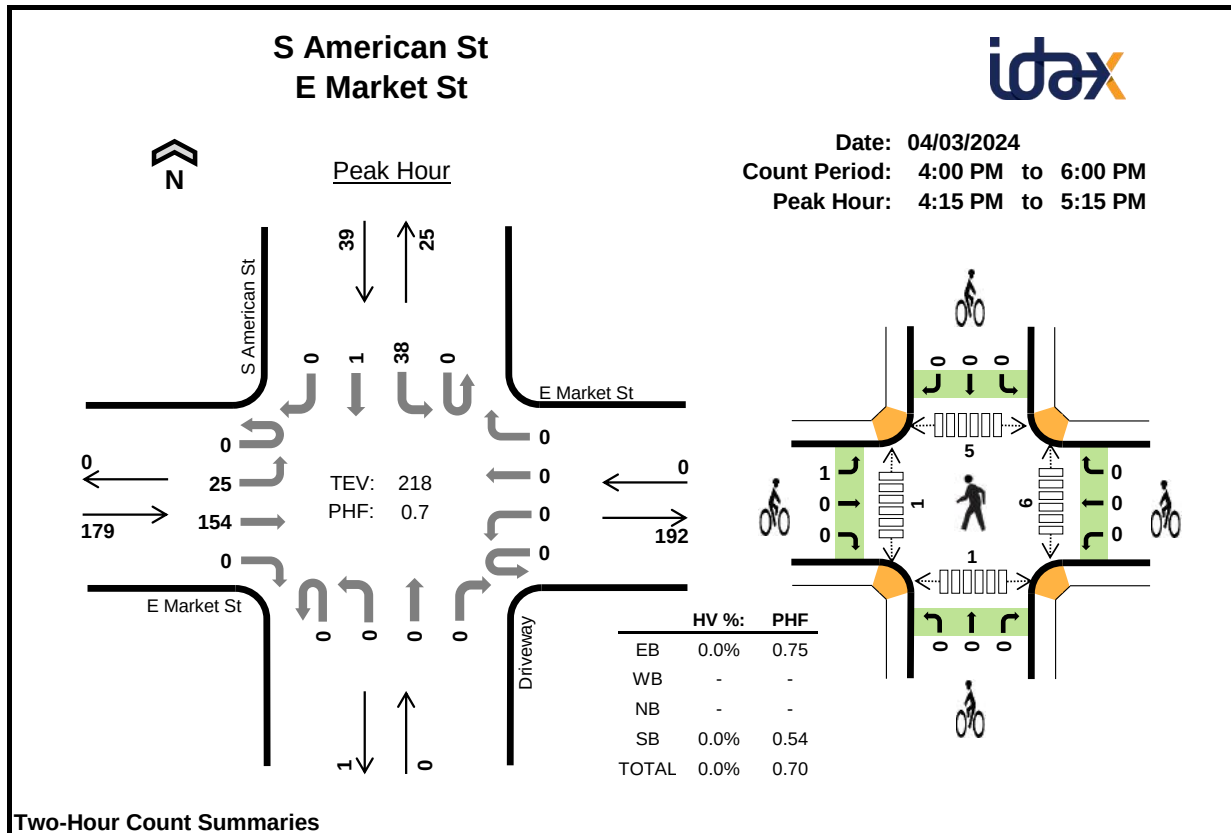
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	1	1	0	0	0	0	0	2	5	2	3	12
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3
7:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	2	0	2
7:45 AM	1	0	0	0	1	0	0	0	0	0	2	0	4	1	7
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	1	1	4
8:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	3	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	13	0	13
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	15	1	16
Count Total	2	0	0	1	3	1	0	0	0	1	4	7	41	8	60
Peak Hour	2	0	0	0	2	1	0	0	0	1	2	2	10	2	16

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				Driveway				S American St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0
Peak Hour	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			Driveway			S American St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0			
Peak Hour	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0			

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

**Two-Hour Count Summaries**

Interval Start	E Market St Eastbound				E Market St Westbound				Driveway Northbound				S American St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	8	24	0	0	0	0	0	0	0	0	0	0	9	0	1	42	0
4:15 PM	0	3	31	0	0	0	0	0	0	0	0	0	0	10	0	0	44	0
4:30 PM	0	7	42	0	0	0	0	0	0	0	0	0	0	6	0	0	55	0
4:45 PM	0	6	30	0	0	0	0	0	0	0	0	0	0	5	0	0	41	182
5:00 PM	0	9	51	0	0	0	0	0	0	0	0	0	0	17	1	0	78	218
5:15 PM	0	1	27	0	0	0	0	0	0	0	0	0	0	7	0	0	35	209
5:30 PM	0	0	32	0	0	0	0	0	0	0	0	0	0	6	0	0	38	192
5:45 PM	0	3	22	0	0	0	0	0	0	0	0	0	0	8	0	0	33	184
Count Total	0	37	259	0	0	0	0	0	0	0	0	0	0	68	1	1	366	0
Peak Hour	All	0	25	154	0	0	0	0	0	0	0	0	0	38	1	0	218	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	HV%	-	0%	0%	-	-	-	-	-	-	-	-	-	0%	0%	-	0%	0

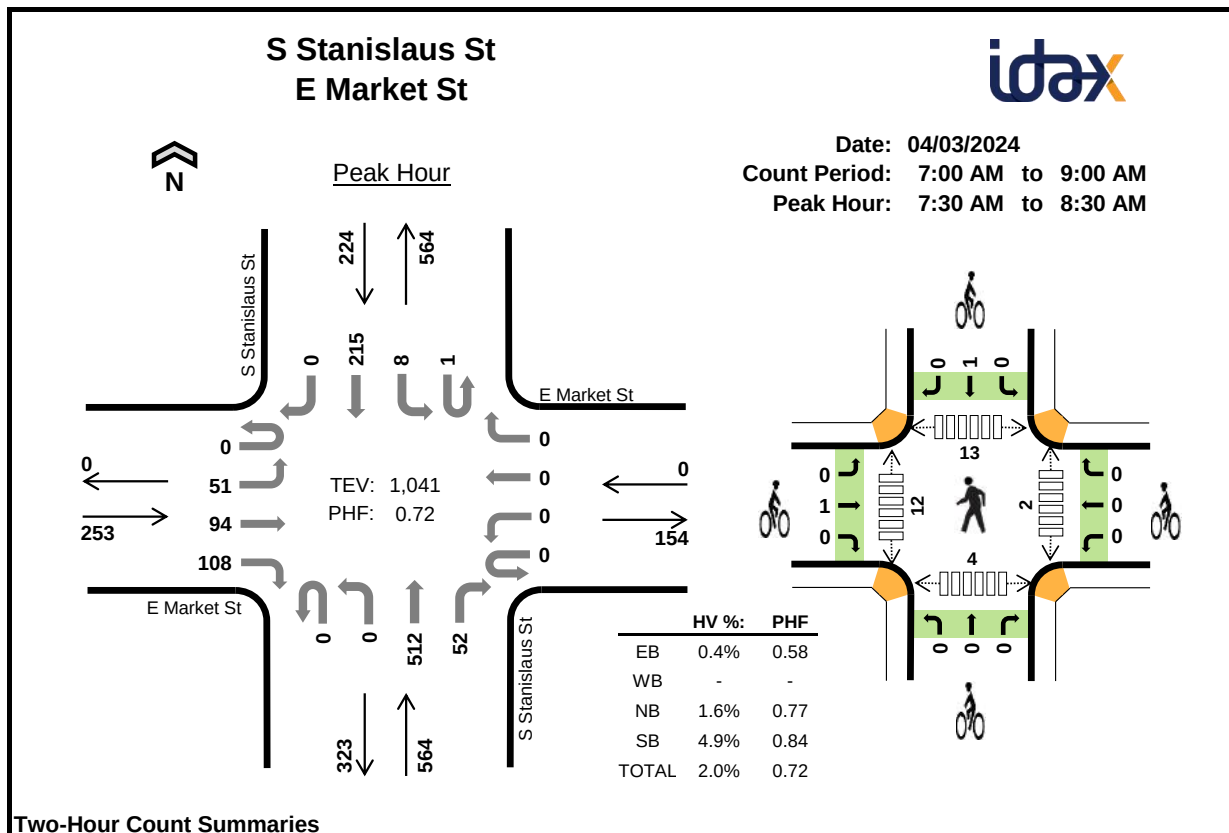
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	2	1	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	2	1	7
4:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	1	0	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	2	1	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	2	1	5
Count Total	0	0	0	0	0	1	0	0	0	1	10	3	11	4	28
Peak Hour	0	0	0	0	0	1	0	0	0	1	6	1	5	1	13

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				Driveway				S American St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Two-Hour Count Summaries - Bikes																	
Interval Start	E Market St			E Market St			Driveway			S American St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	1	0	0	0	0	0	0	0	0	0	0	0	1	0			
Peak Hour	1	0	0	0	0	0	0	0	0	0	0	0	1	0			

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				S Stanislaus St				S Stanislaus St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	1	4	0	0	0	0	0	0	39	9	0	0	22	0	75	0
7:15 AM		0	2	3	6	0	0	0	0	0	0	80	5	0	3	29	0	128	0
7:30 AM		0	16	15	37	0	0	0	0	0	0	115	12	0	3	43	0	241	0
7:45 AM		0	22	45	42	0	0	0	0	0	0	173	11	1	1	65	0	360	804
8:00 AM		0	10	21	18	0	0	0	0	0	0	121	17	0	2	47	0	236	965
8:15 AM		0	3	13	11	0	0	0	0	0	0	103	12	0	2	60	0	204	1,041
8:30 AM		0	2	7	6	0	0	0	0	0	0	96	11	1	0	71	0	194	994
8:45 AM		0	3	17	10	0	0	0	0	0	0	77	5	0	3	46	0	161	795
Count Total		0	58	122	134	0	0	0	0	0	0	804	82	2	14	383	0	1,599	0
Peak Hour	All	0	51	94	108	0	0	0	0	0	0	512	52	1	8	215	0	1,041	0
	HV	0	0	0	1	0	0	0	0	0	0	9	0	0	0	11	0	21	0
	HV%	-	0%	0%	1%	-	-	-	-	-	-	2%	0%	0%	0%	5%	-	2%	0

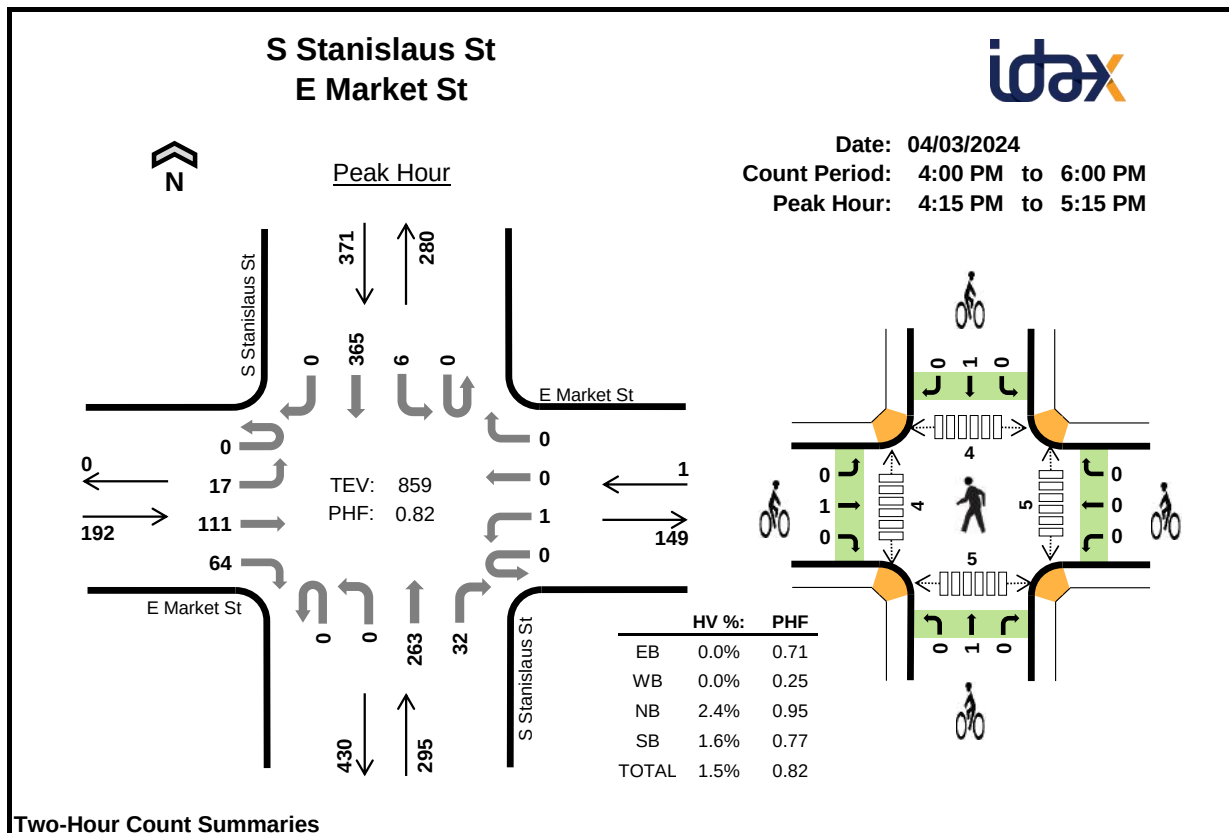
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	0	1	5	7	0	0	0	0	0	1	1	0	0	2
7:15 AM	0	0	3	1	4	0	0	0	0	0	1	0	3	0	4
7:30 AM	0	0	4	2	6	1	0	0	1	2	0	2	1	0	3
7:45 AM	0	0	2	3	5	0	0	0	0	0	0	3	4	2	9
8:00 AM	0	0	1	5	6	0	0	0	0	0	1	4	4	1	10
8:15 AM	1	0	2	1	4	0	0	0	0	0	1	3	4	1	9
8:30 AM	0	0	7	6	13	0	0	0	1	1	2	0	1	0	3
8:45 AM	0	0	3	3	6	0	0	0	0	0	1	0	1	0	2
Count Total	2	0	23	26	51	1	0	0	2	3	7	13	18	4	42
Peak Hour	1	0	9	11	21	1	0	0	1	2	2	12	13	4	31

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Stanislaus St				S Stanislaus St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	5	0	7	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	6	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	22
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	6	21
8:15 AM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	1	0	4	21
8:30 AM	0	0	0	0	0	0	0	0	0	0	4	3	0	0	6	0	13	28
8:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	29
Count Total	0	0	1	1	0	0	0	0	0	0	20	3	0	0	26	0	51	0
Peak Hour	0	0	0	1	0	0	0	0	0	0	9	0	0	0	11	0	21	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			S Stanislaus St			S Stanislaus St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	1	0	0	0	0	0	0	0	0	1	0	2	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
Count Total	0	1	0	0	0	0	0	0	0	0	2	0	3	0				
Peak Hour	0	1	0	0	0	0	0	0	0	0	1	0	2	0				

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				S Stanislaus St				S Stanislaus St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	6	18	8	0	0	0	0	0	0	86	6	0	1	61	0	186	0
4:15 PM		0	5	18	15	0	0	0	0	0	0	66	12	0	3	71	0	190	0
4:30 PM		0	2	31	16	0	0	0	0	0	0	64	6	0	0	98	0	217	0
4:45 PM		0	1	28	8	0	0	0	0	0	0	69	4	0	1	78	0	189	782
5:00 PM		0	9	34	25	0	1	0	0	0	0	64	10	0	2	118	0	263	859
5:15 PM		0	0	20	15	0	0	0	0	0	0	36	11	0	1	78	0	161	830
5:30 PM		0	0	17	21	0	0	0	0	0	0	70	9	0	1	57	0	175	788
5:45 PM		0	2	15	13	0	0	0	1	0	0	39	4	0	2	82	0	158	757
Count Total		0	25	181	121	0	1	0	1	0	0	494	62	0	11	643	0	1,539	0
Peak Hour	All	0	17	111	64	0	1	0	0	0	0	263	32	0	6	365	0	859	0
	HV	0	0	0	0	0	0	0	0	0	0	6	1	0	0	6	0	13	0
	HV%	-	0%	0%	0%	-	0%	-	-	-	-	2%	3%	-	0%	2%	-	2%	0

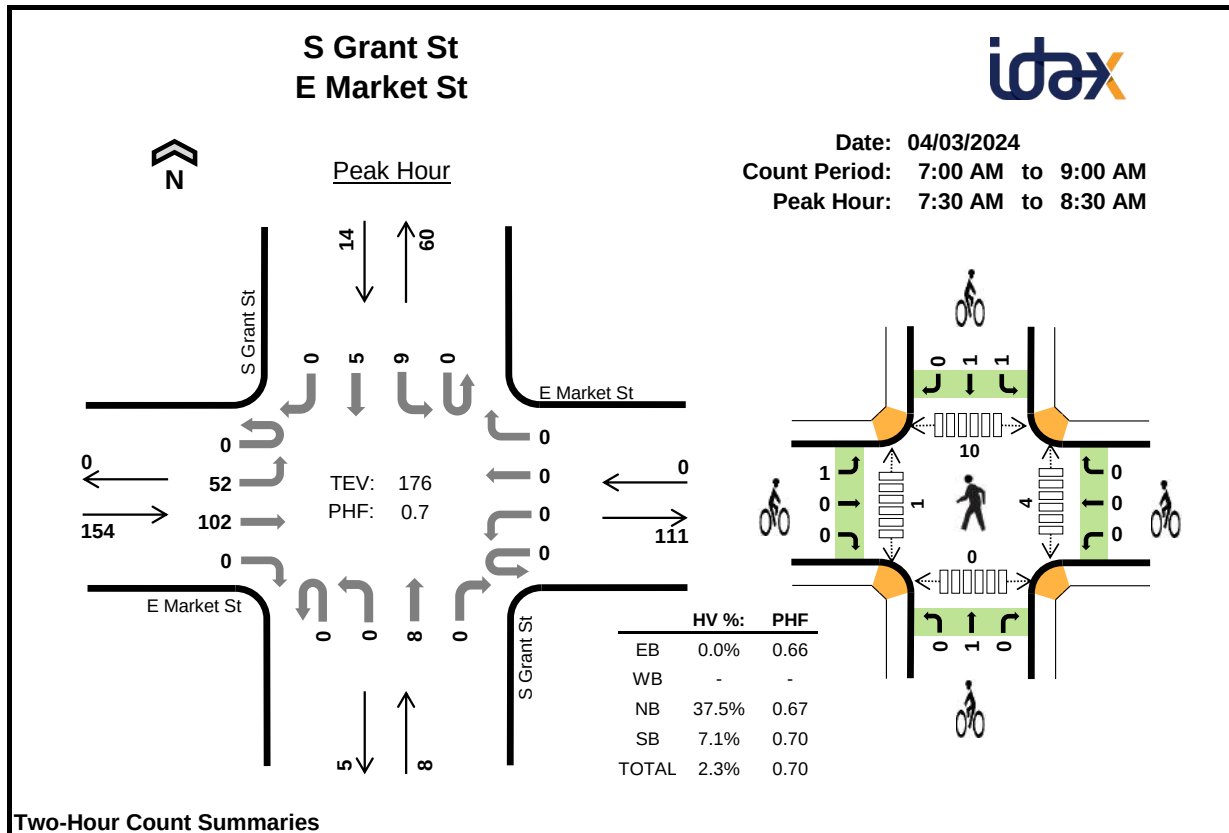
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	1	3	1	0	1	0	2	4	1	0	4	9
4:15 PM	0	0	3	1	4	1	0	0	0	1	4	1	1	2	8
4:30 PM	0	0	1	3	4	0	0	0	1	1	0	0	0	3	3
4:45 PM	0	0	3	0	3	0	0	0	0	0	1	0	1	0	2
5:00 PM	0	0	0	2	2	0	0	1	0	1	0	3	2	0	5
5:15 PM	0	0	2	1	3	0	0	0	0	0	0	2	0	0	2
5:30 PM	0	0	2	2	4	0	0	1	0	1	1	0	0	0	1
5:45 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	1	1
Count Total	0	0	15	10	25	2	0	3	1	6	10	7	4	10	31
Peak Hour	0	0	7	6	13	1	0	1	1	3	5	4	4	5	18

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Stanislaus St				S Stanislaus St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	1	0	4	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	14
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	13
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	12
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	4	12
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	11
Count Total	0	0	0	0	0	0	0	0	0	0	13	2	0	0	10	0	25	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	6	1	0	0	6	0	13	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			S Stanislaus St			S Stanislaus St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	1	0	0	0	0	0	1	0	0	0	0	2	0				
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4				
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	3				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	2				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
Count Total	0	2	0	0	0	0	0	2	1	0	1	0	6	0				
Peak Hour	0	1	0	0	0	0	0	1	0	0	1	0	3	0				

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

**Two-Hour Count Summaries**

Interval Start	E Market St Eastbound				E Market St Westbound				S Grant St Northbound				S Grant St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	4	6	0	0	0	0	0	0	0	1	0	2	0	0	0	13	0
7:15 AM	0	5	6	0	0	0	0	0	0	0	0	0	0	0	3	0	14	0
7:30 AM	0	12	16	0	0	0	0	0	0	0	3	0	0	0	1	0	32	0
7:45 AM	0	13	45	0	0	0	0	0	0	0	2	0	0	2	1	0	63	122
8:00 AM	0	18	20	0	0	0	0	0	0	0	1	0	0	5	0	0	44	153
8:15 AM	0	9	21	0	0	0	0	0	0	0	2	0	0	2	3	0	37	176
8:30 AM	0	6	8	1	0	0	0	0	0	0	1	0	0	6	0	0	22	166
8:45 AM	0	7	15	1	0	0	0	0	1	0	1	2	0	0	1	0	28	131
Count Total	0	74	137	2	0	0	0	0	1	0	11	2	2	15	9	0	253	0
Peak Hour	All	0	52	102	0	0	0	0	0	0	8	0	0	9	5	0	176	0
	HV	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	4	0
	HV%	-	0%	0%	-	-	-	-	-	-	38%	-	-	11%	0%	-	2%	0

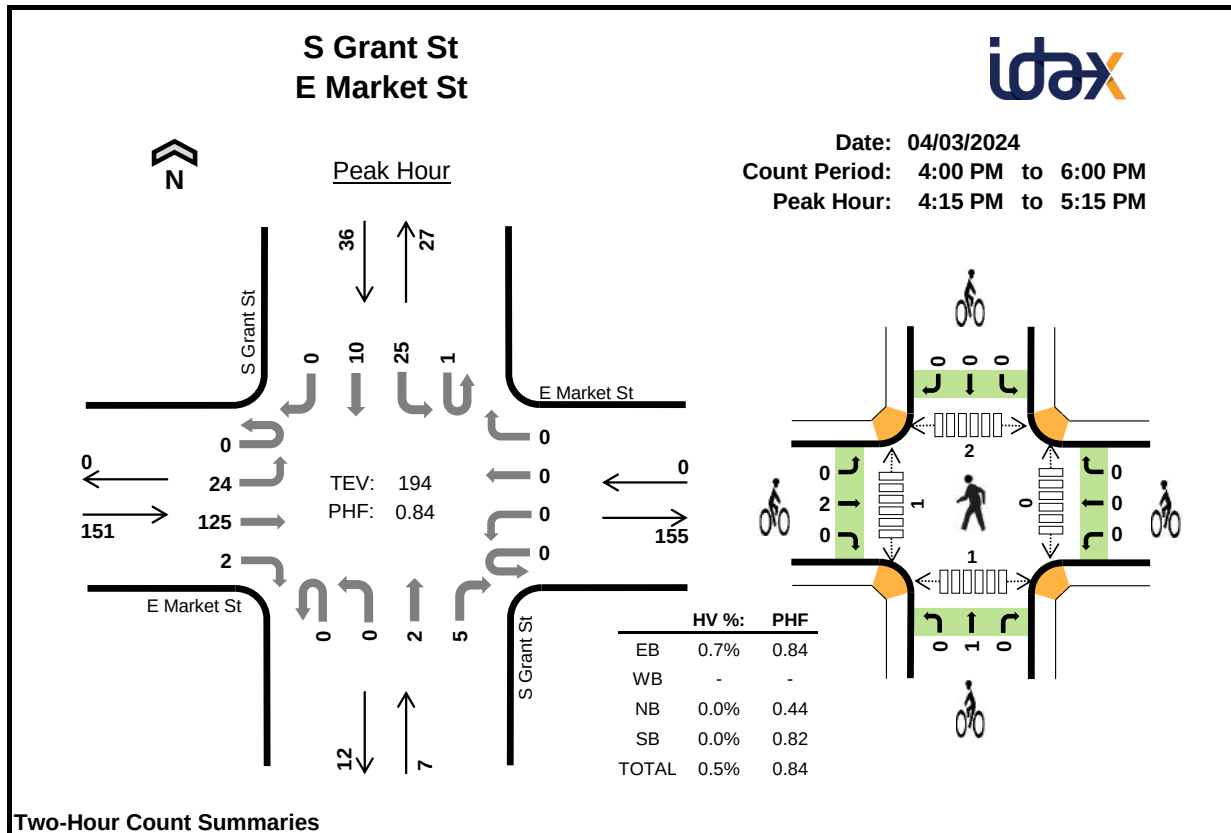
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	0	1	0	2	0	0	0	1	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
7:30 AM	0	0	2	0	2	0	0	1	1	2	0	0	2	0	2
7:45 AM	0	0	0	1	1	0	0	0	0	0	0	1	2	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
8:15 AM	0	0	1	0	1	1	0	0	1	2	2	0	6	0	8
8:30 AM	3	0	0	0	3	0	0	1	0	1	2	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	3	0	4
Count Total	4	0	4	1	9	1	0	2	3	6	7	1	15	0	23
Peak Hour	0	0	3	1	4	1	0	1	2	4	4	1	10	0	15

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Grant St				S Grant St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	4
8:30 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Count Total	0	3	1	0	0	0	0	0	0	0	4	0	0	1	0	0	9	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	4	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			S Grant St			S Grant St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
8:15 AM	1	0	0	0	0	0	0	0	0	1	0	0	2	4				
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	3				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
Count Total	1	0	0	0	0	0	0	2	0	1	2	0	6	0				
Peak Hour	1	0	0	0	0	0	0	1	0	1	1	0	4	0				

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

**Two-Hour Count Summaries**

Interval Start	E Market St Eastbound				E Market St Westbound				S Grant St Northbound				S Grant St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	7	21	0	0	0	0	0	0	0	2	0	0	3	1	0	34	0
4:15 PM	0	7	27	0	0	0	0	0	0	0	1	1	1	6	2	0	45	0
4:30 PM	0	6	32	1	0	0	0	0	0	0	0	0	0	7	4	0	50	0
4:45 PM	0	7	25	1	0	0	0	0	0	0	0	1	0	5	2	0	41	170
5:00 PM	0	4	41	0	0	0	0	0	0	0	1	3	0	7	2	0	58	194
5:15 PM	0	0	32	1	0	0	0	0	0	0	2	1	0	1	2	0	39	188
5:30 PM	0	1	24	0	0	0	0	0	2	0	3	3	0	5	1	0	39	177
5:45 PM	0	1	21	0	0	0	0	0	0	0	0	2	0	2	0	0	26	162
Count Total	0	33	223	3	0	0	0	0	2	0	9	11	1	36	14	0	332	0
Peak Hour	All	0	24	125	2	0	0	0	0	0	2	5	1	25	10	0	194	0
	HV	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	HV%	-	0%	1%	0%	-	-	-	-	-	0%	0%	0%	0%	0%	-	1%	0

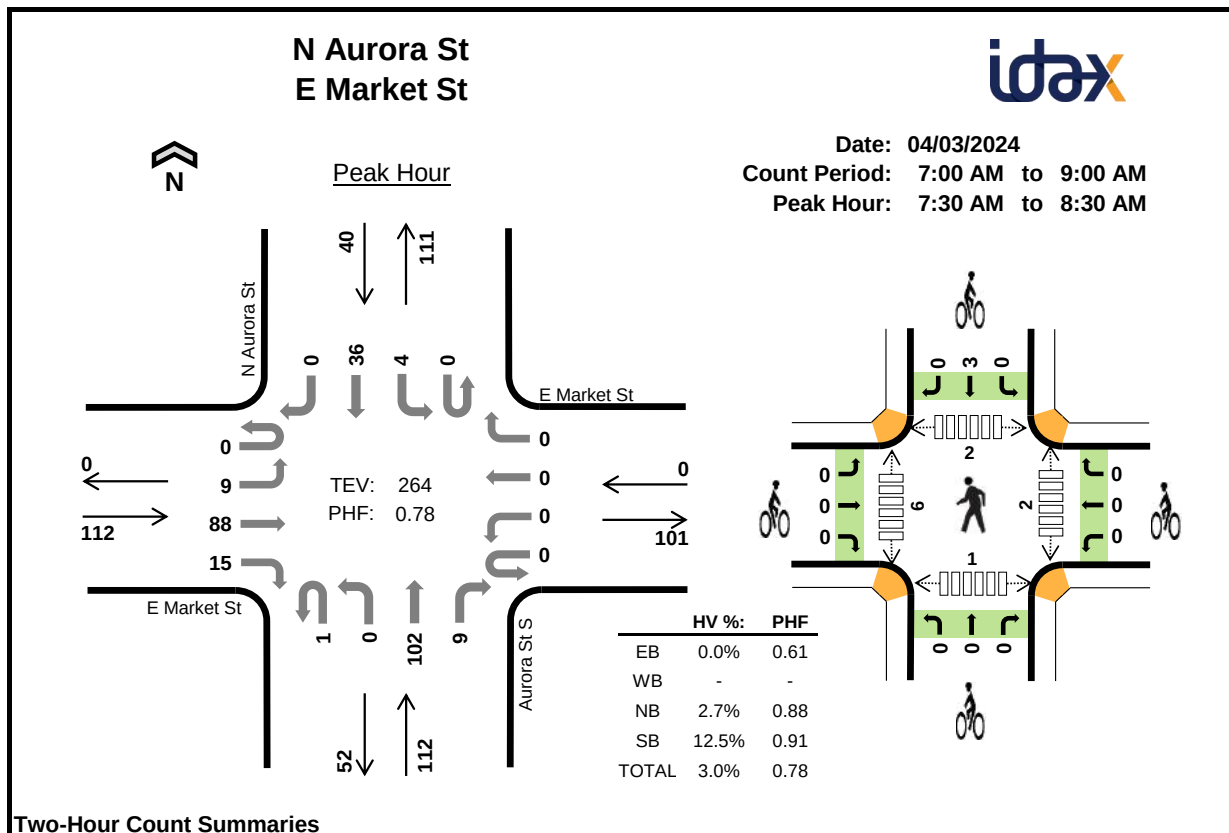
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
4:15 PM	1	0	0	0	1	1	0	0	0	1	0	1	0	1	2
4:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
5:30 PM	1	0	0	0	1	0	0	2	0	2	0	0	31	1	32
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	16	1	17
Count Total	2	0	0	0	2	3	0	3	0	6	0	1	51	3	55
Peak Hour	1	0	0	0	1	2	0	1	0	3	0	1	2	1	4

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Grant St				S Grant St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Peak Hour	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			S Grant St			S Grant St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	3				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	3				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
Count Total	0	3	0	0	0	0	0	3	0	0	0	0	6	0				
Peak Hour	0	2	0	0	0	0	0	1	0	0	0	0	3	0				

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				Aurora St S				N Aurora St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	5	1	0	0	0	0	0	1	0	20	0	0	8	2	0	37	0
7:15 AM		0	1	4	4	0	0	0	0	0	0	16	2	0	2	5	0	34	0
7:30 AM		0	3	12	3	0	0	0	0	0	0	20	2	0	2	9	0	51	0
7:45 AM		0	2	41	3	0	0	0	0	0	0	28	1	0	0	10	0	85	207
8:00 AM		0	2	17	6	0	0	0	0	0	0	24	5	0	0	10	0	64	234
8:15 AM		0	2	18	3	0	0	0	0	1	0	30	1	0	2	7	0	64	264
8:30 AM		0	1	9	3	0	0	0	0	0	0	15	2	0	0	10	0	40	253
8:45 AM		0	1	14	2	0	0	0	0	0	0	20	5	0	0	13	0	55	223
Count Total		0	17	116	24	0	0	0	0	2	0	173	18	0	14	66	0	430	0
Peak Hour	All	0	9	88	15	0	0	0	0	1	0	102	9	0	4	36	0	264	0
	HV	0	0	0	0	0	0	0	0	0	0	3	0	0	1	4	0	8	0
	HV%	-	0%	0%	0%	-	-	-	-	0%	-	3%	0%	-	25%	11%	-	3%	0

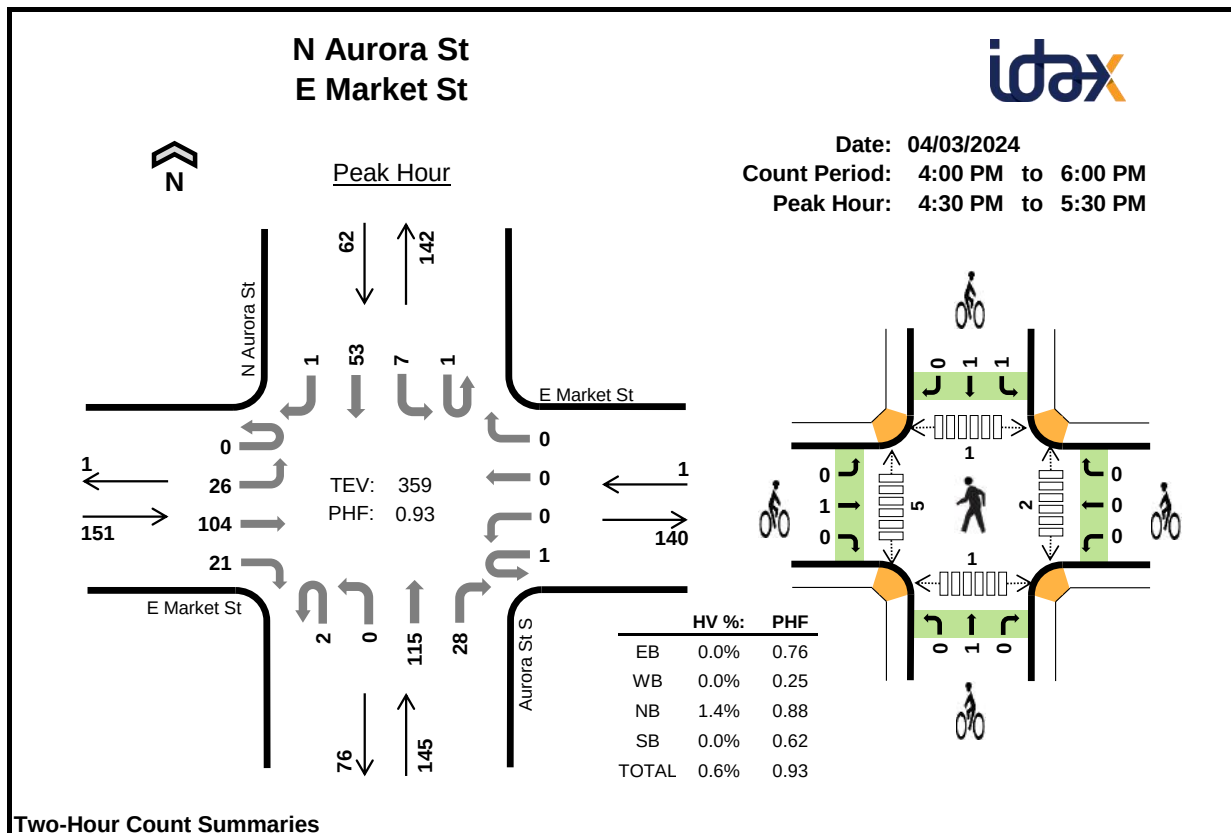
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	0	2	0	3	1	0	0	0	1	1	0	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	2	3
7:30 AM	0	0	0	1	1	0	0	0	1	1	1	1	0	0	2
7:45 AM	0	0	0	2	2	0	0	0	0	0	0	1	0	0	1
8:00 AM	0	0	3	2	5	0	0	0	1	1	0	2	2	0	4
8:15 AM	0	0	0	0	0	0	0	0	1	1	1	2	0	1	4
8:30 AM	0	0	0	0	0	0	0	0	2	2	0	4	0	0	4
8:45 AM	0	0	0	1	1	0	0	0	1	1	0	3	0	0	3
Count Total	1	0	5	6	12	1	0	0	6	7	4	13	2	4	23
Peak Hour	0	0	3	5	8	0	0	0	3	3	2	6	2	1	11

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				Aurora St S				N Aurora St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	3	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	6
8:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	8
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6
Count Total	0	0	1	0	0	0	0	0	0	0	5	0	0	1	5	0	12	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	3	0	0	1	4	0	8	0

Two-Hour Count Summaries - Bikes																	
Interval Start	E Market St			E Market St			Aurora St S			N Aurora St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	2			
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	3			
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	4			
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	5			
Count Total	0	1	0	0	0	0	0	0	0	0	6	0	7	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	3	0	3	0			

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				Aurora St S				N Aurora St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	4	17	3	0	0	0	0	0	0	40	8	0	4	7	0	83	0
4:15 PM		0	6	21	6	0	0	0	0	0	0	32	3	0	3	9	0	80	0
4:30 PM		0	4	27	6	0	0	0	0	1	0	34	5	0	2	10	0	89	0
4:45 PM		0	3	23	4	0	0	0	0	1	0	31	9	0	5	20	0	96	348
5:00 PM		0	11	32	7	1	0	0	0	0	0	22	7	0	0	10	0	90	355
5:15 PM		0	8	22	4	0	0	0	0	0	0	28	7	1	0	13	1	84	359
5:30 PM		0	4	22	6	0	0	0	0	2	0	21	8	0	0	5	0	68	338
5:45 PM		0	2	21	2	0	0	0	0	1	0	23	4	1	1	12	1	68	310
Count Total		0	42	185	38	1	0	0	0	5	0	231	51	2	15	86	2	658	0
Peak Hour	All	0	26	104	21	1	0	0	0	2	0	115	28	1	7	53	1	359	0
	HV	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
	HV%	-	0%	0%	0%	0%	-	-	-	0%	-	2%	0%	0%	0%	0%	0%	1%	0

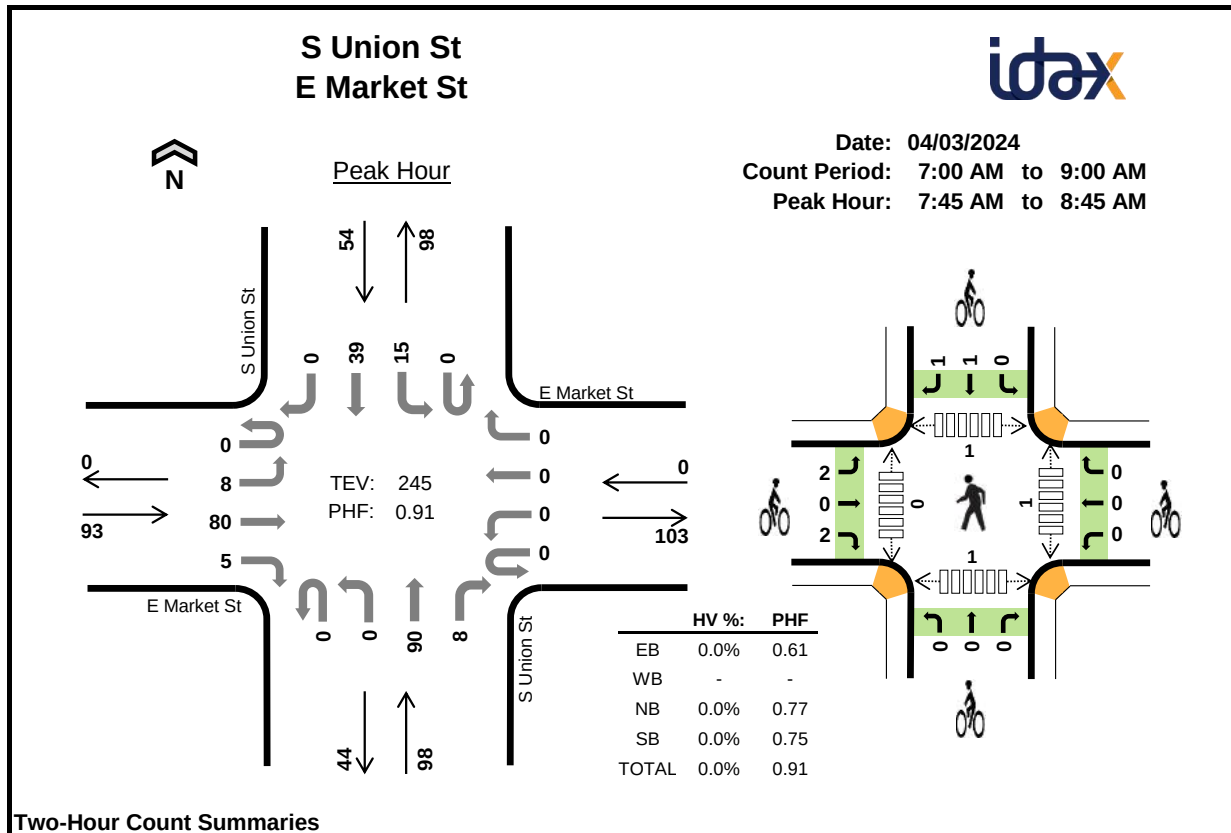
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	0	2	1	0	0	0	1	0	0	0	0	0
4:15 PM	1	0	2	1	4	1	0	0	1	2	1	2	0	1	4
4:30 PM	0	0	1	0	1	0	0	0	2	2	0	1	0	0	1
4:45 PM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1
5:00 PM	0	0	0	0	0	1	0	1	0	2	1	1	0	1	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	2	1	0	4
5:30 PM	0	0	0	0	0	2	0	0	0	2	0	0	0	1	1
5:45 PM	0	0	1	0	1	0	0	0	0	0	1	2	0	0	3
Count Total	1	0	7	1	9	5	0	1	3	9	4	9	1	3	17
Peak Hour	0	0	2	0	2	1	0	1	2	4	2	5	1	1	9

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				Aurora St S				N Aurora St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	0	1	0	4	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	8
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
Count Total	0	1	0	0	0	0	0	0	0	0	7	0	0	0	1	0	9	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			Aurora St S			N Aurora St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0				
4:15 PM	1	0	0	0	0	0	0	0	0	0	1	0	2	0				
4:30 PM	0	0	0	0	0	0	0	0	0	1	1	0	2	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5				
5:00 PM	0	1	0	0	0	0	0	1	0	0	0	0	2	6				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4				
5:30 PM	0	1	1	0	0	0	0	0	0	0	0	0	2	4				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4				
Count Total	1	2	2	0	0	0	0	1	0	1	2	0	9	0				
Peak Hour	0	1	0	0	0	0	0	1	0	1	1	0	4	0				

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				S Union St				S Union St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	2	2	0	0	0	0	0	0	1	3	0	0	1	5	2	16	0
7:15 AM		0	5	8	1	0	0	0	0	0	0	10	2	0	2	10	2	40	0
7:30 AM		0	2	7	0	0	0	0	0	0	0	11	0	0	1	2	0	23	0
7:45 AM		0	3	34	1	0	0	0	0	0	0	14	2	0	2	11	0	67	146
8:00 AM		0	1	18	1	0	0	0	0	0	0	30	2	0	3	7	0	62	192
8:15 AM		0	2	19	1	0	0	0	0	0	0	24	2	0	5	8	0	61	213
8:30 AM		0	2	9	2	0	0	0	0	0	0	22	2	0	5	13	0	55	245
8:45 AM		0	2	16	0	0	0	0	0	0	0	15	1	0	5	11	0	50	228
Count Total		0	19	113	6	0	0	0	0	0	1	129	11	0	24	67	4	374	0
Peak Hour	All	0	8	80	5	0	0	0	0	0	0	90	8	0	15	39	0	245	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	HV%	-	0%	0%	0%	-	-	-	-	-	-	0%	0%	-	0%	0%	-	0%	0

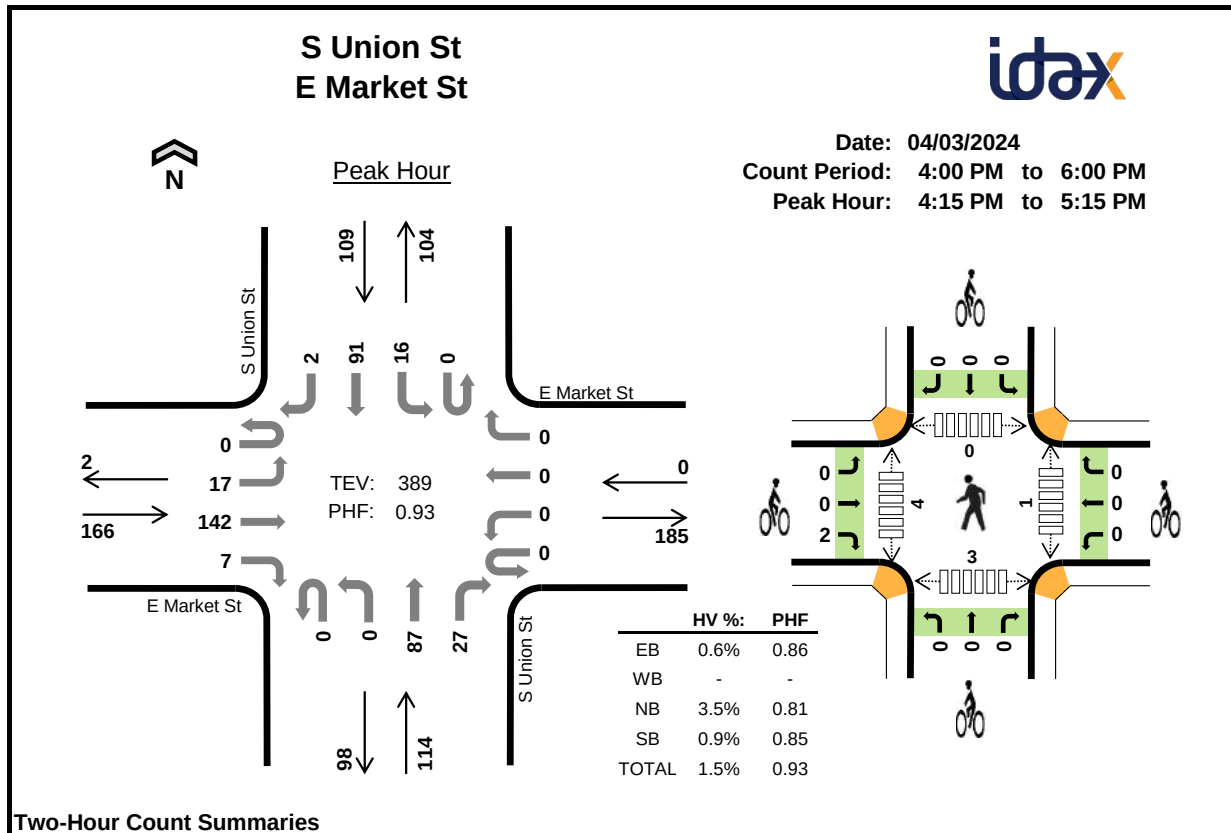
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
7:15 AM	0	0	0	2	2	0	0	2	0	2	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1
8:15 AM	0	0	0	0	0	1	0	0	1	2	0	0	0	0	0
8:30 AM	0	0	0	0	0	3	0	0	0	3	0	0	1	0	1
8:45 AM	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	1	5	6	4	0	2	3	9	1	0	2	1	4
Peak Hour	0	0	0	0	0	4	0	0	2	6	1	0	1	1	3

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Union St				S Union St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	4	4
Count Total	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4	0	6	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St				E Market St				S Union St				S Union St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT			
7:00 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
7:15 AM	0	0	0		0	0	0		1	1	0		0	0	0		2	0
7:30 AM	0	0	0		0	0	0		0	0	0		0	1	0		1	0
7:45 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	3
8:00 AM	0	0	0		0	0	0		0	0	0		0	1	0		1	4
8:15 AM	0	0	1		0	0	0		0	0	0		0	0	1		2	4
8:30 AM	2	0	1		0	0	0		0	0	0		0	0	0		3	6
8:45 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	6
Count Total	2	0	2		0	0	0		1	1	0		0	2	1		9	0
Peak Hour	2	0	2		0	0	0		0	0	0		0	1	1		6	0

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				S Union St				S Union St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	3	16	0	0	0	0	0	0	1	27	4	0	8	17	0	76	0
4:15 PM		0	4	34	2	0	0	0	0	0	0	25	8	0	2	28	2	105	0
4:30 PM		0	2	37	3	0	0	0	0	0	0	25	10	0	5	23	0	105	0
4:45 PM		0	3	33	0	0	0	0	0	0	0	19	4	0	5	20	0	84	370
5:00 PM		0	8	38	2	0	0	0	0	0	0	18	5	0	4	20	0	95	389
5:15 PM		0	6	27	1	0	0	0	0	0	1	22	4	0	6	13	0	80	364
5:30 PM		0	2	28	3	0	0	0	0	0	1	17	5	0	7	14	0	77	336
5:45 PM		0	0	25	0	0	0	0	0	0	0	15	4	0	4	15	0	63	315
Count Total		0	28	238	11	0	0	0	0	0	3	168	44	0	41	150	2	685	0
Peak Hour	All	0	17	142	7	0	0	0	0	0	0	87	27	0	16	91	2	389	0
	HV	0	0	1	0	0	0	0	0	0	0	4	0	0	0	1	0	6	0
	HV%	-	0%	1%	0%	-	-	-	-	-	-	5%	0%	-	0%	1%	0%	2%	0

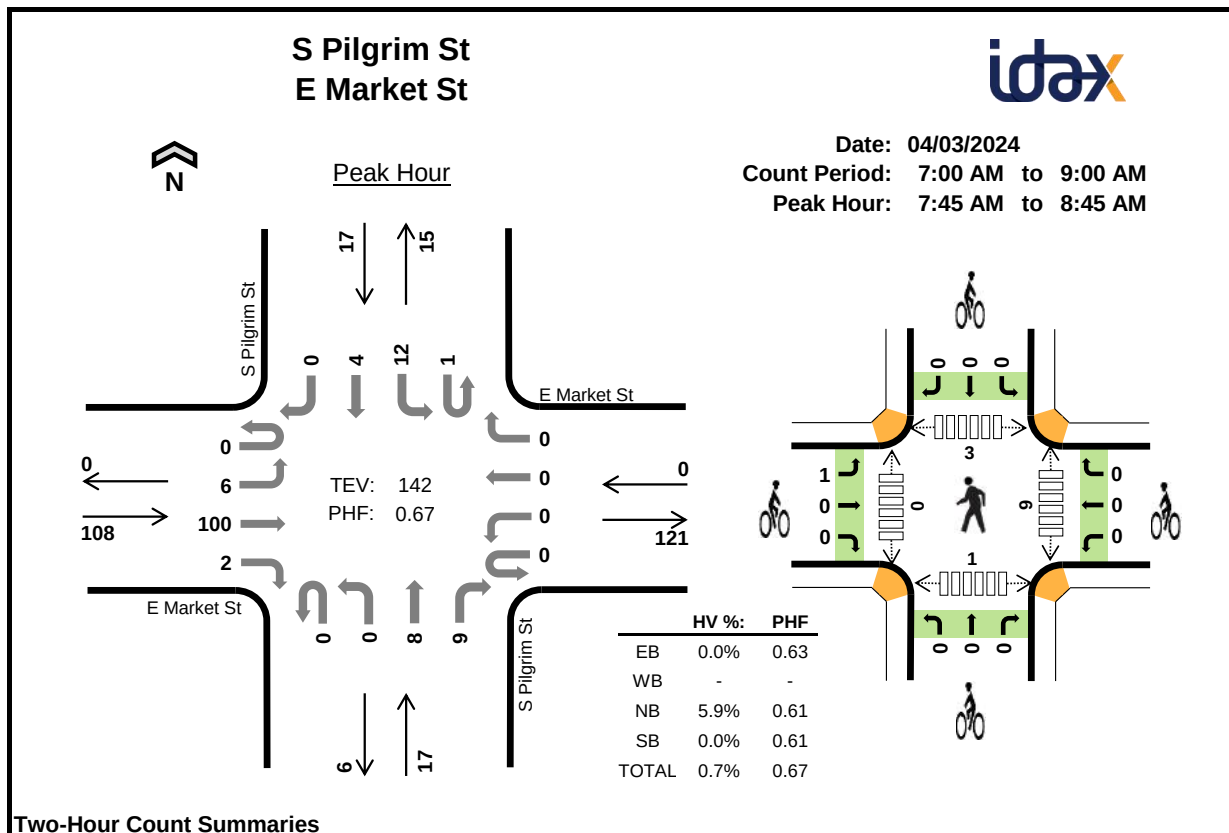
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	1	1	0	0	2	1	3	0	0	0	0	0
4:15 PM	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1
4:30 PM	1	0	2	0	3	1	0	0	0	1	0	0	0	1	1
4:45 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	2	2
5:00 PM	0	0	1	0	1	1	0	0	0	1	0	4	0	0	4
5:15 PM	0	0	1	0	1	0	0	0	1	1	0	0	0	0	0
5:30 PM	0	0	1	0	1	0	0	1	2	3	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	1	0	6	2	9	2	0	3	4	9	1	4	0	3	8
Peak Hour	1	0	4	1	6	2	0	0	0	2	1	4	0	3	8

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	E Market St				E Market St				S Union St				S Union St				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	6
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	1	0	0	0	0	0	0	0	0	6	0	0	0	2	0	9	0
Peak Hour	0	0	1	0	0	0	0	0	0	0	0	4	0	0	0	1	0	6	0

Two-Hour Count Summaries - Bikes																	
Interval Start	E Market St			E Market St			S Union St			S Union St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	2	0	0	1	0	3	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4			
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	2			
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	3			
5:30 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	5			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5			
Count Total	0	0	2	0	0	0	0	3	0	0	4	0	9	0			
Peak Hour	0	0	2	0	0	0	0	0	0	0	0	0	2	0			

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				S Pilgrim St				S Pilgrim St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	7:00 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	1	1	0	4	0
	7:15 AM	0	1	6	0	0	0	0	0	0	0	0	2	0	1	2	0	12	0
	7:30 AM	0	0	9	0	0	0	0	0	0	0	1	2	0	2	0	0	14	0
	7:45 AM	0	3	39	1	0	0	0	0	0	0	0	3	0	7	0	0	53	83
	8:00 AM	0	1	21	1	0	0	0	0	0	0	3	4	0	3	0	0	33	112
	8:15 AM	0	1	24	0	0	0	0	0	0	0	3	0	0	2	2	0	32	132
	8:30 AM	0	1	16	0	0	0	0	0	0	0	2	2	1	0	2	0	24	142
	8:45 AM	0	1	20	0	0	0	0	0	0	0	0	2	0	3	1	0	27	116
Count Total		0	8	136	2	0	0	0	0	0	0	10	15	1	19	8	0	199	0
Peak Hour	All	0	6	100	2	0	0	0	0	0	0	8	9	1	12	4	0	142	0
	HV	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
	HV%	-	0%	0%	0%	-	-	-	-	-	-	13%	0%	0%	0%	0%	-	1%	0

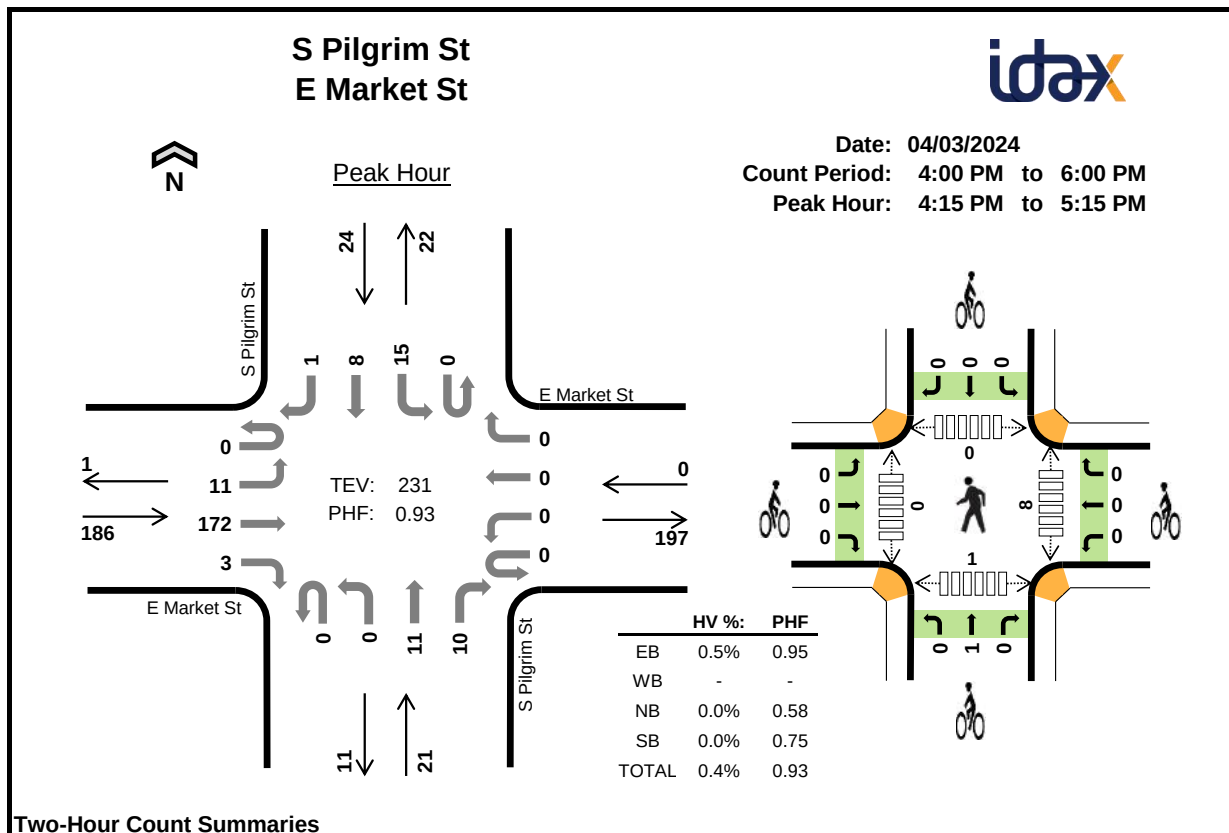
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2
7:15 AM	1	0	0	0	1	0	0	0	1	1	1	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	0	0	1	8	0	1	0	9
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
8:45 AM	1	0	0	0	1	0	0	0	0	0	3	0	1	0	4
Count Total	2	0	1	0	3	1	0	0	1	2	14	0	5	1	20
Peak Hour	0	0	1	0	1	1	0	0	0	1	9	0	3	1	13

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Pilgrim St				S Pilgrim St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Count Total	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	3	
Peak Hour	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	

Two-Hour Count Summaries - Bikes																	
Interval Start	E Market St			E Market St			S Pilgrim St			S Pilgrim St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	2			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	1	0	0	0	0	0	0	0	0	0	1	0	2	0			
Peak Hour	1	0	0	0	0	0	0	0	0	0	0	0	1	0			

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				S Pilgrim St				S Pilgrim St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	3	24	0	0	0	0	0	0	0	1	4	0	6	3	0	41	0
4:15 PM		0	3	41	1	0	0	0	0	0	0	2	2	0	2	4	0	55	0
4:30 PM		0	4	44	1	0	0	0	0	0	0	5	4	0	2	2	0	62	0
4:45 PM		0	3	39	1	0	0	0	0	0	0	1	4	0	8	0	0	56	214
5:00 PM		0	1	48	0	0	0	0	0	0	0	3	0	0	3	2	1	58	231
5:15 PM		0	2	33	0	0	0	0	0	0	0	2	1	0	3	1	0	42	218
5:30 PM		0	2	36	1	0	0	0	0	0	0	1	6	0	1	3	0	50	206
5:45 PM		0	0	31	2	0	0	0	0	0	0	2	3	0	5	2	0	45	195
Count Total		0	18	296	6	0	0	0	0	0	0	17	24	0	30	17	1	409	0
Peak Hour	All	0	11	172	3	0	0	0	0	0	0	11	10	0	15	8	1	231	0
	HV	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	HV%	-	0%	1%	0%	-	-	-	-	-	-	0%	0%	-	0%	0%	0%	0%	0

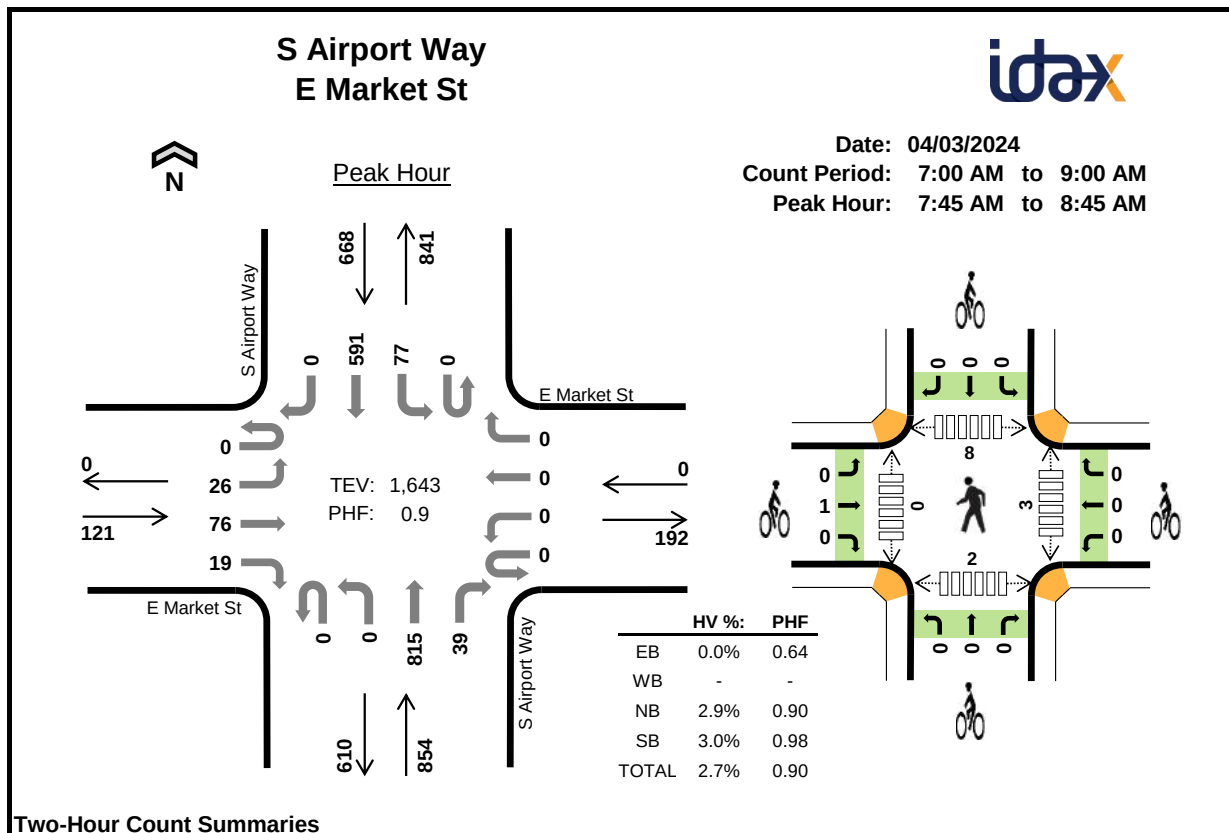
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	4
4:45 PM	0	0	0	0	0	0	0	1	0	1	3	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	3
Count Total	1	0	0	0	1	0	0	1	0	1	12	0	1	2	15
Peak Hour	1	0	0	0	1	0	0	1	0	1	8	0	0	1	9

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Pilgrim St				S Pilgrim St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Peak Hour	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	

Two-Hour Count Summaries - Bikes																	
Interval Start	E Market St			E Market St			S Pilgrim St			S Pilgrim St			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	1			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	0	0	0	0	0	0	0	1	0	0	0	0	1	0			
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	0	1	0			

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



Interval Start	E Market St Eastbound				E Market St Westbound				S Airport Way Northbound				S Airport Way Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	3	1	0	0	0	0	0	0	77	3	0	12	77	0	173	0
7:15 AM	0	2	4	1	0	0	0	0	0	0	116	3	0	16	103	0	245	0
7:30 AM	0	3	11	3	0	0	0	0	0	0	149	9	0	18	126	0	319	0
7:45 AM	0	14	22	11	0	0	0	0	0	0	225	13	0	15	154	0	454	1,191
8:00 AM	0	5	21	2	0	0	0	0	0	0	207	9	0	17	144	0	405	1,423
8:15 AM	0	5	21	3	0	0	0	0	0	0	203	10	0	18	149	0	409	1,587
8:30 AM	0	2	12	3	0	0	0	0	0	0	180	7	0	27	144	0	375	1,643
8:45 AM	0	6	17	2	0	0	0	0	0	0	148	7	0	20	126	0	326	1,515
Count Total	0	37	111	26	0	0	0	0	0	0	1,305	61	0	143	1,023	0	2,706	0
Peak Hour	All	0	26	76	19	0	0	0	0	0	815	39	0	77	591	0	1,643	0
	HV	0	0	0	0	0	0	0	0	0	25	0	0	4	16	0	45	0
	HV%	-	0%	0%	0%	-	-	-	-	-	3%	0%	-	5%	3%	-	3%	0

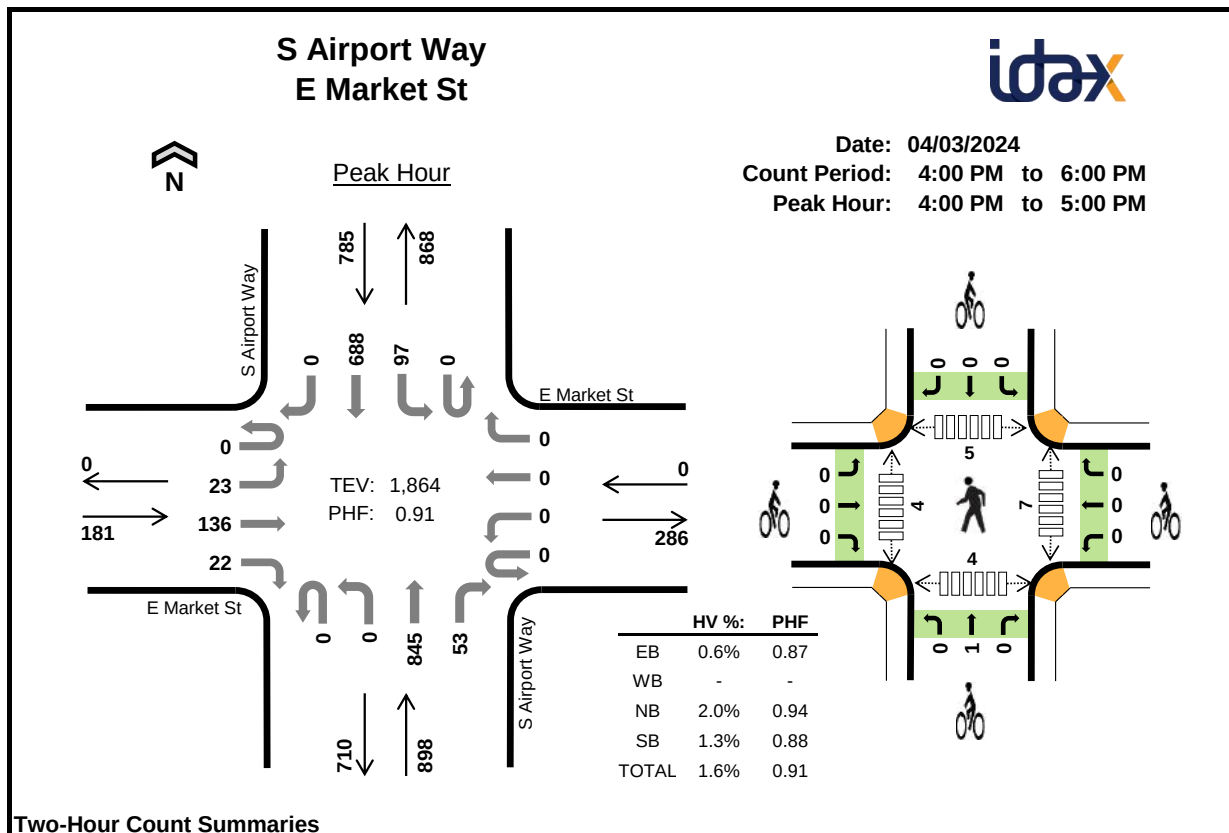
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	1	7	8	0	0	0	0	0	0	0	2	1	3
7:15 AM	1	0	3	8	12	0	0	0	0	0	4	0	0	6	10
7:30 AM	0	0	9	6	15	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	8	3	11	0	0	0	0	0	0	0	3	0	3
8:00 AM	0	0	5	4	9	0	0	0	0	0	2	0	4	1	7
8:15 AM	0	0	4	8	12	0	0	0	0	0	1	0	0	1	2
8:30 AM	0	0	8	5	13	1	0	0	0	1	0	0	1	0	1
8:45 AM	0	0	13	11	24	0	0	0	0	0	0	0	2	0	2
Count Total	1	0	51	52	104	1	0	0	0	1	7	0	12	9	28
Peak Hour	0	0	25	20	45	1	0	0	0	1	3	0	8	2	13

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Airport Way				S Airport Way				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6	0	8	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	3	0	0	1	7	0	12	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	8	1	0	0	6	0	15	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	1	2	0	11	46
8:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	1	3	0	9	47
8:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	1	7	0	12	47
8:30 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	1	4	0	13	45
8:45 AM	0	0	0	0	0	0	0	0	0	0	13	0	0	3	8	0	24	58
Count Total	0	1	0	0	0	0	0	0	0	0	50	1	0	9	43	0	104	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	25	0	0	4	16	0	45	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			S Airport Way			S Airport Way			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	1				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
Count Total	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
Peak Hour	0	1	0	0	0	0	0	0	0	0	0	0	1	0				

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

**Two-Hour Count Summaries**

Interval Start	E Market St Eastbound				E Market St Westbound				S Airport Way Northbound				S Airport Way Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	4	29	4	0	0	0	0	0	0	217	14	0	15	142	0	425	0
4:15 PM	0	8	32	2	0	0	0	0	0	0	205	11	0	27	165	0	450	0
4:30 PM	0	10	34	8	0	0	0	0	0	0	198	13	0	26	187	0	476	0
4:45 PM	0	1	41	8	0	0	0	0	0	0	225	15	0	29	194	0	513	1,864
5:00 PM	0	4	30	14	0	0	0	0	0	0	165	7	0	28	170	0	418	1,857
5:15 PM	0	4	28	6	0	0	0	0	0	0	166	7	0	31	205	0	447	1,854
5:30 PM	0	10	30	4	0	0	0	0	0	0	159	17	0	17	193	0	430	1,808
5:45 PM	0	7	27	1	0	0	0	0	0	0	147	23	0	17	152	0	374	1,669
Count Total	0	48	251	47	0	0	0	0	0	0	1,482	107	0	190	1,408	0	3,533	0
Peak Hour	All	0	23	136	22	0	0	0	0	0	845	53	0	97	688	0	1,864	0
	HV	0	0	1	0	0	0	0	0	0	18	0	0	2	8	0	29	0
	HV%	-	0%	1%	0%	-	-	-	-	-	2%	0%	-	2%	1%	-	2%	0

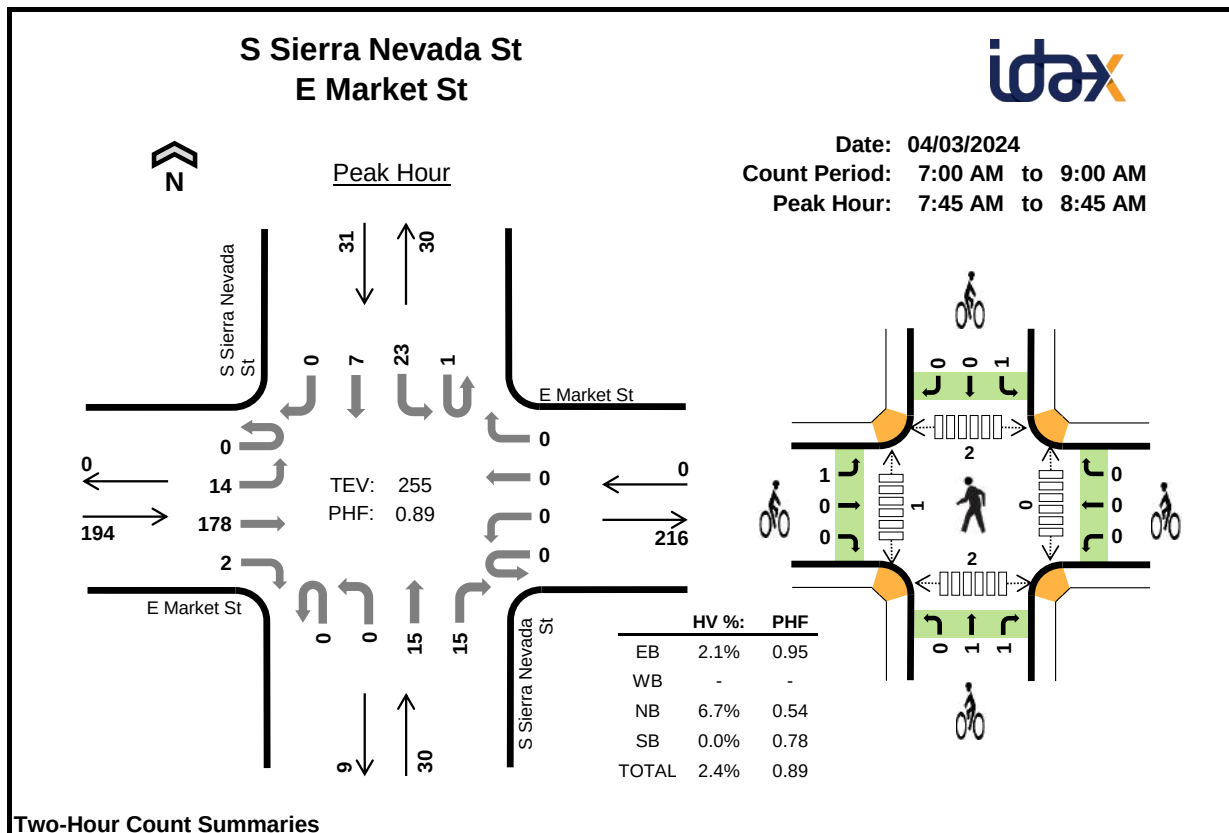
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	7	2	9	0	0	1	0	1	1	2	2	2	7
4:15 PM	0	0	1	4	5	0	0	0	0	0	1	2	3	0	6
4:30 PM	1	0	4	2	7	0	0	0	0	0	4	0	0	2	6
4:45 PM	0	0	6	2	8	0	0	0	0	0	1	0	0	0	1
5:00 PM	0	0	2	2	4	0	0	0	0	0	4	2	1	3	10
5:15 PM	0	0	2	3	5	0	0	0	0	0	1	3	1	0	5
5:30 PM	0	0	4	3	7	0	0	0	0	0	0	0	0	2	2
5:45 PM	0	0	3	1	4	0	0	0	0	0	2	0	0	0	2
Count Total	1	0	29	19	49	0	0	1	0	1	14	9	7	9	39
Peak Hour	1	0	18	10	29	0	0	1	0	1	7	4	5	4	20

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Airport Way				S Airport Way				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	2	0	9	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	0	5	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	4	0	0	1	1	0	7	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	2	0	8	29
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	1	0	4	24
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	24
5:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	1	2	0	7	24
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	20
Count Total	0	0	1	0	0	0	0	0	0	0	29	0	0	4	15	0	49	0
Peak Hour	0	0	1	0	0	0	0	0	0	0	18	0	0	2	8	0	29	0

Two-Hour Count Summaries - Bikes																	
Interval Start	E Market St			E Market St			S Airport Way			S Airport Way			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	0	0	0	0	0	0	0	1	0	0	0	0	1	0			
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	0	1	0			

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				S Sierra Nevada St				S Sierra Nevada St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	19	0	0	0	0	0	0	0	1	1	0	3	0	0	24	0
7:15 AM		0	1	23	1	0	0	0	0	0	0	1	1	0	7	1	0	35	0
7:30 AM		0	1	38	1	0	0	0	0	0	0	3	3	0	7	0	0	53	0
7:45 AM		0	6	45	0	0	0	0	0	0	0	3	3	0	8	1	0	66	178
8:00 AM		0	3	45	1	0	0	0	0	0	0	3	3	0	2	2	0	59	213
8:15 AM		0	4	43	1	0	0	0	0	0	0	7	7	1	6	3	0	72	250
8:30 AM		0	1	45	0	0	0	0	0	0	0	2	2	0	7	1	0	58	255
8:45 AM		0	4	38	0	0	0	0	0	0	0	1	1	0	1	0	0	45	234
Count Total		0	20	296	4	0	0	0	0	0	0	21	21	1	41	8	0	412	0
Peak Hour	All	0	14	178	2	0	0	0	0	0	0	15	15	1	23	7	0	255	0
	HV	0	0	4	0	0	0	0	0	0	0	1	1	0	0	0	0	6	0
	HV%	-	0%	2%	0%	-	-	-	-	-	-	7%	7%	0%	0%	0%	-	2%	0

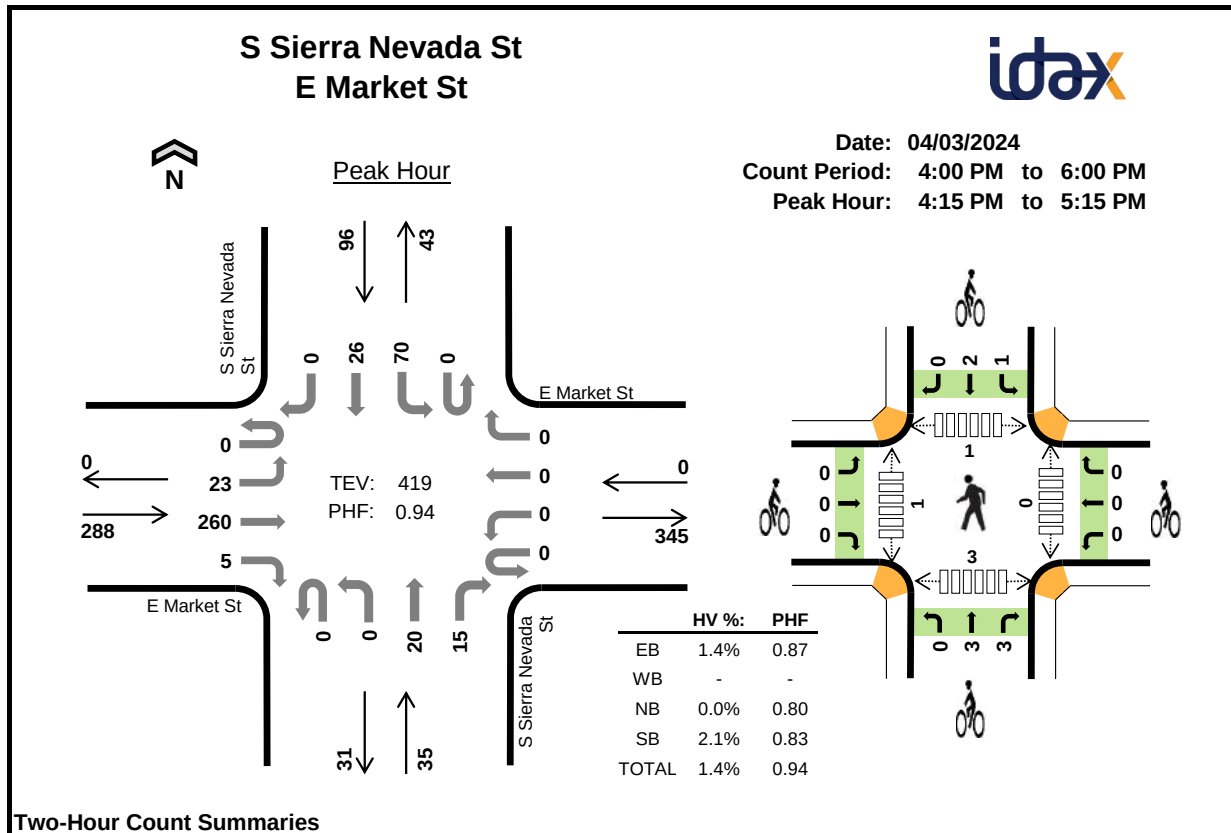
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1
7:15 AM	1	0	2	2	5	0	0	0	0	0	0	0	4	0	4
7:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1
7:45 AM	1	0	2	0	3	0	0	0	0	0	0	1	1	0	2
8:00 AM	1	0	0	0	1	0	0	2	0	2	0	0	0	1	1
8:15 AM	1	0	0	0	1	0	0	0	1	1	0	0	1	1	2
8:30 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
8:45 AM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0
Count Total	10	0	4	2	16	1	0	2	1	4	0	1	7	3	11
Peak Hour	4	0	2	0	6	1	0	2	1	4	0	1	2	2	5

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Sierra Nevada St				S Sierra Nevada St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	1	0	0	0	0	0	0	0	1	1	0	2	0	0	5	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	3	10
8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
8:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
8:45 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6
Count Total	0	0	10	0	0	0	0	0	0	0	2	2	0	2	0	0	16	0
Peak Hour	0	0	4	0	0	0	0	0	0	0	1	1	0	0	0	0	6	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			S Sierra Nevada St			S Sierra Nevada St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:00 AM	0	0	0	0	0	0	0	1	1	0	0	0	2	2				
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	3				
8:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	4				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4				
Count Total	1	0	0	0	0	0	0	1	1	1	0	0	4	0				
Peak Hour	1	0	0	0	0	0	0	1	1	1	0	0	4	0				

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

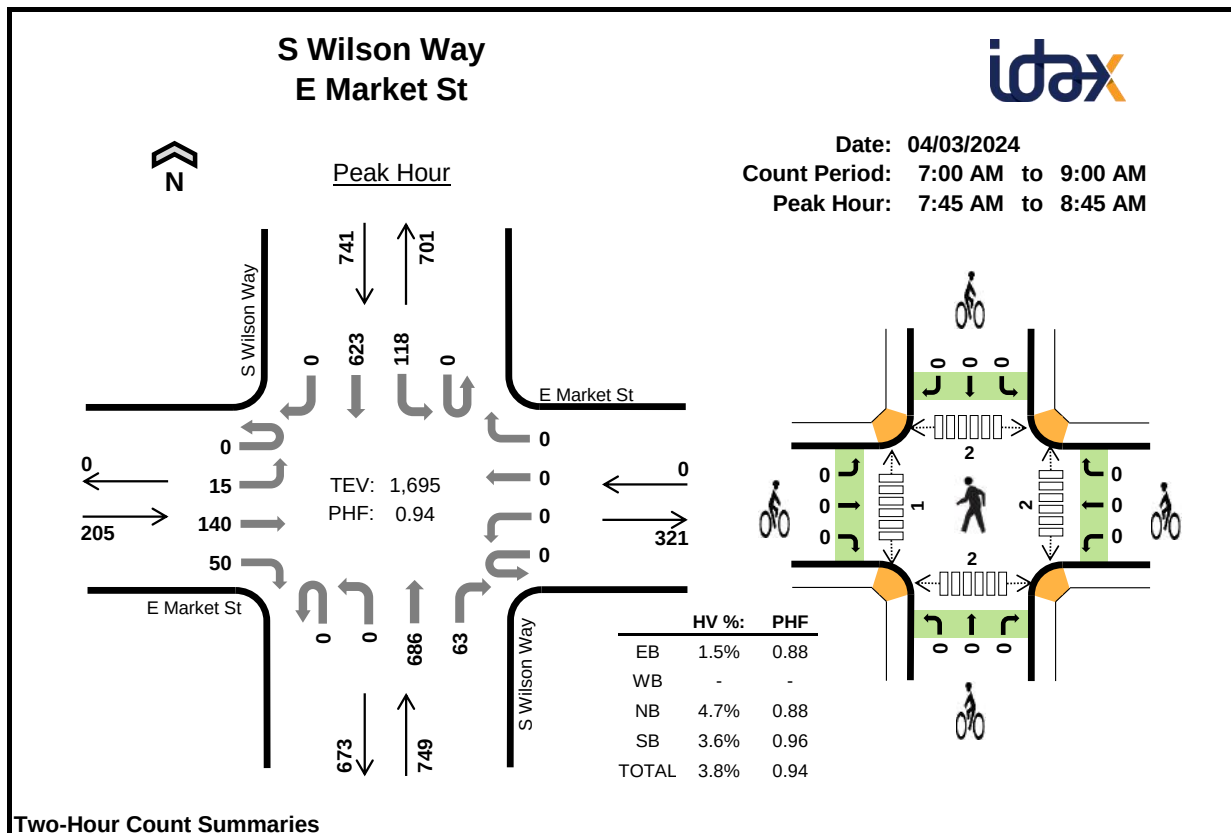
**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				S Sierra Nevada St				S Sierra Nevada St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	11	45	1	0	0	0	0	0	0	9	9	0	12	0	0	87	0
4:15 PM		0	5	62	2	0	0	0	0	0	0	5	5	0	13	10	0	102	0
4:30 PM		0	7	64	2	0	0	0	0	0	0	3	3	0	20	7	0	106	0
4:45 PM		0	8	74	1	0	0	0	0	0	0	8	3	0	13	4	0	111	406
5:00 PM		0	3	60	0	0	0	0	0	0	0	4	4	0	24	5	0	100	419
5:15 PM		0	3	64	0	0	0	0	0	0	0	3	3	0	11	1	0	85	402
5:30 PM		0	5	58	1	0	0	0	0	0	0	2	2	0	9	2	0	79	375
5:45 PM		0	5	54	4	0	0	0	0	0	0	5	5	0	13	2	0	88	352
Count Total		0	47	481	11	0	0	0	0	0	0	39	34	0	115	31	0	758	0
Peak Hour	All	0	23	260	5	0	0	0	0	0	0	20	15	0	70	26	0	419	0
	HV	0	0	4	0	0	0	0	0	0	0	0	0	0	2	0	0	6	0
	HV%	-	0%	2%	0%	-	-	-	-	-	-	0%	0%	-	3%	0%	-	1%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	1	1	0	0	0	1	1	0	0	1	1	2
4:15 PM	1	0	0	0	1	0	0	2	0	2	0	0	1	0	1
4:30 PM	2	0	0	1	3	0	0	0	1	1	0	1	0	2	3
4:45 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
5:00 PM	1	0	0	0	1	0	0	4	2	6	0	0	0	0	0
5:15 PM	0	0	0	1	1	0	0	0	0	0	2	0	1	1	4
5:30 PM	1	0	0	0	1	1	0	4	0	5	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
Count Total	5	0	0	4	9	1	0	10	4	15	2	3	3	5	13
Peak Hour	4	0	0	2	6	0	0	6	3	9	0	1	1	3	5

Two-Hour Count Summaries - Heavy Vehicles																
Interval Start	E Market St				E Market St				S Sierra Nevada St				S Sierra Nevada St			
	Eastbound				Westbound				Northbound				Southbound			
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	5	0	0	0	0	0	0	0	0	0	0	4	0	0
Peak Hour	0	0	4	0	0	0	0	0	0	0	0	0	0	2	0	0
Two-Hour Count Summaries - Bikes																
Interval Start	E Market St				E Market St				S Sierra Nevada St				S Sierra Nevada St			
	Eastbound				Westbound				Northbound				Southbound			
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT	
4:00 PM	0	0	0		0	0	0		0	0	0		1	0	0	
4:15 PM	0	0	0		0	0	0		0	1	1		0	0	0	
4:30 PM	0	0	0		0	0	0		0	0	0		0	1	0	
4:45 PM	0	0	0		0	0	0		0	0	0		0	0	0	
5:00 PM	0	0	0		0	0	0		0	2	2		1	1	0	
5:15 PM	0	0	0		0	0	0		0	0	0		0	0	0	
5:30 PM	1	0	0		0	0	0		0	2	2		0	0	0	
5:45 PM	0	0	0		0	0	0		0	0	0		0	0	0	
Count Total	1	0	0		0	0	0		0	5	5		2	2	0	
Peak Hour	0	0	0		0	0	0		0	3	3		1	2	0	
Note: U-Turn volumes for bikes are included in Left-Turn, if any.																

**Two-Hour Count Summaries**

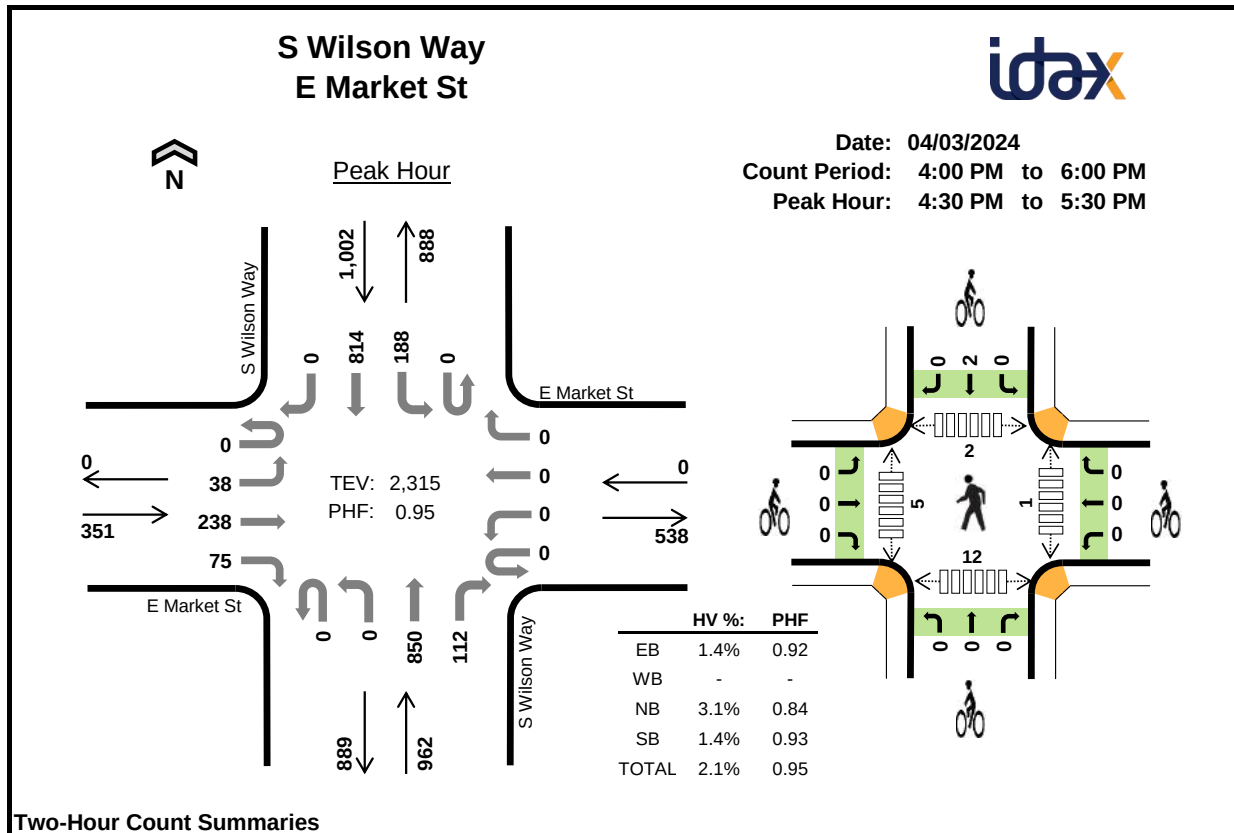
Interval Start	E Market St Eastbound				E Market St Westbound				S Wilson Way Northbound				S Wilson Way Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	6	13	0	0	0	0	0	0	96	9	0	6	112	0	244	0
7:15 AM	0	1	17	16	0	0	0	0	0	0	84	11	0	18	96	0	243	0
7:30 AM	0	3	20	18	0	0	0	0	0	0	125	6	0	10	128	0	310	0
7:45 AM	0	2	43	10	0	0	0	0	0	0	169	14	0	31	145	0	414	1,211
8:00 AM	0	1	26	15	0	0	0	0	0	0	154	15	0	35	157	0	403	1,370
8:15 AM	0	4	36	10	0	0	0	0	0	0	194	19	0	23	164	0	450	1,577
8:30 AM	0	8	35	15	0	0	0	0	0	0	169	15	0	29	157	0	428	1,695
8:45 AM	0	2	25	13	0	0	0	0	0	0	193	13	0	22	144	0	412	1,693
Count Total	0	23	208	110	0	0	0	0	0	0	1,184	102	0	174	1,103	0	2,904	0
Peak Hour	All	0	15	140	50	0	0	0	0	0	686	63	0	118	623	0	1,695	0
	HV	0	0	3	0	0	0	0	0	0	33	2	0	1	26	0	65	0
	HV%	-	0%	2%	0%	-	-	-	-	-	5%	3%	-	1%	4%	-	4%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	0	16	16	33	0	0	0	0	0	0	1	0	0	1
7:15 AM	4	0	10	8	22	0	0	0	0	0	1	0	0	1	2
7:30 AM	2	0	7	9	18	0	0	0	0	0	0	0	2	1	3
7:45 AM	1	0	7	9	17	0	0	0	0	0	0	1	1	2	4
8:00 AM	0	0	5	5	10	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	12	6	19	0	0	0	0	0	1	0	0	0	1
8:30 AM	1	0	11	7	19	0	0	0	0	0	1	0	1	0	2
8:45 AM	4	0	9	12	25	0	0	1	0	1	0	0	0	0	0
Count Total	14	0	77	72	163	0	0	1	0	1	3	2	4	4	13
Peak Hour	3	0	35	27	65	0	0	0	0	0	2	1	2	2	7

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Wilson Way				S Wilson Way				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	0	0	0	0	14	2	0	0	16	0	33	0
7:15 AM	0	0	3	1	0	0	0	0	0	0	8	2	0	1	7	0	22	0
7:30 AM	0	1	1	0	0	0	0	0	0	0	7	0	0	0	9	0	18	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	7	0	0	1	8	0	17	90
8:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	10	67
8:15 AM	0	0	1	0	0	0	0	0	0	0	11	1	0	0	6	0	19	64
8:30 AM	0	0	1	0	0	0	0	0	0	0	10	1	0	0	7	0	19	65
8:45 AM	0	0	3	1	0	0	0	0	0	0	7	2	0	0	12	0	25	73
Count Total	0	1	11	2	0	0	0	0	0	0	69	8	0	2	70	0	163	0
Peak Hour	0	0	3	0	0	0	0	0	0	0	33	2	0	1	26	0	65	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			S Wilson Way			S Wilson Way			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	1				
Count Total	0	0	0	0	0	0	0	0	1	0	0	0	1	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Note: U-Turn volumes for bikes are included in Left-Turn, if any.																		

**Two-Hour Count Summaries**

Interval Start	E Market St Eastbound				E Market St Westbound				S Wilson Way Northbound				S Wilson Way Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	3	43	12	0	0	0	0	0	0	194	21	0	43	205	0	521	0
4:15 PM	0	7	51	17	0	0	0	0	0	0	211	25	0	43	190	0	544	0
4:30 PM	0	14	52	20	0	0	0	0	0	0	255	32	0	45	189	0	607	0
4:45 PM	0	11	65	19	0	0	0	0	0	0	201	33	0	42	205	0	576	2,248
5:00 PM	0	7	67	17	0	0	0	0	0	0	187	26	0	53	217	0	574	2,301
5:15 PM	0	6	54	19	0	0	0	0	0	0	207	21	0	48	203	0	558	2,315
5:30 PM	0	4	46	21	0	0	0	0	0	0	187	24	0	55	207	0	544	2,252
5:45 PM	0	5	44	17	0	0	0	0	0	0	191	29	0	33	196	0	515	2,191
Count Total	0	57	422	142	0	0	0	0	0	0	1,633	211	0	362	1,612	0	4,439	0
Peak Hour	All	0	38	238	75	0	0	0	0	0	850	112	0	188	814	0	2,315	0
	HV	0	1	3	1	0	0	0	0	0	25	5	0	2	12	0	49	0
	HV%	-	3%	1%	1%	-	-	-	-	-	3%	4%	-	1%	1%	-	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	5	3	9	1	0	0	0	1	0	0	1	0	1
4:15 PM	1	0	9	7	17	0	0	0	0	0	0	0	0	2	2
4:30 PM	2	0	11	4	17	0	0	0	0	0	0	2	0	3	5
4:45 PM	2	0	10	2	14	0	0	0	1	1	0	0	1	2	3
5:00 PM	0	0	3	5	8	0	0	0	1	1	1	1	0	4	6
5:15 PM	1	0	6	3	10	0	0	0	0	0	0	2	1	3	6
5:30 PM	1	0	3	3	7	0	0	0	0	0	0	0	0	1	1
5:45 PM	0	0	5	2	7	0	0	0	0	0	1	1	0	3	5
Count Total	8	0	52	29	89	1	0	0	2	3	2	6	3	18	29
Peak Hour	5	0	30	14	49	0	0	0	2	2	1	5	2	12	20

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				S Wilson Way				S Wilson Way				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	1	0	0	0	0	0	0	3	2	0	0	3	0	9	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	9	0	0	0	7	0	17	0
4:30 PM	0	1	0	1	0	0	0	0	0	0	11	0	0	0	4	0	17	0
4:45 PM	0	0	2	0	0	0	0	0	0	0	7	3	0	0	2	0	14	57
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	1	4	0	8	56
5:15 PM	0	0	1	0	0	0	0	0	0	0	5	1	0	1	2	0	10	49
5:30 PM	0	0	1	0	0	0	0	0	0	0	3	0	0	0	3	0	7	39
5:45 PM	0	0	0	0	0	0	0	0	0	0	4	1	0	0	2	0	7	32
Count Total	0	1	5	2	0	0	0	0	0	0	44	8	0	2	27	0	89	0
Peak Hour	0	1	3	1	0	0	0	0	0	0	25	5	0	2	12	0	49	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			S Wilson Way			S Wilson Way			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	2				
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	2				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
Count Total	0	0	1	0	0	0	0	0	0	0	2	0	3	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	2	0	2	0				

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

S Eugenia St E Market St

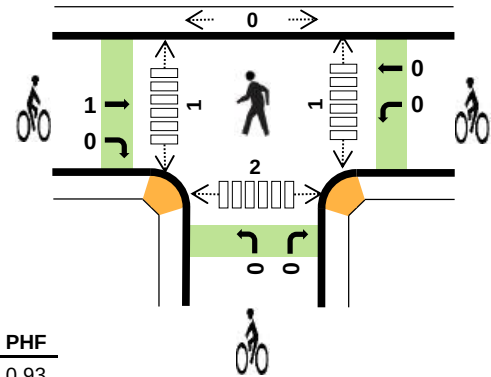
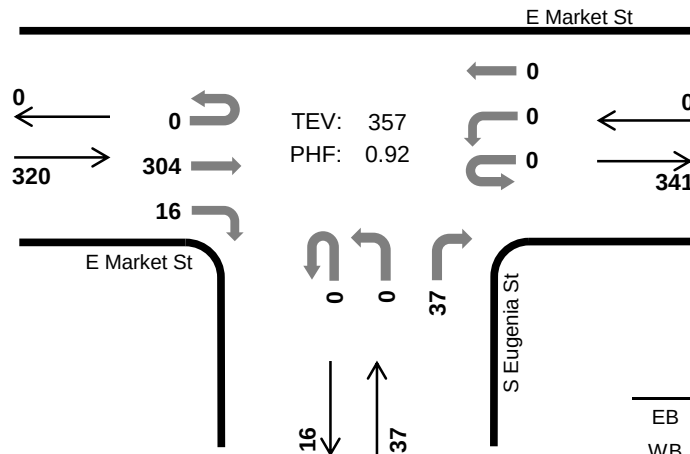


Peak Hour

Date: 04/03/2024

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	2.2%	0.93
WB	-	-
NB	0.0%	0.71
SB	-	-
TOTAL	2.0%	0.92

Two-Hour Count Summaries

Interval Start		E Market St				E Market St				S Eugenia St				N/A				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	23	1	0	0	0	0	0	0	0	5	0	0	0	0	29	0
7:15 AM		0	0	42	0	0	0	0	0	0	0	0	6	0	0	0	0	48	0
7:30 AM		0	0	40	3	0	0	0	0	0	0	0	5	0	0	0	0	48	0
7:45 AM		0	0	80	6	0	0	0	0	0	0	0	11	0	0	0	0	97	222
8:00 AM		0	0	74	4	0	0	0	0	0	0	0	6	0	0	0	0	84	277
8:15 AM		0	0	72	5	0	0	0	0	0	0	0	7	0	0	0	0	84	313
8:30 AM		0	0	78	1	0	0	0	0	0	0	0	13	0	0	0	0	92	357
8:45 AM		0	0	55	1	0	0	0	0	0	0	0	19	0	0	0	0	75	335
Count Total		0	0	464	21	0	0	0	0	0	0	0	72	0	0	0	0	557	0
Peak Hour	All	0	0	304	16	0	0	0	0	0	0	0	37	0	0	0	0	357	0
	HV	0	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	7	0
	HV%	-	-	2%	13%	-	-	-	-	-	-	-	0%	-	-	-	-	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	5	0	0	0	5	1	0	0	0	1	0	0	0	1	1
7:15 AM	5	0	1	0	6	1	0	0	0	1	0	0	2	2	4
7:30 AM	2	0	0	0	2	0	0	0	0	0	0	0	3	0	3
7:45 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	1	1
8:00 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
8:15 AM	2	0	0	0	2	1	0	0	0	1	0	1	0	1	2
8:30 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
8:45 AM	5	0	0	0	5	0	0	0	0	0	0	0	0	3	3
Count Total	24	0	1	0	25	3	0	0	0	3	1	1	5	8	15
Peak Hr	7	0	0	0	7	1	0	0	0	1	1	1	0	2	4

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	E Market St				E Market St				S Eugenia St				N/A				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
7:15 AM	0	0	5	0	0	0	0	0	0	0	0	1	0	0	0	0	6	0
7:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0
7:45 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	15
8:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	11
8:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	7
8:30 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7
8:45 AM	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5	10
Count Total	0	0	20	4	0	0	0	0	0	0	0	1	0	0	0	0	25	0
Peak Hour	0	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	7	0

Two-Hour Count Summaries - Bikes

Interval Start	E Market St			E Market St			S Eugenia St			N/A			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	3	0	0	0	0	0	0	0	0	0	0	3	0
Peak Hour	0	1	0	0	0	0	0	0	0	0	0	0	1	0

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

S Eugenia St E Market St

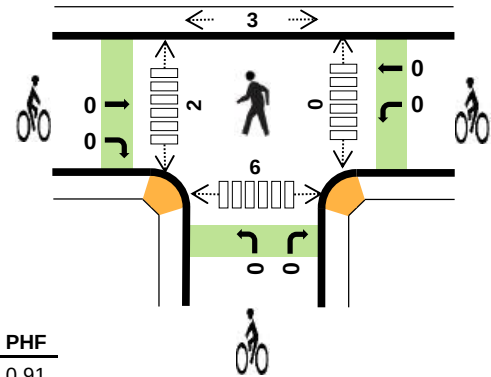
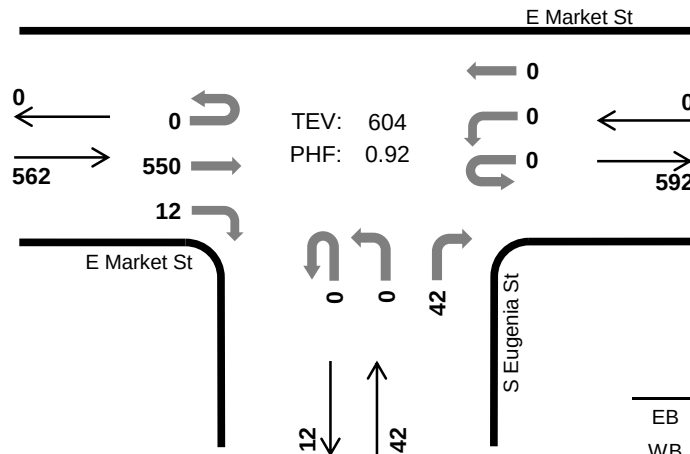


Peak Hour

Date: 04/03/2024

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	1.2%	0.91
WB	-	-
NB	0.0%	0.95
SB	-	-
TOTAL	1.2%	0.92

Two-Hour Count Summaries

Interval Start	E Market St Eastbound				E Market St Westbound				S Eugenia St Northbound				N/A Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	102	2	0	0	0	0	0	0	0	6	0	0	0	0	110	0
4:15 PM	0	0	120	2	0	0	0	0	0	0	0	11	0	0	0	0	133	0
4:30 PM	0	0	131	2	0	0	0	0	0	0	0	11	0	0	0	0	144	0
4:45 PM	0	0	150	3	0	0	0	0	0	0	0	10	0	0	0	0	163	550
5:00 PM	0	0	149	5	0	0	0	0	0	0	0	10	0	0	0	0	164	604
5:15 PM	0	0	114	7	0	0	0	0	0	0	0	2	0	0	0	0	123	594
5:30 PM	0	0	124	4	0	0	0	0	0	0	0	6	0	0	0	0	134	584
5:45 PM	0	0	101	3	0	0	0	0	0	0	0	7	0	0	0	0	111	532
Count Total	0	0	991	28	0	0	0	0	0	0	0	63	0	0	0	0	1,082	0
Peak Hour	All	0	0	550	12	0	0	0	0	0	0	42	0	0	0	0	604	0
	HV	0	0	5	2	0	0	0	0	0	0	0	0	0	0	0	7	0
	HV%	-	-	1%	17%	-	-	-	-	-	-	0%	-	-	-	-	1%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	0	0	0	2	0	0	0	0	0	0	0	1	1	2
4:15 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	1	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
4:45 PM	3	0	0	0	3	0	0	0	0	0	0	0	0	1	1
5:00 PM	2	0	0	0	2	0	0	0	0	0	0	2	3	3	8
5:15 PM	5	0	0	0	5	0	0	0	0	0	0	0	4	1	5
5:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	15	0	0	0	15	0	0	0	0	0	0	2	8	9	19
Peak Hr	7	0	0	0	7	0	0	0	0	0	0	2	3	6	11

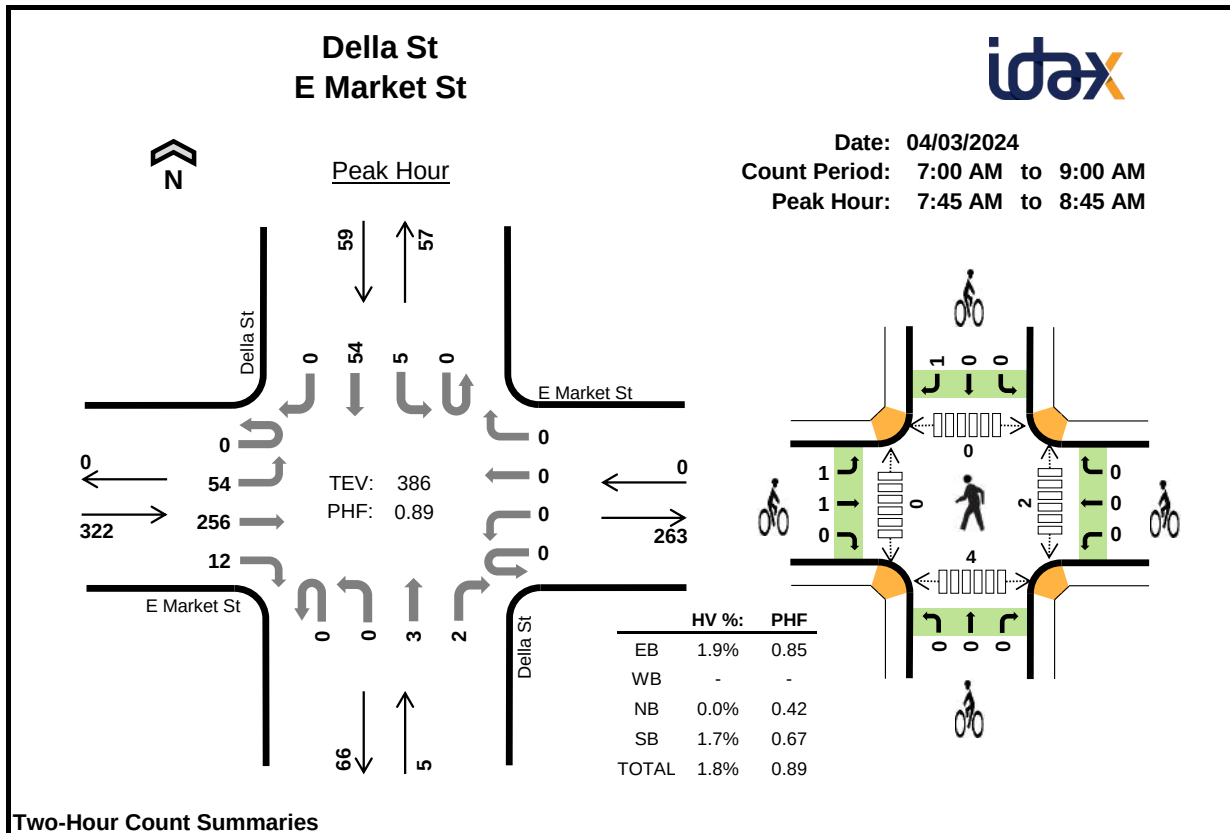
Two-Hour Count Summaries - Heavy Vehicles

Interval Start	E Market St				E Market St				S Eugenia St				N/A				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0
4:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3	7
5:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7
5:15 PM	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	10
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Count Total	0	0	12	3	0	0	0	0	0	0	0	0	0	0	0	0	15	0
Peak Hour	0	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	7	0

Two-Hour Count Summaries - Bikes

Interval Start	E Market St			E Market St			S Eugenia St			N/A			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

**Two-Hour Count Summaries**

Interval Start	E Market St Eastbound				E Market St Westbound				Della St Northbound				Della St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	8	19	0	0	0	0	0	0	0	1	0	0	0	6	0	34	0
7:15 AM	0	13	31	4	0	0	0	0	0	0	0	0	0	1	4	0	53	0
7:30 AM	0	6	37	4	0	0	0	0	0	0	0	0	0	0	13	0	60	0
7:45 AM	0	21	72	2	0	0	0	0	0	0	1	0	0	0	13	0	109	256
8:00 AM	0	4	63	3	0	0	0	0	0	0	2	1	0	0	13	0	86	308
8:15 AM	0	16	56	4	0	0	0	0	0	0	0	0	0	0	11	0	87	342
8:30 AM	0	13	65	3	0	0	0	0	0	0	0	1	0	5	17	0	104	386
8:45 AM	0	14	56	3	0	0	0	0	0	0	0	0	0	4	13	0	90	367
Count Total	0	95	399	23	0	0	0	0	0	0	4	2	0	10	90	0	623	0
Peak Hour	All	0	54	256	12	0	0	0	0	0	3	2	0	5	54	0	386	0
	HV	0	0	6	0	0	0	0	0	0	0	0	0	0	1	0	7	0
	HV%	-	0%	2%	0%	-	-	-	-	-	0%	0%	-	0%	2%	-	2%	0

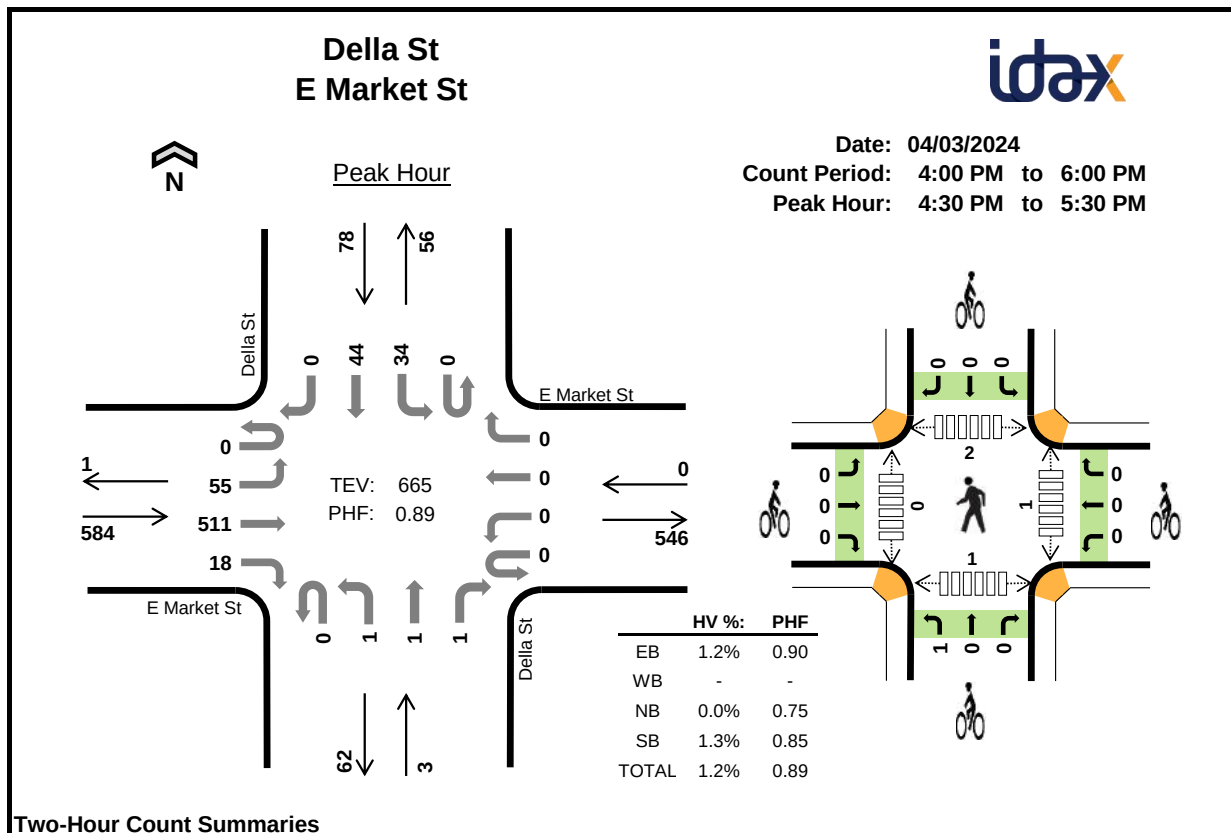
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	4	0	0	0	4	1	0	0	0	1	0	0	0	1	1
7:15 AM	7	0	0	0	7	0	0	0	0	0	0	0	0	2	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:45 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	0	1	2	0	0	0	0	0	1	0	0	1	2
8:15 AM	1	0	0	0	1	2	0	0	0	2	0	0	0	2	2
8:30 AM	2	0	0	0	2	0	0	0	1	1	1	0	0	1	2
8:45 AM	3	0	0	0	3	0	0	0	0	0	0	0	2	3	5
Count Total	20	0	0	1	21	3	0	0	1	4	2	1	2	10	15
Peak Hour	6	0	0	1	7	2	0	0	1	3	2	0	0	4	6

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				Della St				Della St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
7:15 AM	0	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	7	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	13
8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	11
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
8:30 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7
8:45 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8
Count Total	0	2	16	2	0	0	0	0	0	0	0	0	0	0	1	0	21	0
Peak Hour	0	0	6	0	0	0	0	0	0	0	0	0	0	0	1	0	7	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			Della St			Della St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:15 AM	1	1	0	0	0	0	0	0	0	0	0	0	2	2				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	3				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
Count Total	1	2	0	0	0	0	0	0	0	0	0	1	4	0				
Peak Hour	1	1	0	0	0	0	0	0	0	0	0	1	3	0				

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

**Two-Hour Count Summaries**

Interval Start		E Market St				E Market St				Della St				Della St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	4:00 PM	0	10	100	7	0	0	0	0	0	0	0	0	0	0	5	0	122	0
	4:15 PM	0	11	113	5	0	0	0	0	0	0	0	0	0	1	11	0	141	0
	4:30 PM	0	15	124	5	0	0	0	0	0	0	0	0	0	2	11	0	157	0
	4:45 PM	0	16	133	4	0	0	0	0	0	1	0	0	0	11	9	0	174	594
	5:00 PM	0	18	141	3	0	0	0	0	0	0	1	0	0	12	11	0	186	658
	5:15 PM	0	6	113	6	0	0	0	0	0	0	0	1	0	9	13	0	148	665
	5:30 PM	0	7	114	7	0	0	0	0	0	0	1	0	0	1	8	0	138	646
	5:45 PM	0	3	106	6	0	0	0	0	0	0	1	0	0	0	6	0	122	594
Count Total		0	86	944	43	0	0	0	0	0	1	3	1	0	36	74	0	1,188	0
Peak Hour	All	0	55	511	18	0	0	0	0	0	1	1	1	0	34	44	0	665	0
	HV	0	0	7	0	0	0	0	0	0	0	0	0	0	0	1	0	8	0
	HV%	-	0%	1%	0%	-	-	-	-	-	0%	0%	0%	-	0%	2%	-	1%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
4:45 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
5:00 PM	2	0	0	0	2	0	0	0	0	0	1	0	1	0	2
5:15 PM	3	0	0	1	4	0	0	0	0	0	0	0	1	1	2
5:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
5:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Count Total	10	0	0	1	11	0	0	2	0	2	1	0	3	1	5
Peak Hour	7	0	0	1	8	0	0	1	0	1	1	0	2	1	4

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Market St				E Market St				Della St				Della St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4
5:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5
5:15 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	4	8
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7
Count Total	0	0	10	0	0	0	0	0	0	0	0	0	0	0	1	0	11	0
Peak Hour	0	0	7	0	0	0	0	0	0	0	0	0	0	0	1	0	8	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Market St			E Market St			Della St			Della St			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	1				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
Count Total	0	0	0	0	0	0	1	0	1	0	0	0	2	0				
Peak Hour	0	0	0	0	0	0	1	0	0	0	0	0	1	0				

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



Two-Hour Count Summaries

Interval Start	E Market St Eastbound					E Main St Westbound					S Locust St Northbound					E Market St Southbound					E Main St Southeastbound					15-min Total	Rolling One Hour
	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	HL	BL	BR	HR		
7:00 AM	0	2	0	19	0	0	0	0	34	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	61	0
7:15 AM	0	1	0	29	0	0	0	0	51	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	89	0
7:30 AM	0	3	0	33	0	0	0	0	77	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	126	0
7:45 AM	0	2	0	69	0	0	0	0	106	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	188	464
8:00 AM	0	3	3	55	1	0	0	0	126	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	191	594
8:15 AM	0	1	1	57	0	0	0	0	96	1	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	162	667
8:30 AM	0	1	0	67	1	0	0	0	108	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	181	722
8:45 AM	0	0	1	56	2	0	0	0	80	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	146	680
Count Total	0	13	5	385	4	0	0	0	678	1	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	1,144	0
Peak Hour	All	0	7	4	248	2	0	0	0	436	1	0	0	0	0	0	0	0	0	24	0	0	0	0	0	722	0
	HV	0	0	0	3	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
	HV%	-	0%	0%	1%	0%	-	-	-	2%	0%	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	1%	0

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

Interval Start	Heavy Vehicle Totals						Bicycles						Pedestrians (Crossing Leg)					
	EB	WB	NB	SB	SEB	Total	EB	WB	NB	SB	SEB	Total	East	West	North	South	Northwest	Total
7:00 AM	2	1	0	1	0	4	1	0	0	0	0	1	0	1	2	2	0	5
7:15 AM	5	4	0	4	0	13	0	0	0	0	0	0	0	0	2	1	0	3
7:30 AM	0	1	0	0	0	1	0	0	1	0	0	1	0	1	1	2	0	4
7:45 AM	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	1	1	0	2
8:15 AM	1	2	0	0	0	3	0	0	0	0	0	0	0	0	1	3	0	4
8:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	2
8:45 AM	2	2	0	1	0	5	0	0	0	0	0	0	0	0	1	4	0	5
Count Total	12	15	0	6	0	33	1	0	1	0	0	2	0	2	9	14	0	25
Peak Hr	3	7	0	0	0	10	0	0	0	0	0	0	0	0	3	5	0	8

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	E Market St Eastbound					E Main St Westbound					S Locust St Northbound					E Market St Southbound					n/a Southeastbound					15-min Total	Rolling One Hour
	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	HL	BL	BR	HR		
7:00 AM	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4	0
7:15 AM	0	0	0	5	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	13	0
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	20
8:00 AM	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	20
8:15 AM	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10
8:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10
8:45 AM	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	13
Count Total	0	0	0	12	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	33	0
Peak Hour	0	0	0	3	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0

Two-Hour Count Summaries - Bikes

Interval Start	E Market St Eastbound					E Main St Westbound					S Locust St Northbound					E Market St Southbound					n/a Southeastbound					15-min Total	Rolling One Hour
	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	HL	BL	BR	HR		
7:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Date: 04/03/2024

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:45 PM to 5:45 PM

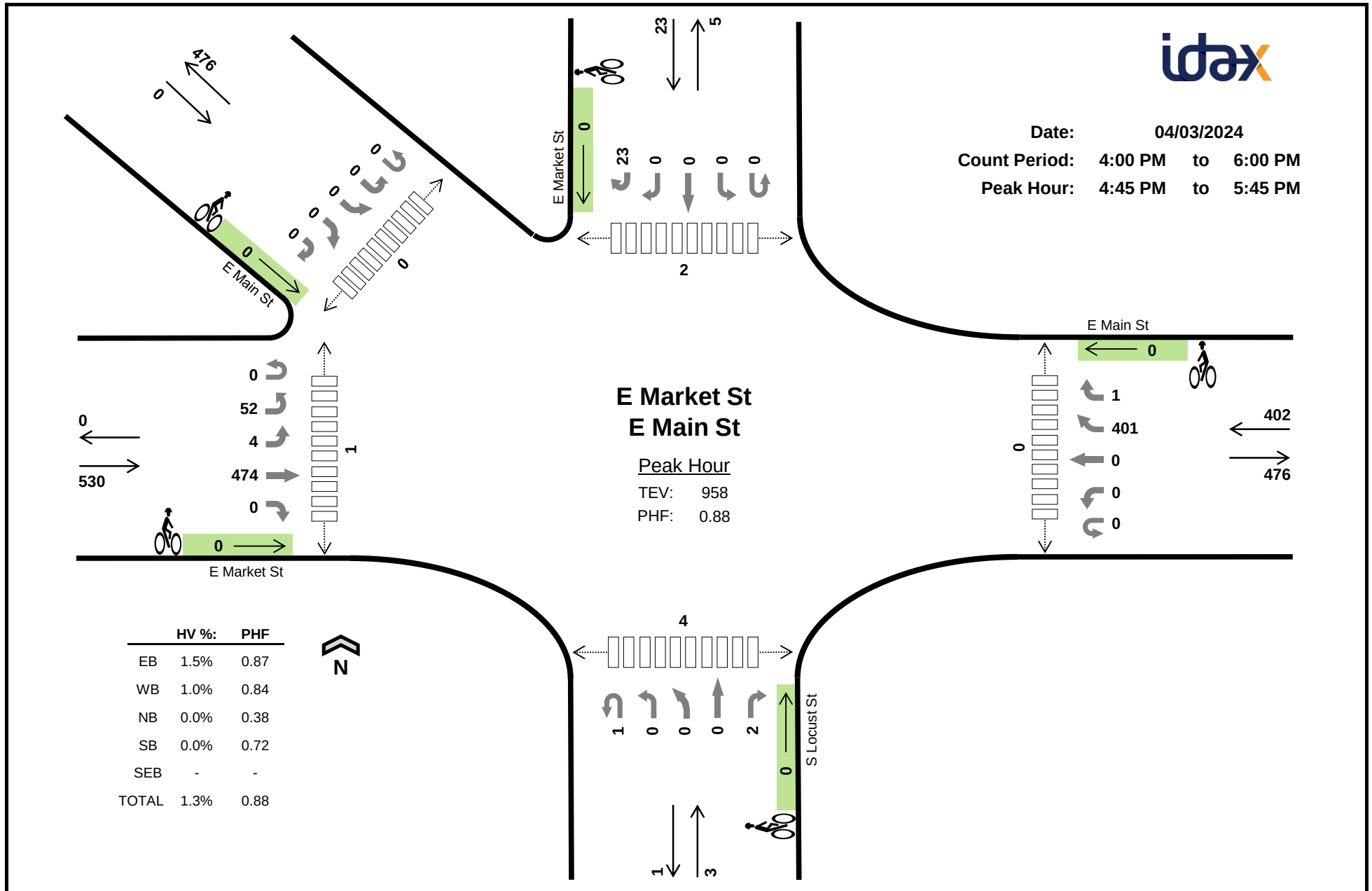
E Market St E Main St

Peak Hour

TEV: 958

PHF: 0.88

	HV %:	PHF
EB	1.5%	0.87
WB	1.0%	0.84
NB	0.0%	0.38
SB	0.0%	0.72
SEB	-	-
TOTAL	1.3%	0.88



Two-Hour Count Summaries

Interval Start	E Market St Eastbound					E Main St Westbound					S Locust St Northbound					E Market St Southbound					E Main St Southeastbound					15-min Total	Rolling One Hour
	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	HL	BL	BR	HR		
4:00 PM	0	2	3	96	0	0	0	0	115	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	224	0
4:15 PM	0	1	2	113	1	0	0	0	100	1	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	228	0
4:30 PM	0	5	2	112	1	0	0	0	77	0	0	0	0	0	1	0	0	0	0	7	0	0	0	0	0	205	0
4:45 PM	0	22	1	122	0	0	0	0	119	1	0	0	0	0	1	0	0	0	0	7	0	0	0	0	0	273	930
5:00 PM	0	19	1	132	0	0	0	0	89	0	1	0	0	0	1	0	0	0	0	8	0	0	0	0	0	251	957
5:15 PM	0	7	1	113	0	0	0	0	93	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	220	949
5:30 PM	0	4	1	107	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	214	958
5:45 PM	0	4	1	102	0	0	0	0	95	0	0	0	0	0	2	0	0	0	0	6	0	0	0	0	0	210	895
Count Total	0	64	12	897	2	0	0	0	788	2	1	0	0	0	5	0	0	0	0	54	0	0	0	0	0	1,825	0
Peak Hour	All	0	52	4	474	0	0	0	401	1	1	0	0	0	2	0	0	0	0	23	0	0	0	0	0	958	0
	HV	0	0	0	8	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0
	HV%	-	0%	0%	2%	-	-	-	1%	0%	0%	-	-	-	0%	-	-	-	-	0%	-	-	-	-	-	1%	0

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

Interval Start	Heavy Vehicle Totals						Bicycles						Pedestrians (Crossing Leg)					
	EB	WB	NB	SB	SEB	Total	EB	WB	NB	SB	SEB	Total	East	West	North	South	Northwest	Total
4:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1
4:15 PM	1	3	0	0	0	4	0	1	0	0	0	1	0	5	0	5	1	11
4:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1
4:45 PM	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	2	1	0	0	0	3	0	0	0	0	0	0	0	1	1	2	0	4
5:15 PM	3	1	0	0	0	4	0	0	0	0	0	0	0	0	1	1	0	2
5:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1
5:45 PM	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	11	9	0	0	0	20	0	1	0	0	0	1	0	6	3	10	1	20
Peak Hr	8	4	0	0	0	12	0	0	0	0	0	0	0	1	2	4	0	7

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	E Market St Eastbound					E Main St Westbound					S Locust St Northbound					E Market St Southbound					n/a Southeastbound					15-min Total	Rolling One Hour
	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	HL	BL	BR	HR		
4:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	1	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9
5:00 PM	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	11
5:15 PM	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	11
5:30 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12
5:45 PM	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	11
Count Total	0	0	0	11	0	0	0	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
Peak Hour	0	0	0	8	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0

Two-Hour Count Summaries - Bikes

Interval Start	E Market St Eastbound					E Main St Westbound					S Locust St Northbound					E Market St Southbound					n/a Southeastbound					15-min Total	Rolling One Hour
	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	HL	BL	BR	HR		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



**APPENDIX C – EXISTING AND EXISTING BUILD CONDITIONS LEVEL OF SERVICE AND
QUEUEING ANALYSIS SHEETS**

HCM Signalized Intersection Capacity Analysis

2: S San Joaquin Street/N San Joaquin Street & Main Street

Existing Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	13	25	28	55	175	0	0	119	117
Future Volume (vph)	0	0	0	13	25	28	55	175	0	0	119	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					0.93			1.00			0.98	
Flpb, ped/bikes					0.95			0.99			1.00	
Frt					0.93			1.00			0.92	
Flt Protected					0.99			0.98			1.00	
Satd. Flow (prot)					2949			3481			3212	
Flt Permitted					0.99			0.83			1.00	
Satd. Flow (perm)					2949			2929			3212	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	14	27	30	60	190	0	0	129	127
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	71	0	0	250	0	0	256	0
Confl. Peds. (#/hr)				45		31	39					39
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					4.6			29.4			29.4	
Effective Green, g (s)					4.6			29.4			29.4	
Actuated g/C Ratio					0.07			0.42			0.42	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					193			1230			1349	
v/s Ratio Prot											0.08	
v/s Ratio Perm					0.02			0.09				
v/c Ratio					0.36			0.20			0.18	
Uniform Delay, d1					31.3			12.8			12.7	
Progression Factor					0.98			0.81			1.00	
Incremental Delay, d2					0.4			0.3			0.3	
Delay (s)					31.4			10.8			13.1	
Level of Service					C			B			B	
Approach Delay (s/veh)		0.0			31.4			10.8			13.1	
Approach LOS		A			C			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			14.4									
HCM 2000 Volume to Capacity ratio			0.13									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			31.0%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 3: S Sutter Street/N Sutter Street & Main Street

Existing Conditions
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	9	30	6	20	64	0	0	94	24
Future Volume (vph)	0	0	0	9	30	6	20	64	0	0	94	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			1.00			0.95	
Frpb, ped/bikes					0.99			1.00			0.98	
Flpb, ped/bikes					0.98			0.98			1.00	
Frt					0.98			1.00			0.96	
Flt Protected					0.99			0.98			1.00	
Satd. Flow (prot)					3381			1814			3372	
Flt Permitted					0.99			0.91			1.00	
Satd. Flow (perm)					3381			1679			3372	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	11	37	7	24	78	0	0	115	29
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	55	0	0	102	0	0	144	0
Confl. Peds. (#/hr)				36		13	69					69
Confl. Bikes (#/hr)												1
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					2			4			4	
Permitted Phases				2			4					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					724			455			915	
v/s Ratio Prot											0.04	
v/s Ratio Perm					0.02			c0.06				
v/c Ratio					0.07			0.22			0.15	
Uniform Delay, d1					21.9			19.7			19.4	
Progression Factor					0.46			0.70			1.00	
Incremental Delay, d2					0.2			1.1			0.3	
Delay (s)					10.5			15.0			19.7	
Level of Service					B			B			B	
Approach Delay (s/veh)		0.0			10.5			15.0			19.7	
Approach LOS		A			B			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			16.5									
HCM 2000 Volume to Capacity ratio			0.09									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			22.8%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

Existing Conditions

4: California Street & Main Street

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	63	26	34	13	251	0	0	208	11
Future Volume (vph)	0	0	0	63	26	34	13	251	0	0	208	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			0.95			0.95	
Frbp, ped/bikes					0.99			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.95			1.00			0.99	
Flt Protected					0.97			0.99			1.00	
Satd. Flow (prot)					3274			3530			3509	
Flt Permitted					0.97			0.93			1.00	
Satd. Flow (perm)					3274			3303			3509	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	0	0	0	73	30	40	15	292	0	0	242	13
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	143	0	0	307	0	0	255	0
Confl. Peds. (#/hr)				7		4	5					5
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					701			896			952	
v/s Ratio Prot											0.07	
v/s Ratio Perm					0.04			c0.09				
v/c Ratio					0.20			0.34			0.26	
Uniform Delay, d1					22.5			20.4			20.0	
Progression Factor					1.49			0.77			1.00	
Incremental Delay, d2					0.5			1.0			0.6	
Delay (s)					34.3			16.8			20.7	
Level of Service					C			B			C	
Approach Delay (s/veh)		0.0			34.3			16.8			20.7	
Approach LOS		A			C			B			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			21.8		HCM 2000 Level of Service						C	
HCM 2000 Volume to Capacity ratio			0.17									
Actuated Cycle Length (s)			70.0		Sum of lost time (s)						13.0	
Intersection Capacity Utilization			28.7%		ICU Level of Service						A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: S American Street/N American Street & Main Street

Existing Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	82	87	24	16	18	0	0	31	20
Future Volume (vph)	0	0	0	82	87	24	16	18	0	0	31	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	5.0
Lane Util. Factor					0.95			1.00			1.00	1.00
Frpb, ped/bikes					0.99			1.00			1.00	0.97
Flpb, ped/bikes					0.87			0.99			1.00	1.00
Frt					0.98			1.00			1.00	0.85
Flt Protected					0.97			0.97			1.00	1.00
Satd. Flow (prot)					2953			1812			1863	1549
Flt Permitted					0.97			0.88			1.00	1.00
Satd. Flow (perm)					2953			1643			1863	1549
Peak-hour factor, PHF	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
Adj. Flow (vph)	0	0	0	139	147	41	27	31	0	0	53	34
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	327	0	0	58	0	0	53	34
Confl. Peds. (#/hr)				96		2	11					11
Turn Type				Perm	NA		Perm	NA			NA	Perm
Protected Phases					2			4			4	
Permitted Phases				2			4					4
Actuated Green, G (s)					11.0			23.0			23.0	23.0
Effective Green, g (s)					11.0			23.0			23.0	23.0
Actuated g/C Ratio					0.16			0.33			0.33	0.33
Clearance Time (s)					5.0			5.0			5.0	5.0
Vehicle Extension (s)					0.2			0.2			0.2	0.2
Lane Grp Cap (vph)					464			539			612	508
v/s Ratio Prot											0.03	
v/s Ratio Perm					0.11			0.04				0.02
v/c Ratio					0.70			0.10			0.08	0.06
Uniform Delay, d1					27.9			16.3			16.2	16.1
Progression Factor					1.03			0.51			1.00	1.00
Incremental Delay, d2					8.5			0.4			0.2	0.2
Delay (s)					37.4			8.8			16.5	16.3
Level of Service					D			A			B	B
Approach Delay (s/veh)		0.0			37.4			8.8			16.4	
Approach LOS		A			D			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			30.1									
HCM 2000 Volume to Capacity ratio			0.18									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			24.7%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

6: S Stanislaus Street/N Stanislaus Street & Main Street

Existing Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	46	78	5	86	427	0	0	209	15
Future Volume (vph)	0	0	0	46	78	5	86	427	0	0	209	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					0.99			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.99			1.00			0.98	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					3448			3506			3498	
Flt Permitted					0.98			0.82			1.00	
Satd. Flow (perm)					3448			2908			3498	
Peak-hour factor, PHF	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	0	0	0	64	108	7	119	593	0	0	290	21
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	8	0
Lane Group Flow (vph)	0	0	0	0	175	0	0	712	0	0	304	0
Confl. Peds. (#/hr)				5		2	7					7
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					1			2			2	
Permitted Phases				1			2					
Actuated Green, G (s)					25.0			35.0			35.0	
Effective Green, g (s)					25.0			35.0			35.0	
Actuated g/C Ratio					0.36			0.50			0.50	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					1231			1454			1749	
v/s Ratio Prot											0.09	
v/s Ratio Perm					0.05			c0.24				
v/c Ratio					0.14			0.48			0.17	
Uniform Delay, d1					15.2			11.5			9.5	
Progression Factor					1.00			0.77			1.00	
Incremental Delay, d2					0.2			1.0			0.2	
Delay (s)					15.4			10.0			9.7	
Level of Service					B			B			A	
Approach Delay (s/veh)		0.0			15.4			10.0			9.7	
Approach LOS		A			B			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			10.8									
HCM 2000 Volume to Capacity ratio			0.34									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			55.1%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC

7: S Grant Street/N Grant Street & Main Street

Existing Conditions

Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EBB			EB			EB	
Traffic Vol, veh/h	0	0	0	6	107	7	9	43	0	0	16	16
Future Vol, veh/h	0	0	0	6	107	7	9	43	0	0	16	16
Conflicting Peds, #/hr	0	0	0	2	0	5	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	9	165	11	14	66	0	0	25	25
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				2	0	0	119	201	-	-	196	97
Stage 1				-	-	-	2	2	-	-	194	-
Stage 2				-	-	-	117	199	-	-	2	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				1619	-	-	844	694	0	0	698	940
Stage 1				-	-	-	-	-	0	0	739	-
Stage 2				-	-	-	875	735	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1616	-	-	794	685	-	-	689	936
Mov Cap-2 Maneuver				-	-	-	794	685	-	-	689	-
Stage 1				-	-	-	-	-	-	-	731	-
Stage 2				-	-	-	818	727	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.4		10.8		9.8				
HCM LOS						B		A				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	702	1616	-	-	794							
HCM Lane V/C Ratio	0.114	0.006	-	-	0.062							
HCM Control Delay (s/veh)	10.8	7.2	0	-	9.8							
HCM Lane LOS	B	A	A	-	A							
HCM 95th %tile Q (veh)	0.4	0	-	-	0.2							

HCM 6th TWSC

8: S Aurora Street/N Aurora Street & Main Street

Existing Conditions

Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EB			E			B	
Traffic Vol, veh/h	0	0	0	9	103	4	24	103	0	0	34	6
Future Vol, veh/h	0	0	0	9	103	4	24	103	0	0	34	6
Conflicting Peds, #/hr	0	0	0	1	0	4	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	12	141	5	33	141	0	0	47	8
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				1	0	0	121	175	-	-	173	79
Stage 1				-	-	-	1	1	-	-	172	-
Stage 2				-	-	-	120	174	-	-	1	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				1620	-	-	842	717	0	0	719	965
Stage 1				-	-	-	-	-	0	0	755	-
Stage 2				-	-	-	872	754	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1618	-	-	787	708	-	-	710	961
Mov Cap-2 Maneuver				-	-	-	787	708	-	-	710	-
Stage 1				-	-	-	-	-	-	-	746	-
Stage 2				-	-	-	804	745	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.6		11.6		10.3				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	722	1618	-	-	739							
HCM Lane V/C Ratio	0.241	0.008	-	-	0.074							
HCM Control Delay (s/veh)	11.6	7.2	0	-	10.3							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.9	0	-	-	0.2							

HCM 6th AWSC
9: Union Street & Main Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Intersection Delay, s/veh	8.1											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	12	96	14	9	90	0	0	66	9
Future Vol, veh/h	0	0	0	12	96	14	9	90	0	0	66	9
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	14	112	16	10	105	0	0	77	10
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB			NB			SB		
Opposing Approach				SB			NB		
Opposing Lanes	0			1			1		
Conflicting Approach Left	NB						WB		
Conflicting Lanes Left	1			0			2		
Conflicting Approach Right	SB			WB					
Conflicting Lanes Right	1			2			0		
HCM Control Delay, s/veh	8.2			8.1			7.9		
HCM LOS	A			A			A		

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	9%	20%	0%	0%
Vol Thru, %	91%	80%	77%	88%
Vol Right, %	0%	0%	23%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	99	60	62	75
LT Vol	9	12	0	0
Through Vol	90	48	48	66
RT Vol	0	0	14	9
Lane Flow Rate	115	70	72	87
Geometry Grp	2	5	5	2
Degree of Util (X)	0.141	0.099	0.097	0.105
Departure Headway (Hd)	4.402	5.092	4.833	4.342
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	817	706	744	828
Service Time	2.412	2.807	2.548	2.354
HCM Lane V/C Ratio	0.141	0.099	0.097	0.105
HCM Control Delay, s/veh	8.1	8.4	8.1	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.3	0.3	0.4

HCM 6th TWSC
10: Pilgrim Street & Main Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EB			E			B	
Traffic Vol, veh/h	0	0	0	9	122	5	3	7	0	0	11	0
Future Vol, veh/h	0	0	0	9	122	5	3	7	0	0	11	0
Conflicting Peds, #/hr	0	0	0	4	0	4	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	13	174	7	4	10	0	0	16	0
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				4	0	0	128	215	-	-	212	98
Stage 1				-	-	-	4	4	-	-	208	-
Stage 2				-	-	-	124	211	-	-	4	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				1616	-	-	832	682	0	0	684	939
Stage 1				-	-	-	-	-	0	0	729	-
Stage 2				-	-	-	867	726	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1610	-	-	809	670	-	-	672	935
Mov Cap-2 Maneuver				-	-	-	809	670	-	-	672	-
Stage 1				-	-	-	-	-	-	-	720	-
Stage 2				-	-	-	840	717	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.5		10.2		10.5				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	706	1610	-	-	672							
HCM Lane V/C Ratio	0.02	0.008	-	-	0.023							
HCM Control Delay (s/veh)	10.2	7.3	0	-	10.5							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1							

HCM 6th Signalized Intersection Summary

11: Airport Way & Main Street

Existing Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	35	103	64	18	788	0	0	662	15
Future Volume (veh/h)	0	0	0	35	103	64	18	788	0	0	662	15
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				38	111	69	19	847	0	0	712	16
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				62	183	116	70	2666	0	0	2790	63
Arrive On Green				0.10	0.10	0.10	1.00	1.00	0.00	0.00	0.79	0.79
Sat Flow, veh/h				599	1765	1118	36	3480	0	0	3646	80
Grp Volume(v), veh/h				117	0	101	458	408	0	0	356	372
Grp Sat Flow(s),veh/h/ln				1840	0	1642	1814	1617	0	0	1777	1856
Q Serve(g_s), s				5.5	0.0	5.3	0.0	0.0	0.0	0.0	4.8	4.8
Cycle Q Clear(g_c), s				5.5	0.0	5.3	0.0	0.0	0.0	0.0	4.8	4.8
Prop In Lane				0.33		0.68	0.04		0.00	0.00		0.04
Lane Grp Cap(c), veh/h				191	0	170	1466	1270	0	0	1395	1457
V/C Ratio(X)				0.61	0.00	0.60	0.31	0.32	0.00	0.00	0.26	0.26
Avail Cap(c_a), veh/h				450	0	401	1466	1270	0	0	1395	1457
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.95	0.95	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				38.6	0.0	38.5	0.0	0.0	0.0	0.0	2.6	2.6
Incr Delay (d2), s/veh				1.2	0.0	1.2	0.5	0.6	0.0	0.0	0.4	0.4
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.5	0.0	2.2	0.2	0.2	0.0	0.0	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				39.8	0.0	39.8	0.5	0.6	0.0	0.0	3.0	3.0
LnGrp LOS				D		D	A	A			A	A
Approach Vol, veh/h					218			866			728	
Approach Delay, s/veh					39.8			0.6			3.0	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	75.7			14.3			75.7					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	58.0			22.0			58.0					
Max Q Clear Time (g_c+I1), s	2.0			7.5			6.8					
Green Ext Time (p_c), s	0.8			0.7			0.7					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				6.3								
HCM 6th LOS				A								

HCM 6th TWSC
12: Sierra Nevada Street & Main Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EB			E			B	
Traffic Vol, veh/h	0	0	0	9	172	12	17	17	0	0	33	11
Future Vol, veh/h	0	0	0	9	172	12	17	17	0	0	33	11
Conflicting Peds, #/hr	0	0	0	13	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	10	198	14	20	20	0	0	38	13

Major/Minor	Major2		Minor1		Minor2	
Conflicting Flow All	13	0	0	151	251	-
Stage 1	-	-	-	13	13	-
Stage 2	-	-	-	138	238	-
Critical Hdwy	4.14	-	-	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	3.52	4.02	-
Pot Cap-1 Maneuver	1604	-	-	802	651	0
Stage 1	-	-	-	-	-	0
Stage 2	-	-	-	851	707	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1584	-	-	742	635	-
Mov Cap-2 Maneuver	-	-	-	742	635	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	788	698	-

Approach	WB	NB	SB
HCM Control Delay, s/v	0.3	10.6	10.6
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	684	1584	-	-	693
HCM Lane V/C Ratio	0.057	0.007	-	-	0.073
HCM Control Delay (s/veh)	10.6	7.3	0	-	10.6
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.2	0	-	-	0.2

HCM 6th Signalized Intersection Summary13: S Wilson Way & Main Street

Existing Conditions
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	115	122	209	32	730	0	0	648	20
Future Volume (veh/h)	0	0	0	115	122	209	32	730	0	0	648	20
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				119	126	215	33	753	0	0	668	21
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				283	331	270	570	2547	0	0	2520	79
Arrive On Green				0.17	0.17	0.17	1.00	1.00	0.00	0.00	0.72	0.72
Sat Flow, veh/h				1644	1921	1566	754	3647	0	0	3610	111
Grp Volume(v), veh/h				129	116	215	33	753	0	0	337	352
Grp Sat Flow(s),veh/h/ln				1788	1777	1566	754	1777	0	0	1777	1850
Q Serve(g_s), s				5.8	5.2	11.9	0.4	0.0	0.0	0.0	6.0	6.0
Cycle Q Clear(g_c), s				5.8	5.2	11.9	6.4	0.0	0.0	0.0	6.0	6.0
Prop In Lane				0.92		1.00	1.00		0.00	0.00		0.06
Lane Grp Cap(c), veh/h				308	306	270	570	2547	0	0	1273	1326
V/C Ratio(X)				0.42	0.38	0.80	0.06	0.30	0.00	0.00	0.26	0.27
Avail Cap(c_a), veh/h				457	454	400	570	2547	0	0	1273	1326
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	0.93	0.93	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				33.2	33.0	35.7	0.3	0.0	0.0	0.0	4.5	4.5
Incr Delay (d2), s/veh				0.3	0.3	3.7	0.2	0.3	0.0	0.0	0.5	0.5
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.5	2.2	4.7	0.0	0.1	0.0	0.0	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				33.6	33.3	39.5	0.5	0.3	0.0	0.0	5.0	5.0
LnGrp LOS				C	C	D	A	A			A	A
Approach Vol, veh/h					460			786			689	
Approach Delay, s/veh					36.3			0.3			5.0	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	69.5			20.5			69.5					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	57.0			23.0			57.0					
Max Q Clear Time (g_c+I1), s	8.4			13.9			8.0					
Green Ext Time (p_c), s	2.5			0.9			1.7					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				10.5								
HCM 6th LOS				B								

HCM Signalized Intersection Capacity Analysis

14: Market Street/E Market Street & Main St/Main Street

Existing Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	440	0	8	8	0	0	0	34
Future Volume (vph)	0	0	0	0	440	0	8	8	0	0	0	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0				5.0
Lane Util. Factor					0.95			1.00				1.00
Frpb, ped/bikes					1.00			1.00				0.98
Flpb, ped/bikes					1.00			0.99				1.00
Frt					1.00			1.00				0.86
Flt Protected					1.00			0.97				1.00
Satd. Flow (prot)					3539			1813				1584
Flt Permitted					1.00			0.97				1.00
Satd. Flow (perm)					3539			1813				1584
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	478	0	9	9	0	0	0	37
RTOR Reduction (vph)	0	0	0	0	0	0	0	17	0	0	0	35
Lane Group Flow (vph)	0	0	0	0	478	0	0	1	0	0	0	2
Confl. Peds. (#/hr)						5	1					1
Turn Type					NA		Perm	NA				Perm
Protected Phases					6 4			5				
Permitted Phases							5					5
Actuated Green, G (s)					26.4			2.3				2.3
Effective Green, g (s)					26.4			2.3				2.3
Actuated g/C Ratio					0.68			0.06				0.06
Clearance Time (s)								5.0				5.0
Vehicle Extension (s)								2.0				2.0
Lane Grp Cap (vph)					2414			107				94
v/s Ratio Prot					c0.14							
v/s Ratio Perm								0.00				c0.00
v/c Ratio					0.19			0.00				0.02
Uniform Delay, d1					2.2			17.1				17.1
Progression Factor					1.00			1.00				1.00
Incremental Delay, d2					0.1			0.0				0.0
Delay (s)					2.3			17.1				17.1
Level of Service					A			B				B
Approach Delay (s/veh)		0.0			2.3			17.1			17.1	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			3.9									
HCM 2000 Volume to Capacity ratio			0.28									
Actuated Cycle Length (s)			38.7									
Intersection Capacity Utilization			32.4%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC
15: B Street/E Washington Street & Main Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	239	18	16	406	2	23	0	30	0	0	9
Future Vol, veh/h	3	239	18	16	406	2	23	0	30	0	0	9
Conflicting Peds, #/hr	4	0	2	2	0	4	4	0	1	1	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	257	19	17	437	2	25	0	32	0	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	443	0	0	278	0	0	532	752	141	612	760	228
Stage 1	-	-	-	-	-	-	275	275	-	476	476	-
Stage 2	-	-	-	-	-	-	257	477	-	136	284	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1113	-	-	1282	-	-	430	338	881	377	334	775
Stage 1	-	-	-	-	-	-	708	681	-	539	555	-
Stage 2	-	-	-	-	-	-	725	554	-	853	675	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1109	-	-	1280	-	-	415	329	878	356	325	769
Mov Cap-2 Maneuver	-	-	-	-	-	-	415	329	-	356	325	-
Stage 1	-	-	-	-	-	-	704	678	-	535	543	-
Stage 2	-	-	-	-	-	-	700	542	-	818	672	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.4			11.7			9.7		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	592	1109	-	-	1280	-	-	769				
HCM Lane V/C Ratio	0.096	0.003	-	-	0.013	-	-	0.013				
HCM Control Delay (s/veh)	11.7	8.3	0	-	7.9	0.1	-	9.7				
HCM Lane LOS	B	A	A	-	A	A	-	A				
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0				

HCM 6th TWSC
16: E Lafayette Street & Main Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	36	224	4	18	370	0	13	10	17	0	4	42
Future Vol, veh/h	36	224	4	18	370	0	13	10	17	0	4	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	246	4	20	407	0	14	11	19	0	4	46

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	407	0	0	250	0	0	574	775	125	656	777	204
Stage 1	-	-	-	-	-	-	328	328	-	447	447	-
Stage 2	-	-	-	-	-	-	246	447	-	209	330	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1148	-	-	1313	-	-	402	327	902	351	327	803
Stage 1	-	-	-	-	-	-	659	646	-	560	572	-
Stage 2	-	-	-	-	-	-	736	572	-	774	644	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1148	-	-	1313	-	-	357	307	902	319	307	803
Mov Cap-2 Maneuver	-	-	-	-	-	-	357	307	-	319	307	-
Stage 1	-	-	-	-	-	-	632	620	-	537	561	-
Stage 2	-	-	-	-	-	-	674	561	-	714	618	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.2			0.5			13.8			10.5		
HCM LOS							B			B		

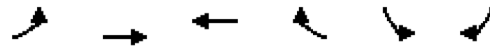
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	455	1148	-	-	1313	-	-	704
HCM Lane V/C Ratio	0.097	0.034	-	-	0.015	-	-	0.072
HCM Control Delay (s/veh)	13.8	8.2	0.1	-	7.8	0.1	-	10.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.3	0.1	-	-	0	-	-	0.2

HCM Signalized Intersection Capacity Analysis

17: Main Street & D Street

Existing Conditions

Timing Plan: AM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Volume (vph)	3	262	402	5	6	7
Future Volume (vph)	3	262	402	5	6	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0	
Lane Util. Factor		0.95	0.95		1.00	
Frt		1.00	0.99		0.92	
Flt Protected		0.99	1.00		0.97	
Satd. Flow (prot)		3537	3533		1689	
Flt Permitted		0.94	1.00		0.97	
Satd. Flow (perm)		3356	3533		1689	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	3	288	442	5	7	8
RTOR Reduction (vph)	0	0	2	0	8	0
Lane Group Flow (vph)	0	291	445	0	7	0
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		9.6	9.6		0.6	
Effective Green, g (s)		9.6	9.6		0.6	
Actuated g/C Ratio		0.48	0.48		0.03	
Clearance Time (s)		5.0	5.0		5.0	
Vehicle Extension (s)		6.0	6.0		2.0	
Lane Grp Cap (vph)		1594	1679		50	
v/s Ratio Prot		c0.13				
v/s Ratio Perm		0.09			c0.00	
v/c Ratio		0.18	0.26		0.14	
Uniform Delay, d1		3.0	3.1		9.5	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.1	0.2		0.4	
Delay (s)		3.2	3.4		10.0	
Level of Service		A	A		B	
Approach Delay (s/veh)		3.2	3.4		10.0	
Approach LOS		A	A		B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			3.5		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.26			
Actuated Cycle Length (s)			20.2		Sum of lost time (s)	10.0
Intersection Capacity Utilization			22.9%		ICU Level of Service	A
Analysis Period (min)			15			

c Critical Lane Group

HCM 6th TWSC

18: Marsh Street/E Street & Main Street

Existing Conditions

Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	231	1	12	372	42	0	0	10	28	3	10
Future Vol, veh/h	16	231	1	12	372	42	0	0	10	28	3	10
Conflicting Peds, #/hr	2	0	1	1	0	2	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	275	1	14	443	50	0	0	12	33	4	12
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	495	0	0	277	0	0	568	838	139	674	813	250
Stage 1	-	-	-	-	-	-	315	315	-	498	498	-
Stage 2	-	-	-	-	-	-	253	523	-	176	315	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1065	-	-	1283	-	-	406	301	884	340	311	750
Stage 1	-	-	-	-	-	-	671	654	-	523	543	-
Stage 2	-	-	-	-	-	-	729	529	-	809	654	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1063	-	-	1282	-	-	384	289	883	326	299	748
Mov Cap-2 Maneuver	-	-	-	-	-	-	384	289	-	326	299	-
Stage 1	-	-	-	-	-	-	656	640	-	511	534	-
Stage 2	-	-	-	-	-	-	701	520	-	781	640	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.6			0.3			9.1			16		
HCM LOS							A			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	883	1063	-	-	1282	-	-	375				
HCM Lane V/C Ratio	0.013	0.018	-	-	0.011	-	-	0.13				
HCM Control Delay (s/veh)	9.1	8.4	0.1	-	7.8	0.1	-	16				
HCM Lane LOS	A	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0	0.1	-	-	0	-	-	0.4				

HCM 6th TWSC
19: Alma Street/F Street & Main Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	262	0	18	386	10	0	2	13	5	4	3
Future Vol, veh/h	13	262	0	18	386	10	0	2	13	5	4	3
Conflicting Peds, #/hr	4	0	5	5	0	4	0	0	5	5	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	285	0	20	420	11	0	2	14	5	4	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	435	0	0	290	0	0	572	793	153	647	788	222
Stage 1	-	-	-	-	-	-	318	318	-	470	470	-
Stage 2	-	-	-	-	-	-	254	475	-	177	318	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1121	-	-	1269	-	-	403	320	866	356	322	782
Stage 1	-	-	-	-	-	-	668	652	-	543	558	-
Stage 2	-	-	-	-	-	-	728	556	-	808	652	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1117	-	-	1263	-	-	384	306	858	336	308	778
Mov Cap-2 Maneuver	-	-	-	-	-	-	384	306	-	336	308	-
Stage 1	-	-	-	-	-	-	655	639	-	533	544	-
Stage 2	-	-	-	-	-	-	703	542	-	776	639	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.5			0.4			10.3			14.9		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	692	1117	-	-	1263	-	-	378				
HCM Lane V/C Ratio	0.024	0.013	-	-	0.015	-	-	0.035				
HCM Control Delay (s/veh)	10.3	8.3	0.1	-	7.9	0.1	-	14.9				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1				

HCM Signalized Intersection Capacity Analysis20: S Filbert Street & Main Street

Existing Conditions
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	220	4	5	358	250	12	49	5	242	26	54
Future Volume (vph)	55	220	4	5	358	250	12	49	5	242	26	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			5.0		5.0	5.0	
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	
Frpb, ped/bikes		0.99			0.98			0.99		1.00	0.98	
Flpb, ped/bikes		0.99			0.99			1.00		1.00	1.00	
Frt		0.99			0.93			0.98		1.00	0.89	
Flt Protected		0.99			0.99			0.99		0.95	1.00	
Satd. Flow (prot)		3494			3285			1825		1770	1656	
Flt Permitted		0.76			0.95			0.99		0.95	1.00	
Satd. Flow (perm)		2705			3129			1825		1770	1656	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	56	224	4	5	365	255	12	50	5	247	27	55
RTOR Reduction (vph)	0	1	0	0	109	0	0	3	0	0	42	0
Lane Group Flow (vph)	0	283	0	0	516	0	0	64	0	247	40	0
Confl. Peds. (#/hr)	7		2	2		7	7		13	13		7
Confl. Bikes (#/hr)			1									
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		3	3	
Permitted Phases	2			6								
Actuated Green, G (s)		20.9			20.9			5.4		13.4	13.4	
Effective Green, g (s)		20.9			20.9			5.4		13.4	13.4	
Actuated g/C Ratio		0.38			0.38			0.10		0.24	0.24	
Clearance Time (s)		6.0			6.0			5.0		5.0	5.0	
Vehicle Extension (s)		6.0			6.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		1014			1174			176		425	398	
v/s Ratio Prot								c0.04		c0.14	0.02	
v/s Ratio Perm		0.10			c0.16							
v/c Ratio		0.27			0.43			0.36		0.58	0.10	
Uniform Delay, d1		12.1			13.0			23.5		18.6	16.4	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.4			0.7			0.4		1.3	0.0	
Delay (s)		12.5			13.7			24.0		19.9	16.5	
Level of Service		B			B			C		B	B	
Approach Delay (s/veh)		12.5			13.7			24.0			19.1	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		15.4			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.48										
Actuated Cycle Length (s)		55.7			Sum of lost time (s)			16.0				
Intersection Capacity Utilization		62.1%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th TWSC
21: Burkett Avenue & Main Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	19	420	14	13	581	12	9	2	6	5	2	13
Future Vol, veh/h	19	420	14	13	581	12	9	2	6	5	2	13
Conflicting Peds, #/hr	7	0	0	0	0	7	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	442	15	14	612	13	9	2	6	5	2	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	632	0	0	457	0	0	827	1150	230	917	1151	322
Stage 1	-	-	-	-	-	-	490	490	-	654	654	-
Stage 2	-	-	-	-	-	-	337	660	-	263	497	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	947	-	-	1100	-	-	264	197	772	227	197	674
Stage 1	-	-	-	-	-	-	529	547	-	422	461	-
Stage 2	-	-	-	-	-	-	651	458	-	719	543	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	941	-	-	1100	-	-	246	186	771	213	186	668
Mov Cap-2 Maneuver	-	-	-	-	-	-	246	186	-	213	186	-
Stage 1	-	-	-	-	-	-	514	531	-	407	449	-
Stage 2	-	-	-	-	-	-	621	446	-	689	527	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.5			0.3			17.4			15.2		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	308	941	-	-	1100	-	-	373
HCM Lane V/C Ratio	0.058	0.021	-	-	0.012	-	-	0.056
HCM Control Delay (s/veh)	17.4	8.9	0.1	-	8.3	0.1	-	15.2
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.2	0.1	-	-	0	-	-	0.2

HCM 6th TWSC
22: Shasta Avenue & Main Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	426	5	4	597	5	9	1	5	2	0	2
Future Vol, veh/h	2	426	5	4	597	5	9	1	5	2	0	2
Conflicting Peds, #/hr	7	0	2	2	0	7	1	0	3	3	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	468	5	4	656	5	10	1	5	2	0	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	668	0	0	475	0	0	814	1153	242	916	1153	339
Stage 1	-	-	-	-	-	-	477	477	-	674	674	-
Stage 2	-	-	-	-	-	-	337	676	-	242	479	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	918	-	-	1083	-	-	270	196	759	227	196	657
Stage 1	-	-	-	-	-	-	538	554	-	410	452	-
Stage 2	-	-	-	-	-	-	651	451	-	740	553	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	912	-	-	1081	-	-	266	192	755	221	192	652
Mov Cap-2 Maneuver	-	-	-	-	-	-	266	192	-	221	192	-
Stage 1	-	-	-	-	-	-	535	551	-	406	446	-
Stage 2	-	-	-	-	-	-	644	445	-	729	550	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0.1			16.6			16.1		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	328	912	-	-	1081	-	-	330				
HCM Lane V/C Ratio	0.05	0.002	-	-	0.004	-	-	0.013				
HCM Control Delay (s/veh)	16.6	9	0	-	8.3	0	-	16.1				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0				

HCM 6th TWSC
23: David Avenue & Main Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	1	432	6	3	587	5	10	1	4	3	0	9
Future Vol, veh/h	1	432	6	3	587	5	10	1	4	3	0	9
Conflicting Peds, #/hr	3	0	3	3	0	3	3	0	1	1	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	470	7	3	638	5	11	1	4	3	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	646	0	0	480	0	0	807	1131	243	889	1132	328
Stage 1	-	-	-	-	-	-	479	479	-	650	650	-
Stage 2	-	-	-	-	-	-	328	652	-	239	482	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	935	-	-	1079	-	-	273	202	758	238	202	668
Stage 1	-	-	-	-	-	-	537	553	-	424	463	-
Stage 2	-	-	-	-	-	-	659	462	-	743	552	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	932	-	-	1076	-	-	266	200	755	234	200	664
Mov Cap-2 Maneuver	-	-	-	-	-	-	266	200	-	234	200	-
Stage 1	-	-	-	-	-	-	535	551	-	422	460	-
Stage 2	-	-	-	-	-	-	645	459	-	736	550	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0			17.1			13.1		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	313	932	-	-	1076	-	-	455
HCM Lane V/C Ratio	0.052	0.001	-	-	0.003	-	-	0.029
HCM Control Delay (s/veh)	17.1	8.9	0	-	8.4	0	-	13.1
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1

HCM 6th TWSC
24: Rendon Avenue & Main Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	411	12	8	572	9	11	3	3	13	1	18
Future Vol, veh/h	11	411	12	8	572	9	11	3	3	13	1	18
Conflicting Peds, #/hr	5	0	1	1	0	5	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	447	13	9	622	10	12	3	3	14	1	20
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	637	0	0	461	0	0	809	1134	231	899	1135	321
Stage 1	-	-	-	-	-	-	479	479	-	650	650	-
Stage 2	-	-	-	-	-	-	330	655	-	249	485	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	943	-	-	1096	-	-	272	201	771	234	201	675
Stage 1	-	-	-	-	-	-	537	553	-	424	463	-
Stage 2	-	-	-	-	-	-	657	461	-	733	550	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	939	-	-	1095	-	-	257	194	770	224	194	672
Mov Cap-2 Maneuver	-	-	-	-	-	-	257	194	-	224	194	-
Stage 1	-	-	-	-	-	-	527	543	-	415	455	-
Stage 2	-	-	-	-	-	-	628	453	-	713	540	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.3			0.2			19.1			16.2		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	273	939	-	-	1095	-	-	356				
HCM Lane V/C Ratio	0.068	0.013	-	-	0.008	-	-	0.098				
HCM Control Delay (s/veh)	19.1	8.9	0.1	-	8.3	0.1	-	16.2				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.3				

HCM 6th Signalized Intersection Summary 25: Golden Gate Avenue & Main Street

Existing Conditions
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	337	92	28	491	5	74	17	27	12	32	7
Future Volume (veh/h)	3	337	92	28	491	5	74	17	27	12	32	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	355	97	29	517	5	78	18	28	13	34	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	1106	298	50	1531	15	293	32	44	168	160	29
Arrive On Green	0.00	0.40	0.40	0.03	0.42	0.42	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1781	2766	746	1781	3605	35	938	253	347	282	1259	229
Grp Volume(v), veh/h	3	226	226	29	255	267	124	0	0	54	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1735	1781	1777	1863	1538	0	0	1770	0	0
Q Serve(g_s), s	0.1	3.0	3.0	0.5	3.2	3.2	1.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	3.0	3.0	0.5	3.2	3.2	2.5	0.0	0.0	0.9	0.0	0.0
Prop In Lane	1.00		0.43	1.00		0.02	0.63		0.23	0.24		0.13
Lane Grp Cap(c), veh/h	6	710	694	50	755	791	369	0	0	357	0	0
V/C Ratio(X)	0.51	0.32	0.33	0.58	0.34	0.34	0.34	0.00	0.00	0.15	0.00	0.00
Avail Cap(c_a), veh/h	1057	2530	2471	1057	2530	2653	1924	0	0	1638	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.8	7.0	7.0	16.2	6.5	6.5	13.9	0.0	0.0	13.2	0.0	0.0
Incr Delay (d2), s/veh	23.4	0.9	1.0	3.8	1.0	0.9	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.8	0.8	0.2	0.9	0.9	0.8	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.2	7.9	8.0	20.0	7.5	7.4	14.1	0.0	0.0	13.3	0.0	0.0
LnGrp LOS	D	A	A	C	A	A	B			B		
Approach Vol, veh/h		455			551			124			54	
Approach Delay, s/veh		8.1			8.1			14.1			13.3	
Approach LOS		A			A			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	18.5		9.3	5.1	19.3		9.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	48.0		40.0	20.0	48.0		30.0				
Max Q Clear Time (g_c+I1), s	2.5	5.0		4.5	2.1	5.2		2.9				
Green Ext Time (p_c), s	0.0	7.8		0.5	0.0	9.1		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			9.0									
HCM 6th LOS			A									

HCM 6th TWSC
26: Windsor Avenue & Main Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	351	15	13	515	3	8	1	5	6	3	13
Future Vol, veh/h	2	351	15	13	515	3	8	1	5	6	3	13
Conflicting Peds, #/hr	9	0	3	3	0	9	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	369	16	14	542	3	8	1	5	6	3	14
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	554	0	0	388	0	0	685	966	196	770	973	282
Stage 1	-	-	-	-	-	-	384	384	-	581	581	-
Stage 2	-	-	-	-	-	-	301	582	-	189	392	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1012	-	-	1167	-	-	334	253	812	290	251	715
Stage 1	-	-	-	-	-	-	611	610	-	467	498	-
Stage 2	-	-	-	-	-	-	683	497	-	795	605	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1003	-	-	1164	-	-	318	245	810	280	243	709
Mov Cap-2 Maneuver	-	-	-	-	-	-	318	245	-	280	243	-
Stage 1	-	-	-	-	-	-	607	606	-	461	485	-
Stage 2	-	-	-	-	-	-	654	484	-	786	601	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0.3			14.5			14		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	395	1003	-	-	1164	-	-	422				
HCM Lane V/C Ratio	0.037	0.002	-	-	0.012	-	-	0.055				
HCM Control Delay (s/veh)	14.5	8.6	0	-	8.1	0.1	-	14				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.2				

HCM Signalized Intersection Capacity Analysis

27: Netherton Avenue & Main Street

Existing Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	333	4	29	466	3	11	7	52	19	18	61
Future Volume (vph)	4	333	4	29	466	3	11	7	52	19	18	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Frt	1.00	0.99		1.00	0.99			0.90			0.91	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	3533		1770	3535			1643			1676	
Flt Permitted	0.95	1.00		0.95	1.00			0.92			0.91	
Satd. Flow (perm)	1770	3533		1770	3535			1531			1544	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	4	366	4	32	512	3	12	8	57	21	20	67
RTOR Reduction (vph)	0	1	0	0	1	0	0	47	0	0	56	0
Lane Group Flow (vph)	4	369	0	32	514	0	0	30	0	0	52	0
Confl. Peds. (#/hr)			2			10	1		11	11		1
Confl. Bikes (#/hr)						2						
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		
Actuated Green, G (s)	0.5	16.3		0.7	16.5			6.6			6.6	
Effective Green, g (s)	0.5	16.3		0.7	16.5			6.6			6.6	
Actuated g/C Ratio	0.01	0.42		0.02	0.43			0.17			0.17	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0			2.0			2.0	
Lane Grp Cap (vph)	22	1491		32	1511			261			264	
v/s Ratio Prot	0.00	0.10		c0.02	c0.15							
v/s Ratio Perm								0.02			c0.03	
v/c Ratio	0.18	0.24		1.00	0.34			0.11			0.19	
Uniform Delay, d1	18.8	7.1		18.9	7.4			13.5			13.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.4	0.2		159.0	0.3			0.0			0.1	
Delay (s)	20.2	7.4		178.0	7.7			13.5			13.8	
Level of Service	C	A		F	A			B			B	
Approach Delay (s/veh)		7.5			17.7			13.5			13.8	
Approach LOS		A			B			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			13.6			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.32									
Actuated Cycle Length (s)			38.6			Sum of lost time (s)			15.0			
Intersection Capacity Utilization			40.5%			ICU Level of Service			A			
Analysis Period (min)			15									

c Critical Lane Group

HCM 6th TWSC
28: Broadway Avenue & Main Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↗	↗↗			↔			↔	
Traffic Vol, veh/h	105	288	5	12	432	51	3	3	6	24	5	49
Future Vol, veh/h	105	288	5	12	432	51	3	3	6	24	5	49
Conflicting Peds, #/hr	13	0	4	4	0	13	0	0	13	13	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	119	327	6	14	491	58	3	3	7	27	6	56

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	562	0	0	337	0	0	849	1162	184	977	1136	288
Stage 1	-	-	-	-	-	-	572	572	-	561	561	-
Stage 2	-	-	-	-	-	-	277	590	-	416	575	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1005	-	-	1219	-	-	254	194	827	205	201	709
Stage 1	-	-	-	-	-	-	472	502	-	480	508	-
Stage 2	-	-	-	-	-	-	706	493	-	585	501	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	993	-	-	1214	-	-	200	161	814	172	167	700
Mov Cap-2 Maneuver	-	-	-	-	-	-	200	161	-	172	167	-
Stage 1	-	-	-	-	-	-	401	427	-	404	496	-
Stage 2	-	-	-	-	-	-	635	481	-	485	426	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	2.7			0.2			17.9			20.1		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	293	993	-	-	1214	-	-	326
HCM Lane V/C Ratio	0.047	0.12	-	-	0.011	-	-	0.272
HCM Control Delay (s/veh)	17.9	9.1	0.4	-	8	-	-	20.1
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q (veh)	0.1	0.4	-	-	0	-	-	1.1

HCM Signalized Intersection Capacity Analysis

29: S Center Street & Market Street

Existing Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  									  	
Traffic Volume (vph)	0	55	44	0	0	0	0	0	0	166	1169	0
Future Volume (vph)	0	55	44	0	0	0	0	0	0	166	1169	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		0.95									0.91	
Frpb, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.99	
Frt		0.93									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		3284									5050	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		3284									5050	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	62	49	0	0	0	0	0	0	187	1313	0
RTOR Reduction (vph)	0	36	0	0	0	0	0	0	0	0	22	0
Lane Group Flow (vph)	0	75	0	0	0	0	0	0	0	0	1478	0
Confl. Peds. (#/hr)			2								6	
Turn Type		NA								Perm	NA	
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		23.0									52.0	
Effective Green, g (s)		23.0									52.0	
Actuated g/C Ratio		0.27									0.61	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		888									3089	
v/s Ratio Prot		0.02										
v/s Ratio Perm											0.29	
v/c Ratio		0.08									0.47	
Uniform Delay, d1		23.1									9.0	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.1									0.5	
Delay (s)		23.3									9.5	
Level of Service		C									A	
Approach Delay (s/veh)		23.3			0.0			0.0			9.5	
Approach LOS		C			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			10.5									
HCM 2000 Volume to Capacity ratio			0.36									
Actuated Cycle Length (s)			85.0							10.0		
Intersection Capacity Utilization			53.5%								A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis30: S El Dorado Street & Market Street

Existing Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	107	0	0	0	0	0	1598	100	0	0	0
Future Volume (vph)	96	107	0	0	0	0	0	1598	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0				
Lane Util. Factor		0.95						0.86				
Frpb, ped/bikes		1.00						0.99				
Flpb, ped/bikes		0.99						1.00				
Frt		1.00						0.99				
Flt Protected		0.97						1.00				
Satd. Flow (prot)		3440						6342				
Flt Permitted		0.97						1.00				
Satd. Flow (perm)		3440						6342				
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	112	124	0	0	0	0	0	1858	116	0	0	0
RTOR Reduction (vph)	0	19	0	0	0	0	0	11	0	0	0	0
Lane Group Flow (vph)	0	217	0	0	0	0	0	1963	0	0	0	0
Confl. Peds. (#/hr)	9								11			
Turn Type	Perm	NA						NA				
Protected Phases		2						1				
Permitted Phases	2											
Actuated Green, G (s)		22.0						53.0				
Effective Green, g (s)		22.0						53.0				
Actuated g/C Ratio		0.26						0.62				
Clearance Time (s)		5.0						5.0				
Vehicle Extension (s)		0.2						0.2				
Lane Grp Cap (vph)		890						3954				
v/s Ratio Prot								c0.31				
v/s Ratio Perm		0.06										
v/c Ratio		0.24						0.49				
Uniform Delay, d1		24.9						8.7				
Progression Factor		0.95						1.00				
Incremental Delay, d2		0.6						0.4				
Delay (s)		24.3						9.1				
Level of Service		C						A				
Approach Delay (s/veh)		24.3			0.0			9.1			0.0	
Approach LOS		C			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		10.8						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.42										
Actuated Cycle Length (s)		85.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		39.0%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th AWSC

31: S Hunter Street & Market Street

Existing Conditions

Timing Plan: AM PEAK

Intersection

Intersection Delay, s/veh 8.9

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑							↑↑	↑	↑	
Traffic Vol, veh/h	0	133	66	0	0	0	0	0	29	62	84	0
Future Vol, veh/h	0	133	66	0	0	0	0	0	29	62	84	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	182	90	0	0	0	0	0	40	85	115	0
Number of Lanes	0	2	0	0	0	0	0	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay, s/veh	8.8	8.1	9.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	40%	0%	100%
Vol Right, %	100%	0%	60%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	89	110	62	84
LT Vol	0	0	0	62	0
Through Vol	0	89	44	0	84
RT Vol	29	0	66	0	0
Lane Flow Rate	40	121	151	85	115
Geometry Grp	4b	5	5	5	5
Degree of Util (X)	0.053	0.174	0.199	0.135	0.167
Departure Headway (Hd)	4.83	5.159	4.739	5.733	5.23
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	740	696	757	625	686
Service Time	2.871	2.885	2.465	3.467	2.964
HCM Lane V/C Ratio	0.054	0.174	0.199	0.136	0.168
HCM Control Delay, s/veh	8.1	9	8.6	9.4	9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.2	0.6	0.7	0.5	0.6

HCM Signalized Intersection Capacity Analysis

32: S San Joaquin Street & Market Street

Existing Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	114	36	0	0	0	0	170	39	25	99	0
Future Volume (vph)	66	114	36	0	0	0	0	170	39	25	99	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		0.98						0.97			1.00	
Flpb, ped/bikes		0.99						1.00			0.98	
Frt		0.97						0.97			1.00	
Flt Protected		0.98						1.00			0.99	
Satd. Flow (prot)		3342						3351			3441	
Flt Permitted		0.98						1.00			0.87	
Satd. Flow (perm)		3342						3351			3042	
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	82	142	45	0	0	0	0	212	49	31	124	0
RTOR Reduction (vph)	0	24	0	0	0	0	0	24	0	0	0	0
Lane Group Flow (vph)	0	247	0	0	0	0	0	238	0	0	155	0
Confl. Peds. (#/hr)	23		61						111	111		
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						1			1	
Permitted Phases	2									1		
Actuated Green, G (s)		24.0						36.0			36.0	
Effective Green, g (s)		24.0						36.0			36.0	
Actuated g/C Ratio		0.34						0.51			0.51	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		1145						1723			1564	
v/s Ratio Prot								c0.07				
v/s Ratio Perm		0.07									0.05	
v/c Ratio		0.21						0.13			0.09	
Uniform Delay, d1		16.3						8.8			8.7	
Progression Factor		1.00						1.00			0.42	
Incremental Delay, d2		0.4						0.1			0.1	
Delay (s)		16.7						9.0			3.8	
Level of Service		B						A			A	
Approach Delay (s/veh)		16.7			0.0			9.0			3.8	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		10.9										
HCM 2000 Volume to Capacity ratio		0.17										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		49.3%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

33: S Sutter Street & Market Street

Existing Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	81	80	0	0	0	0	102	16	4	95	0
Future Volume (vph)	22	81	80	0	0	0	0	102	16	4	95	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0		5.0	
Lane Util. Factor		0.95						1.00	1.00		0.95	
Frpb, ped/bikes		0.92						1.00	0.89		1.00	
Flpb, ped/bikes		0.99						1.00	1.00		0.99	
Frt		0.93						1.00	0.85		1.00	
Flt Protected		0.99						1.00	1.00		0.99	
Satd. Flow (prot)		3013						1863	1420		3522	
Flt Permitted		0.99						1.00	1.00		0.94	
Satd. Flow (perm)		3013						1863	1420		3346	
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	29	108	107	0	0	0	0	136	21	5	127	0
RTOR Reduction (vph)	0	61	0	0	0	0	0	0	12	0	0	0
Lane Group Flow (vph)	0	183	0	0	0	0	0	136	9	0	132	0
Confl. Peds. (#/hr)	24		154						70	70		
Confl. Bikes (#/hr)			1						2			
Turn Type	Perm	NA						NA	Perm	Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)		30.0						30.0	30.0		30.0	
Effective Green, g (s)		30.0						30.0	30.0		30.0	
Actuated g/C Ratio		0.43						0.43	0.43		0.43	
Clearance Time (s)		5.0						5.0	5.0		5.0	
Vehicle Extension (s)		0.2						0.2	0.2		0.2	
Lane Grp Cap (vph)		1291						798	608		1434	
v/s Ratio Prot								c0.07				
v/s Ratio Perm		0.06							0.01		0.04	
v/c Ratio		0.14						0.17	0.01		0.09	
Uniform Delay, d1		12.1						12.3	11.5		11.8	
Progression Factor		1.90						1.00	1.00		0.28	
Incremental Delay, d2		0.2						0.4	0.0		0.1	
Delay (s)		23.3						12.7	11.5		3.4	
Level of Service		C						B	B		A	
Approach Delay (s/veh)		23.3			0.0			12.6			3.4	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		15.3										
HCM 2000 Volume to Capacity ratio		0.16										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		45.0%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

34: California Street & Market Street

Existing Conditions
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑						↑↑			↑↑	
Traffic Volume (veh/h)	16	70	14	0	0	0	0	268	74	34	214	0
Future Volume (veh/h)	16	70	14	0	0	0	0	268	74	34	214	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	21	92	18				0	353	97	45	282	0
Peak Hour Factor	0.76	0.76	0.76				0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	152	689	139				0	1617	438	267	1640	0
Arrive On Green	0.27	0.27	0.27				0.00	0.59	0.59	1.00	1.00	0.00
Sat Flow, veh/h	561	2539	514				0	2855	748	345	2885	0
Grp Volume(v), veh/h	69	0	62				0	225	225	167	160	0
Grp Sat Flow(s), veh/h/ln	1842	0	1772				0	1777	1733	1528	1617	0
Q Serve(g_s), s	2.0	0.0	1.9				0.0	4.2	4.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.0	0.0	1.9				0.0	4.2	4.3	0.0	0.0	0.0
Prop In Lane	0.30		0.29				0.00		0.43	0.27		0.00
Lane Grp Cap(c), veh/h	500	0	481				0	1041	1015	960	947	0
V/C Ratio(X)	0.14	0.00	0.13				0.00	0.22	0.22	0.17	0.17	0.00
Avail Cap(c_a), veh/h	500	0	481				0	1041	1015	960	947	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.99	0.00	0.99				0.00	1.00	1.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	19.3	0.0	19.3				0.0	6.9	6.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.5				0.0	0.5	0.5	0.4	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.8				0.0	1.5	1.5	0.1	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.9	0.0	19.8				0.0	7.4	7.4	0.4	0.4	0.0
LnGrp LOS	B		B					A	A	A	A	
Approach Vol, veh/h		131						450			327	
Approach Delay, s/veh		19.8						7.4			0.4	
Approach LOS		B						A			A	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		46.0		24.0			46.0					
Change Period (Y+Rc), s		5.0		5.0			5.0					
Max Green Setting (Gmax), s		41.0		19.0			41.0					
Max Q Clear Time (g_c+I1), s		6.3		4.0			2.0					
Green Ext Time (p_c), s		0.5		0.1			0.4					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			6.7									
HCM 6th LOS			A									

HCM Signalized Intersection Capacity Analysis

35: S American Street & Market Street

Existing Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	141	0	0	0	0	0	0	0	108	0	0
Future Volume (vph)	30	141	0	0	0	0	0	0	0	108	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		0.95									1.00	
Frpb, ped/bikes		1.00									1.00	
Flpb, ped/bikes		0.99									0.99	
Frt		1.00									1.00	
Flt Protected		0.99									0.95	
Satd. Flow (prot)		3496									1765	
Flt Permitted		0.99									0.75	
Satd. Flow (perm)		3496									1407	
Peak-hour factor, PHF	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Adj. Flow (vph)	56	261	0	0	0	0	0	0	0	200	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	317	0	0	0	0	0	0	0	0	200	0
Confl. Peds. (#/hr)	10		2							2	2	
Confl. Bikes (#/hr)			1									
Turn Type	Perm	NA								Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		40.0									20.0	
Effective Green, g (s)		40.0									20.0	
Actuated g/C Ratio		0.57									0.29	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		1997									402	
v/s Ratio Prot												
v/s Ratio Perm		0.09									c0.14	
v/c Ratio		0.15									0.49	
Uniform Delay, d1		7.0									20.8	
Progression Factor		0.88									0.64	
Incremental Delay, d2		0.1									3.7	
Delay (s)		6.4									17.3	
Level of Service		A									B	
Approach Delay (s/veh)		6.4			0.0			0.0			17.3	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		10.6										
HCM 2000 Volume to Capacity ratio		0.27										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		36.7%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

36: S Stanislaus Street & Market Street

Existing Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	94	108	0	0	0	0	512	52	9	215	0
Future Volume (vph)	51	94	108	0	0	0	0	512	52	9	215	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		0.99						0.99			1.00	
Flpb, ped/bikes		0.99						1.00			0.99	
Frt		0.93						0.98			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		3246						3486			3532	
Flt Permitted		0.99						1.00			0.92	
Satd. Flow (perm)		3246						3486			3256	
Peak-hour factor, PHF	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	71	131	150	0	0	0	0	711	72	12	299	0
RTOR Reduction (vph)	0	96	0	0	0	0	0	11	0	0	0	0
Lane Group Flow (vph)	0	256	0	0	0	0	0	772	0	0	312	0
Confl. Peds. (#/hr)	13		4						2	2		
Confl. Bikes (#/hr)			1									
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		25.0						35.0			35.0	
Effective Green, g (s)		25.0						35.0			35.0	
Actuated g/C Ratio		0.36						0.50			0.50	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		1159						1743			1628	
v/s Ratio Prot								c0.22				
v/s Ratio Perm		0.08									0.10	
v/c Ratio		0.22						0.44			0.19	
Uniform Delay, d1		15.7						11.2			9.6	
Progression Factor		0.96						1.00			0.70	
Incremental Delay, d2		0.4						0.8			0.2	
Delay (s)		15.5						12.0			7.0	
Level of Service		B						B			A	
Approach Delay (s/veh)		15.5			0.0			12.0			7.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		11.8						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.35										
Actuated Cycle Length (s)		70.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		39.2%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM 6th TWSC
37: S Grant Street & Market Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		TT						T			T	
Traffic Vol, veh/h	52	102	0	0	0	0	0	8	0	9	5	0
Future Vol, veh/h	52	102	0	0	0	0	0	8	0	9	5	0
Conflicting Peds, #/hr	10	0	0	0	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	146	0	0	0	0	0	11	0	13	7	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	10	0	0	-	304	77	241	304	-
Stage 1	-	-	-	-	294	-	10	10	-
Stage 2	-	-	-	-	10	-	231	294	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1608	-	-	0	608	968	693	608	0
Stage 1	-	-	-	0	668	-	-	-	0
Stage 2	-	-	-	0	-	-	751	668	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1593	-	-	-	572	968	649	572	-
Mov Cap-2 Maneuver	-	-	-	-	572	-	649	572	-
Stage 1	-	-	-	-	634	-	-	-	-
Stage 2	-	-	-	-	-	-	700	634	-

Approach	EB	NB	SB
HCM Control Delay, s/v	2.6	11.4	11
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	572	1593	-	-	619
HCM Lane V/C Ratio	0.02	0.047	-	-	0.032
HCM Control Delay (s/veh)	11.4	7.4	0.1	-	11
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0.1	-	-	0.1

HCM 6th TWSC

38: S Aurora Street & Market Street

Existing Conditions

Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↔			↔	
Traffic Vol, veh/h	9	88	15	0	0	0	0	102	9	4	36	0
Future Vol, veh/h	9	88	15	0	0	0	0	102	9	4	36	0
Conflicting Peds, #/hr	2	0	1	0	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	113	19	0	0	0	0	131	12	5	46	0
Major/Minor	Major1			Minor1			Minor2					
Conflicting Flow All	2	0	0				-	150	69	150	159	-
Stage 1	-	-	-				-	148	-	2	2	-
Stage 2	-	-	-				-	2	-	148	157	-
Critical Hdwy	4.14	-	-				-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-				-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-				-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1619	-	-				0	741	980	803	732	0
Stage 1	-	-	-				0	774	-	-	-	0
Stage 2	-	-	-				0	-	-	840	767	0
Platoon blocked, %		-	-									
Mov Cap-1 Maneuver	1616	-	-				-	733	979	679	724	-
Mov Cap-2 Maneuver	-	-	-				-	733	-	679	724	-
Stage 1	-	-	-				-	767	-	-	-	-
Stage 2	-	-	-				-	-	-	683	760	-
Approach	EB			NB			SB					
HCM Control Delay, s/v	0.6			10.9			10.4					
HCM LOS				B			B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1							
Capacity (veh/h)	748	1616	-	-	719							
HCM Lane V/C Ratio	0.19	0.007	-	-	0.071							
HCM Control Delay (s/veh)	10.9	7.2	0	-	10.4							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.7	0	-	-	0.2							

HCM 6th TWSC
39: Union Street & Market Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	6.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		TT						T			T	
Traffic Vol, veh/h	8	80	5	0	0	0	0	90	8	15	39	0
Future Vol, veh/h	8	80	5	0	0	0	0	90	8	15	39	0
Conflicting Peds, #/hr	1	0	1	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	88	5	0	0	0	0	99	9	16	43	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	1	0	0	-	111	49	114	113	-
Stage 1	-	-	-	-	110	-	1	1	-
Stage 2	-	-	-	-	1	-	113	112	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1620	-	-	0	778	1009	851	776	0
Stage 1	-	-	-	0	803	-	-	-	0
Stage 2	-	-	-	0	-	-	880	802	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1618	-	-	-	772	1008	757	770	-
Mov Cap-2 Maneuver	-	-	-	-	772	-	757	770	-
Stage 1	-	-	-	-	797	-	-	-	-
Stage 2	-	-	-	-	-	-	759	796	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.6	10.3	10.1
HCM LOS	B	B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	787	1618	-	-	766
HCM Lane V/C Ratio	0.137	0.005	-	-	0.077
HCM Control Delay (s/veh)	10.3	7.2	0	-	10.1
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.5	0	-	-	0.3

HCM 6th TWSC
40: Pilgrim Street & Market Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		EB						EB			EB	
Traffic Vol, veh/h	6	100	2	0	0	0	0	8	9	13	4	0
Future Vol, veh/h	6	100	2	0	0	0	0	8	9	13	4	0
Conflicting Peds, #/hr	3	0	1	0	0	0	0	0	9	9	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	149	3	0	0	0	0	12	13	19	6	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	3	0	0	-	173	86	111	174	-
Stage 1	-	-	-	-	170	-	3	3	-
Stage 2	-	-	-	-	3	-	108	171	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1618	-	-	0	719	956	855	718	0
Stage 1	-	-	-	0	757	-	-	-	0
Stage 2	-	-	-	0	-	-	886	756	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1613	-	-	-	712	955	826	711	-
Mov Cap-2 Maneuver	-	-	-	-	712	-	826	711	-
Stage 1	-	-	-	-	752	-	-	-	-
Stage 2	-	-	-	-	-	-	855	751	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.4	9.5	9.7
HCM LOS	A	A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	823	1613	-	-	796
HCM Lane V/C Ratio	0.031	0.006	-	-	0.032
HCM Control Delay (s/veh)	9.5	7.2	0	-	9.7
HCM Lane LOS	A	A	A	-	A
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1

HCM 6th Signalized Intersection Summary

41: Airport Way & Market Street

Existing Conditions
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	76	19	0	0	0	0	815	39	77	591	0
Future Volume (veh/h)	26	76	19	0	0	0	0	815	39	77	591	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	29	84	21				0	906	43	86	657	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	58	172	44				0	2805	133	283	2089	0
Arrive On Green	0.08	0.08	0.08				0.00	0.81	0.81	1.00	1.00	0.00
Sat Flow, veh/h	752	2240	575				0	3547	164	287	2656	0
Grp Volume(v), veh/h	71	0	63				0	466	483	329	414	0
Grp Sat Flow(s), veh/h/ln	1833	0	1735				0	1777	1841	1241	1617	0
Q Serve(g_s), s	3.3	0.0	3.2				0.0	6.0	6.0	0.2	0.0	0.0
Cycle Q Clear(g_c), s	3.3	0.0	3.2				0.0	6.0	6.0	6.2	0.0	0.0
Prop In Lane	0.41		0.33				0.00		0.09	0.26		0.00
Lane Grp Cap(c), veh/h	140	0	133				0	1443	1495	1058	1313	0
V/C Ratio(X)	0.50	0.00	0.48				0.00	0.32	0.32	0.31	0.32	0.00
Avail Cap(c_a), veh/h	448	0	424				0	1443	1495	1058	1313	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.96	0.96	0.00
Uniform Delay (d), s/veh	39.9	0.0	39.8				0.0	2.1	2.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	1.0				0.0	0.6	0.6	0.7	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	1.4				0.0	1.2	1.3	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.9	0.0	40.8				0.0	2.7	2.7	0.7	0.6	0.0
LnGrp LOS	D		D					A	A	A	A	
Approach Vol, veh/h		134						949			743	
Approach Delay, s/veh		40.9						2.7			0.7	
Approach LOS		D						A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		78.1				78.1		11.9				
Change Period (Y+Rc), s		5.0				5.0		5.0				
Max Green Setting (Gmax), s		58.0				58.0		22.0				
Max Q Clear Time (g_c+I1), s		8.2				8.0		5.3				
Green Ext Time (p_c), s		1.0				0.9		0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			4.7									
HCM 6th LOS			A									

HCM 6th TWSC

42: Sierra Nevada Street & Market Street

Existing Conditions

Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		TT						T			T	
Traffic Vol, veh/h	14	178	2	0	0	0	0	15	15	24	7	0
Future Vol, veh/h	14	178	2	0	0	0	0	15	15	24	7	0
Conflicting Peds, #/hr	2	0	2	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	200	2	0	0	0	0	17	17	27	8	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	2	0	0	-	237	103	143	238	-
Stage 1	-	-	-	-	235	-	2	2	-
Stage 2	-	-	-	-	2	-	141	236	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1619	-	-	0	663	932	812	662	0
Stage 1	-	-	-	0	709	-	-	-	0
Stage 2	-	-	-	0	-	-	847	708	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1616	-	-	-	653	930	774	652	-
Mov Cap-2 Maneuver	-	-	-	-	653	-	774	652	-
Stage 1	-	-	-	-	700	-	-	-	-
Stage 2	-	-	-	-	-	-	803	699	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.5	9.9	10.1
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	767	1616	-	-	743
HCM Lane V/C Ratio	0.044	0.01	-	-	0.047
HCM Control Delay (s/veh)	9.9	7.3	0	-	10.1
HCM Lane LOS	A	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1

HCM 6th Signalized Intersection Summary43: S Wilson Way & Market Street

Existing Conditions
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	140	50	0	0	0	0	686	63	118	623	0
Future Volume (veh/h)	15	140	50	0	0	0	0	686	63	118	623	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	16	149	53				0	730	67	126	663	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	24	229	84				0	2141	196	157	2822	0
Arrive On Green	0.03	0.03	0.03				0.00	0.65	0.65	0.12	1.00	0.00
Sat Flow, veh/h	256	2420	886				0	3384	302	1781	3647	0
Grp Volume(v), veh/h	116	0	102				0	394	403	126	663	0
Grp Sat Flow(s), veh/h/ln	1858	0	1704				0	1777	1815	1781	1777	0
Q Serve(g_s), s	5.6	0.0	5.3				0.0	9.0	9.0	6.2	0.0	0.0
Cycle Q Clear(g_c), s	5.6	0.0	5.3				0.0	9.0	9.0	6.2	0.0	0.0
Prop In Lane	0.14		0.52				0.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	176	0	161				0	1156	1181	157	2822	0
V/C Ratio(X)	0.66	0.00	0.63				0.00	0.34	0.34	0.80	0.23	0.00
Avail Cap(c_a), veh/h	433	0	398				0	1156	1181	257	2822	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	42.2	0.0	42.0				0.0	7.1	7.1	39.0	0.0	0.0
Incr Delay (d2), s/veh	1.6	0.0	1.5				0.0	0.8	0.8	3.6	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	2.4				0.0	3.3	3.4	2.8	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.7	0.0	43.6				0.0	7.9	7.8	42.6	0.2	0.0
LnGrp LOS	D		D					A	A	D	A	
Approach Vol, veh/h		218						797			789	
Approach Delay, s/veh		43.7						7.9			7.0	
Approach LOS		D						A			A	
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	12.9	63.6				76.5		13.5				
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0				
Max Green Setting (Gmax), s	13.0	41.0				59.0		21.0				
Max Q Clear Time (g_c+I1), s	8.2	11.0				2.0		7.6				
Green Ext Time (p_c), s	0.1	14.0				15.0		0.7				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			11.8									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
44: S Eugenia Street & Market Street

Existing Conditions
Timing Plan: AM PEAK

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↑
Traffic Vol, veh/h	304	16	0	0	0	37
Future Vol, veh/h	304	16	0	0	0	37
Conflicting Peds, #/hr	0	2	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	330	17	0	0	0	40
Major/Minor	Major1		Minor1			
Conflicting Flow All	0	0			-	177
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Critical Hdwy	-	-			-	6.94
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	-			-	3.32
Pot Cap-1 Maneuver	-	-			0	835
Stage 1	-	-			0	-
Stage 2	-	-			0	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-			-	833
Mov Cap-2 Maneuver	-	-			-	-
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Approach	EB		NB			
HCM Control Delay, s/v	0				9.5	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR			
Capacity (veh/h)	833	-	-			
HCM Lane V/C Ratio	0.048	-	-			
HCM Control Delay (s/veh)	9.5	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q (veh)	0.2	-	-			

HCM 6th TWSC
45: Della Street & Market Street

Existing Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		EB						EB			EB	
Traffic Vol, veh/h	54	256	12	0	0	0	0	3	2	5	54	0
Future Vol, veh/h	54	256	12	0	0	0	0	3	2	5	54	0
Conflicting Peds, #/hr	0	0	4	0	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	288	13	0	0	0	0	3	2	6	61	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	421	157	270	427	-
Stage 1	-	-	-	-	421	-	0	0	-
Stage 2	-	-	-	-	0	-	270	427	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	0	522	861	661	518	0
Stage 1	-	-	-	0	587	-	-	-	0
Stage 2	-	-	-	0	-	-	713	584	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	520	858	656	516	-
Mov Cap-2 Maneuver	-	-	-	-	520	-	656	516	-
Stage 1	-	-	-	-	585	-	-	-	-
Stage 2	-	-	-	-	-	-	707	582	-

Approach	EB	NB	SB
HCM Control Delay, s/v		10.9	12.8
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	617	-	-	-	526
HCM Lane V/C Ratio	0.009	-	-	-	0.126
HCM Control Delay (s/veh)	10.9	-	-	-	12.8
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q (veh)	0	-	-	-	0.4

HCM Signalized Intersection Capacity Analysis

Existing Conditions

2: S San Joaquin Street/N San Joaquin Street & Main Street

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	23	13	38	7	121	0	0	128	18
Future Volume (vph)	0	0	0	23	13	38	7	121	0	0	128	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					0.97			1.00			0.99	
Flpb, ped/bikes					0.97			0.99			1.00	
Frt					0.92			1.00			0.98	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					3055			3526			3461	
Flt Permitted					0.98			0.94			1.00	
Satd. Flow (perm)					3055			3332			3461	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	0	0	26	15	43	8	138	0	0	145	20
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	84	0	0	146	0	0	165	0
Confl. Peds. (#/hr)				16		10	28					28
Confl. Bikes (#/hr)						1						1
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					4.8			29.2			29.2	
Effective Green, g (s)					4.8			29.2			29.2	
Actuated g/C Ratio					0.07			0.42			0.42	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					209			1389			1443	
v/s Ratio Prot											c0.05	
v/s Ratio Perm					0.03			0.04				
v/c Ratio					0.40			0.10			0.11	
Uniform Delay, d1					31.2			12.4			12.4	
Progression Factor					1.01			0.72			1.00	
Incremental Delay, d2					0.4			0.1			0.1	
Delay (s)					32.1			9.1			12.6	
Level of Service					C			A			B	
Approach Delay (s/veh)		0.0			32.1			9.1			12.6	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			15.5									B
HCM 2000 Volume to Capacity ratio			0.09									
Actuated Cycle Length (s)			70.0								13.0	
Intersection Capacity Utilization			20.2%								A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: S Sutter Street/N Sutter Street & Main Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	23	28	12	13	134	0	0	85	23
Future Volume (vph)	0	0	0	23	28	12	13	134	0	0	85	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			1.00			0.95	
Frpb, ped/bikes					0.99			1.00			0.98	
Flpb, ped/bikes					0.98			0.99			1.00	
Frt					0.97			1.00			0.96	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					3302			1847			3377	
Flt Permitted					0.98			0.97			1.00	
Satd. Flow (perm)					3302			1800			3377	
Peak-hour factor, PHF	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	0	0	0	29	35	15	16	170	0	0	108	29
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	79	0	0	186	0	0	137	0
Confl. Peds. (#/hr)				24		14	52					52
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					2			4			4	
Permitted Phases				2			4					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					707			488			916	
v/s Ratio Prot											0.04	
v/s Ratio Perm					0.02			0.10				
v/c Ratio					0.11			0.38			0.14	
Uniform Delay, d1					22.1			20.7			19.3	
Progression Factor					0.65			0.68			1.00	
Incremental Delay, d2					0.3			2.2			0.3	
Delay (s)					14.8			16.4			19.7	
Level of Service					B			B			B	
Approach Delay (s/veh)		0.0			14.8			16.4			19.7	
Approach LOS		A			B			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.3									
HCM 2000 Volume to Capacity ratio			0.16									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			26.1%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

Existing Conditions

4: California Street & Main Street

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	27	42	24	9	216	0	0	249	8
Future Volume (vph)	0	0	0	27	42	24	9	216	0	0	249	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					0.99			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.96			1.00			0.99	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					3328			3531			3521	
Flt Permitted					0.98			0.93			1.00	
Satd. Flow (perm)					3328			3321			3521	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	0	0	0	31	48	28	10	248	0	0	286	9
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	107	0	0	258	0	0	295	0
Confl. Peds. (#/hr)				2		9	9					9
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					713			901			955	
v/s Ratio Prot											c0.08	
v/s Ratio Perm					0.03			0.08				
v/c Ratio					0.15			0.28			0.30	
Uniform Delay, d1					22.3			20.1			20.2	
Progression Factor					1.74			0.83			1.00	
Incremental Delay, d2					0.4			0.7			0.8	
Delay (s)					39.4			17.5			21.1	
Level of Service					D			B			C	
Approach Delay (s/veh)		0.0			39.4			17.5			21.1	
Approach LOS		A			D			B			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			22.7									
HCM 2000 Volume to Capacity ratio			0.14									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			24.2%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: S American Street/N American Street & Main Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	22	73	19	3	24	0	0	12	15
Future Volume (vph)	0	0	0	22	73	19	3	24	0	0	12	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	5.0
Lane Util. Factor					0.95			1.00			1.00	1.00
Frpb, ped/bikes					0.99			1.00			1.00	0.98
Flpb, ped/bikes					0.99			0.99			1.00	1.00
Frt					0.97			1.00			1.00	0.85
Flt Protected					0.99			0.99			1.00	1.00
Satd. Flow (prot)					3375			1851			1863	1561
Flt Permitted					0.99			0.98			1.00	1.00
Satd. Flow (perm)					3375			1829			1863	1561
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	26	86	22	4	28	0	0	14	18
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	134	0	0	32	0	0	14	18
Confl. Peds. (#/hr)				15		5	2					2
Turn Type				Perm	NA		Perm	NA			NA	Perm
Protected Phases					2			4			4	
Permitted Phases				2			4					4
Actuated Green, G (s)					11.0			23.0			23.0	23.0
Effective Green, g (s)					11.0			23.0			23.0	23.0
Actuated g/C Ratio					0.16			0.33			0.33	0.33
Clearance Time (s)					5.0			5.0			5.0	5.0
Vehicle Extension (s)					0.2			0.2			0.2	0.2
Lane Grp Cap (vph)					530			600			612	512
v/s Ratio Prot											0.01	
v/s Ratio Perm					0.04			c0.02				0.01
v/c Ratio					0.25			0.05			0.02	0.03
Uniform Delay, d1					25.8			16.0			15.8	15.9
Progression Factor					0.91			0.52			1.00	1.00
Incremental Delay, d2					1.1			0.1			0.0	0.1
Delay (s)					24.7			8.6			15.9	16.0
Level of Service					C			A			B	B
Approach Delay (s/veh)		0.0			24.7			8.6			16.0	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			20.7									
HCM 2000 Volume to Capacity ratio			0.07									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			22.5%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

6: S Stanislaus Street/N Stanislaus Street & Main Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	66	53	12	39	249	0	0	295	8
Future Volume (vph)	0	0	0	66	53	12	39	249	0	0	295	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					1.00			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.98			1.00			0.99	
Flt Protected					0.97			0.99			1.00	
Satd. Flow (prot)					3397			3514			3523	
Flt Permitted					0.97			0.87			1.00	
Satd. Flow (perm)					3397			3104			3523	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	72	58	13	42	271	0	0	321	9
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	0	135	0	0	313	0	0	327	0
Confl. Peds. (#/hr)				4			5					5
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					1			2			2	
Permitted Phases				1			2					
Actuated Green, G (s)					25.0			35.0			35.0	
Effective Green, g (s)					25.0			35.0			35.0	
Actuated g/C Ratio					0.36			0.50			0.50	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					1213			1552			1761	
v/s Ratio Prot											0.09	
v/s Ratio Perm					0.04			c0.10				
v/c Ratio					0.11			0.20			0.18	
Uniform Delay, d1					15.0			9.7			9.6	
Progression Factor					1.00			0.80			1.00	
Incremental Delay, d2					0.1			0.2			0.2	
Delay (s)					15.2			8.1			9.8	
Level of Service					B			A			A	
Approach Delay (s/veh)		0.0			15.2			8.1			9.8	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			10.2									B
HCM 2000 Volume to Capacity ratio			0.16									
Actuated Cycle Length (s)			70.0								10.0	
Intersection Capacity Utilization			37.6%								A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC

Existing Conditions

7: S Grant Street/N Grant Street & Main Street

Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EB			E			B	
Traffic Vol, veh/h	0	0	0	7	109	11	10	21	0	0	31	25
Future Vol, veh/h	0	0	0	7	109	11	10	21	0	0	31	25
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	10	156	16	14	30	0	0	44	36
Major/Minor												
	Major2			Minor1			Minor2					
Conflicting Flow All				1	0	0	121	194	-	-	186	87
Stage 1				-	-	-	1	1	-	-	185	-
Stage 2				-	-	-	120	193	-	-	1	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				1620	-	-	842	700	0	0	707	954
Stage 1				-	-	-	-	-	0	0	746	-
Stage 2				-	-	-	872	740	0	0	-	-
Platoon blocked, %				-	-							
Mov Cap-1 Maneuver				1618	-	-	766	694	-	-	701	953
Mov Cap-2 Maneuver				-	-	-	766	694	-	-	701	-
Stage 1				-	-	-	-	-	-	-	740	-
Stage 2				-	-	-	784	734	-	-	-	-
Approach												
	WB			NB			SB					
HCM Control Delay, s/v				0.4			10.4			10		
HCM LOS							B			B		
Minor Lane/Major Mvmt												
	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	716	1618	-	-	795							
HCM Lane V/C Ratio	0.062	0.006	-	-	0.101							
HCM Control Delay (s/veh)	10.4	7.2	0	-	10							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.2	0	-	-	0.3							

HCM 6th TWSC

8: S Aurora Street/N Aurora Street & Main Street

Existing Conditions

Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	7.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EB			E			B	
Traffic Vol, veh/h	0	0	0	15	60	1	12	96	0	0	38	5
Future Vol, veh/h	0	0	0	15	60	1	12	96	0	0	38	5
Conflicting Peds, #/hr	0	0	0	8	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	18	72	1	14	116	0	0	46	6
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				8	0	0	104	118	-	-	118	39
Stage 1				-	-	-	8	8	-	-	110	-
Stage 2				-	-	-	96	110	-	-	8	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				1611	-	-	865	771	0	0	771	1024
Stage 1				-	-	-	-	-	0	0	803	-
Stage 2				-	-	-	900	803	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1599	-	-	806	755	-	-	755	1023
Mov Cap-2 Maneuver				-	-	-	806	755	-	-	755	-
Stage 1				-	-	-	-	-	-	-	793	-
Stage 2				-	-	-	833	793	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				1.4		10.7		10				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	760	1599	-	-	779							
HCM Lane V/C Ratio	0.171	0.011	-	-	0.067							
HCM Control Delay (s/veh)	10.7	7.3	0	-	10							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.6	0	-	-	0.2							

HCM 6th AWSC
9: Union Street & Main Street

Existing Conditions
Timing Plan: PM Peak

Intersection												
Intersection Delay, s/veh	8											
Intersection LOS	A											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑			↱			↑	
Traffic Vol, veh/h	0	0	0	13	63	15	13	108	0	0	76	7
Future Vol, veh/h	0	0	0	13	63	15	13	108	0	0	76	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	14	66	16	14	114	0	0	80	7
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0
Approach				WB			NB			SB		
Opposing Approach							SB			NB		
Opposing Lanes				0			1			1		
Conflicting Approach Left				NB						WB		
Conflicting Lanes Left				1			0			2		
Conflicting Approach Right				SB			WB					
Conflicting Lanes Right				1			2			0		
HCM Control Delay, s/veh				8			8.1			7.8		
HCM LOS				A			A			A		
Lane	NBLn1	WBLn1	WBLn2	SBLn1								
Vol Left, %	11%	29%	0%	0%								
Vol Thru, %	89%	71%	68%	92%								
Vol Right, %	0%	0%	32%	8%								
Sign Control	Stop	Stop	Stop	Stop								
Traffic Vol by Lane	121	45	47	83								
LT Vol	13	13	0	0								
Through Vol	108	32	32	76								
RT Vol	0	0	15	7								
Lane Flow Rate	127	47	49	87								
Geometry Grp	2	5	5	2								
Degree of Util (X)	0.152	0.067	0.065	0.103								
Departure Headway (Hd)	4.29	5.159	4.786	4.26								
Convergence, Y/N	Yes	Yes	Yes	Yes								
Cap	839	697	751	845								
Service Time	2.296	2.871	2.497	2.267								
HCM Lane V/C Ratio	0.151	0.067	0.065	0.103								
HCM Control Delay, s/veh	8.1	8.2	7.8	7.8								
HCM Lane LOS	A	A	A	A								
HCM 95th-tile Q	0.5	0.2	0.2	0.3								

HCM 6th TWSC
10: Pilgrim Street & Main Street

Existing Conditions
Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EB			E			B	
Traffic Vol, veh/h	0	0	0	18	82	15	8	16	0	0	20	5
Future Vol, veh/h	0	0	0	18	82	15	8	16	0	0	20	5
Conflicting Peds, #/hr	0	0	0	4	0	1	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	23	104	19	10	20	0	0	25	6
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				4	0	0	118	174	-	-	165	66
Stage 1				-	-	-	4	4	-	-	161	-
Stage 2				-	-	-	114	170	-	-	4	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				1616	-	-	846	718	0	0	727	984
Stage 1				-	-	-	-	-	0	0	764	-
Stage 2				-	-	-	879	757	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1610	-	-	805	704	-	-	712	983
Mov Cap-2 Maneuver				-	-	-	805	704	-	-	712	-
Stage 1				-	-	-	-	-	-	-	752	-
Stage 2				-	-	-	831	745	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				1.1		10.1		10				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	735	1610	-	-	754							
HCM Lane V/C Ratio	0.041	0.014	-	-	0.042							
HCM Control Delay (s/veh)	10.1	7.3	0	-	10							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1							

HCM 6th Signalized Intersection Summary

11: Airport Way & Main Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	41	78	61	10	869	0	0	749	17
Future Volume (veh/h)	0	0	0	41	78	61	10	869	0	0	749	17
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				43	82	64	11	915	0	0	788	18
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				77	147	115	51	2727	0	0	2805	64
Arrive On Green				0.10	0.10	0.10	1.00	1.00	0.00	0.00	0.79	0.79
Sat Flow, veh/h				777	1486	1167	13	3537	0	0	3644	81
Grp Volume(v), veh/h				101	0	88	494	432	0	0	394	412
Grp Sat Flow(s),veh/h/ln				1832	0	1598	1847	1617	0	0	1777	1855
Q Serve(g_s), s				4.7	0.0	4.7	0.0	0.0	0.0	0.0	5.4	5.4
Cycle Q Clear(g_c), s				4.7	0.0	4.7	0.0	0.0	0.0	0.0	5.4	5.4
Prop In Lane				0.42		0.73	0.02		0.00	0.00		0.04
Lane Grp Cap(c), veh/h				181	0	158	1500	1277	0	0	1404	1466
V/C Ratio(X)				0.56	0.00	0.55	0.33	0.34	0.00	0.00	0.28	0.28
Avail Cap(c_a), veh/h				448	0	391	1500	1277	0	0	1404	1466
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.94	0.94	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				38.7	0.0	38.7	0.0	0.0	0.0	0.0	2.6	2.6
Incr Delay (d2), s/veh				1.0	0.0	1.1	0.6	0.7	0.0	0.0	0.5	0.5
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.2	0.0	1.9	0.2	0.2	0.0	0.0	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				39.7	0.0	39.8	0.6	0.7	0.0	0.0	3.1	3.0
LnGrp LOS				D		D	A	A			A	A
Approach Vol, veh/h					189			926			806	
Approach Delay, s/veh					39.7			0.6			3.0	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	76.1			13.9			76.1					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	58.0			22.0			58.0					
Max Q Clear Time (g_c+I1), s	2.0			6.7			7.4					
Green Ext Time (p_c), s	0.9			0.6			0.7					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				5.5								
HCM 6th LOS				A								

HCM 6th TWSC
12: Sierra Nevada Street & Main Street

Existing Conditions
Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4T			4			4	
Traffic Vol, veh/h	0	0	0	30	139	40	9	37	0	0	49	32
Future Vol, veh/h	0	0	0	30	139	40	9	37	0	0	49	32
Conflicting Peds, #/hr	0	0	0	6	0	3	9	0	0	0	0	9
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	32	148	43	10	39	0	0	52	34
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				6	0	0	179	264	-	-	243	108
Stage 1				-	-	-	6	6	-	-	237	-
Stage 2				-	-	-	173	258	-	-	6	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				1613	-	-	766	640	0	0	658	925
Stage 1				-	-	-	-	-	0	0	708	-
Stage 2				-	-	-	812	693	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1604	-	-	676	620	-	-	638	922
Mov Cap-2 Maneuver				-	-	-	676	620	-	-	638	-
Stage 1				-	-	-	-	-	-	-	690	-
Stage 2				-	-	-	707	676	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				1.1		11.2		10.6				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	630	1604	-	-	726							
HCM Lane V/C Ratio	0.078	0.02	-	-	0.119							
HCM Control Delay (s/veh)	11.2	7.3	0.1	-	10.6							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.3	0.1	-	-	0.4							

HCM 6th Signalized Intersection Summary13: S Wilson Way & Main Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	107	111	183	27	936	0	0	933	29
Future Volume (veh/h)	0	0	0	107	111	183	27	936	0	0	933	29
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				110	114	189	28	965	0	0	962	30
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				247	284	236	444	2629	0	0	2602	81
Arrive On Green				0.15	0.15	0.15	1.00	1.00	0.00	0.00	0.74	0.74
Sat Flow, veh/h				1660	1904	1582	567	3647	0	0	3611	110
Grp Volume(v), veh/h				118	106	189	28	965	0	0	486	506
Grp Sat Flow(s),veh/h/ln				1787	1777	1582	567	1777	0	0	1777	1850
Q Serve(g_s), s				5.4	4.8	10.4	0.6	0.0	0.0	0.0	8.8	8.8
Cycle Q Clear(g_c), s				5.4	4.8	10.4	9.4	0.0	0.0	0.0	8.8	8.8
Prop In Lane				0.93		1.00	1.00		0.00	0.00		0.06
Lane Grp Cap(c), veh/h				266	265	236	444	2629	0	0	1315	1369
V/C Ratio(X)				0.44	0.40	0.80	0.06	0.37	0.00	0.00	0.37	0.37
Avail Cap(c_a), veh/h				457	454	404	444	2629	0	0	1315	1369
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	0.82	0.82	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				34.9	34.6	37.0	0.6	0.0	0.0	0.0	4.2	4.2
Incr Delay (d2), s/veh				0.4	0.4	2.4	0.2	0.3	0.0	0.0	0.8	0.8
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.4	2.1	4.1	0.0	0.1	0.0	0.0	2.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				35.3	35.0	39.4	0.8	0.3	0.0	0.0	5.0	5.0
LnGrp LOS				D	D	D	A	A			A	A
Approach Vol, veh/h					413			993			992	
Approach Delay, s/veh					37.1			0.3			5.0	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	71.6			18.4			71.6					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	57.0			23.0			57.0					
Max Q Clear Time (g_c+I1), s	11.4			12.4			10.8					
Green Ext Time (p_c), s	3.4			0.9			2.6					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				8.6								
HCM 6th LOS				A								

HCM Signalized Intersection Capacity Analysis

14: Market Street/E Market Street & Main St/Main Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	363	1	9	7	0	0	0	27
Future Volume (vph)	0	0	0	0	363	1	9	7	0	0	0	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0				5.0
Lane Util. Factor					0.95			1.00				1.00
Frpb, ped/bikes					0.99			1.00				0.94
Flpb, ped/bikes					1.00			0.98				1.00
Frt					0.99			1.00				0.86
Flt Protected					1.00			0.97				1.00
Satd. Flow (prot)					3538			1774				1530
Flt Permitted					1.00			0.97				1.00
Satd. Flow (perm)					3538			1774				1530
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	0	386	1	10	7	0	0	0	29
RTOR Reduction (vph)	0	0	0	0	0	0	0	16	0	0	0	28
Lane Group Flow (vph)	0	0	0	0	387	0	0	1	0	0	0	1
Confl. Peds. (#/hr)						1	4					4
Confl. Bikes (#/hr)						2						1
Turn Type					NA		Perm	NA				Perm
Protected Phases					6 4			5				
Permitted Phases							5					5
Actuated Green, G (s)					27.4			1.4				1.4
Effective Green, g (s)					27.4			1.4				1.4
Actuated g/C Ratio					0.71			0.04				0.04
Clearance Time (s)								5.0				5.0
Vehicle Extension (s)								2.0				2.0
Lane Grp Cap (vph)					2498			64				55
v/s Ratio Prot					c0.11							
v/s Ratio Perm								0.00				c0.00
v/c Ratio					0.15			0.00				0.01
Uniform Delay, d1					1.8			18.0				18.0
Progression Factor					1.00			1.00				1.00
Incremental Delay, d2					0.0			0.0				0.0
Delay (s)					1.9			18.0				18.0
Level of Service					A			B				B
Approach Delay (s/veh)		0.0			1.9			18.0			18.0	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			3.7									
HCM 2000 Volume to Capacity ratio			0.23									
Actuated Cycle Length (s)			38.8									
Intersection Capacity Utilization			29.5%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC

15: B Street/E Washington Street & Main Street

Existing Conditions

Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔↔			↔↔	
Traffic Vol, veh/h	5	392	32	15	311	1	28	2	38	1	2	14
Future Vol, veh/h	5	392	32	15	311	1	28	2	38	1	2	14
Conflicting Peds, #/hr	1	0	1	1	0	1	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	417	34	16	331	1	30	2	40	1	2	15
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	333	0	0	452	0	0	647	810	227	585	827	170
Stage 1	-	-	-	-	-	-	445	445	-	365	365	-
Stage 2	-	-	-	-	-	-	202	365	-	220	462	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1223	-	-	1105	-	-	356	312	776	394	305	844
Stage 1	-	-	-	-	-	-	562	573	-	627	622	-
Stage 2	-	-	-	-	-	-	781	622	-	762	563	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1222	-	-	1104	-	-	340	304	775	364	297	841
Mov Cap-2 Maneuver	-	-	-	-	-	-	340	304	-	364	297	-
Stage 1	-	-	-	-	-	-	559	570	-	623	610	-
Stage 2	-	-	-	-	-	-	749	610	-	716	560	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.5			13.6			10.7		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	493	1222	-	-	1104	-	-	651				
HCM Lane V/C Ratio	0.147	0.004	-	-	0.014	-	-	0.028				
HCM Control Delay (s/veh)	13.6	8	0	-	8.3	0.1	-	10.7				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q (veh)	0.5	0	-	-	0	-	-	0.1				

HCM 6th TWSC
16: E Lafayette Street & Main Street

Existing Conditions
Timing Plan: PM Peak

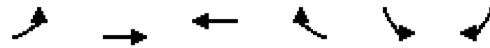
Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	370	9	25	318	12	11	4	31	0	3	15
Future Vol, veh/h	40	370	9	25	318	12	11	4	31	0	3	15
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	378	9	26	324	12	11	4	32	0	3	15
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	337	0	0	387	0	0	681	854	194	656	852	169
Stage 1	-	-	-	-	-	-	465	465	-	383	383	-
Stage 2	-	-	-	-	-	-	216	389	-	273	469	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1219	-	-	1168	-	-	336	294	815	351	295	845
Stage 1	-	-	-	-	-	-	547	561	-	611	610	-
Stage 2	-	-	-	-	-	-	766	607	-	710	559	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1218	-	-	1168	-	-	310	273	815	316	274	844
Mov Cap-2 Maneuver	-	-	-	-	-	-	310	273	-	316	274	-
Stage 1	-	-	-	-	-	-	523	537	-	584	593	-
Stage 2	-	-	-	-	-	-	728	590	-	648	535	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.9			0.7			12.6			10.9		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	522	1218	-	-	1168	-	-	627				
HCM Lane V/C Ratio	0.09	0.034	-	-	0.022	-	-	0.029				
HCM Control Delay (s/veh)	12.6	8.1	0.1	-	8.2	0.1	-	10.9				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q (veh)	0.3	0.1	-	-	0.1	-	-	0.1				

HCM Signalized Intersection Capacity Analysis

Existing Conditions

17: Main Street & D Street

Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Volume (vph)	9	426	355	15	8	8
Future Volume (vph)	9	426	355	15	8	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0	
Lane Util. Factor		0.95	0.95		1.00	
Frpb, ped/bikes		1.00	0.99		1.00	
Flpb, ped/bikes		0.99	1.00		1.00	
Frt		1.00	0.99		0.93	
Flt Protected		0.99	1.00		0.97	
Satd. Flow (prot)		3535	3515		1695	
Flt Permitted		0.94	1.00		0.97	
Satd. Flow (perm)		3332	3515		1695	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	10	453	378	16	9	9
RTOR Reduction (vph)	0	0	6	0	9	0
Lane Group Flow (vph)	0	463	388	0	9	0
Confl. Peds. (#/hr)	1			1		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		9.8	9.8		0.6	
Effective Green, g (s)		9.8	9.8		0.6	
Actuated g/C Ratio		0.48	0.48		0.03	
Clearance Time (s)		5.0	5.0		5.0	
Vehicle Extension (s)		6.0	6.0		2.0	
Lane Grp Cap (vph)		1600	1688		49	
v/s Ratio Prot			0.11			
v/s Ratio Perm		c0.14			c0.01	
v/c Ratio		0.28	0.23		0.18	
Uniform Delay, d1		3.1	3.0		9.6	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.2	0.1		0.6	
Delay (s)		3.4	3.2		10.3	
Level of Service		A	A		B	
Approach Delay (s/veh)		3.4	3.2		10.3	
Approach LOS		A	A		B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			3.5		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.28			
Actuated Cycle Length (s)			20.4		Sum of lost time (s)	10.0
Intersection Capacity Utilization			29.9%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th TWSC

18: Marsh Street/E Street & Main Street

Existing Conditions

Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	6	404	0	18	317	37	4	3	18	51	8	25
Future Vol, veh/h	6	404	0	18	317	37	4	3	18	51	8	25
Conflicting Peds, #/hr	1	0	5	5	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	439	0	20	345	40	4	3	20	55	9	27
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	386	0	0	444	0	0	676	884	225	641	864	195
Stage 1	-	-	-	-	-	-	458	458	-	406	406	-
Stage 2	-	-	-	-	-	-	218	426	-	235	458	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1169	-	-	1112	-	-	339	283	778	360	291	814
Stage 1	-	-	-	-	-	-	552	565	-	593	596	-
Stage 2	-	-	-	-	-	-	764	584	-	747	565	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1168	-	-	1107	-	-	311	273	774	339	280	812
Mov Cap-2 Maneuver	-	-	-	-	-	-	311	273	-	339	280	-
Stage 1	-	-	-	-	-	-	545	558	-	588	582	-
Stage 2	-	-	-	-	-	-	710	570	-	718	558	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.5			12.1			16.6		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	531	1168	-	-	1107	-	-	400				
HCM Lane V/C Ratio	0.051	0.006	-	-	0.018	-	-	0.228				
HCM Control Delay (s/veh)	12.1	8.1	0	-	8.3	0.1	-	16.6				
HCM Lane LOS	B	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.2	0	-	-	0.1	-	-	0.9				

HCM 6th TWSC
19: Alma Street/F Street & Main Street

Existing Conditions
Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	434	1	31	316	12	2	0	17	17	2	3
Future Vol, veh/h	13	434	1	31	316	12	2	0	17	17	2	3
Conflicting Peds, #/hr	0	0	5	5	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	477	1	34	347	13	2	0	19	19	2	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	360	0	0	483	0	0	754	939	245	690	933	180
Stage 1	-	-	-	-	-	-	511	511	-	422	422	-
Stage 2	-	-	-	-	-	-	243	428	-	268	511	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1195	-	-	1076	-	-	298	263	755	331	265	832
Stage 1	-	-	-	-	-	-	514	535	-	580	587	-
Stage 2	-	-	-	-	-	-	739	583	-	714	535	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1195	-	-	1071	-	-	281	247	751	309	249	832
Mov Cap-2 Maneuver	-	-	-	-	-	-	281	247	-	309	249	-
Stage 1	-	-	-	-	-	-	503	524	-	571	564	-
Stage 2	-	-	-	-	-	-	704	560	-	684	524	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.3			0.8			10.8			16.8		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	639	1195	-	-	1071	-	-	330				
HCM Lane V/C Ratio	0.033	0.012	-	-	0.032	-	-	0.073				
HCM Control Delay (s/veh)	10.8	8	0.1	-	8.5	0.1	-	16.8				
HCM Lane LOS	B	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1	-	-	0.2				

HCM Signalized Intersection Capacity Analysis

Existing Conditions

20: S Filbert Street & Main Street

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	373	16	2	304	237	17	49	10	390	35	71
Future Volume (vph)	55	373	16	2	304	237	17	49	10	390	35	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			5.0		5.0	5.0	
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	
Frpb, ped/bikes		0.99			0.98			1.00		1.00	0.99	
Flpb, ped/bikes		0.99			0.99			1.00		1.00	1.00	
Frt		0.99			0.93			0.98		1.00	0.89	
Flt Protected		0.99			0.99			0.98		0.95	1.00	
Satd. Flow (prot)		3494			3272			1809		1770	1661	
Flt Permitted		0.81			0.95			0.98		0.95	1.00	
Satd. Flow (perm)		2859			3120			1809		1770	1661	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	58	393	17	2	320	249	18	52	11	411	37	75
RTOR Reduction (vph)	0	3	0	0	132	0	0	5	0	0	51	0
Lane Group Flow (vph)	0	465	0	0	439	0	0	76	0	411	61	0
Confl. Peds. (#/hr)	4		5	5		4	1					1
Confl. Bikes (#/hr)			2									
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		3	3	
Permitted Phases	2			6								
Actuated Green, G (s)		20.9			20.9			6.1		20.4	20.4	
Effective Green, g (s)		20.9			20.9			6.1		20.4	20.4	
Actuated g/C Ratio		0.33			0.33			0.10		0.32	0.32	
Clearance Time (s)		6.0			6.0			5.0		5.0	5.0	
Vehicle Extension (s)		6.0			6.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		942			1028			174		569	534	
v/s Ratio Prot								c0.04		c0.23	0.04	
v/s Ratio Perm		c0.16			0.14							
v/c Ratio		0.49			0.42			0.43		0.72	0.11	
Uniform Delay, d1		17.0			16.5			27.0		18.9	15.1	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		1.1			0.8			0.6		3.8	0.0	
Delay (s)		18.1			17.3			27.6		22.8	15.1	
Level of Service		B			B			C		C	B	
Approach Delay (s/veh)		18.1			17.3			27.6			21.1	
Approach LOS		B			B			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		19.3			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.58										
Actuated Cycle Length (s)		63.4			Sum of lost time (s)			16.0				
Intersection Capacity Utilization		72.8%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th TWSC
21: Burkett Avenue & Main Street

Existing Conditions
Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	699	30	11	528	11	8	2	16	5	0	7
Future Vol, veh/h	17	699	30	11	528	11	8	2	16	5	0	7
Conflicting Peds, #/hr	3	0	3	3	0	3	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	752	32	12	568	12	9	2	17	5	0	8
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	583	0	0	787	0	0	1115	1414	395	1014	1424	293
Stage 1	-	-	-	-	-	-	807	807	-	601	601	-
Stage 2	-	-	-	-	-	-	308	607	-	413	823	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	987	-	-	828	-	-	163	136	604	193	135	703
Stage 1	-	-	-	-	-	-	341	392	-	454	488	-
Stage 2	-	-	-	-	-	-	677	485	-	587	386	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	984	-	-	826	-	-	154	128	602	177	127	701
Mov Cap-2 Maneuver	-	-	-	-	-	-	154	128	-	177	127	-
Stage 1	-	-	-	-	-	-	329	378	-	438	476	-
Stage 2	-	-	-	-	-	-	656	473	-	548	372	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.3			0.3			19.5			17		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	276	984	-	-	826	-	-	314				
HCM Lane V/C Ratio	0.101	0.019	-	-	0.014	-	-	0.041				
HCM Control Delay (s/veh)	19.5	8.7	0.1	-	9.4	0.1	-	17				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.3	0.1	-	-	0	-	-	0.1				

HCM 6th TWSC
22: Shasta Avenue & Main Street

Existing Conditions
Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	8	696	15	5	541	10	5	0	12	3	1	5
Future Vol, veh/h	8	696	15	5	541	10	5	0	12	3	1	5
Conflicting Peds, #/hr	3	0	4	4	0	3	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	757	16	5	588	11	5	0	13	3	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	602	0	0	777	0	0	1093	1399	391	1004	1402	304
Stage 1	-	-	-	-	-	-	787	787	-	607	607	-
Stage 2	-	-	-	-	-	-	306	612	-	397	795	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	971	-	-	835	-	-	169	139	608	196	139	692
Stage 1	-	-	-	-	-	-	351	401	-	450	485	-
Stage 2	-	-	-	-	-	-	679	482	-	600	398	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	968	-	-	832	-	-	163	135	606	188	135	689
Mov Cap-2 Maneuver	-	-	-	-	-	-	163	135	-	188	135	-
Stage 1	-	-	-	-	-	-	344	393	-	441	479	-
Stage 2	-	-	-	-	-	-	665	476	-	578	390	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.2			0.1			16.3			17.7		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	337	968	-	-	832	-	-	294
HCM Lane V/C Ratio	0.055	0.009	-	-	0.007	-	-	0.033
HCM Control Delay (s/veh)	16.3	8.8	0.1	-	9.4	0	-	17.7
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1

HCM 6th TWSC
23: David Avenue & Main Street

Existing Conditions
Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	691	10	4	541	8	11	1	1	2	1	5
Future Vol, veh/h	8	691	10	4	541	8	11	1	1	2	1	5
Conflicting Peds, #/hr	1	0	4	4	0	1	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	751	11	4	588	9	12	1	1	2	1	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	598	0	0	766	0	0	1082	1385	387	998	1386	300
Stage 1	-	-	-	-	-	-	779	779	-	602	602	-
Stage 2	-	-	-	-	-	-	303	606	-	396	784	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	975	-	-	843	-	-	172	142	611	198	142	696
Stage 1	-	-	-	-	-	-	355	404	-	453	487	-
Stage 2	-	-	-	-	-	-	681	485	-	601	402	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	974	-	-	840	-	-	166	138	608	192	138	695
Mov Cap-2 Maneuver	-	-	-	-	-	-	166	138	-	192	138	-
Stage 1	-	-	-	-	-	-	348	396	-	445	483	-
Stage 2	-	-	-	-	-	-	669	481	-	588	394	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.2			0.1			27.7			16.5		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	173	974	-	-	840	-	-	322				
HCM Lane V/C Ratio	0.082	0.009	-	-	0.005	-	-	0.027				
HCM Control Delay (s/veh)	27.7	8.7	0.1	-	9.3	0	-	16.5				
HCM Lane LOS	D	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0.1				

HCM 6th TWSC
24: Rendon Avenue & Main Street

Existing Conditions
Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	10	655	34	18	518	12	16	4	11	6	3	12
Future Vol, veh/h	10	655	34	18	518	12	16	4	11	6	3	12
Conflicting Peds, #/hr	4	0	7	7	0	4	0	0	3	3	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	704	37	19	557	13	17	4	12	6	3	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	574	0	0	748	0	0	1070	1364	381	985	1376	289
Stage 1	-	-	-	-	-	-	752	752	-	606	606	-
Stage 2	-	-	-	-	-	-	318	612	-	379	770	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	995	-	-	856	-	-	175	146	617	202	144	708
Stage 1	-	-	-	-	-	-	368	416	-	451	485	-
Stage 2	-	-	-	-	-	-	668	482	-	615	408	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	991	-	-	850	-	-	161	137	611	185	135	705
Mov Cap-2 Maneuver	-	-	-	-	-	-	161	137	-	185	135	-
Stage 1	-	-	-	-	-	-	358	405	-	441	467	-
Stage 2	-	-	-	-	-	-	630	464	-	584	397	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.2			0.4			25.2			18.3		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	211	991	-	-	850	-	-	293
HCM Lane V/C Ratio	0.158	0.011	-	-	0.023	-	-	0.077
HCM Control Delay (s/veh)	25.2	8.7	0.1	-	9.3	0.1	-	18.3
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.5	0	-	-	0.1	-	-	0.2

HCM 6th Signalized Intersection Summary

25: Golden Gate Avenue & Main Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	486	190	23	399	9	128	23	24	13	30	8
Future Volume (veh/h)	8	486	190	23	399	9	128	23	24	13	30	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	517	202	24	424	10	136	24	26	14	32	9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	1165	453	41	1715	40	320	52	39	138	234	54
Arrive On Green	0.01	0.47	0.47	0.02	0.48	0.48	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1781	2481	964	1781	3548	84	998	277	207	224	1243	287
Grp Volume(v), veh/h	9	370	349	24	212	222	186	0	0	55	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	1668	1781	1777	1855	1482	0	0	1754	0	0
Q Serve(g_s), s	0.2	6.5	6.6	0.6	3.3	3.3	4.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	6.5	6.6	0.6	3.3	3.3	5.3	0.0	0.0	1.2	0.0	0.0
Prop In Lane	1.00		0.58	1.00		0.05	0.73		0.14	0.25		0.16
Lane Grp Cap(c), veh/h	17	835	784	41	859	896	411	0	0	426	0	0
V/C Ratio(X)	0.54	0.44	0.45	0.59	0.25	0.25	0.45	0.00	0.00	0.13	0.00	0.00
Avail Cap(c_a), veh/h	759	1816	1704	759	1816	1896	1362	0	0	1171	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.2	8.3	8.4	22.7	7.1	7.1	17.5	0.0	0.0	16.0	0.0	0.0
Incr Delay (d2), s/veh	9.5	1.3	1.4	4.9	0.5	0.5	0.3	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.1	2.0	0.3	1.0	1.0	1.7	0.0	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.6	9.7	9.8	27.7	7.7	7.6	17.8	0.0	0.0	16.0	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	B			B		
Approach Vol, veh/h		728			458			186			55	
Approach Delay, s/veh		10.0			8.7			17.8			16.0	
Approach LOS		B			A			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	27.1		13.8	5.4	27.7		13.8				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	48.0		40.0	20.0	48.0		30.0				
Max Q Clear Time (g_c+I1), s	2.6	8.6		7.3	2.2	5.3		3.2				
Green Ext Time (p_c), s	0.0	13.5		0.8	0.0	7.3		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				10.8								
HCM 6th LOS				B								

HCM 6th TWSC
26: Windsor Avenue & Main Street

Existing Conditions
Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	7	500	26	4	417	4	11	0	5	4	2	7
Future Vol, veh/h	7	500	26	4	417	4	11	0	5	4	2	7
Conflicting Peds, #/hr	6	0	6	6	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	515	27	4	430	4	11	0	5	4	2	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	440	0	0	548	0	0	773	997	277	718	1008	223
Stage 1	-	-	-	-	-	-	549	549	-	446	446	-
Stage 2	-	-	-	-	-	-	224	448	-	272	562	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1116	-	-	1018	-	-	289	243	720	316	239	780
Stage 1	-	-	-	-	-	-	488	515	-	561	572	-
Stage 2	-	-	-	-	-	-	758	571	-	711	508	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1110	-	-	1012	-	-	280	237	716	309	233	776
Mov Cap-2 Maneuver	-	-	-	-	-	-	280	237	-	309	233	-
Stage 1	-	-	-	-	-	-	481	507	-	553	566	-
Stage 2	-	-	-	-	-	-	744	565	-	700	500	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.1			15.9			13.7		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	346	1110	-	-	1012	-	-	426
HCM Lane V/C Ratio	0.048	0.007	-	-	0.004	-	-	0.031
HCM Control Delay (s/veh)	15.9	8.3	0	-	8.6	0	-	13.7
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1

HCM Signalized Intersection Capacity Analysis

27: Netherton Avenue & Main Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	448	27	38	387	5	21	6	67	27	12	48
Future Volume (vph)	11	448	27	38	387	5	21	6	67	27	12	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Frt	1.00	0.99		1.00	0.99			0.90			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.98	
Satd. Flow (prot)	1770	3504		1770	3532			1647			1685	
Flt Permitted	0.95	1.00		0.95	1.00			0.89			0.86	
Satd. Flow (perm)	1770	3504		1770	3532			1497			1472	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	11	453	27	38	391	5	21	6	68	27	12	48
RTOR Reduction (vph)	0	4	0	0	1	0	0	56	0	0	40	0
Lane Group Flow (vph)	11	476	0	38	395	0	0	39	0	0	47	0
Confl. Peds. (#/hr)			4			1	2		6	6		2
Confl. Bikes (#/hr)			1									
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		
Actuated Green, G (s)	0.6	15.0		0.7	15.1			6.5			6.5	
Effective Green, g (s)	0.6	15.0		0.7	15.1			6.5			6.5	
Actuated g/C Ratio	0.02	0.40		0.02	0.41			0.17			0.17	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0			2.0			2.0	
Lane Grp Cap (vph)	28	1412		33	1433			261			257	
v/s Ratio Prot	0.01	c0.14		c0.02	0.11							
v/s Ratio Perm								0.03			c0.03	
v/c Ratio	0.39	0.33		1.15	0.27			0.14			0.18	
Uniform Delay, d1	18.1	7.6		18.2	7.3			13.0			13.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	3.2	0.4		205.6	0.2			0.0			0.1	
Delay (s)	21.4	8.0		223.8	7.6			13.1			13.2	
Level of Service	C	A		F	A			B			B	
Approach Delay (s/veh)		8.3			26.6			13.1			13.2	
Approach LOS		A			C			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			16.3			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.32									
Actuated Cycle Length (s)			37.2			Sum of lost time (s)				15.0		
Intersection Capacity Utilization			39.4%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC
28: Broadway Avenue & Main Street

Existing Conditions
Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	478	6	10	392	16	12	2	11	13	5	14
Future Vol, veh/h	26	478	6	10	392	16	12	2	11	13	5	14
Conflicting Peds, #/hr	8	0	14	14	0	8	0	0	3	3	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	493	6	10	404	16	12	2	11	13	5	14
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	428	0	0	513	0	0	789	1012	267	745	1007	218
Stage 1	-	-	-	-	-	-	564	564	-	440	440	-
Stage 2	-	-	-	-	-	-	225	448	-	305	567	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1128	-	-	1049	-	-	281	238	731	302	239	786
Stage 1	-	-	-	-	-	-	478	507	-	566	576	-
Stage 2	-	-	-	-	-	-	757	571	-	680	505	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1119	-	-	1035	-	-	259	223	719	283	224	780
Mov Cap-2 Maneuver	-	-	-	-	-	-	259	223	-	283	224	-
Stage 1	-	-	-	-	-	-	456	484	-	543	566	-
Stage 2	-	-	-	-	-	-	729	561	-	643	482	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.5			0.2			16			15.6		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	354	1119	-	-	1035	-	-	371				
HCM Lane V/C Ratio	0.073	0.024	-	-	0.01	-	-	0.089				
HCM Control Delay (s/veh)	16	8.3	0.1	-	8.5	-	-	15.6				
HCM Lane LOS	C	A	A	-	A	-	-	C				
HCM 95th %tile Q (veh)	0.2	0.1	-	-	0	-	-	0.3				

HCM Signalized Intersection Capacity Analysis

29: S Center Street & Market Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  									  	
Traffic Volume (vph)	0	39	58	0	0	0	0	0	0	56	1771	0
Future Volume (vph)	0	39	58	0	0	0	0	0	0	56	1771	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		0.95									0.91	
Frpb, ped/bikes		0.98									1.00	
Flpb, ped/bikes		1.00									0.99	
Frt		0.91									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		3176									5076	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		3176									5076	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	43	64	0	0	0	0	0	0	62	1946	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	10	0
Lane Group Flow (vph)	0	98	0	0	0	0	0	0	0	0	1998	0
Confl. Peds. (#/hr)	5		11							11		
Turn Type		NA								Perm	NA	
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		24.0									51.0	
Effective Green, g (s)		24.0									51.0	
Actuated g/C Ratio		0.28									0.60	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		896									3045	
v/s Ratio Prot		0.03										
v/s Ratio Perm											0.39	
v/c Ratio		0.10									0.65	
Uniform Delay, d1		22.5									11.2	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.2									1.1	
Delay (s)		22.8									12.3	
Level of Service		C									B	
Approach Delay (s/veh)		22.8			0.0			0.0			12.3	
Approach LOS		C			A			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			12.9									
HCM 2000 Volume to Capacity ratio			0.48									
Actuated Cycle Length (s)			85.0							10.0		
Intersection Capacity Utilization			62.9%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis30: S El Dorado Street & Market Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	57	0	0	0	0	0	1446	39	0	0	0
Future Volume (vph)	67	57	0	0	0	0	0	1446	39	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0				
Lane Util. Factor		0.95						0.86				
Frpb, ped/bikes		1.00						0.99				
Flpb, ped/bikes		0.99						1.00				
Frt		1.00						0.99				
Flt Protected		0.97						1.00				
Satd. Flow (prot)		3439						6378				
Flt Permitted		0.97						1.00				
Satd. Flow (perm)		3439						6378				
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	70	59	0	0	0	0	0	1506	41	0	0	0
RTOR Reduction (vph)	0	24	0	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	105	0	0	0	0	0	1543	0	0	0	0
Confl. Peds. (#/hr)	3								10			
Confl. Bikes (#/hr)			2						3			
Turn Type	Perm	NA						NA				
Protected Phases		2						1				
Permitted Phases	2											
Actuated Green, G (s)		25.0						50.0				
Effective Green, g (s)		25.0						50.0				
Actuated g/C Ratio		0.29						0.59				
Clearance Time (s)		5.0						5.0				
Vehicle Extension (s)		0.2						0.2				
Lane Grp Cap (vph)		1011						3751				
v/s Ratio Prot								c0.24				
v/s Ratio Perm		0.03										
v/c Ratio		0.10						0.41				
Uniform Delay, d1		21.8						9.5				
Progression Factor		1.00						1.00				
Incremental Delay, d2		0.1						0.3				
Delay (s)		22.0						9.8				
Level of Service		C						A				
Approach Delay (s/veh)		22.0			0.0			9.8			0.0	
Approach LOS		C			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		10.8						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.31										
Actuated Cycle Length (s)		85.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		33.7%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM 6th AWSC

31: S Hunter Street & Market Street

Existing Conditions

Timing Plan: PM Peak

Intersection

Intersection Delay, s/veh 7.8

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑							↑↑	↑	↑	
Traffic Vol, veh/h	0	82	13	0	0	0	0	0	24	32	36	0
Future Vol, veh/h	0	82	13	0	0	0	0	0	24	32	36	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	96	15	0	0	0	0	0	28	38	42	0
Number of Lanes	0	2	0	0	0	0	0	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay, s/veh	7.8	7.5	8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	68%	0%	100%
Vol Right, %	100%	0%	32%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	55	40	32	36
LT Vol	0	0	0	32	0
Through Vol	0	55	27	0	36
RT Vol	24	0	13	0	0
Lane Flow Rate	28	64	47	38	42
Geometry Grp	4b	5	5	5	5
Degree of Util (X)	0.034	0.084	0.059	0.055	0.056
Departure Headway (Hd)	4.3	4.717	4.491	5.241	4.74
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	838	749	786	676	746
Service Time	2.3	2.509	2.283	3.031	2.53
HCM Lane V/C Ratio	0.033	0.085	0.06	0.056	0.056
HCM Control Delay, s/veh	7.5	7.9	7.6	8.3	7.8
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.2	0.2	0.2

HCM Signalized Intersection Capacity Analysis

32: S San Joaquin Street & Market Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	81	36	0	0	0	0	118	48	15	129	0
Future Volume (vph)	21	81	36	0	0	0	0	118	48	15	129	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		0.98						0.97			1.00	
Flpb, ped/bikes		0.99						1.00			0.99	
Frt		0.96						0.95			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		3319						3284			3495	
Flt Permitted		0.99						1.00			0.92	
Satd. Flow (perm)		3319						3284			3248	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	24	92	41	0	0	0	0	134	55	17	147	0
RTOR Reduction (vph)	0	27	0	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	0	130	0	0	0	0	0	162	0	0	164	0
Confl. Peds. (#/hr)	19		49						78	78		
Confl. Bikes (#/hr)									4			
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						1			1	
Permitted Phases	2									1		
Actuated Green, G (s)		24.0						36.0			36.0	
Effective Green, g (s)		24.0						36.0			36.0	
Actuated g/C Ratio		0.34						0.51			0.51	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		1137						1688			1670	
v/s Ratio Prot								0.05				
v/s Ratio Perm		0.04									c0.05	
v/c Ratio		0.11						0.09			0.09	
Uniform Delay, d1		15.7						8.6			8.6	
Progression Factor		1.00						1.00			0.36	
Incremental Delay, d2		0.2						0.1			0.1	
Delay (s)		15.9						8.8			3.2	
Level of Service		B						A			A	
Approach Delay (s/veh)		15.9			0.0			8.8			3.2	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		9.2										
HCM 2000 Volume to Capacity ratio		0.10										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		43.6%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

33: S Sutter Street & Market Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	97	30	0	0	0	0	112	41	18	124	0
Future Volume (vph)	18	97	30	0	0	0	0	112	41	18	124	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0		5.0	
Lane Util. Factor		0.95						1.00	1.00		0.95	
Frpb, ped/bikes		0.97						1.00	0.88		1.00	
Flpb, ped/bikes		0.99						1.00	1.00		0.98	
Frt		0.96						1.00	0.85		1.00	
Flt Protected		0.99						1.00	1.00		0.99	
Satd. Flow (prot)		3281						1863	1399		3478	
Flt Permitted		0.99						1.00	1.00		0.91	
Satd. Flow (perm)		3281						1863	1399		3204	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	24	128	39	0	0	0	0	147	54	24	163	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	31	0	0	0
Lane Group Flow (vph)	0	169	0	0	0	0	0	147	23	0	187	0
Confl. Peds. (#/hr)	35		123						81	81		
Confl. Bikes (#/hr)									1			
Turn Type	Perm	NA						NA	Perm	Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)		30.0						30.0	30.0		30.0	
Effective Green, g (s)		30.0						30.0	30.0		30.0	
Actuated g/C Ratio		0.43						0.43	0.43		0.43	
Clearance Time (s)		5.0						5.0	5.0		5.0	
Vehicle Extension (s)		0.2						0.2	0.2		0.2	
Lane Grp Cap (vph)		1406						798	599		1373	
v/s Ratio Prot								c0.08				
v/s Ratio Perm		0.05							0.02		0.06	
v/c Ratio		0.11						0.18	0.03		0.13	
Uniform Delay, d1		12.0						12.4	11.6		12.1	
Progression Factor		1.34						1.00	1.00		0.69	
Incremental Delay, d2		0.1						0.5	0.1		0.2	
Delay (s)		16.4						12.9	11.7		8.6	
Level of Service		B						B	B		A	
Approach Delay (s/veh)		16.4			0.0			12.6			8.6	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		12.6										
HCM 2000 Volume to Capacity ratio		0.15										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		45.6%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

34: California Street & Market Street

Existing Conditions

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑						↑↑			↑↑	
Traffic Volume (veh/h)	27	107	18	0	0	0	0	190	32	31	247	0
Future Volume (veh/h)	27	107	18	0	0	0	0	190	32	31	247	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	30	119	20				0	211	36	34	274	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	169	695	121				0	1782	299	228	1769	0
Arrive On Green	0.27	0.27	0.27				0.00	0.59	0.59	1.00	1.00	0.00
Sat Flow, veh/h	621	2560	446				0	3136	511	283	3105	0
Grp Volume(v), veh/h	89	0	80				0	122	125	162	146	0
Grp Sat Flow(s), veh/h/ln	1839	0	1788				0	1777	1777	1685	1617	0
Q Serve(g_s), s	2.6	0.0	2.4				0.0	2.1	2.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.6	0.0	2.4				0.0	2.1	2.2	0.0	0.0	0.0
Prop In Lane	0.34		0.25				0.00		0.29	0.21		0.00
Lane Grp Cap(c), veh/h	499	0	485				0	1041	1041	1049	947	0
V/C Ratio(X)	0.18	0.00	0.17				0.00	0.12	0.12	0.15	0.15	0.00
Avail Cap(c_a), veh/h	499	0	485				0	1041	1041	1049	947	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.96	0.96	0.00
Uniform Delay (d), s/veh	19.5	0.0	19.5				0.0	6.4	6.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.7				0.0	0.2	0.2	0.3	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.1				0.0	0.7	0.8	0.1	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.3	0.0	20.2				0.0	6.7	6.7	0.3	0.3	0.0
LnGrp LOS	C		C					A	A	A	A	
Approach Vol, veh/h		169						247			308	
Approach Delay, s/veh		20.2						6.7			0.3	
Approach LOS		C						A			A	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		46.0		24.0			46.0					
Change Period (Y+Rc), s		5.0		5.0			5.0					
Max Green Setting (Gmax), s		41.0		19.0			41.0					
Max Q Clear Time (g_c+l1), s		4.2		4.6			2.0					
Green Ext Time (p_c), s		0.3		0.2			0.3					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			7.1									
HCM 6th LOS			A									

HCM Signalized Intersection Capacity Analysis

35: S American Street & Market Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	154	0	0	0	0	0	0	0	38	1	0
Future Volume (vph)	25	154	0	0	0	0	0	0	0	38	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		0.95									1.00	
Frpb, ped/bikes		1.00									1.00	
Flpb, ped/bikes		0.99									0.99	
Frt		1.00									1.00	
Flt Protected		0.99									0.95	
Satd. Flow (prot)		3510									1762	
Flt Permitted		0.99									0.77	
Satd. Flow (perm)		3510									1430	
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Adj. Flow (vph)	36	220	0	0	0	0	0	0	0	54	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	256	0	0	0	0	0	0	0	0	55	0
Confl. Peds. (#/hr)	5		1							6	6	
Turn Type	Perm	NA								Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		40.0									20.0	
Effective Green, g (s)		40.0									20.0	
Actuated g/C Ratio		0.57									0.29	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		2005									408	
v/s Ratio Prot												
v/s Ratio Perm		0.07									c0.04	
v/c Ratio		0.12									0.13	
Uniform Delay, d1		6.9									18.5	
Progression Factor		0.61									0.78	
Incremental Delay, d2		0.1									0.6	
Delay (s)		4.3									15.2	
Level of Service		A									B	
Approach Delay (s/veh)		4.3			0.0			0.0			15.2	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		6.3										
HCM 2000 Volume to Capacity ratio		0.13										
Actuated Cycle Length (s)		70.0								10.0		
Intersection Capacity Utilization		36.7%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

36: S Stanislaus Street & Market Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	111	64	0	0	0	0	263	32	6	365	0
Future Volume (vph)	17	111	64	0	0	0	0	263	32	6	365	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		0.99						0.99			1.00	
Flpb, ped/bikes		0.99						1.00			0.99	
Frt		0.95						0.98			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		3325						3475			3536	
Flt Permitted		0.99						1.00			0.94	
Satd. Flow (perm)		3325						3475			3361	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	21	135	78	0	0	0	0	321	39	7	445	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	184	0	0	0	0	0	347	0	0	452	0
Confl. Peds. (#/hr)	4		5						5	5		
Confl. Bikes (#/hr)			1						1			
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		25.0						35.0			35.0	
Effective Green, g (s)		25.0						35.0			35.0	
Actuated g/C Ratio		0.36						0.50			0.50	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		1187						1737			1680	
v/s Ratio Prot								0.10				
v/s Ratio Perm		0.06									c0.13	
v/c Ratio		0.15						0.19			0.26	
Uniform Delay, d1		15.3						9.7			10.1	
Progression Factor		0.46						1.00			0.72	
Incremental Delay, d2		0.2						0.2			0.3	
Delay (s)		7.3						9.9			7.7	
Level of Service		A						A			A	
Approach Delay (s/veh)		7.3			0.0			9.9			7.7	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		8.4										
HCM 2000 Volume to Capacity ratio		0.22										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		37.7%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th TWSC
37: S Grant Street & Market Street

Existing Conditions
Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↔			↔	
Traffic Vol, veh/h	24	125	2	0	0	0	0	2	5	26	10	0
Future Vol, veh/h	24	125	2	0	0	0	0	2	5	26	10	0
Conflicting Peds, #/hr	2	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	149	2	0	0	0	0	2	6	31	12	0
Major/Minor	Major1						Minor1			Minor2		
Conflicting Flow All	2	0	0				-	211	77	136	212	-
Stage 1	-	-	-				-	209	-	2	2	-
Stage 2	-	-	-				-	2	-	134	210	-
Critical Hdwy	4.14	-	-				-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-				-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-				-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1619	-	-				0	685	968	822	684	0
Stage 1	-	-	-				0	728	-	-	-	0
Stage 2	-	-	-				0	-	-	855	727	0
Platoon blocked, %		-	-									
Mov Cap-1 Maneuver	1616	-	-				-	669	967	801	668	-
Mov Cap-2 Maneuver	-	-	-				-	669	-	801	668	-
Stage 1	-	-	-				-	713	-	-	-	-
Stage 2	-	-	-				-	-	-	830	712	-
Approach	EB						NB			SB		
HCM Control Delay, s/v	1.2						9.2			10		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1							
Capacity (veh/h)	858	1616	-	-	759							
HCM Lane V/C Ratio	0.01	0.018	-	-	0.056							
HCM Control Delay (s/veh)	9.2	7.3	0.1	-	10							
HCM Lane LOS	A	A	A	-	B							
HCM 95th %tile Q (veh)	0	0.1	-	-	0.2							

HCM 6th TWSC

38: S Aurora Street & Market Street

Existing Conditions

Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		LT						RT			LT	
Traffic Vol, veh/h	26	104	21	0	0	0	0	115	28	8	53	0
Future Vol, veh/h	26	104	21	0	0	0	0	115	28	8	53	0
Conflicting Peds, #/hr	1	0	1	0	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	112	23	0	0	0	0	124	30	9	57	0
Major/Minor	Major1			Minor1			Minor2					
Conflicting Flow All	1	0	0	-	-	-	182	71	177	193	-	-
Stage 1	-	-	-	-	-	-	181	-	1	1	-	-
Stage 2	-	-	-	-	-	-	1	-	176	192	-	-
Critical Hdwy	4.14	-	-	-	-	-	6.54	6.94	7.54	6.54	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	5.54	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.54	5.54	-	-
Follow-up Hdwy	2.22	-	-	-	-	-	4.02	3.32	3.52	4.02	-	-
Pot Cap-1 Maneuver	1620	-	-	-	-	-	0	711	977	769	701	0
Stage 1	-	-	-	-	-	-	0	749	-	-	-	0
Stage 2	-	-	-	-	-	-	0	-	-	809	740	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1618	-	-	-	-	-	-	696	976	634	686	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	696	-	634	686	-
Stage 1	-	-	-	-	-	-	-	734	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	640	725	-
Approach	EB			NB			SB					
HCM Control Delay, s/v	1.3			11.2			10.9					
HCM LOS				B			B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1							
Capacity (veh/h)	737	1618	-	-	679							
HCM Lane V/C Ratio	0.209	0.017	-	-	0.097							
HCM Control Delay (s/veh)	11.2	7.3	0	-	10.9							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.8	0.1	-	-	0.3							

HCM 6th TWSC
39: Union Street & Market Street

Existing Conditions
Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	6.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		EB						EB			EB	
Traffic Vol, veh/h	17	142	7	0	0	0	0	87	27	16	91	0
Future Vol, veh/h	17	142	7	0	0	0	0	87	27	16	91	0
Conflicting Peds, #/hr	0	0	3	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	153	8	0	0	0	0	94	29	17	98	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	196	85	161	200	-
Stage 1	-	-	-	-	196	-	0	0	-
Stage 2	-	-	-	-	0	-	161	200	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	0	698	957	789	695	0
Stage 1	-	-	-	0	737	-	-	-	0
Stage 2	-	-	-	0	-	-	825	735	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	696	954	686	693	-
Mov Cap-2 Maneuver	-	-	-	-	696	-	686	693	-
Stage 1	-	-	-	-	735	-	-	-	-
Stage 2	-	-	-	-	-	-	698	733	-

Approach	EB	NB	SB
HCM Control Delay, s/v		10.8	11.2
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	744	-	-	-	692
HCM Lane V/C Ratio	0.165	-	-	-	0.166
HCM Control Delay (s/veh)	10.8	-	-	-	11.2
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q (veh)	0.6	-	-	-	0.6

HCM 6th TWSC
40: Pilgrim Street & Market Street

Existing Conditions
Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		TT						T			T	
Traffic Vol, veh/h	11	172	3	0	0	0	0	11	10	15	8	0
Future Vol, veh/h	11	172	3	0	0	0	0	11	10	15	8	0
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	8	8	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	185	3	0	0	0	0	12	11	16	9	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	212	103	131	213	-
Stage 1	-	-	-	-	212	-	0	0	-
Stage 2	-	-	-	-	0	-	131	213	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	0	684	932	828	683	0
Stage 1	-	-	-	0	726	-	-	-	0
Stage 2	-	-	-	0	-	-	859	725	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	683	931	807	682	-
Mov Cap-2 Maneuver	-	-	-	-	683	-	807	682	-
Stage 1	-	-	-	-	725	-	-	-	-
Stage 2	-	-	-	-	-	-	835	724	-

Approach	EB	NB	SB
HCM Control Delay, s/v		9.7	9.9
HCM LOS		A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	782	-	-	-	759
HCM Lane V/C Ratio	0.029	-	-	-	0.033
HCM Control Delay (s/veh)	9.7	-	-	-	9.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q (veh)	0.1	-	-	-	0.1

HCM 6th Signalized Intersection Summary

41: Airport Way & Market Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	136	22	0	0	0	0	845	53	97	688	0
Future Volume (veh/h)	23	136	22	0	0	0	0	845	53	97	688	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	25	149	24				0	929	58	107	756	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	39	242	40				0	2714	169	289	1972	0
Arrive On Green	0.09	0.09	0.09				0.00	0.80	0.80	1.00	1.00	0.00
Sat Flow, veh/h	443	2729	456				0	3485	212	297	2549	0
Grp Volume(v), veh/h	104	0	94				0	487	500	367	496	0
Grp Sat Flow(s), veh/h/ln	1848	0	1779				0	1777	1826	1144	1617	0
Q Serve(g_s), s	4.9	0.0	4.6				0.0	6.8	6.8	1.3	0.0	0.0
Cycle Q Clear(g_c), s	4.9	0.0	4.6				0.0	6.8	6.8	8.1	0.0	0.0
Prop In Lane	0.24		0.26				0.00		0.12	0.29		0.00
Lane Grp Cap(c), veh/h	164	0	158				0	1422	1461	967	1294	0
V/C Ratio(X)	0.64	0.00	0.59				0.00	0.34	0.34	0.38	0.38	0.00
Avail Cap(c_a), veh/h	452	0	435				0	1422	1461	967	1294	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.94	0.94	0.00
Uniform Delay (d), s/veh	39.6	0.0	39.5				0.0	2.5	2.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.0	1.3				0.0	0.7	0.6	1.1	0.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	2.0				0.0	1.5	1.6	0.3	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.1	0.0	40.8				0.0	3.1	3.1	1.1	0.8	0.0
LnGrp LOS	D		D					A	A	A	A	
Approach Vol, veh/h		198						987			863	
Approach Delay, s/veh		41.0						3.1			0.9	
Approach LOS		D						A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		77.0				77.0		13.0				
Change Period (Y+Rc), s		5.0				5.0		5.0				
Max Green Setting (Gmax), s		58.0				58.0		22.0				
Max Q Clear Time (g_c+I1), s		10.1				8.8		6.9				
Green Ext Time (p_c), s		1.3				0.9		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			5.9									
HCM 6th LOS			A									

HCM 6th TWSC

42: Sierra Nevada Street & Market Street

Existing Conditions

Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		LT						RT			LT	
Traffic Vol, veh/h	23	260	5	0	0	0	0	20	15	70	26	0
Future Vol, veh/h	23	260	5	0	0	0	0	20	15	70	26	0
Conflicting Peds, #/hr	1	0	3	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	277	5	0	0	0	0	21	16	74	28	0
Major/Minor	Major1			Minor1			Minor2					
Conflicting Flow All	1	0	0	-	332	144	198	334	-	-	-	-
Stage 1	-	-	-	-	331	-	1	1	-	-	-	-
Stage 2	-	-	-	-	1	-	197	333	-	-	-	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-	-	-	-
Pot Cap-1 Maneuver	1620	-	-	-	0	586	877	743	585	0	-	-
Stage 1	-	-	-	-	0	644	-	-	-	0	-	-
Stage 2	-	-	-	-	0	-	-	786	642	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1618	-	-	-	-	573	874	698	572	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	573	-	698	572	-	-	-
Stage 1	-	-	-	-	-	630	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	732	629	-	-	-
Approach	EB			NB			SB					
HCM Control Delay, s/v	0.7			10.7			11.5					
HCM LOS				B			B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1							
Capacity (veh/h)	672	1618	-	-	659							
HCM Lane V/C Ratio	0.055	0.015	-	-	0.155							
HCM Control Delay (s/veh)	10.7	7.3	0.1	-	11.5							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.2	0	-	-	0.5							

HCM 6th Signalized Intersection Summary

43: S Wilson Way & Market Street

Existing Conditions

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	238	75	0	0	0	0	850	112	188	814	0
Future Volume (veh/h)	38	238	75	0	0	0	0	850	112	188	814	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	40	251	79				0	895	118	198	857	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	57	367	120				0	1743	230	228	2615	0
Arrive On Green	0.05	0.05	0.05				0.00	0.55	0.55	0.26	1.00	0.00
Sat Flow, veh/h	373	2399	786				0	3249	416	1781	3647	0
Grp Volume(v), veh/h	198	0	172				0	504	509	198	857	0
Grp Sat Flow(s), veh/h/ln	1852	0	1707				0	1777	1795	1781	1777	0
Q Serve(g_s), s	9.5	0.0	8.9				0.0	16.0	16.0	9.6	0.0	0.0
Cycle Q Clear(g_c), s	9.5	0.0	8.9				0.0	16.0	16.0	9.6	0.0	0.0
Prop In Lane	0.20		0.46				0.00		0.23	1.00		0.00
Lane Grp Cap(c), veh/h	283	0	261				0	981	991	228	2615	0
V/C Ratio(X)	0.70	0.00	0.66				0.00	0.51	0.51	0.87	0.33	0.00
Avail Cap(c_a), veh/h	432	0	398				0	981	991	257	2615	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.93	0.93	0.00
Uniform Delay (d), s/veh	40.7	0.0	40.4				0.0	12.6	12.6	32.7	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	1.1				0.0	1.9	1.9	20.6	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	4.1				0.0	6.5	6.6	4.9	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.9	0.0	41.5				0.0	14.5	14.5	53.3	0.3	0.0
LnGrp LOS	D		D					B	B	D	A	
Approach Vol, veh/h		370						1013			1055	
Approach Delay, s/veh		41.7						14.5			10.3	
Approach LOS		D						B			B	
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	16.5	54.7				71.2		18.8				
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0				
Max Green Setting (Gmax), s	13.0	41.0				59.0		21.0				
Max Q Clear Time (g_c+I1), s	11.6	18.0				2.0		11.5				
Green Ext Time (p_c), s	0.0	15.1				21.3		1.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			16.8									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
44: S Eugenia Street & Market Street

Existing Conditions
Timing Plan: PM Peak

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↑
Traffic Vol, veh/h	550	12	0	0	0	42
Future Vol, veh/h	550	12	0	0	0	42
Conflicting Peds, #/hr	0	6	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	598	13	0	0	0	46

Major/Minor	Major1		Minor1	
Conflicting Flow All	0	0	-	312
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	684
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	-	680
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	NB
HCM Control Delay, s/v	0	10.7
HCM LOS		B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	680	-	-
HCM Lane V/C Ratio	0.067	-	-
HCM Control Delay (s/veh)	10.7	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q (veh)	0.2	-	-

HCM 6th TWSC
45: Della Street & Market Street

Existing Conditions
Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		EB						EB			EB	
Traffic Vol, veh/h	55	511	18	0	0	0	0	1	1	34	44	0
Future Vol, veh/h	55	511	18	0	0	0	0	1	1	34	44	0
Conflicting Peds, #/hr	2	0	1	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	574	20	0	0	0	0	1	1	38	49	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	2	0	0	-	711	299	415	721	-
Stage 1	-	-	-	-	709	-	2	2	-
Stage 2	-	-	-	-	2	-	413	719	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1619	-	-	0	357	697	522	352	0
Stage 1	-	-	-	0	435	-	-	-	0
Stage 2	-	-	-	0	-	-	587	431	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1616	-	-	-	336	696	496	331	-
Mov Cap-2 Maneuver	-	-	-	-	336	-	496	331	-
Stage 1	-	-	-	-	410	-	-	-	-
Stage 2	-	-	-	-	-	-	551	406	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.9	13	17
HCM LOS		B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	453	1616	-	-	387
HCM Lane V/C Ratio	0.005	0.038	-	-	0.226
HCM Control Delay (s/veh)	13	7.3	0.2	-	17
HCM Lane LOS	B	A	A	-	C
HCM 95th %tile Q (veh)	0	0.1	-	-	0.9

Queues

Existing Conditions

2: S San Joaquin Street/N San Joaquin Street & Main Street

Timing Plan: AM PEAK



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	71	250	256
v/c Ratio	0.34	0.20	0.19
Control Delay (s/veh)	35.2	11.2	13.5
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	35.2	11.2	13.5
Queue Length 50th (ft)	16	26	34
Queue Length 95th (ft)	34	42	60
Internal Link Dist (ft)	301	264	331
Turn Bay Length (ft)			
Base Capacity (vph)	492	1225	1342
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.14	0.20	0.19
Intersection Summary			

Queues

Existing Conditions

3: S Sutter Street/N Sutter Street & Main Street

Timing Plan: AM PEAK



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	55	102	144
v/c Ratio	0.07	0.22	0.15
Control Delay (s/veh)	10.6	15.4	20.0
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	10.6	15.4	20.0
Queue Length 50th (ft)	7	20	24
Queue Length 95th (ft)	16	36	41
Internal Link Dist (ft)	298	256	344
Turn Bay Length (ft)			
Base Capacity (vph)	724	455	915
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.08	0.22	0.16
Intersection Summary			

Queues

Existing Conditions

4: California Street & Main Street

Timing Plan: AM PEAK



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	143	307	255
v/c Ratio	0.20	0.34	0.26
Control Delay (s/veh)	34.7	17.0	20.9
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	34.7	17.0	20.9
Queue Length 50th (ft)	31	56	45
Queue Length 95th (ft)	m47	85	70
Internal Link Dist (ft)	307	257	324
Turn Bay Length (ft)			
Base Capacity (vph)	701	897	952
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.20	0.34	0.27

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Existing Conditions

5: S American Street/N American Street & Main Street

Timing Plan: AM PEAK



Lane Group	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	327	58	53	34
v/c Ratio	0.70	0.10	0.08	0.06
Control Delay (s/veh)	38.4	9.0	16.8	16.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	38.4	9.0	16.8	16.7
Queue Length 50th (ft)	72	8	16	10
Queue Length 95th (ft)	72	11	24	18
Internal Link Dist (ft)	303	260	330	
Turn Bay Length (ft)				
Base Capacity (vph)	463	539	612	508
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.71	0.11	0.09	0.07
Intersection Summary				

Queues

Existing Conditions

6: S Stanislaus Street/N Stanislaus Street & Main Street

Timing Plan: AM PEAK



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	179	712	311
v/c Ratio	0.14	0.48	0.17
Control Delay (s/veh)	15.1	10.2	9.4
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	15.1	10.2	9.4
Queue Length 50th (ft)	25	64	34
Queue Length 95th (ft)	36	73	42
Internal Link Dist (ft)	300	272	338
Turn Bay Length (ft)			
Base Capacity (vph)	1234	1455	1757
Starvation Cap Reductn	0	46	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.15	0.51	0.18
Intersection Summary			

Queues

Existing Conditions

11: Airport Way & Main Street

Timing Plan: AM PEAK



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	218	866	728
v/c Ratio	0.25	0.40	0.32
Control Delay (s/veh)	9.7	5.9	7.5
Queue Delay	0.0	0.1	0.0
Total Delay (s/veh)	9.7	6.0	7.5
Queue Length 50th (ft)	8	119	86
Queue Length 95th (ft)	54	11	115
Internal Link Dist (ft)	310	254	262
Turn Bay Length (ft)			
Base Capacity (vph)	864	2125	2274
Starvation Cap Reductn	0	440	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.25	0.51	0.32
Intersection Summary			

Queues

13: S Wilson Way & Main Street

Existing Conditions

Timing Plan: AM PEAK



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	245	215	33	753	689
v/c Ratio	0.51	0.52	0.06	0.28	0.26
Control Delay (s/veh)	38.5	9.4	9.1	7.6	4.4
Queue Delay	0.0	0.0	0.0	0.3	0.0
Total Delay (s/veh)	38.5	9.4	9.1	8.0	4.4
Queue Length 50th (ft)	70	0	4	51	45
Queue Length 95th (ft)	91	53	36	215	112
Internal Link Dist (ft)	710			271	283
Turn Bay Length (ft)		215	70		
Base Capacity (vph)	879	564	538	2651	2638
Starvation Cap Reductn	0	0	0	1275	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.28	0.38	0.06	0.55	0.26
Intersection Summary					

Queues

Existing Conditions

14: Market Street/E Market Street & Main St/Main Street

Timing Plan: AM PEAK



Lane Group	WBT	NET	SWR
Lane Group Flow (vph)	478	18	37
v/c Ratio	0.16	0.05	0.05
Control Delay (s/veh)	2.2	0.2	0.1
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	2.2	0.2	0.1
Queue Length 50th (ft)	17	0	0
Queue Length 95th (ft)	26	0	0
Internal Link Dist (ft)	87	10	
Turn Bay Length (ft)			
Base Capacity (vph)	3369	1130	1136
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.14	0.02	0.03
Intersection Summary			

Queues

Existing Conditions

17: Main Street & D Street

Timing Plan: AM PEAK



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	291	447	15
v/c Ratio	0.12	0.14	0.03
Control Delay (s/veh)	2.1	1.5	7.1
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	2.1	1.5	7.1
Queue Length 50th (ft)	1	0	1
Queue Length 95th (ft)	20	29	9
Internal Link Dist (ft)	615	624	178
Turn Bay Length (ft)			
Base Capacity (vph)	3315	3490	1542
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.09	0.13	0.01
Intersection Summary			

Queues

Existing Conditions

20: S Filbert Street & Main Street

Timing Plan: AM PEAK

					
Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	284	625	67	247	82
v/c Ratio	0.27	0.47	0.23	0.56	0.18
Control Delay (s/veh)	16.0	12.8	24.8	26.5	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.0	12.8	24.8	26.5	11.3
Queue Length 50th (ft)	33	55	18	68	6
Queue Length 95th (ft)	95	159	61	193	46
Internal Link Dist (ft)	616	739	220		239
Turn Bay Length (ft)				50	
Base Capacity (vph)	2102	2466	749	1263	1192
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.14	0.25	0.09	0.20	0.07
Intersection Summary					

Queues

Existing Conditions

25: Golden Gate Avenue & Main Street

Timing Plan: AM PEAK

						
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	3	452	29	522	124	54
v/c Ratio	0.01	0.25	0.09	0.27	0.29	0.11
Control Delay (s/veh)	23.0	9.7	21.1	10.0	12.9	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.0	9.7	21.1	10.0	12.9	11.0
Queue Length 50th (ft)	1	21	4	27	16	6
Queue Length 95th (ft)	9	117	35	137	65	33
Internal Link Dist (ft)		249		250	364	346
Turn Bay Length (ft)	95		95			
Base Capacity (vph)	1113	3193	1113	3308	1279	1503
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.14	0.03	0.16	0.10	0.04
Intersection Summary						

Queues

27: Netherton Avenue & Main Street

Existing Conditions

Timing Plan: AM PEAK



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	4	370	32	515	77	108
v/c Ratio	0.01	0.19	0.09	0.26	0.18	0.25
Control Delay (s/veh)	21.5	9.5	19.5	9.2	6.6	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.5	9.5	19.5	9.2	6.6	7.6
Queue Length 50th (ft)	1	14	4	20	3	5
Queue Length 95th (ft)	10	100	36	132	28	39
Internal Link Dist (ft)		247		244	354	364
Turn Bay Length (ft)	90		90			
Base Capacity (vph)	1364	3175	1562	3240	1348	1368
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.12	0.02	0.16	0.06	0.08
Intersection Summary						

Queues

29: S Center Street & Market Street

Existing Conditions

Timing Plan: AM PEAK

	→	↓
Lane Group	EBT	SBT
Lane Group Flow (vph)	111	1500
v/c Ratio	0.12	0.48
Control Delay (s/veh)	14.4	9.3
Queue Delay	0.0	0.0
Total Delay (s/veh)	14.4	9.3
Queue Length 50th (ft)	13	140
Queue Length 95th (ft)	32	169
Internal Link Dist (ft)	316	666
Turn Bay Length (ft)		
Base Capacity (vph)	924	3111
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.12	0.48
Intersection Summary		

Queues

Existing Conditions

30: S El Dorado Street & Market Street

Timing Plan: AM PEAK



Lane Group	EBT	NBT
Lane Group Flow (vph)	236	1974
v/c Ratio	0.25	0.49
Control Delay (s/veh)	22.0	9.1
Queue Delay	0.0	0.0
Total Delay (s/veh)	22.0	9.1
Queue Length 50th (ft)	50	147
Queue Length 95th (ft)	80	163
Internal Link Dist (ft)	266	322
Turn Bay Length (ft)		
Base Capacity (vph)	909	3964
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.26	0.50
Intersection Summary		

Queues

Existing Conditions

32: S San Joaquin Street & Market Street

Timing Plan: AM PEAK

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	271	262	155
v/c Ratio	0.23	0.14	0.09
Control Delay (s/veh)	14.7	7.4	3.8
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	14.7	7.4	3.8
Queue Length 50th (ft)	36	23	5
Queue Length 95th (ft)	54	35	8
Internal Link Dist (ft)	297	287	264
Turn Bay Length (ft)			
Base Capacity (vph)	1169	1747	1563
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.23	0.15	0.10
Intersection Summary			

Queues

Existing Conditions

33: S Sutter Street & Market Street

Timing Plan: AM PEAK

	→	↑	↗	↓
Lane Group	EBT	NBT	NBR	SBT
Lane Group Flow (vph)	244	136	21	132
v/c Ratio	0.18	0.17	0.03	0.09
Control Delay (s/veh)	13.5	13.0	3.6	3.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.5	13.0	3.6	3.5
Queue Length 50th (ft)	25	35	0	3
Queue Length 95th (ft)	42	55	6	5
Internal Link Dist (ft)	296	293		256
Turn Bay Length (ft)				
Base Capacity (vph)	1352	798	626	1434
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.18	0.17	0.03	0.09
Intersection Summary				

Queues

Existing Conditions

34: California Street & Market Street

Timing Plan: AM PEAK

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	131	450	327
v/c Ratio	0.13	0.22	0.18
Control Delay (s/veh)	8.9	5.8	0.5
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	8.9	5.8	0.5
Queue Length 50th (ft)	9	34	1
Queue Length 95th (ft)	14	43	1
Internal Link Dist (ft)	309	298	257
Turn Bay Length (ft)			
Base Capacity (vph)	943	2034	1777
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.14	0.22	0.18
Intersection Summary			

Queues

Existing Conditions

35: S American Street & Market Street

Timing Plan: AM PEAK



Lane Group	EBT	SBT
Lane Group Flow (vph)	317	200
v/c Ratio	0.15	0.49
Control Delay (s/veh)	6.5	17.8
Queue Delay	0.0	0.0
Total Delay (s/veh)	6.5	17.8
Queue Length 50th (ft)	26	90
Queue Length 95th (ft)	27	55
Internal Link Dist (ft)	303	260
Turn Bay Length (ft)		
Base Capacity (vph)	1997	401
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.16	0.50
Intersection Summary		

Queues

Existing Conditions

36: S Stanislaus Street & Market Street

Timing Plan: AM PEAK

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	352	783	312
v/c Ratio	0.28	0.44	0.19
Control Delay (s/veh)	9.2	11.9	7.1
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	9.2	11.9	7.1
Queue Length 50th (ft)	21	103	15
Queue Length 95th (ft)	30	106	18
Internal Link Dist (ft)	304	325	272
Turn Bay Length (ft)			
Base Capacity (vph)	1255	1753	1628
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.28	0.45	0.19
Intersection Summary			

Queues

Existing Conditions

41: Airport Way & Market Street

Timing Plan: AM PEAK

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	134	949	743
v/c Ratio	0.38	0.34	0.35
Control Delay (s/veh)	33.5	3.8	3.4
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	33.5	3.8	3.5
Queue Length 50th (ft)	33	45	35
Queue Length 95th (ft)	50	158	56
Internal Link Dist (ft)	289	285	254
Turn Bay Length (ft)			
Base Capacity (vph)	847	2787	2071
Starvation Cap Reductn	0	0	228
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.16	0.34	0.40
Intersection Summary			

Queues

Existing Conditions

43: S Wilson Way & Market Street

Timing Plan: AM PEAK

	→	↑	↘	↓
Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	218	797	126	663
v/c Ratio	0.48	0.38	0.62	0.24
Control Delay (s/veh)	35.0	11.2	46.4	4.5
Queue Delay	0.0	0.0	0.0	0.1
Total Delay (s/veh)	35.0	11.2	46.4	4.7
Queue Length 50th (ft)	52	106	71	67
Queue Length 95th (ft)	61	211	126	135
Internal Link Dist (ft)	296	296		271
Turn Bay Length (ft)			90	
Base Capacity (vph)	824	2095	255	2720
Starvation Cap Reductn	0	0	0	1161
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.38	0.49	0.43
Intersection Summary				

Queues

Existing Conditions

2: S San Joaquin Street/N San Joaquin Street & Main Street

Timing Plan: PM Peak



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	84	146	165
v/c Ratio	0.38	0.10	0.11
Control Delay (s/veh)	36.5	9.5	13.0
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	36.5	9.5	13.0
Queue Length 50th (ft)	19	13	22
Queue Length 95th (ft)	37	21	40
Internal Link Dist (ft)	301	264	331
Turn Bay Length (ft)			
Base Capacity (vph)	492	1387	1441
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.17	0.11	0.11
Intersection Summary			

Queues

Existing Conditions

3: S Sutter Street/N Sutter Street & Main Street

Timing Plan: PM Peak



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	79	186	137
v/c Ratio	0.11	0.38	0.14
Control Delay (s/veh)	15.0	16.8	19.9
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	15.0	16.8	19.9
Queue Length 50th (ft)	14	37	23
Queue Length 95th (ft)	27	55	38
Internal Link Dist (ft)	298	256	344
Turn Bay Length (ft)			
Base Capacity (vph)	708	488	916
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.11	0.38	0.15
Intersection Summary			

Queues

Existing Conditions

4: California Street & Main Street

Timing Plan: PM Peak



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	107	258	295
v/c Ratio	0.15	0.28	0.30
Control Delay (s/veh)	39.8	17.7	21.3
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	39.8	17.7	21.3
Queue Length 50th (ft)	25	48	53
Queue Length 95th (ft)	47	75	81
Internal Link Dist (ft)	307	257	324
Turn Bay Length (ft)			
Base Capacity (vph)	713	900	955
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.15	0.29	0.31
Intersection Summary			

Queues

Existing Conditions

5: S American Street/N American Street & Main Street

Timing Plan: PM Peak



Lane Group	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	134	32	14	18
v/c Ratio	0.25	0.05	0.02	0.03
Control Delay (s/veh)	25.0	8.7	16.1	16.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.0	8.7	16.1	16.3
Queue Length 50th (ft)	26	4	4	5
Queue Length 95th (ft)	49	11	14	17
Internal Link Dist (ft)	303	260	330	
Turn Bay Length (ft)				
Base Capacity (vph)	530	600	612	512
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.25	0.05	0.02	0.04
Intersection Summary				

Queues

Existing Conditions

6: S Stanislaus Street/N Stanislaus Street & Main Street

Timing Plan: PM Peak



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	143	313	330
v/c Ratio	0.11	0.20	0.18
Control Delay (s/veh)	14.0	8.2	9.8
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	14.0	8.2	9.8
Queue Length 50th (ft)	19	26	37
Queue Length 95th (ft)	37	40	59
Internal Link Dist (ft)	300	272	338
Turn Bay Length (ft)			
Base Capacity (vph)	1220	1553	1764
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.12	0.20	0.19
Intersection Summary			

Queues

Existing Conditions

11: Airport Way & Main Street

Timing Plan: PM Peak



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	189	926	806
v/c Ratio	0.22	0.43	0.35
Control Delay (s/veh)	10.8	5.7	7.8
Queue Delay	0.0	0.1	0.0
Total Delay (s/veh)	10.8	5.8	7.8
Queue Length 50th (ft)	14	129	98
Queue Length 95th (ft)	51	10	130
Internal Link Dist (ft)	310	254	262
Turn Bay Length (ft)			
Base Capacity (vph)	851	2153	2274
Starvation Cap Reductn	0	381	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.22	0.52	0.35
Intersection Summary			

Queues

Existing Conditions

13: S Wilson Way & Main Street

Timing Plan: PM Peak



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	224	189	28	965	992
v/c Ratio	0.48	0.56	0.07	0.36	0.37
Control Delay (s/veh)	38.3	16.1	11.4	10.3	4.9
Queue Delay	0.0	0.0	0.0	0.9	0.0
Total Delay (s/veh)	38.3	16.1	11.4	11.2	4.9
Queue Length 50th (ft)	64	22	5	112	71
Queue Length 95th (ft)	84	72	m23	286	176
Internal Link Dist (ft)	710			271	283
Turn Bay Length (ft)		215	70		
Base Capacity (vph)	882	508	380	2668	2655
Starvation Cap Reductn	0	0	0	1334	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.25	0.37	0.07	0.72	0.37

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Existing Conditions

14: Market Street/E Market Street & Main St/Main Street

Timing Plan: PM Peak



Lane Group	WBT	NET	SWR
Lane Group Flow (vph)	387	17	29
v/c Ratio	0.12	0.04	0.04
Control Delay (s/veh)	1.5	0.2	0.1
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	1.5	0.2	0.1
Queue Length 50th (ft)	0	0	0
Queue Length 95th (ft)	21	0	0
Internal Link Dist (ft)	87	10	
Turn Bay Length (ft)			
Base Capacity (vph)	3369	1131	1166
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.11	0.02	0.02
Intersection Summary			

Queues

Existing Conditions

17: Main Street & D Street

Timing Plan: PM Peak



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	463	394	18
v/c Ratio	0.15	0.12	0.03
Control Delay (s/veh)	1.5	1.5	7.2
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	1.5	1.5	7.2
Queue Length 50th (ft)	0	0	1
Queue Length 95th (ft)	32	26	10
Internal Link Dist (ft)	615	624	178
Turn Bay Length (ft)			
Base Capacity (vph)	3281	3459	1541
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.14	0.11	0.01
Intersection Summary			

Queues

Existing Conditions

20: S Filbert Street & Main Street

Timing Plan: PM Peak

	→	←	↑	↘	↓
Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	468	571	81	411	112
v/c Ratio	0.49	0.49	0.35	0.72	0.19
Control Delay (s/veh)	21.4	14.2	33.7	28.7	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.4	14.2	33.7	28.7	8.7
Queue Length 50th (ft)	75	57	27	139	10
Queue Length 95th (ft)	161	138	84	289	47
Internal Link Dist (ft)	616	739	220		239
Turn Bay Length (ft)				50	
Base Capacity (vph)	1906	2142	642	1076	1039
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.25	0.27	0.13	0.38	0.11
Intersection Summary					

Queues

Existing Conditions

25: Golden Gate Avenue & Main Street

Timing Plan: PM Peak

						
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	9	719	24	434	186	55
v/c Ratio	0.04	0.48	0.11	0.25	0.50	0.12
Control Delay (s/veh)	29.2	12.4	28.5	9.6	21.8	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	29.2	12.4	28.5	9.6	21.8	14.9
Queue Length 50th (ft)	2	44	5	26	33	8
Queue Length 95th (ft)	18	185	33	110	122	39
Internal Link Dist (ft)		249		250	364	346
Turn Bay Length (ft)	95		95			
Base Capacity (vph)	811	2971	811	3113	1141	1373
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.24	0.03	0.14	0.16	0.04
Intersection Summary						

Queues

27: Netherton Avenue & Main Street

Existing Conditions

Timing Plan: PM Peak



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	11	480	38	396	95	87
v/c Ratio	0.03	0.26	0.10	0.21	0.21	0.21
Control Delay (s/veh)	20.1	9.8	18.7	9.3	6.6	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.1	9.8	18.7	9.3	6.6	7.8
Queue Length 50th (ft)	1	18	4	15	3	4
Queue Length 95th (ft)	19	130	40	103	33	35
Internal Link Dist (ft)		247		244	354	364
Turn Bay Length (ft)	90		90			
Base Capacity (vph)	1413	3151	1571	3237	1331	1311
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.15	0.02	0.12	0.07	0.07
Intersection Summary						

Queues

Existing Conditions

29: S Center Street & Market Street

Timing Plan: PM Peak



Lane Group	EBT	SBT
Lane Group Flow (vph)	107	2008
v/c Ratio	0.11	0.65
Control Delay (s/veh)	20.2	12.3
Queue Delay	0.0	0.0
Total Delay (s/veh)	20.2	12.3
Queue Length 50th (ft)	19	232
Queue Length 95th (ft)	38	281
Internal Link Dist (ft)	316	666
Turn Bay Length (ft)		
Base Capacity (vph)	905	3054
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.12	0.66
Intersection Summary		

Queues

Existing Conditions

30: S El Dorado Street & Market Street

Timing Plan: PM Peak



Lane Group	EBT	NBT
Lane Group Flow (vph)	129	1547
v/c Ratio	0.12	0.41
Control Delay (s/veh)	16.5	9.8
Queue Delay	0.0	0.0
Total Delay (s/veh)	16.5	9.8
Queue Length 50th (ft)	17	118
Queue Length 95th (ft)	m33	142
Internal Link Dist (ft)	266	322
Turn Bay Length (ft)		
Base Capacity (vph)	1036	3755
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.12	0.41

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Existing Conditions

32: S San Joaquin Street & Market Street

Timing Plan: PM Peak

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	157	189	164
v/c Ratio	0.13	0.11	0.09
Control Delay (s/veh)	12.0	6.3	3.3
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	12.0	6.3	3.3
Queue Length 50th (ft)	17	14	4
Queue Length 95th (ft)	35	28	7
Internal Link Dist (ft)	297	287	264
Turn Bay Length (ft)			
Base Capacity (vph)	1164	1714	1669
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.13	0.11	0.10
Intersection Summary			

Queues

Existing Conditions

33: S Sutter Street & Market Street

Timing Plan: PM Peak

	→	↑	↗	↓
Lane Group	EBT	NBT	NBR	SBT
Lane Group Flow (vph)	191	147	54	187
v/c Ratio	0.13	0.18	0.08	0.13
Control Delay (s/veh)	13.2	13.2	4.2	8.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.2	13.2	4.2	8.7
Queue Length 50th (ft)	21	38	0	13
Queue Length 95th (ft)	35	59	13	20
Internal Link Dist (ft)	296	293		256
Turn Bay Length (ft)				
Base Capacity (vph)	1428	798	630	1374
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.13	0.18	0.09	0.14
Intersection Summary				

Queues

Existing Conditions

34: California Street & Market Street

Timing Plan: PM Peak

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	169	247	308
v/c Ratio	0.17	0.12	0.16
Control Delay (s/veh)	12.3	5.6	0.2
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	12.3	5.6	0.2
Queue Length 50th (ft)	14	18	0
Queue Length 95th (ft)	28	33	0
Internal Link Dist (ft)	309	298	257
Turn Bay Length (ft)			
Base Capacity (vph)	947	2036	1877
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.18	0.12	0.16
Intersection Summary			

Queues

Existing Conditions

35: S American Street & Market Street

Timing Plan: PM Peak



Lane Group	EBT	SBT
Lane Group Flow (vph)	256	55
v/c Ratio	0.12	0.13
Control Delay (s/veh)	4.4	15.6
Queue Delay	0.0	0.0
Total Delay (s/veh)	4.4	15.6
Queue Length 50th (ft)	17	12
Queue Length 95th (ft)	21	28
Internal Link Dist (ft)	303	260
Turn Bay Length (ft)		
Base Capacity (vph)	2005	408
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.13	0.13
Intersection Summary		

Queues

Existing Conditions

36: S Stanislaus Street & Market Street

Timing Plan: PM Peak

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	234	360	452
v/c Ratio	0.18	0.20	0.26
Control Delay (s/veh)	5.1	9.3	7.8
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	5.1	9.3	7.8
Queue Length 50th (ft)	0	38	24
Queue Length 95th (ft)	1	55	32
Internal Link Dist (ft)	304	325	272
Turn Bay Length (ft)			
Base Capacity (vph)	1238	1751	1681
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.19	0.21	0.27
Intersection Summary			

Queues

Existing Conditions

41: Airport Way & Market Street

Timing Plan: PM Peak

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	198	987	863
v/c Ratio	0.51	0.36	0.44
Control Delay (s/veh)	37.9	4.1	4.3
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	37.9	4.1	4.4
Queue Length 50th (ft)	53	56	41
Queue Length 95th (ft)	72	167	67
Internal Link Dist (ft)	289	285	254
Turn Bay Length (ft)			
Base Capacity (vph)	854	2736	1938
Starvation Cap Reductn	0	0	2
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.23	0.36	0.45
Intersection Summary			

Queues

Existing Conditions

43: S Wilson Way & Market Street

Timing Plan: PM Peak

	→	↑	↘	↓
Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	370	1013	198	857
v/c Ratio	0.66	0.54	0.74	0.33
Control Delay (s/veh)	42.6	16.3	50.3	6.4
Queue Delay	0.2	0.0	0.0	0.2
Total Delay (s/veh)	42.8	16.3	50.3	6.6
Queue Length 50th (ft)	104	191	109	113
Queue Length 95th (ft)	97	286	#220	191
Internal Link Dist (ft)	296	296		271
Turn Bay Length (ft)			90	
Base Capacity (vph)	818	1842	280	2594
Starvation Cap Reductn	0	0	0	917
Spillback Cap Reductn	92	69	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.51	0.57	0.71	0.51

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

Existing Build Conditions

2: S San Joaquin Street/N San Joaquin Street & Main Street

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	13	25	28	55	175	0	0	119	117
Future Volume (vph)	0	0	0	13	25	28	55	175	0	0	119	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			0.95			0.95	
Frpb, ped/bikes					0.95			1.00			0.96	
Flpb, ped/bikes					0.96			0.99			1.00	
Frt					0.94			1.00			0.92	
Flt Protected					0.99			0.98			1.00	
Satd. Flow (prot)					1601			3469			3166	
Flt Permitted					0.99			0.83			1.00	
Satd. Flow (perm)					1601			2914			3166	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	14	27	30	60	190	0	0	129	127
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	71	0	0	250	0	0	256	0
Confl. Peds. (#/hr)				45		31	39					39
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					6.0			28.0			28.0	
Effective Green, g (s)					6.0			28.0			28.0	
Actuated g/C Ratio					0.09			0.40			0.40	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					137			1165			1266	
v/s Ratio Prot											0.08	
v/s Ratio Perm					0.04			c0.09				
v/c Ratio					0.51			0.21			0.20	
Uniform Delay, d1					30.6			13.7			13.7	
Progression Factor					0.88			0.81			1.00	
Incremental Delay, d2					1.3			0.4			0.3	
Delay (s)					28.5			11.6			14.0	
Level of Service					C			B			B	
Approach Delay (s/veh)		0.0			28.5			11.6			14.0	
Approach LOS		A			C			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			14.8									
HCM 2000 Volume to Capacity ratio			0.16									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			32.6%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 3: S Sutter Street/N Sutter Street & Main Street

Existing Build Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	9	30	6	20	64	0	0	94	24
Future Volume (vph)	0	0	0	9	30	6	20	64	0	0	94	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			1.00			0.95	
Frpb, ped/bikes					0.99			1.00			0.97	
Flpb, ped/bikes					0.98			0.97			1.00	
Frt					0.98			1.00			0.96	
Flt Protected					0.99			0.98			1.00	
Satd. Flow (prot)					1783			1796			3332	
Flt Permitted					0.99			0.91			1.00	
Satd. Flow (perm)					1783			1662			3332	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	11	37	7	24	78	0	0	115	29
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	55	0	0	102	0	0	144	0
Confl. Peds. (#/hr)				36		13	69					69
Confl. Bikes (#/hr)												1
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					2			4			4	
Permitted Phases				2			4					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					382			451			904	
v/s Ratio Prot											0.04	
v/s Ratio Perm					0.03			c0.06				
v/c Ratio					0.14			0.22			0.15	
Uniform Delay, d1					22.2			19.7			19.4	
Progression Factor					0.50			0.68			1.00	
Incremental Delay, d2					0.7			1.1			0.3	
Delay (s)					12.0			14.7			19.7	
Level of Service					B			B			B	
Approach Delay (s/veh)		0.0			12.0			14.7			19.7	
Approach LOS		A			B			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			16.7									
HCM 2000 Volume to Capacity ratio			0.11									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			22.8%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

Existing Build Conditions

4: California Street & Main Street

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	63	26	34	13	251	0	0	208	11
Future Volume (vph)	0	0	0	63	26	34	13	251	0	0	208	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.99			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.96			1.00			0.99	
Flt Protected					0.97			0.99			1.00	
Satd. Flow (prot)					1719			1858			1847	
Flt Permitted					0.97			0.97			1.00	
Satd. Flow (perm)					1719			1821			1847	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	0	0	0	73	30	40	15	292	0	0	242	13
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	143	0	0	307	0	0	255	0
Confl. Peds. (#/hr)				7		4	5					5
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					368			494			501	
v/s Ratio Prot											0.14	
v/s Ratio Perm					0.08			0.17				
v/c Ratio					0.38			0.62			0.50	
Uniform Delay, d1					23.5			22.3			21.5	
Progression Factor					1.51			0.71			1.00	
Incremental Delay, d2					2.1			5.3			3.6	
Delay (s)					37.8			21.3			25.2	
Level of Service					D			C			C	
Approach Delay (s/veh)		0.0			37.8			21.3			25.2	
Approach LOS		A			D			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			26.1									
HCM 2000 Volume to Capacity ratio			0.31									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			39.2%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: S American Street/N American Street & Main Street

Existing Build Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	82	87	24	16	18	0	0	31	20
Future Volume (vph)	0	0	0	82	87	24	16	18	0	0	31	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	5.0
Lane Util. Factor					1.00			1.00			1.00	1.00
Frpb, ped/bikes					0.99			1.00			1.00	0.96
Flpb, ped/bikes					0.90			0.99			1.00	1.00
Frt					0.98			1.00			1.00	0.85
Flt Protected					0.97			0.97			1.00	1.00
Satd. Flow (prot)					1617			1804			1863	1520
Flt Permitted					0.97			0.87			1.00	1.00
Satd. Flow (perm)					1617			1620			1863	1520
Peak-hour factor, PHF	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
Adj. Flow (vph)	0	0	0	139	147	41	27	31	0	0	53	34
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	327	0	0	58	0	0	53	34
Confl. Peds. (#/hr)				96		2	11					11
Turn Type				Perm	NA		Perm	NA			NA	Perm
Protected Phases					2			4			4	
Permitted Phases				2			4					4
Actuated Green, G (s)					15.0			19.0			19.0	19.0
Effective Green, g (s)					15.0			19.0			19.0	19.0
Actuated g/C Ratio					0.21			0.27			0.27	0.27
Clearance Time (s)					5.0			5.0			5.0	5.0
Vehicle Extension (s)					0.2			0.2			0.2	0.2
Lane Grp Cap (vph)					346			439			505	412
v/s Ratio Prot											0.03	
v/s Ratio Perm					0.20			0.04				0.02
v/c Ratio					0.94			0.13			0.10	0.08
Uniform Delay, d1					27.0			19.2			19.1	19.0
Progression Factor					1.01			0.97			1.00	1.00
Incremental Delay, d2					35.6			0.6			0.4	0.3
Delay (s)					63.2			19.3			19.5	19.3
Level of Service					E			B			B	B
Approach Delay (s/veh)		0.0			63.2			19.3			19.4	
Approach LOS		A			E			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			49.8									
HCM 2000 Volume to Capacity ratio			0.29									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			29.8%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

6: S Stanislaus Street/N Stanislaus Street & Main Street

Existing Build Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	46	78	5	86	427	0	0	209	15
Future Volume (vph)	0	0	0	46	78	5	86	427	0	0	209	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			0.95			0.95	
Frpb, ped/bikes					0.99			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.99			1.00			0.98	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					1816			3504			3495	
Flt Permitted					0.98			0.82			1.00	
Satd. Flow (perm)					1816			2906			3495	
Peak-hour factor, PHF	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	0	0	0	64	108	7	119	593	0	0	290	21
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	8	0
Lane Group Flow (vph)	0	0	0	0	179	0	0	712	0	0	304	0
Confl. Peds. (#/hr)				5		2	7					7
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					1			2			2	
Permitted Phases				1			2					
Actuated Green, G (s)					25.0			35.0			35.0	
Effective Green, g (s)					25.0			35.0			35.0	
Actuated g/C Ratio					0.36			0.50			0.50	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					648			1453			1747	
v/s Ratio Prot											0.09	
v/s Ratio Perm					0.10			c0.24				
v/c Ratio					0.27			0.49			0.17	
Uniform Delay, d1					16.0			11.5			9.5	
Progression Factor					1.00			0.72			1.00	
Incremental Delay, d2					1.0			1.0			0.2	
Delay (s)					17.1			9.5			9.7	
Level of Service					B			A			A	
Approach Delay (s/veh)		0.0			17.1			9.5			9.7	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			10.7									
HCM 2000 Volume to Capacity ratio			0.40									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			55.1%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC

Existing Build Conditions

7: S Grant Street/N Grant Street & Main Street

Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	6	107	7	9	43	0	0	16	16
Future Vol, veh/h	0	0	0	6	107	7	9	43	0	0	16	16
Conflicting Peds, #/hr	0	0	0	2	0	5	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	9	165	11	14	66	0	0	25	25
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				2	0	0	220	201	-	-	196	180
Stage 1				-	-	-	2	2	-	-	194	-
Stage 2				-	-	-	218	199	-	-	2	-
Critical Hdwy				4.12	-	-	7.12	6.52	-	-	6.52	6.22
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.52	-
Critical Hdwy Stg 2				-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy				2.218	-	-	3.518	4.018	-	-	4.018	3.318
Pot Cap-1 Maneuver				1620	-	-	736	695	0	0	699	863
Stage 1				-	-	-	-	-	0	0	740	-
Stage 2				-	-	-	784	736	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1617	-	-	691	686	-	-	690	859
Mov Cap-2 Maneuver				-	-	-	691	686	-	-	690	-
Stage 1				-	-	-	-	-	-	-	732	-
Stage 2				-	-	-	732	728	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.4		10.9		10				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	687	1617	-	-	765							
HCM Lane V/C Ratio	0.116	0.006	-	-	0.064							
HCM Control Delay (s/veh)	10.9	7.2	0	-	10							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.4	0	-	-	0.2							

HCM 6th TWSC

Existing Build Conditions

8: S Aurora Street/N Aurora Street & Main Street

Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	9	103	4	24	103	0	0	34	6
Future Vol, veh/h	0	0	0	9	103	4	24	103	0	0	34	6
Conflicting Peds, #/hr	0	0	0	1	0	4	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	12	141	5	33	141	0	0	47	8
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				1	0	0	198	175	-	-	173	150
Stage 1				-	-	-	1	1	-	-	172	-
Stage 2				-	-	-	197	174	-	-	1	-
Critical Hdwy				4.12	-	-	7.12	6.52	-	-	6.52	6.22
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.52	-
Critical Hdwy Stg 2				-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy				2.218	-	-	3.518	4.018	-	-	4.018	3.318
Pot Cap-1 Maneuver				1622	-	-	761	718	0	0	720	896
Stage 1				-	-	-	-	-	0	0	756	-
Stage 2				-	-	-	805	755	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1620	-	-	712	709	-	-	711	893
Mov Cap-2 Maneuver				-	-	-	712	709	-	-	711	-
Stage 1				-	-	-	-	-	-	-	747	-
Stage 2				-	-	-	742	746	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.6		11.7		10.3				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	710	1620	-	-	733							
HCM Lane V/C Ratio	0.245	0.008	-	-	0.075							
HCM Control Delay (s/veh)	11.7	7.2	0	-	10.3							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	1	0	-	-	0.2							

HCM 6th AWSC
9: Union Street & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Intersection Delay, s/veh	8.1											
Intersection LOS	A											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	12	96	14	9	90	0	0	66	9
Future Vol, veh/h	0	0	0	12	96	14	9	90	0	0	66	9
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	14	112	16	10	105	0	0	77	10
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0
Approach				WB			NB			SB		
Opposing Approach							SB			NB		
Opposing Lanes				0			1			1		
Conflicting Approach Left				NB						WB		
Conflicting Lanes Left				1			0			1		
Conflicting Approach Right				SB			WB					
Conflicting Lanes Right				1			1			0		
HCM Control Delay, s/veh				8.2			8.1			7.8		
HCM LOS				A			A			A		
Lane	NBLn1	WBLn1	SBLn1									
Vol Left, %	9%	10%	0%									
Vol Thru, %	91%	79%	88%									
Vol Right, %	0%	11%	12%									
Sign Control	Stop	Stop	Stop									
Traffic Vol by Lane	99	122	75									
LT Vol	9	12	0									
Through Vol	90	96	66									
RT Vol	0	14	9									
Lane Flow Rate	115	142	87									
Geometry Grp	1	1	1									
Degree of Util (X)	0.14	0.171	0.105									
Departure Headway (Hd)	4.374	4.342	4.315									
Convergence, Y/N	Yes	Yes	Yes									
Cap	823	828	834									
Service Time	2.385	2.353	2.326									
HCM Lane V/C Ratio	0.14	0.171	0.104									
HCM Control Delay, s/veh	8.1	8.2	7.8									
HCM Lane LOS	A	A	A									
HCM 95th-tile Q	0.5	0.6	0.4									

HCM 6th TWSC
10: Pilgrim Street & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	9	122	5	3	7	0	0	11	0
Future Vol, veh/h	0	0	0	9	122	5	3	7	0	0	11	0
Conflicting Peds, #/hr	0	0	0	4	0	4	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	13	174	7	4	10	0	0	16	0
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				4	0	0	219	215	-	-	212	185
Stage 1				-	-	-	4	4	-	-	208	-
Stage 2				-	-	-	215	211	-	-	4	-
Critical Hdwy				4.12	-	-	7.12	6.52	-	-	6.52	6.22
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.52	-
Critical Hdwy Stg 2				-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy				2.218	-	-	3.518	4.018	-	-	4.018	3.318
Pot Cap-1 Maneuver				1618	-	-	737	683	0	0	685	857
Stage 1				-	-	-	-	-	0	0	730	-
Stage 2				-	-	-	787	728	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1612	-	-	716	671	-	-	673	854
Mov Cap-2 Maneuver				-	-	-	716	671	-	-	673	-
Stage 1				-	-	-	-	-	-	-	721	-
Stage 2				-	-	-	763	719	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.5		10.4		10.5				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	684	1612	-	-	673							
HCM Lane V/C Ratio	0.021	0.008	-	-	0.023							
HCM Control Delay (s/veh)	10.4	7.3	0	-	10.5							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1							

HCM 6th Signalized Intersection Summary

11: Airport Way & Main Street

Existing Build Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	35	103	64	18	788	0	0	662	15
Future Volume (veh/h)	0	0	0	35	103	64	18	788	0	0	662	15
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				38	111	69	19	847	0	0	712	16
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				48	141	88	67	2481	0	0	2593	58
Arrive On Green				0.05	0.05	0.05	1.00	1.00	0.00	0.00	0.73	0.73
Sat Flow, veh/h				305	889	553	34	3484	0	0	3646	80
Grp Volume(v), veh/h				218	0	0	459	407	0	0	356	372
Grp Sat Flow(s),veh/h/ln				1747	0	0	1816	1617	0	0	1777	1856
Q Serve(g_s), s				11.1	0.0	0.0	0.0	0.0	0.0	0.0	6.1	6.1
Cycle Q Clear(g_c), s				11.1	0.0	0.0	0.0	0.0	0.0	0.0	6.1	6.1
Prop In Lane				0.17		0.32	0.04		0.00	0.00		0.04
Lane Grp Cap(c), veh/h				278	0	0	1367	1180	0	0	1297	1354
V/C Ratio(X)				0.78	0.00	0.00	0.34	0.35	0.00	0.00	0.27	0.27
Avail Cap(c_a), veh/h				427	0	0	1367	1180	0	0	1297	1354
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.94	0.94	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				41.1	0.0	0.0	0.0	0.0	0.0	0.0	4.1	4.1
Incr Delay (d2), s/veh				2.3	0.0	0.0	0.6	0.8	0.0	0.0	0.5	0.5
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.4	0.0	0.0	0.2	0.2	0.0	0.0	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				43.4	0.0	0.0	0.6	0.8	0.0	0.0	4.6	4.6
LnGrp LOS				D			A	A			A	A
Approach Vol, veh/h					218			866			728	
Approach Delay, s/veh					43.4			0.7			4.6	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	70.7			19.3			70.7					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	58.0			22.0			58.0					
Max Q Clear Time (g_c+I1), s	2.0			13.1			8.1					
Green Ext Time (p_c), s	0.8			0.6			0.7					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				7.4								
HCM 6th LOS				A								

HCM 6th TWSC
12: Sierra Nevada Street & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	9	172	12	17	17	0	0	33	11
Future Vol, veh/h	0	0	0	9	172	12	17	17	0	0	33	11
Conflicting Peds, #/hr	0	0	0	13	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	10	198	14	20	20	0	0	38	13

Major/Minor	Major2		Minor1		Minor2	
Conflicting Flow All	13	0	0	264	251	-
Stage 1	-	-	-	13	13	-
Stage 2	-	-	-	251	238	-
Critical Hdwy	4.12	-	-	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	3.518	4.018	-
Pot Cap-1 Maneuver	1606	-	-	689	652	0
Stage 1	-	-	-	-	-	0
Stage 2	-	-	-	753	708	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1586	-	-	637	636	-
Mov Cap-2 Maneuver	-	-	-	637	636	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	697	699	-

Approach	WB	NB	SB
HCM Control Delay, s/v	0.3	11	10.7
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	636	1586	-	-	680
HCM Lane V/C Ratio	0.061	0.007	-	-	0.074
HCM Control Delay (s/veh)	11	7.3	0	-	10.7
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.2	0	-	-	0.2

HCM 6th Signalized Intersection Summary 13: S Wilson Way & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	115	122	209	32	730	0	0	648	20
Future Volume (veh/h)	0	0	0	115	122	209	32	730	0	0	648	20
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				119	126	215	33	753	0	0	668	21
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				153	162	270	570	2546	0	0	2519	79
Arrive On Green				0.17	0.17	0.17	1.00	1.00	0.00	0.00	0.72	0.72
Sat Flow, veh/h				887	939	1566	754	3647	0	0	3610	111
Grp Volume(v), veh/h				245	0	215	33	753	0	0	337	352
Grp Sat Flow(s),veh/h/ln				1826	0	1566	754	1777	0	0	1777	1850
Q Serve(g_s), s				11.5	0.0	11.9	0.4	0.0	0.0	0.0	6.0	6.0
Cycle Q Clear(g_c), s				11.5	0.0	11.9	6.4	0.0	0.0	0.0	6.0	6.0
Prop In Lane				0.49		1.00	1.00		0.00	0.00		0.06
Lane Grp Cap(c), veh/h				315	0	270	570	2546	0	0	1273	1326
V/C Ratio(X)				0.78	0.00	0.80	0.06	0.30	0.00	0.00	0.27	0.27
Avail Cap(c_a), veh/h				467	0	400	570	2546	0	0	1273	1326
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.91	0.91	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				35.6	0.0	35.7	0.3	0.0	0.0	0.0	4.5	4.5
Incr Delay (d2), s/veh				2.5	0.0	3.7	0.2	0.3	0.0	0.0	0.5	0.5
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.3	0.0	4.7	0.0	0.1	0.0	0.0	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				38.1	0.0	39.4	0.5	0.3	0.0	0.0	5.0	5.0
LnGrp LOS				D		D	A	A			A	A
Approach Vol, veh/h					460			786			689	
Approach Delay, s/veh					38.7			0.3			5.0	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	69.5			20.5			69.5					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	57.0			23.0			57.0					
Max Q Clear Time (g_c+I1), s	8.4			13.9			8.0					
Green Ext Time (p_c), s	2.5			1.0			1.7					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				11.1								
HCM 6th LOS				B								

HCM 6th TWSC
15: B Street/E Washington Street & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	239	18	16	406	2	23	0	30	0	0	9
Future Vol, veh/h	3	239	18	16	406	2	23	0	30	0	0	9
Conflicting Peds, #/hr	4	0	2	2	0	4	4	0	1	1	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	257	19	17	437	2	25	0	32	0	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	443	0	0	278	0	0	756	752	270	766	760	446
Stage 1	-	-	-	-	-	-	275	275	-	476	476	-
Stage 2	-	-	-	-	-	-	481	477	-	290	284	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1117	-	-	1285	-	-	325	339	769	320	336	612
Stage 1	-	-	-	-	-	-	731	683	-	570	557	-
Stage 2	-	-	-	-	-	-	566	556	-	718	676	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1113	-	-	1283	-	-	313	330	767	300	327	607
Mov Cap-2 Maneuver	-	-	-	-	-	-	313	330	-	300	327	-
Stage 1	-	-	-	-	-	-	727	680	-	566	545	-
Stage 2	-	-	-	-	-	-	545	544	-	685	673	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.3			13.7			11		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	471	1113	-	-	1283	-	-	607				
HCM Lane V/C Ratio	0.121	0.003	-	-	0.013	-	-	0.016				
HCM Control Delay (s/veh)	13.7	8.2	0	-	7.8	0	-	11				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q (veh)	0.4	0	-	-	0	-	-	0				

HCM 6th TWSC
16: E Lafayette Street & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	224	4	18	370	0	13	10	17	0	4	42
Future Vol, veh/h	36	224	4	18	370	0	13	10	17	0	4	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	246	4	20	407	0	14	11	19	0	4	46

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	407	0	0	250	0	0	800	775	248	790	777	407
Stage 1	-	-	-	-	-	-	328	328	-	447	447	-
Stage 2	-	-	-	-	-	-	472	447	-	343	330	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1152	-	-	1316	-	-	303	329	791	308	328	644
Stage 1	-	-	-	-	-	-	685	647	-	591	573	-
Stage 2	-	-	-	-	-	-	573	573	-	672	646	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1152	-	-	1316	-	-	266	310	791	279	309	644
Mov Cap-2 Maneuver	-	-	-	-	-	-	266	310	-	279	309	-
Stage 1	-	-	-	-	-	-	658	621	-	567	562	-
Stage 2	-	-	-	-	-	-	517	562	-	619	620	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.1			0.4			15.4			11.7		
HCM LOS							C			B		

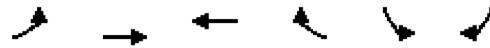
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	390	1152	-	-	1316	-	-	589
HCM Lane V/C Ratio	0.113	0.034	-	-	0.015	-	-	0.086
HCM Control Delay (s/veh)	15.4	8.2	0	-	7.8	0	-	11.7
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.4	0.1	-	-	0	-	-	0.3

HCM Signalized Intersection Capacity Analysis

17: Main Street & D Street

Existing Build Conditions

Timing Plan: AM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	262	402	5	6	7
Future Volume (vph)	3	262	402	5	6	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0	
Lane Util. Factor		1.00	1.00		1.00	
Frt		1.00	0.99		0.92	
Flt Protected		0.99	1.00		0.97	
Satd. Flow (prot)		1862	1860		1689	
Flt Permitted		0.99	1.00		0.97	
Satd. Flow (perm)		1851	1860		1689	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	3	288	442	5	7	8
RTOR Reduction (vph)	0	0	0	0	8	0
Lane Group Flow (vph)	0	291	447	0	7	0
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		10.8	10.8		0.6	
Effective Green, g (s)		10.8	10.8		0.6	
Actuated g/C Ratio		0.50	0.50		0.03	
Clearance Time (s)		5.0	5.0		5.0	
Vehicle Extension (s)		6.0	6.0		2.0	
Lane Grp Cap (vph)		934	938		47	
v/s Ratio Prot		c0.24				
v/s Ratio Perm		0.16			c0.00	
v/c Ratio		0.31	0.47		0.15	
Uniform Delay, d1		3.1	3.4		10.1	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.5	1.0		0.5	
Delay (s)		3.6	4.5		10.7	
Level of Service		A	A		B	
Approach Delay (s/veh)		3.6	4.5		10.7	
Approach LOS		A	A		B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)		4.3		HCM 2000 Level of Service	A	
HCM 2000 Volume to Capacity ratio		0.46				
Actuated Cycle Length (s)		21.4		Sum of lost time (s)	10.0	
Intersection Capacity Utilization		33.1%		ICU Level of Service	A	
Analysis Period (min)		15				

c Critical Lane Group

HCM 6th TWSC
18: Marsh Street/E Street & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	231	1	12	372	42	0	0	10	28	3	10
Future Vol, veh/h	16	231	1	12	372	42	0	0	10	28	3	10
Conflicting Peds, #/hr	2	0	1	1	0	2	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	275	1	14	443	50	0	0	12	33	4	12
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	495	0	0	277	0	0	820	838	277	818	813	471
Stage 1	-	-	-	-	-	-	315	315	-	498	498	-
Stage 2	-	-	-	-	-	-	505	523	-	320	315	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1069	-	-	1286	-	-	294	302	762	295	313	593
Stage 1	-	-	-	-	-	-	696	656	-	554	544	-
Stage 2	-	-	-	-	-	-	549	530	-	692	656	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1067	-	-	1285	-	-	277	290	761	282	301	591
Mov Cap-2 Maneuver	-	-	-	-	-	-	277	290	-	282	301	-
Stage 1	-	-	-	-	-	-	681	642	-	541	535	-
Stage 2	-	-	-	-	-	-	526	521	-	667	642	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.5			0.2			9.8			18		
HCM LOS							A			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	761	1067	-	-	1285	-	-	325				
HCM Lane V/C Ratio	0.016	0.018	-	-	0.011	-	-	0.15				
HCM Control Delay (s/veh)	9.8	8.4	0	-	7.8	0	-	18				
HCM Lane LOS	A	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0	0.1	-	-	0	-	-	0.5				

HCM 6th TWSC
19: Alma Street/F Street & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	262	0	18	386	10	0	2	13	5	4	3
Future Vol, veh/h	13	262	0	18	386	10	0	2	13	5	4	3
Conflicting Peds, #/hr	4	0	5	5	0	4	0	0	5	5	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	285	0	20	420	11	0	2	14	5	4	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	435	0	0	290	0	0	789	793	295	796	788	432
Stage 1	-	-	-	-	-	-	318	318	-	470	470	-
Stage 2	-	-	-	-	-	-	471	475	-	326	318	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1125	-	-	1272	-	-	308	321	744	305	323	624
Stage 1	-	-	-	-	-	-	693	654	-	574	560	-
Stage 2	-	-	-	-	-	-	573	557	-	687	654	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1121	-	-	1266	-	-	293	307	737	287	309	620
Mov Cap-2 Maneuver	-	-	-	-	-	-	293	307	-	287	309	-
Stage 1	-	-	-	-	-	-	679	641	-	563	546	-
Stage 2	-	-	-	-	-	-	553	543	-	658	641	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.4			0.3			11			16		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	621	1121	-	-	1266	-	-	341
HCM Lane V/C Ratio	0.026	0.013	-	-	0.015	-	-	0.038
HCM Control Delay (s/veh)	11	8.3	0	-	7.9	0	-	16
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1

HCM 6th TWSC
21: Burkett Avenue & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	420	14	13	581	12	9	2	6	5	2	13
Future Vol, veh/h	19	420	14	13	581	12	9	2	6	5	2	13
Conflicting Peds, #/hr	7	0	0	0	0	7	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	442	15	14	612	13	9	2	6	5	2	14
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	632	0	0	457	0	0	1147	1150	451	1149	1151	628
Stage 1	-	-	-	-	-	-	490	490	-	654	654	-
Stage 2	-	-	-	-	-	-	657	660	-	495	497	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	951	-	-	1104	-	-	176	198	608	176	198	483
Stage 1	-	-	-	-	-	-	560	549	-	456	463	-
Stage 2	-	-	-	-	-	-	454	460	-	556	545	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	945	-	-	1104	-	-	163	188	607	165	188	479
Mov Cap-2 Maneuver	-	-	-	-	-	-	163	188	-	165	188	-
Stage 1	-	-	-	-	-	-	544	534	-	440	451	-
Stage 2	-	-	-	-	-	-	430	448	-	532	530	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.4			0.2			22.5			18.2		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	224	945	-	-	1104	-	-	294				
HCM Lane V/C Ratio	0.08	0.021	-	-	0.012	-	-	0.072				
HCM Control Delay (s/veh)	22.5	8.9	0	-	8.3	0	-	18.2				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.3	0.1	-	-	0	-	-	0.2				

HCM 6th TWSC
22: Shasta Avenue & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	426	5	4	597	5	9	1	5	2	0	2
Future Vol, veh/h	2	426	5	4	597	5	9	1	5	2	0	2
Conflicting Peds, #/hr	7	0	2	2	0	7	1	0	3	3	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	468	5	4	656	5	10	1	5	2	0	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	668	0	0	475	0	0	1146	1153	476	1155	1153	667
Stage 1	-	-	-	-	-	-	477	477	-	674	674	-
Stage 2	-	-	-	-	-	-	669	676	-	481	479	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	922	-	-	1087	-	-	176	197	589	174	197	459
Stage 1	-	-	-	-	-	-	569	556	-	444	454	-
Stage 2	-	-	-	-	-	-	447	453	-	566	555	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	916	-	-	1085	-	-	174	193	586	169	193	456
Mov Cap-2 Maneuver	-	-	-	-	-	-	174	193	-	169	193	-
Stage 1	-	-	-	-	-	-	566	553	-	440	448	-
Stage 2	-	-	-	-	-	-	442	447	-	556	552	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0.1			21.9			19.8		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	229	916	-	-	1085	-	-	247				
HCM Lane V/C Ratio	0.072	0.002	-	-	0.004	-	-	0.018				
HCM Control Delay (s/veh)	21.9	8.9	0	-	8.3	0	-	19.8				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1				

HCM 6th TWSC
23: David Avenue & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	432	6	3	587	5	10	1	4	3	0	9
Future Vol, veh/h	1	432	6	3	587	5	10	1	4	3	0	9
Conflicting Peds, #/hr	3	0	3	3	0	3	3	0	1	1	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	470	7	3	638	5	11	1	4	3	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	646	0	0	480	0	0	1134	1131	478	1129	1132	647
Stage 1	-	-	-	-	-	-	479	479	-	650	650	-
Stage 2	-	-	-	-	-	-	655	652	-	479	482	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	939	-	-	1082	-	-	180	203	587	181	203	471
Stage 1	-	-	-	-	-	-	568	555	-	458	465	-
Stage 2	-	-	-	-	-	-	455	464	-	568	553	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	936	-	-	1079	-	-	175	201	585	178	201	468
Mov Cap-2 Maneuver	-	-	-	-	-	-	175	201	-	178	201	-
Stage 1	-	-	-	-	-	-	566	553	-	456	462	-
Stage 2	-	-	-	-	-	-	442	461	-	562	551	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0			22.8			16.3		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	218	936	-	-	1079	-	-	333
HCM Lane V/C Ratio	0.075	0.001	-	-	0.003	-	-	0.039
HCM Control Delay (s/veh)	22.8	8.9	0	-	8.3	0	-	16.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1

HCM 6th TWSC
24: Rendon Avenue & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	411	12	8	572	9	11	3	3	13	1	18
Future Vol, veh/h	11	411	12	8	572	9	11	3	3	13	1	18
Conflicting Peds, #/hr	5	0	1	1	0	5	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	447	13	9	622	10	12	3	3	14	1	20
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	637	0	0	461	0	0	1135	1134	455	1131	1135	632
Stage 1	-	-	-	-	-	-	479	479	-	650	650	-
Stage 2	-	-	-	-	-	-	656	655	-	481	485	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	947	-	-	1100	-	-	179	203	605	181	202	480
Stage 1	-	-	-	-	-	-	568	555	-	458	465	-
Stage 2	-	-	-	-	-	-	454	463	-	566	552	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	942	-	-	1099	-	-	167	196	604	173	195	478
Mov Cap-2 Maneuver	-	-	-	-	-	-	167	196	-	173	195	-
Stage 1	-	-	-	-	-	-	558	545	-	448	457	-
Stage 2	-	-	-	-	-	-	429	455	-	550	542	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.2			0.1			25.2			20.2		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	197	942	-	-	1099	-	-	271				
HCM Lane V/C Ratio	0.094	0.013	-	-	0.008	-	-	0.128				
HCM Control Delay (s/veh)	25.2	8.9	0	-	8.3	-	-	20.2				
HCM Lane LOS	D	A	A	-	A	-	-	C				
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0.4				

HCM 6th Signalized Intersection Summary 25: Golden Gate Avenue & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	337	92	28	491	5	74	17	27	12	32	7
Future Volume (veh/h)	3	337	92	28	491	5	74	17	27	12	32	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	355	97	29	517	5	78	18	28	13	34	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	662	181	49	911	9	262	35	43	146	159	29
Arrive On Green	0.00	0.47	0.47	0.03	0.49	0.49	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	1781	1414	386	1781	1849	18	908	282	347	263	1278	230
Grp Volume(v), veh/h	3	0	452	29	0	522	124	0	0	54	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1800	1781	0	1867	1538	0	0	1771	0	0
Q Serve(g_s), s	0.1	0.0	7.0	0.6	0.0	7.8	1.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.0	7.0	0.6	0.0	7.8	2.9	0.0	0.0	1.1	0.0	0.0
Prop In Lane	1.00		0.21	1.00		0.01	0.63		0.23	0.24		0.13
Lane Grp Cap(c), veh/h	6	0	843	49	0	919	340	0	0	334	0	0
V/C Ratio(X)	0.51	0.00	0.54	0.59	0.00	0.57	0.36	0.00	0.00	0.16	0.00	0.00
Avail Cap(c_a), veh/h	901	0	2186	901	0	2267	1640	0	0	1398	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.7	0.0	7.5	19.0	0.0	7.1	16.4	0.0	0.0	15.6	0.0	0.0
Incr Delay (d2), s/veh	23.6	0.0	1.9	4.1	0.0	2.0	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.1	0.3	0.0	2.3	1.0	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.2	0.0	9.4	23.1	0.0	9.1	16.6	0.0	0.0	15.7	0.0	0.0
LnGrp LOS	D		A	C		A	B			B		
Approach Vol, veh/h	455			551			124			54		
Approach Delay, s/veh	9.6			9.8			16.6			15.7		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	23.5		9.9	5.1	24.5		9.9				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	48.0		40.0	20.0	48.0		30.0				
Max Q Clear Time (g_c+I1), s	2.6	9.0		4.9	2.1	9.8		3.1				
Green Ext Time (p_c), s	0.0	8.3		0.5	0.0	9.7		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				10.7								
HCM 6th LOS				B								

HCM 6th TWSC
26: Windsor Avenue & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	351	15	13	515	3	8	1	5	6	3	13
Future Vol, veh/h	2	351	15	13	515	3	8	1	5	6	3	13
Conflicting Peds, #/hr	9	0	3	3	0	9	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	369	16	14	542	3	8	1	5	6	3	14
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	554	0	0	388	0	0	964	966	380	965	973	553
Stage 1	-	-	-	-	-	-	384	384	-	581	581	-
Stage 2	-	-	-	-	-	-	580	582	-	384	392	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1016	-	-	1170	-	-	235	255	667	234	252	533
Stage 1	-	-	-	-	-	-	639	611	-	499	500	-
Stage 2	-	-	-	-	-	-	500	499	-	639	606	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1007	-	-	1167	-	-	223	247	665	226	244	528
Mov Cap-2 Maneuver	-	-	-	-	-	-	223	247	-	226	244	-
Stage 1	-	-	-	-	-	-	635	607	-	493	487	-
Stage 2	-	-	-	-	-	-	476	486	-	631	602	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0.2			17.8			16.1		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	295	1007	-	-	1167	-	-	347				
HCM Lane V/C Ratio	0.05	0.002	-	-	0.012	-	-	0.067				
HCM Control Delay (s/veh)	17.8	8.6	0	-	8.1	0	-	16.1				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.2				

HCM Signalized Intersection Capacity Analysis

27: Netherton Avenue & Main Street

Existing Build Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	333	4	29	466	3	11	7	52	19	18	61
Future Volume (vph)	4	333	4	29	466	3	11	7	52	19	18	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Frt	1.00	0.99		1.00	0.99			0.90			0.91	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	1859		1770	1861			1642			1667	
Flt Permitted	0.95	1.00		0.95	1.00			0.92			0.91	
Satd. Flow (perm)	1770	1859		1770	1861			1531			1536	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	4	366	4	32	512	3	12	8	57	21	20	67
RTOR Reduction (vph)	0	0	0	0	0	0	0	48	0	0	57	0
Lane Group Flow (vph)	4	370	0	32	515	0	0	29	0	0	51	0
Confl. Peds. (#/hr)			2			10	1		11	11		1
Confl. Bikes (#/hr)						2						
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		
Actuated Green, G (s)	0.5	20.7		2.0	22.2			6.8			6.8	
Effective Green, g (s)	0.5	20.7		2.0	22.2			6.8			6.8	
Actuated g/C Ratio	0.01	0.47		0.04	0.50			0.15			0.15	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0			2.0			2.0	
Lane Grp Cap (vph)	19	864		79	928			233			234	
v/s Ratio Prot	0.00	0.20		c0.02	c0.28							
v/s Ratio Perm								0.02			c0.03	
v/c Ratio	0.21	0.42		0.40	0.55			0.12			0.21	
Uniform Delay, d1	21.8	7.9		20.6	7.7			16.2			16.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	2.0	0.9		1.2	1.5			0.0			0.1	
Delay (s)	23.8	8.9		21.9	9.2			16.3			16.6	
Level of Service	C	A		C	A			B			B	
Approach Delay (s/veh)		9.0			10.0			16.3			16.6	
Approach LOS		A			B			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			10.8			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.50									
Actuated Cycle Length (s)			44.5			Sum of lost time (s)			15.0			
Intersection Capacity Utilization			44.2%			ICU Level of Service			A			
Analysis Period (min)			15									

c Critical Lane Group

HCM 6th TWSC
28: Broadway Avenue & Main Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	105	288	5	12	432	51	3	3	6	24	5	49
Future Vol, veh/h	105	288	5	12	432	51	3	3	6	24	5	49
Conflicting Peds, #/hr	13	0	4	4	0	13	0	0	13	13	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	119	327	6	14	491	58	3	3	7	27	6	56

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	562	0	0	337	0	0	1151	1162	347	1118	1107	504
Stage 1	-	-	-	-	-	-	572	572	-	532	532	-
Stage 2	-	-	-	-	-	-	579	590	-	586	575	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1009	-	-	1222	-	-	175	195	696	184	210	568
Stage 1	-	-	-	-	-	-	505	504	-	531	526	-
Stage 2	-	-	-	-	-	-	501	495	-	496	503	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	997	-	-	1217	-	-	138	167	685	158	180	561
Mov Cap-2 Maneuver	-	-	-	-	-	-	138	167	-	158	180	-
Stage 1	-	-	-	-	-	-	443	442	-	462	513	-
Stage 2	-	-	-	-	-	-	441	483	-	424	441	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	2.4			0.2			20.4			22.6		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	248	997	-	-	1217	-	-	292
HCM Lane V/C Ratio	0.055	0.12	-	-	0.011	-	-	0.304
HCM Control Delay (s/veh)	20.4	9.1	-	-	8	-	-	22.6
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q (veh)	0.2	0.4	-	-	0	-	-	1.2

HCM Signalized Intersection Capacity Analysis

29: S Center Street & Market Street

Existing Build Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										  		
Traffic Volume (vph)	0	55	44	0	0	0	0	0	0	166	1169	0
Future Volume (vph)	0	55	44	0	0	0	0	0	0	166	1169	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		1.00									0.91	
Frpb, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.99	
Frt		0.94									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		1741									5048	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		1741									5048	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	62	49	0	0	0	0	0	0	187	1313	0
RTOR Reduction (vph)	0	34	0	0	0	0	0	0	0	0	22	0
Lane Group Flow (vph)	0	77	0	0	0	0	0	0	0	0	1478	0
Confl. Peds. (#/hr)			2							6		
Turn Type		NA								Perm	NA	
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		23.0									52.0	
Effective Green, g (s)		23.0									52.0	
Actuated g/C Ratio		0.27									0.61	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		471									3088	
v/s Ratio Prot		0.04										
v/s Ratio Perm											0.29	
v/c Ratio		0.16									0.47	
Uniform Delay, d1		23.6									9.0	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.7									0.5	
Delay (s)		24.4									9.5	
Level of Service		C									A	
Approach Delay (s/veh)		24.4			0.0			0.0			9.5	
Approach LOS		C			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			10.6									
HCM 2000 Volume to Capacity ratio			0.38									
Actuated Cycle Length (s)			85.0							10.0		
Intersection Capacity Utilization			53.5%								A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis30: S El Dorado Street & Market Street

Existing Build Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  				
Traffic Volume (vph)	96	107	0	0	0	0	0	1598	100	0	0	0
Future Volume (vph)	96	107	0	0	0	0	0	1598	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0				
Lane Util. Factor		1.00						0.91				
Frpb, ped/bikes		1.00						0.99				
Flpb, ped/bikes		0.99						1.00				
Frt		1.00						0.99				
Flt Protected		0.97						1.00				
Satd. Flow (prot)		1811						5028				
Flt Permitted		0.97						1.00				
Satd. Flow (perm)		1811						5028				
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	112	124	0	0	0	0	0	1858	116	0	0	0
RTOR Reduction (vph)	0	19	0	0	0	0	0	8	0	0	0	0
Lane Group Flow (vph)	0	217	0	0	0	0	0	1966	0	0	0	0
Confl. Peds. (#/hr)	9								11			
Turn Type	Perm	NA						NA				
Protected Phases		2						1				
Permitted Phases	2											
Actuated Green, G (s)		22.0						53.0				
Effective Green, g (s)		22.0						53.0				
Actuated g/C Ratio		0.26						0.62				
Clearance Time (s)		5.0						5.0				
Vehicle Extension (s)		0.2						0.2				
Lane Grp Cap (vph)		468						3135				
v/s Ratio Prot								c0.39				
v/s Ratio Perm		0.12										
v/c Ratio		0.46						0.62				
Uniform Delay, d1		26.5						9.8				
Progression Factor		0.96						1.00				
Incremental Delay, d2		3.0						0.9				
Delay (s)		28.7						10.8				
Level of Service		C						B				
Approach Delay (s/veh)		28.7			0.0			10.8			0.0	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		12.8						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.58										
Actuated Cycle Length (s)		85.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		52.4%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th AWSC
31: S Hunter Street & Market Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Intersection Delay, s/veh	9.2											
Intersection LOS	A											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	133	66	0	0	0	0	0	29	62	84	0
Future Vol, veh/h	0	133	66	0	0	0	0	0	29	62	84	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	182	90	0	0	0	0	0	40	85	115	0
Number of Lanes	0	1	0	0	0	0	0	0	1	1	1	0
Approach	EB								NB		SB	
Opposing Approach									SB		NB	
Opposing Lanes	0								2		1	
Conflicting Approach Left	SB								EB			
Conflicting Lanes Left	2								1		0	
Conflicting Approach Right	NB										EB	
Conflicting Lanes Right	1								0		1	
HCM Control Delay, s/veh	9.5								7.6		9.1	
HCM LOS	A								A		A	
Lane	NBLn1	EBLn1	SBLn1	SBLn2								
Vol Left, %	0%	0%	100%	0%								
Vol Thru, %	0%	67%	0%	100%								
Vol Right, %	100%	33%	0%	0%								
Sign Control	Stop	Stop	Stop	Stop								
Traffic Vol by Lane	29	199	62	84								
LT Vol	0	0	62	0								
Through Vol	0	133	0	84								
RT Vol	29	66	0	0								
Lane Flow Rate	40	273	85	115								
Geometry Grp	4a	2	5	5								
Degree of Util (X)	0.048	0.328	0.134	0.166								
Departure Headway (Hd)	4.309	4.336	5.691	5.187								
Convergence, Y/N	Yes	Yes	Yes	Yes								
Cap	828	831	630	692								
Service Time	2.349	2.354	3.426	2.922								
HCM Lane V/C Ratio	0.048	0.329	0.135	0.166								
HCM Control Delay, s/veh	7.6	9.5	9.3	9								
HCM Lane LOS	A	A	A	A								
HCM 95th-tile Q	0.2	1.4	0.5	0.6								

HCM Signalized Intersection Capacity Analysis

32: S San Joaquin Street & Market Street

Existing Build Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	114	36	0	0	0	0	170	39	25	99	0
Future Volume (vph)	66	114	36	0	0	0	0	170	39	25	99	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						0.95			0.95	
Frpb, ped/bikes		0.98						0.95			1.00	
Flpb, ped/bikes		0.99						1.00			0.97	
Frt		0.97						0.97			1.00	
Flt Protected		0.98						1.00			0.99	
Satd. Flow (prot)		1763						3291			3399	
Flt Permitted		0.98						1.00			0.87	
Satd. Flow (perm)		1763						3291			3004	
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	82	142	45	0	0	0	0	212	49	31	124	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	24	0	0	0	0
Lane Group Flow (vph)	0	260	0	0	0	0	0	238	0	0	155	0
Confl. Peds. (#/hr)	23		61						111	111		
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						1			1	
Permitted Phases	2									1		
Actuated Green, G (s)		24.0						36.0			36.0	
Effective Green, g (s)		24.0						36.0			36.0	
Actuated g/C Ratio		0.34						0.51			0.51	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		604						1692			1544	
v/s Ratio Prot								c0.07				
v/s Ratio Perm		0.15									0.05	
v/c Ratio		0.43						0.14			0.10	
Uniform Delay, d1		17.7						8.9			8.7	
Progression Factor		1.00						1.00			0.42	
Incremental Delay, d2		2.2						0.1			0.1	
Delay (s)		19.9						9.0			3.8	
Level of Service		B						A			A	
Approach Delay (s/veh)		19.9			0.0			9.0			3.8	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		12.2										
HCM 2000 Volume to Capacity ratio		0.26										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		49.3%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

33: S Sutter Street & Market Street

Existing Build Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	81	80	0	0	0	0	102	16	4	95	0
Future Volume (vph)	22	81	80	0	0	0	0	102	16	4	95	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0		5.0	
Lane Util. Factor		1.00						1.00	1.00		0.95	
Frpb, ped/bikes		0.92						1.00	0.82		1.00	
Flpb, ped/bikes		0.99						1.00	1.00		0.99	
Frt		0.94						1.00	0.85		1.00	
Flt Protected		0.99						1.00	1.00		0.99	
Satd. Flow (prot)		1597						1863	1312		3516	
Flt Permitted		0.99						1.00	1.00		0.94	
Satd. Flow (perm)		1597						1863	1312		3340	
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	29	108	107	0	0	0	0	136	21	5	127	0
RTOR Reduction (vph)	0	40	0	0	0	0	0	0	12	0	0	0
Lane Group Flow (vph)	0	204	0	0	0	0	0	136	9	0	132	0
Confl. Peds. (#/hr)	24		154						70	70		
Confl. Bikes (#/hr)			1						2			
Turn Type	Perm	NA						NA	Perm	Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)		30.0						30.0	30.0		30.0	
Effective Green, g (s)		30.0						30.0	30.0		30.0	
Actuated g/C Ratio		0.43						0.43	0.43		0.43	
Clearance Time (s)		5.0						5.0	5.0		5.0	
Vehicle Extension (s)		0.2						0.2	0.2		0.2	
Lane Grp Cap (vph)		684						798	562		1431	
v/s Ratio Prot								c0.07				
v/s Ratio Perm		0.13							0.01		0.04	
v/c Ratio		0.29						0.17	0.01		0.09	
Uniform Delay, d1		13.1						12.3	11.5		11.8	
Progression Factor		1.66						1.00	1.00		0.27	
Incremental Delay, d2		1.0						0.4	0.0		0.1	
Delay (s)		22.8						12.7	11.5		3.4	
Level of Service		C						B	B		A	
Approach Delay (s/veh)		22.8			0.0			12.6			3.4	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		15.0										
HCM 2000 Volume to Capacity ratio		0.23										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		45.0%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary34: California Street & Market Street

Existing Build Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	70	14	0	0	0	0	268	74	34	214	0
Future Volume (veh/h)	16	70	14	0	0	0	0	268	74	34	214	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	21	92	18				0	353	97	45	282	0
Peak Hour Factor	0.76	0.76	0.76				0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	79	344	67				0	826	227	153	908	0
Arrive On Green	0.27	0.27	0.27				0.00	0.59	0.59	1.00	1.00	0.00
Sat Flow, veh/h	290	1269	248				0	1411	388	161	1551	0
Grp Volume(v), veh/h	131	0	0				0	0	450	327	0	0
Grp Sat Flow(s), veh/h/ln	1806	0	0				0	0	1798	1711	0	0
Q Serve(g_s), s	4.0	0.0	0.0				0.0	0.0	9.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.0	0.0	0.0				0.0	0.0	9.7	0.0	0.0	0.0
Prop In Lane	0.16		0.14				0.00		0.22	0.14		0.00
Lane Grp Cap(c), veh/h	490	0	0				0	0	1053	1061	0	0
V/C Ratio(X)	0.27	0.00	0.00				0.00	0.00	0.43	0.31	0.00	0.00
Avail Cap(c_a), veh/h	490	0	0				0	0	1053	1061	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.96	0.00	0.00				0.00	0.00	1.00	0.85	0.00	0.00
Uniform Delay (d), s/veh	20.0	0.0	0.0				0.0	0.0	8.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.0				0.0	0.0	1.3	0.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0				0.0	0.0	3.5	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.3	0.0	0.0				0.0	0.0	9.3	0.6	0.0	0.0
LnGrp LOS	C								A	A		
Approach Vol, veh/h		131						450			327	
Approach Delay, s/veh		21.3						9.3			0.6	
Approach LOS		C						A			A	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		46.0		24.0		46.0						
Change Period (Y+Rc), s		5.0		5.0		5.0						
Max Green Setting (Gmax), s		41.0		19.0		41.0						
Max Q Clear Time (g_c+I1), s		11.7		6.0		2.0						
Green Ext Time (p_c), s		0.5		0.1		0.4						
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			7.9									
HCM 6th LOS			A									

HCM Signalized Intersection Capacity Analysis

35: S American Street & Market Street

Existing Build Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	141	0	0	0	0	0	0	0	108	0	0
Future Volume (vph)	30	141	0	0	0	0	0	0	0	108	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		1.00									1.00	
Frpb, ped/bikes		1.00									1.00	
Flpb, ped/bikes		0.99									0.99	
Frt		1.00									1.00	
Flt Protected		0.99									0.95	
Satd. Flow (prot)		1840									1762	
Flt Permitted		0.99									0.75	
Satd. Flow (perm)		1840									1404	
Peak-hour factor, PHF	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Adj. Flow (vph)	56	261	0	0	0	0	0	0	0	200	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	317	0	0	0	0	0	0	0	0	200	0
Confl. Peds. (#/hr)	10		2							2	2	
Confl. Bikes (#/hr)			1									
Turn Type	Perm	NA								Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		40.0									20.0	
Effective Green, g (s)		40.0									20.0	
Actuated g/C Ratio		0.57									0.29	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		1051									401	
v/s Ratio Prot												
v/s Ratio Perm		0.17									c0.14	
v/c Ratio		0.30									0.49	
Uniform Delay, d1		7.7									20.8	
Progression Factor		1.03									0.71	
Incremental Delay, d2		0.7									3.1	
Delay (s)		8.7									18.0	
Level of Service		A									B	
Approach Delay (s/veh)		8.7			0.0			0.0			18.0	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		12.3										
HCM 2000 Volume to Capacity ratio		0.37										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		36.7%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis36: S Stanislaus Street & Market Street

Existing Build Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	94	108	0	0	0	0	512	52	9	215	0
Future Volume (vph)	51	94	108	0	0	0	0	512	52	9	215	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						0.95			0.95	
Frpb, ped/bikes		0.99						0.99			1.00	
Flpb, ped/bikes		0.99						1.00			0.99	
Frt		0.94						0.98			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		1720						3483			3532	
Flt Permitted		0.99						1.00			0.92	
Satd. Flow (perm)		1720						3483			3256	
Peak-hour factor, PHF	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	71	131	150	0	0	0	0	711	72	12	299	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	11	0	0	0	0
Lane Group Flow (vph)	0	352	0	0	0	0	0	772	0	0	312	0
Confl. Peds. (#/hr)	13		4						2	2		
Confl. Bikes (#/hr)			1									
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		25.0						35.0			35.0	
Effective Green, g (s)		25.0						35.0			35.0	
Actuated g/C Ratio		0.36						0.50			0.50	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		614						1741			1628	
v/s Ratio Prot								c0.22				
v/s Ratio Perm		0.20									0.10	
v/c Ratio		0.57						0.44			0.19	
Uniform Delay, d1		18.1						11.2			9.6	
Progression Factor		0.85						1.00			0.69	
Incremental Delay, d2		3.6						0.8			0.2	
Delay (s)		19.1						12.0			7.0	
Level of Service		B						B			A	
Approach Delay (s/veh)		19.1			0.0			12.0			7.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		12.7						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.50										
Actuated Cycle Length (s)		70.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		39.2%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th TWSC
37: S Grant Street & Market Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	52	102	0	0	0	0	0	8	0	9	5	0
Future Vol, veh/h	52	102	0	0	0	0	0	8	0	9	5	0
Conflicting Peds, #/hr	10	0	0	0	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	146	0	0	0	0	0	11	0	13	7	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	10	0	0	-	304	150	314	304	-
Stage 1	-	-	-	-	294	-	10	10	-
Stage 2	-	-	-	-	10	-	304	294	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1610	-	-	0	609	896	639	609	0
Stage 1	-	-	-	0	670	-	-	-	0
Stage 2	-	-	-	0	-	-	705	670	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1595	-	-	-	573	896	599	573	-
Mov Cap-2 Maneuver	-	-	-	-	573	-	599	573	-
Stage 1	-	-	-	-	637	-	-	-	-
Stage 2	-	-	-	-	-	-	658	637	-

Approach	EB	NB	SB
HCM Control Delay, s/v	2.5	11.4	11.3
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	573	1595	-	-	589
HCM Lane V/C Ratio	0.02	0.047	-	-	0.034
HCM Control Delay (s/veh)	11.4	7.4	0	-	11.3
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0.1	-	-	0.1

HCM 6th TWSC
38: S Aurora Street & Market Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	9	88	15	0	0	0	0	102	9	4	36	0
Future Vol, veh/h	9	88	15	0	0	0	0	102	9	4	36	0
Conflicting Peds, #/hr	2	0	1	0	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	113	19	0	0	0	0	131	12	5	46	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	2	0	0	-	150	126	222	159	-
Stage 1	-	-	-	-	148	-	2	2	-
Stage 2	-	-	-	-	2	-	220	157	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1620	-	-	0	742	924	734	733	0
Stage 1	-	-	-	0	775	-	-	-	0
Stage 2	-	-	-	0	-	-	782	768	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1617	-	-	-	734	923	621	725	-
Mov Cap-2 Maneuver	-	-	-	-	734	-	621	725	-
Stage 1	-	-	-	-	768	-	-	-	-
Stage 2	-	-	-	-	-	-	636	761	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.6	11	10.4
HCM LOS	B	B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	746	1617	-	-	713
HCM Lane V/C Ratio	0.191	0.007	-	-	0.072
HCM Control Delay (s/veh)	11	7.2	0	-	10.4
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.7	0	-	-	0.2

HCM 6th TWSC
39: Union Street & Market Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	6.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	8	80	5	0	0	0	0	90	8	15	39	0
Future Vol, veh/h	8	80	5	0	0	0	0	90	8	15	39	0
Conflicting Peds, #/hr	1	0	1	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	88	5	0	0	0	0	99	9	16	43	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	1	0	0	-	111	93	165	113	-
Stage 1	-	-	-	-	110	-	1	1	-
Stage 2	-	-	-	-	1	-	164	112	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1622	-	-	0	779	964	800	777	0
Stage 1	-	-	-	0	804	-	-	-	0
Stage 2	-	-	-	0	-	-	838	803	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1620	-	-	-	773	963	711	771	-
Mov Cap-2 Maneuver	-	-	-	-	773	-	711	771	-
Stage 1	-	-	-	-	798	-	-	-	-
Stage 2	-	-	-	-	-	-	723	797	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.6	10.3	10.2
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	786	1620	-	-	753
HCM Lane V/C Ratio	0.137	0.005	-	-	0.079
HCM Control Delay (s/veh)	10.3	7.2	0	-	10.2
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.5	0	-	-	0.3

HCM 6th TWSC
40: Pilgrim Street & Market Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	6	100	2	0	0	0	0	8	9	13	4	0
Future Vol, veh/h	6	100	2	0	0	0	0	8	9	13	4	0
Conflicting Peds, #/hr	3	0	1	0	0	0	0	0	9	9	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	149	3	0	0	0	0	12	13	19	6	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	3	0	0	-	173	161	193	174	-
Stage 1	-	-	-	-	170	-	3	3	-
Stage 2	-	-	-	-	3	-	190	171	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1619	-	-	0	720	884	767	719	0
Stage 1	-	-	-	0	758	-	-	-	0
Stage 2	-	-	-	0	-	-	812	757	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1614	-	-	-	713	883	740	712	-
Mov Cap-2 Maneuver	-	-	-	-	713	-	740	712	-
Stage 1	-	-	-	-	753	-	-	-	-
Stage 2	-	-	-	-	-	-	782	752	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.4	9.7	10.1
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	794	1614	-	-	733
HCM Lane V/C Ratio	0.032	0.006	-	-	0.035
HCM Control Delay (s/veh)	9.7	7.2	0	-	10.1
HCM Lane LOS	A	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1

HCM 6th Signalized Intersection Summary

41: Airport Way & Market Street

Existing Build Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	76	19	0	0	0	0	815	39	77	591	0
Future Volume (veh/h)	26	76	19	0	0	0	0	815	39	77	591	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	29	84	21				0	906	43	86	657	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	42	120	30				0	2699	128	270	2003	0
Arrive On Green	0.11	0.11	0.11				0.00	0.78	0.78	1.00	1.00	0.00
Sat Flow, veh/h	387	1121	280				0	3547	164	281	2648	0
Grp Volume(v), veh/h	134	0	0				0	466	483	329	414	0
Grp Sat Flow(s), veh/h/ln	1788	0	0				0	1777	1840	1227	1617	0
Q Serve(g_s), s	6.5	0.0	0.0				0.0	7.0	7.0	0.7	0.0	0.0
Cycle Q Clear(g_c), s	6.5	0.0	0.0				0.0	7.0	7.0	7.7	0.0	0.0
Prop In Lane	0.22		0.16				0.00		0.09	0.26		0.00
Lane Grp Cap(c), veh/h	192	0	0				0	1389	1439	1009	1264	0
V/C Ratio(X)	0.70	0.00	0.00				0.00	0.34	0.34	0.33	0.33	0.00
Avail Cap(c_a), veh/h	437	0	0				0	1389	1439	1009	1264	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.96	0.96	0.00
Uniform Delay (d), s/veh	38.8	0.0	0.0				0.0	2.9	2.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.7	0.0	0.0				0.0	0.7	0.6	0.8	0.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0				0.0	1.7	1.8	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.5	0.0	0.0				0.0	3.6	3.5	0.8	0.7	0.0
LnGrp LOS	D							A	A	A	A	
Approach Vol, veh/h		134						949			743	
Approach Delay, s/veh		40.5						3.6			0.7	
Approach LOS		D						A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		75.3				75.3		14.7				
Change Period (Y+Rc), s		5.0				5.0		5.0				
Max Green Setting (Gmax), s		58.0				58.0		22.0				
Max Q Clear Time (g_c+I1), s		9.7				9.0		8.5				
Green Ext Time (p_c), s		1.0				0.9		0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			5.1									
HCM 6th LOS			A									

HCM 6th TWSC
42: Sierra Nevada Street & Market Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	14	178	2	0	0	0	0	15	15	24	7	0
Future Vol, veh/h	14	178	2	0	0	0	0	15	15	24	7	0
Conflicting Peds, #/hr	2	0	2	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	200	2	0	0	0	0	17	17	27	8	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	2	0	0	-	237	203	252	238	-
Stage 1	-	-	-	-	235	-	2	2	-
Stage 2	-	-	-	-	2	-	250	236	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1620	-	-	0	664	838	701	663	0
Stage 1	-	-	-	0	710	-	-	-	0
Stage 2	-	-	-	0	-	-	754	710	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1617	-	-	-	654	836	667	653	-
Mov Cap-2 Maneuver	-	-	-	-	654	-	667	653	-
Stage 1	-	-	-	-	701	-	-	-	-
Stage 2	-	-	-	-	-	-	713	701	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.5	10.1	10.7
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	734	1617	-	-	664
HCM Lane V/C Ratio	0.046	0.01	-	-	0.052
HCM Control Delay (s/veh)	10.1	7.2	0	-	10.7
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0.2

HCM 6th Signalized Intersection Summary43: S Wilson Way & Market Street

Existing Build Conditions

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	140	50	0	0	0	0	686	63	118	623	0
Future Volume (veh/h)	15	140	50	0	0	0	0	686	63	118	623	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	16	149	53				0	730	67	126	663	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	20	183	65				0	1958	180	157	2624	0
Arrive On Green	0.05	0.05	0.05				0.00	0.59	0.59	0.12	0.98	0.00
Sat Flow, veh/h	131	1219	434				0	3384	302	1781	3647	0
Grp Volume(v), veh/h	218	0	0				0	394	403	126	663	0
Grp Sat Flow(s),veh/h/ln	1784	0	0				0	1777	1815	1781	1777	0
Q Serve(g_s), s	10.9	0.0	0.0				0.0	10.4	10.4	6.2	0.4	0.0
Cycle Q Clear(g_c), s	10.9	0.0	0.0				0.0	10.4	10.4	6.2	0.4	0.0
Prop In Lane	0.07		0.24				0.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	268	0	0				0	1057	1080	157	2624	0
V/C Ratio(X)	0.81	0.00	0.00				0.00	0.37	0.37	0.80	0.25	0.00
Avail Cap(c_a), veh/h	416	0	0				0	1057	1080	257	2624	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	41.5	0.0	0.0				0.0	9.5	9.5	39.0	0.2	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.0				0.0	1.0	1.0	3.5	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.0	0.0				0.0	4.1	4.2	2.8	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.0	0.0	0.0				0.0	10.5	10.5	42.5	0.4	0.0
LnGrp LOS	D							B	B	D	A	
Approach Vol, veh/h		218						797			789	
Approach Delay, s/veh		45.0						10.5			7.2	
Approach LOS		D						B			A	
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	12.9	58.5				71.5		18.5				
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0				
Max Green Setting (Gmax), s	13.0	41.0				59.0		21.0				
Max Q Clear Time (g_c+I1), s	8.2	12.4				2.4		12.9				
Green Ext Time (p_c), s	0.1	13.6				15.0		0.5				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			13.2									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
44: S Eugenia Street & Market Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	304	16	0	0	0	37
Future Vol, veh/h	304	16	0	0	0	37
Conflicting Peds, #/hr	0	2	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	330	17	0	0	0	40
Major/Minor	Major1		Minor1			
Conflicting Flow All	0	0			-	342
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Critical Hdwy	-	-			-	6.22
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	-			-	3.318
Pot Cap-1 Maneuver	-	-			0	701
Stage 1	-	-			0	-
Stage 2	-	-			0	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-			-	700
Mov Cap-2 Maneuver	-	-			-	-
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Approach	EB		NB			
HCM Control Delay, s/v	0				10.5	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR			
Capacity (veh/h)	700	-	-			
HCM Lane V/C Ratio	0.057	-	-			
HCM Control Delay (s/veh)	10.5	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q (veh)	0.2	-	-			

HCM 6th TWSC
45: Della Street & Market Street

Existing Build Conditions
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	54	256	12	0	0	0	0	3	2	5	54	0
Future Vol, veh/h	54	256	12	0	0	0	0	3	2	5	54	0
Conflicting Peds, #/hr	0	0	4	0	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	288	13	0	0	0	0	3	2	6	61	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	421	301	421	427	-
Stage 1	-	-	-	-	421	-	0	0	-
Stage 2	-	-	-	-	0	-	421	427	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	-	-	-	0	524	739	543	520	0
Stage 1	-	-	-	0	589	-	-	-	0
Stage 2	-	-	-	0	-	-	610	585	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	522	736	539	518	-
Mov Cap-2 Maneuver	-	-	-	-	522	-	539	518	-
Stage 1	-	-	-	-	587	-	-	-	-
Stage 2	-	-	-	-	-	-	605	583	-

Approach	EB	NB	SB
HCM Control Delay, s/v		11.2	12.9
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	591	-	-	-	520
HCM Lane V/C Ratio	0.01	-	-	-	0.127
HCM Control Delay (s/veh)	11.2	-	-	-	12.9
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q (veh)	0	-	-	-	0.4

HCM Signalized Intersection Capacity Analysis

Existing Build Conditions

2: S San Joaquin Street/N San Joaquin Street & Main Street

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Volume (vph)	0	0	0	23	13	38	7	121	0	0	128	18
Future Volume (vph)	0	0	0	23	13	38	7	121	0	0	128	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			0.95			0.95	
Frpb, ped/bikes					0.97			1.00			0.99	
Flpb, ped/bikes					0.98			0.99			1.00	
Frt					0.93			1.00			0.98	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					1641			3524			3451	
Flt Permitted					0.98			0.94			1.00	
Satd. Flow (perm)					1641			3329			3451	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	0	0	26	15	43	8	138	0	0	145	20
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	84	0	0	146	0	0	165	0
Confl. Peds. (#/hr)				16		10	28					28
Confl. Bikes (#/hr)						1						1
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					6.5			27.5			27.5	
Effective Green, g (s)					6.5			27.5			27.5	
Actuated g/C Ratio					0.09			0.39			0.39	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					152			1307			1355	
v/s Ratio Prot											c0.05	
v/s Ratio Perm					0.05			0.04				
v/c Ratio					0.55			0.11			0.12	
Uniform Delay, d1					30.3			13.4			13.5	
Progression Factor					0.94			0.72			1.00	
Incremental Delay, d2					2.4			0.1			0.1	
Delay (s)					31.2			10.0			13.7	
Level of Service					C			B			B	
Approach Delay (s/veh)		0.0			31.2			10.0			13.7	
Approach LOS		A			C			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			16.1									
HCM 2000 Volume to Capacity ratio			0.12									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			21.7%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 3: S Sutter Street/N Sutter Street & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	23	28	12	13	134	0	0	85	23
Future Volume (vph)	0	0	0	23	28	12	13	134	0	0	85	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			1.00			0.95	
Frpb, ped/bikes					0.99			1.00			0.97	
Flpb, ped/bikes					0.98			0.99			1.00	
Frt					0.97			1.00			0.96	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					1743			1842			3344	
Flt Permitted					0.98			0.97			1.00	
Satd. Flow (perm)					1743			1795			3344	
Peak-hour factor, PHF	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	0	0	0	29	35	15	16	170	0	0	108	29
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	79	0	0	186	0	0	137	0
Confl. Peds. (#/hr)				24		14	52					52
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					2			4			4	
Permitted Phases				2			4					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					373			487			907	
v/s Ratio Prot											0.04	
v/s Ratio Perm					0.05			0.10				
v/c Ratio					0.21			0.38			0.15	
Uniform Delay, d1					22.6			20.7			19.3	
Progression Factor					0.66			0.68			1.00	
Incremental Delay, d2					1.2			2.2			0.3	
Delay (s)					16.2			16.3			19.7	
Level of Service					B			B			B	
Approach Delay (s/veh)		0.0			16.2			16.3			19.7	
Approach LOS		A			B			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.5									
HCM 2000 Volume to Capacity ratio			0.18									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			26.5%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

Existing Build Conditions

4: California Street & Main Street

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	27	42	24	9	216	0	0	249	8
Future Volume (vph)	0	0	0	27	42	24	9	216	0	0	249	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.98			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.96			1.00			0.99	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					1750			1858			1853	
Flt Permitted					0.98			0.98			1.00	
Satd. Flow (perm)					1750			1830			1853	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	0	0	0	31	48	28	10	248	0	0	286	9
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	107	0	0	258	0	0	295	0
Confl. Peds. (#/hr)				2		9	9					9
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					375			496			502	
v/s Ratio Prot											c0.16	
v/s Ratio Perm					0.06			0.14				
v/c Ratio					0.28			0.52			0.58	
Uniform Delay, d1					23.0			21.6			22.1	
Progression Factor					1.68			0.81			1.00	
Incremental Delay, d2					1.7			3.8			4.9	
Delay (s)					40.6			21.4			27.0	
Level of Service					D			C			C	
Approach Delay (s/veh)		0.0			40.6			21.4			27.0	
Approach LOS		A			D			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			27.1									
HCM 2000 Volume to Capacity ratio			0.27									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			32.4%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: S American Street/N American Street & Main Street

Existing Build Conditions

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	22	73	19	3	24	0	0	12	15
Future Volume (vph)	0	0	0	22	73	19	3	24	0	0	12	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	5.0
Lane Util. Factor					1.00			1.00			1.00	1.00
Frpb, ped/bikes					0.99			1.00			1.00	0.97
Flpb, ped/bikes					0.99			0.99			1.00	1.00
Frt					0.97			1.00			1.00	0.85
Flt Protected					0.99			0.99			1.00	1.00
Satd. Flow (prot)					1777			1850			1863	1547
Flt Permitted					0.99			0.98			1.00	1.00
Satd. Flow (perm)					1777			1829			1863	1547
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	26	86	22	4	28	0	0	14	18
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	134	0	0	32	0	0	14	18
Confl. Peds. (#/hr)				15		5	2					2
Turn Type				Perm	NA		Perm	NA			NA	Perm
Protected Phases					2			4			4	
Permitted Phases				2			4					4
Actuated Green, G (s)					11.0			23.0			23.0	23.0
Effective Green, g (s)					11.0			23.0			23.0	23.0
Actuated g/C Ratio					0.16			0.33			0.33	0.33
Clearance Time (s)					5.0			5.0			5.0	5.0
Vehicle Extension (s)					0.2			0.2			0.2	0.2
Lane Grp Cap (vph)					279			600			612	508
v/s Ratio Prot											0.01	
v/s Ratio Perm					0.08			c0.02				0.01
v/c Ratio					0.48			0.05			0.02	0.03
Uniform Delay, d1					26.8			16.0			15.8	15.9
Progression Factor					0.88			0.82			1.00	1.00
Incremental Delay, d2					5.7			0.1			0.0	0.1
Delay (s)					29.6			13.4			15.9	16.0
Level of Service					C			B			B	B
Approach Delay (s/veh)		0.0			29.6			13.4			16.0	
Approach LOS		A			C			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			24.9									
HCM 2000 Volume to Capacity ratio			0.11									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			25.5%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

6: S Stanislaus Street/N Stanislaus Street & Main Street

Existing Build Conditions

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	66	53	12	39	249	0	0	295	8
Future Volume (vph)	0	0	0	66	53	12	39	249	0	0	295	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			0.95			0.95	
Frpb, ped/bikes					1.00			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.98			1.00			0.99	
Flt Protected					0.97			0.99			1.00	
Satd. Flow (prot)					1790			3512			3522	
Flt Permitted					0.97			0.87			1.00	
Satd. Flow (perm)					1790			3103			3522	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	72	58	13	42	271	0	0	321	9
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	0	143	0	0	313	0	0	327	0
Confl. Peds. (#/hr)				4			5					5
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					1			2			2	
Permitted Phases				1			2					
Actuated Green, G (s)					25.0			35.0			35.0	
Effective Green, g (s)					25.0			35.0			35.0	
Actuated g/C Ratio					0.36			0.50			0.50	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					639			1551			1761	
v/s Ratio Prot											0.09	
v/s Ratio Perm					0.08			c0.10				
v/c Ratio					0.22			0.20			0.18	
Uniform Delay, d1					15.7			9.7			9.6	
Progression Factor					1.00			0.79			1.00	
Incremental Delay, d2					0.8			0.2			0.2	
Delay (s)					16.5			7.9			9.8	
Level of Service					B			A			A	
Approach Delay (s/veh)		0.0			16.5			7.9			9.8	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			10.3									B
HCM 2000 Volume to Capacity ratio			0.21									
Actuated Cycle Length (s)			70.0								10.0	
Intersection Capacity Utilization			41.0%								A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC

Existing Build Conditions

7: S Grant Street/N Grant Street & Main Street

Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	7	109	11	10	21	0	0	31	25
Future Vol, veh/h	0	0	0	7	109	11	10	21	0	0	31	25
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	10	156	16	14	30	0	0	44	36
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				1	0	0	225	194	-	-	186	165
Stage 1				-	-	-	1	1	-	-	185	-
Stage 2				-	-	-	224	193	-	-	1	-
Critical Hdwy				4.12	-	-	7.12	6.52	-	-	6.52	6.22
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.52	-
Critical Hdwy Stg 2				-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy				2.218	-	-	3.518	4.018	-	-	4.018	3.318
Pot Cap-1 Maneuver				1622	-	-	730	701	0	0	708	879
Stage 1				-	-	-	-	-	0	0	747	-
Stage 2				-	-	-	779	741	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1620	-	-	662	695	-	-	702	878
Mov Cap-2 Maneuver				-	-	-	662	695	-	-	702	-
Stage 1				-	-	-	-	-	-	-	741	-
Stage 2				-	-	-	698	735	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.4		10.6		10.2				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	684	1620	-	-	771							
HCM Lane V/C Ratio	0.065	0.006	-	-	0.104							
HCM Control Delay (s/veh)	10.6	7.2	0	-	10.2							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.2	0	-	-	0.3							

HCM 6th TWSC
8: S Aurora Street/N Aurora Street & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	7.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	15	60	1	12	96	0	0	38	5
Future Vol, veh/h	0	0	0	15	60	1	12	96	0	0	38	5
Conflicting Peds, #/hr	0	0	0	8	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	18	72	1	14	116	0	0	46	6

Major/Minor	Major2	Minor1	Minor2
Conflicting Flow All	8	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1612	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1600	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	1.4	10.7	10
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	757	1600	-	-	777
HCM Lane V/C Ratio	0.172	0.011	-	-	0.067
HCM Control Delay (s/veh)	10.7	7.3	0	-	10
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.6	0	-	-	0.2

HCM 6th AWSC
9: Union Street & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Intersection Delay, s/veh	7.9											
Intersection LOS	A											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	13	63	15	13	108	0	0	76	7
Future Vol, veh/h	0	0	0	13	63	15	13	108	0	0	76	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	14	66	16	14	114	0	0	80	7
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0
Approach				WB			NB			SB		
Opposing Approach							SB			NB		
Opposing Lanes				0			1			1		
Conflicting Approach Left				NB						WB		
Conflicting Lanes Left				1			0			1		
Conflicting Approach Right				SB			WB					
Conflicting Lanes Right				1			1			0		
HCM Control Delay, s/veh				7.9			8			7.7		
HCM LOS				A			A			A		
Lane	NBLn1	WBLn1	SBLn1									
Vol Left, %	11%	14%	0%									
Vol Thru, %	89%	69%	92%									
Vol Right, %	0%	16%	8%									
Sign Control	Stop	Stop	Stop									
Traffic Vol by Lane	121	91	83									
LT Vol	13	13	0									
Through Vol	108	63	76									
RT Vol	0	15	7									
Lane Flow Rate	127	96	87									
Geometry Grp	1	1	1									
Degree of Util (X)	0.148	0.115	0.101									
Departure Headway (Hd)	4.191	4.34	4.149									
Convergence, Y/N	Yes	Yes	Yes									
Cap	844	830	850									
Service Time	2.271	2.34	2.241									
HCM Lane V/C Ratio	0.15	0.116	0.102									
HCM Control Delay, s/veh	8	7.9	7.7									
HCM Lane LOS	A	A	A									
HCM 95th-tile Q	0.5	0.4	0.3									

HCM 6th TWSC
10: Pilgrim Street & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	18	82	15	8	16	0	0	20	5
Future Vol, veh/h	0	0	0	18	82	15	8	16	0	0	20	5
Conflicting Peds, #/hr	0	0	0	4	0	1	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	23	104	19	10	20	0	0	25	6

Major/Minor	Major2	Minor1	Minor2
Conflicting Flow All	4	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1618	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1612	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	1.1	10.2	10
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	717	1612	-	-	748
HCM Lane V/C Ratio	0.042	0.014	-	-	0.042
HCM Control Delay (s/veh)	10.2	7.3	0	-	10
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1

HCM 6th Signalized Intersection Summary

11: Airport Way & Main Street

Existing Build Conditions

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	41	78	61	10	869	0	0	749	17
Future Volume (veh/h)	0	0	0	41	78	61	10	869	0	0	749	17
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				43	82	64	11	915	0	0	788	18
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				58	110	86	51	2561	0	0	2635	60
Arrive On Green				0.05	0.05	0.05	1.00	1.00	0.00	0.00	0.74	0.74
Sat Flow, veh/h				392	747	583	13	3536	0	0	3644	81
Grp Volume(v), veh/h				189	0	0	494	432	0	0	394	412
Grp Sat Flow(s),veh/h/ln				1722	0	0	1847	1617	0	0	1777	1855
Q Serve(g_s), s				9.8	0.0	0.0	0.0	0.0	0.0	0.0	6.6	6.6
Cycle Q Clear(g_c), s				9.8	0.0	0.0	0.0	0.0	0.0	0.0	6.6	6.6
Prop In Lane				0.23		0.34	0.02		0.00	0.00		0.04
Lane Grp Cap(c), veh/h				253	0	0	1412	1200	0	0	1318	1376
V/C Ratio(X)				0.75	0.00	0.00	0.35	0.36	0.00	0.00	0.30	0.30
Avail Cap(c_a), veh/h				421	0	0	1412	1200	0	0	1318	1376
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.93	0.93	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				41.2	0.0	0.0	0.0	0.0	0.0	0.0	3.8	3.8
Incr Delay (d2), s/veh				1.7	0.0	0.0	0.6	0.8	0.0	0.0	0.6	0.6
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.6	0.0	0.0	0.2	0.3	0.0	0.0	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				42.8	0.0	0.0	0.6	0.8	0.0	0.0	4.4	4.4
LnGrp LOS				D			A	A			A	A
Approach Vol, veh/h					189			926			806	
Approach Delay, s/veh					42.8			0.7			4.4	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	71.8			18.2			71.8					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	58.0			22.0			58.0					
Max Q Clear Time (g_c+I1), s	2.0			11.8			8.6					
Green Ext Time (p_c), s	0.9			0.5			0.7					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				6.4								
HCM 6th LOS				A								

HCM 6th TWSC
12: Sierra Nevada Street & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4T			4			1T	
Traffic Vol, veh/h	0	0	0	30	139	40	9	37	0	0	49	32
Future Vol, veh/h	0	0	0	30	139	40	9	37	0	0	49	32
Conflicting Peds, #/hr	0	0	0	6	0	3	9	0	0	0	0	9
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	32	148	43	10	39	0	0	52	34
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				6	0	0	179	264	-	-	243	108
Stage 1				-	-	-	6	6	-	-	237	-
Stage 2				-	-	-	173	258	-	-	6	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				1613	-	-	766	640	0	0	658	925
Stage 1				-	-	-	-	-	0	0	708	-
Stage 2				-	-	-	812	693	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1604	-	-	676	620	-	-	638	922
Mov Cap-2 Maneuver				-	-	-	676	620	-	-	638	-
Stage 1				-	-	-	-	-	-	-	690	-
Stage 2				-	-	-	707	676	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				1.1		11.2		10.6				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	630	1604	-	-	726							
HCM Lane V/C Ratio	0.078	0.02	-	-	0.119							
HCM Control Delay (s/veh)	11.2	7.3	0.1	-	10.6							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.3	0.1	-	-	0.4							

HCM 6th Signalized Intersection Summary 13: S Wilson Way & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	107	111	183	27	936	0	0	933	29
Future Volume (veh/h)	0	0	0	107	111	183	27	936	0	0	933	29
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				110	114	189	28	965	0	0	962	30
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				136	141	241	442	2618	0	0	2591	81
Arrive On Green				0.15	0.15	0.15	1.00	1.00	0.00	0.00	0.74	0.74
Sat Flow, veh/h				896	929	1582	567	3647	0	0	3611	110
Grp Volume(v), veh/h				224	0	189	28	965	0	0	486	506
Grp Sat Flow(s),veh/h/ln				1826	0	1582	567	1777	0	0	1777	1850
Q Serve(g_s), s				10.7	0.0	10.4	0.6	0.0	0.0	0.0	8.9	8.9
Cycle Q Clear(g_c), s				10.7	0.0	10.4	9.6	0.0	0.0	0.0	8.9	8.9
Prop In Lane				0.49		1.00	1.00		0.00	0.00		0.06
Lane Grp Cap(c), veh/h				278	0	241	442	2618	0	0	1309	1363
V/C Ratio(X)				0.81	0.00	0.79	0.06	0.37	0.00	0.00	0.37	0.37
Avail Cap(c_a), veh/h				467	0	404	442	2618	0	0	1309	1363
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	1.00	0.75	0.75	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				36.9	0.0	36.7	0.6	0.0	0.0	0.0	4.3	4.3
Incr Delay (d2), s/veh				2.1	0.0	2.1	0.2	0.3	0.0	0.0	0.8	0.8
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.8	0.0	4.1	0.0	0.1	0.0	0.0	2.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				39.0	0.0	38.9	0.8	0.3	0.0	0.0	5.1	5.1
LnGrp LOS				D		D	A	A			A	A
Approach Vol, veh/h					413			993			992	
Approach Delay, s/veh					38.9			0.3			5.1	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	71.3			18.7			71.3					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	57.0			23.0			57.0					
Max Q Clear Time (g_c+l1), s	11.6			12.7			10.9					
Green Ext Time (p_c), s	3.4			0.9			2.6					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	8.9											
HCM 6th LOS	A											

HCM 6th TWSC
15: B Street/E Washington Street & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	392	32	15	311	1	28	2	38	1	2	14
Future Vol, veh/h	5	392	32	15	311	1	28	2	38	1	2	14
Conflicting Peds, #/hr	1	0	1	1	0	1	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	417	34	16	331	1	30	2	40	1	2	15
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	333	0	0	452	0	0	820	810	435	830	827	336
Stage 1	-	-	-	-	-	-	445	445	-	365	365	-
Stage 2	-	-	-	-	-	-	375	365	-	465	462	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1226	-	-	1109	-	-	294	314	621	289	307	706
Stage 1	-	-	-	-	-	-	592	575	-	654	623	-
Stage 2	-	-	-	-	-	-	646	623	-	578	565	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1225	-	-	1108	-	-	280	306	620	264	299	703
Mov Cap-2 Maneuver	-	-	-	-	-	-	280	306	-	264	299	-
Stage 1	-	-	-	-	-	-	588	572	-	650	611	-
Stage 2	-	-	-	-	-	-	617	611	-	536	562	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v	0.1		0.4		15.8		11.7					
HCM LOS					C		B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	405	1225	-	-	1108	-	-	559				
HCM Lane V/C Ratio	0.179	0.004	-	-	0.014	-	-	0.032				
HCM Control Delay (s/veh)	15.8	8	0	-	8.3	0	-	11.7				
HCM Lane LOS	C	A	A	-	A	A	-	B				
HCM 95th %tile Q (veh)	0.6	0	-	-	0	-	-	0.1				

HCM 6th TWSC
16: E Lafayette Street & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

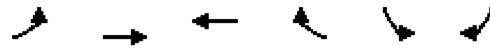
Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	40	370	9	25	318	12	11	4	31	0	3	15
Future Vol, veh/h	40	370	9	25	318	12	11	4	31	0	3	15
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	378	9	26	324	12	11	4	32	0	3	15
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	337	0	0	387	0	0	856	854	383	866	852	331
Stage 1	-	-	-	-	-	-	465	465	-	383	383	-
Stage 2	-	-	-	-	-	-	391	389	-	483	469	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1222	-	-	1171	-	-	278	296	664	274	297	711
Stage 1	-	-	-	-	-	-	578	563	-	640	612	-
Stage 2	-	-	-	-	-	-	633	608	-	565	561	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1221	-	-	1171	-	-	255	275	664	244	276	710
Mov Cap-2 Maneuver	-	-	-	-	-	-	255	275	-	244	276	-
Stage 1	-	-	-	-	-	-	553	539	-	612	595	-
Stage 2	-	-	-	-	-	-	600	591	-	511	537	-
Approach	EB			WB			NE			SW		
HCM Control Delay, s/v	0.8			0.6			11.7			11.6		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NELn1	EBL	EBT	EBR	WBL	WBT	WBRSWLn1					
Capacity (veh/h)	572	1221	-	-	1171	-	-	-	563			
HCM Lane V/C Ratio	0.062	0.033	-	-	0.022	-	-	-	0.033			
HCM Control Delay (s/veh)	11.7	8.1	0	-	8.1	0	-	-	11.6			
HCM Lane LOS	B	A	A	-	A	A	-	-	B			
HCM 95th %tile Q (veh)	0.2	0.1	-	-	0.1	-	-	-	0.1			

HCM Signalized Intersection Capacity Analysis

17: Main Street & D Street

Existing Build Conditions

Timing Plan: PM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	9	426	355	15	8	8
Future Volume (vph)	9	426	355	15	8	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0	
Lane Util. Factor		1.00	1.00		1.00	
Frpb, ped/bikes		1.00	0.99		1.00	
Flpb, ped/bikes		0.99	1.00		1.00	
Frt		1.00	0.99		0.93	
Flt Protected		0.99	1.00		0.97	
Satd. Flow (prot)		1861	1851		1695	
Flt Permitted		0.98	1.00		0.97	
Satd. Flow (perm)		1838	1851		1695	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	10	453	378	16	9	9
RTOR Reduction (vph)	0	0	0	0	9	0
Lane Group Flow (vph)	0	463	394	0	9	0
Confl. Peds. (#/hr)	1			1		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		11.2	11.2		0.6	
Effective Green, g (s)		11.2	11.2		0.6	
Actuated g/C Ratio		0.51	0.51		0.03	
Clearance Time (s)		5.0	5.0		5.0	
Vehicle Extension (s)		6.0	6.0		2.0	
Lane Grp Cap (vph)		944	950		46	
v/s Ratio Prot			0.21			
v/s Ratio Perm		c0.25			c0.01	
v/c Ratio		0.49	0.41		0.20	
Uniform Delay, d1		3.4	3.2		10.3	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		1.1	0.8		0.7	
Delay (s)		4.5	4.1		11.1	
Level of Service		A	A		B	
Approach Delay (s/veh)		4.5	4.1		11.1	
Approach LOS		A	A		B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			4.5		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.48			
Actuated Cycle Length (s)			21.8		Sum of lost time (s)	10.0
Intersection Capacity Utilization			41.3%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th TWSC
18: Marsh Street & Main Street & E Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection										
Int Delay, s/veh	2.5									
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL	NER
Lane Configurations										
Traffic Vol, veh/h	6	404	0	18	317	37	51	8	3	18
Future Vol, veh/h	6	404	0	18	317	37	51	8	3	18
Conflicting Peds, #/hr	1	0	5	5	0	1	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	0	-	0	-
Veh in Median Storage, #	-	0	-	-	0	-	0	-	0	-
Grade, %	-	0	-	-	0	-	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	439	0	20	345	40	55	9	3	20
Major/Minor	Major1		Major2			Minor2		Minor1		
Conflicting Flow All	386	0	0	444	0	0	871	367	882	444
Stage 1	-	-	-	-	-	-	406	-	458	-
Stage 2	-	-	-	-	-	-	465	-	424	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.22	7.12	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	6.12	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	6.12	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	3.318	3.518	3.318
Pot Cap-1 Maneuver	1172	-	-	1116	-	-	271	678	267	614
Stage 1	-	-	-	-	-	-	622	-	583	-
Stage 2	-	-	-	-	-	-	578	-	608	-
Platoon blocked, %		-	-		-	-				
Mov Cap-1 Maneuver	1171	-	-	1111	-	-	254	677	243	611
Mov Cap-2 Maneuver	-	-	-	-	-	-	254	-	243	-
Stage 1	-	-	-	-	-	-	616	-	575	-
Stage 2	-	-	-	-	-	-	552	-	561	-
Approach	EB		WB			SB		NE		
HCM Control Delay, s/v	0.1		0.4			20.1		12.3		
HCM LOS						C		B		
Minor Lane/Major Mvmt	NELn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1		
Capacity (veh/h)	519	1171	-	-	1111	-	-	320		
HCM Lane V/C Ratio	0.044	0.006	-	-	0.018	-	-	0.258		
HCM Control Delay (s/veh)	12.3	8.1	0	-	8.3	0	-	20.1		
HCM Lane LOS	B	A	A	-	A	A	-	C		
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1	-	-	1		

HCM 6th TWSC
19: Alma Street & Main Street & F Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection										
Int Delay, s/veh	1.2									
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL	NER
Lane Configurations										
Traffic Vol, veh/h	13	434	1	31	316	12	17	2	0	17
Future Vol, veh/h	13	434	1	31	316	12	17	2	0	17
Conflicting Peds, #/hr	0	0	5	5	0	0	1	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	0	-	0	-
Veh in Median Storage, #	-	0	-	-	0	-	0	-	0	-
Grade, %	-	0	-	-	0	-	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	477	1	34	347	13	19	2	0	19
Major/Minor	Major1		Major2			Minor2		Minor1		
Conflicting Flow All	360	0	0	483	0	0	938	354	935	484
Stage 1	-	-	-	-	-	-	422	-	511	-
Stage 2	-	-	-	-	-	-	516	-	424	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.22	7.12	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	6.12	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	6.12	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	3.318	3.518	3.318
Pot Cap-1 Maneuver	1199	-	-	1080	-	-	244	690	246	583
Stage 1	-	-	-	-	-	-	609	-	545	-
Stage 2	-	-	-	-	-	-	542	-	608	-
Platoon blocked, %		-	-		-	-				
Mov Cap-1 Maneuver	1199	-	-	1075	-	-	226	690	232	580
Mov Cap-2 Maneuver	-	-	-	-	-	-	226	-	232	-
Stage 1	-	-	-	-	-	-	599	-	534	-
Stage 2	-	-	-	-	-	-	516	-	579	-
Approach	EB		WB			SB		NE		
HCM Control Delay, s/v	0.2		0.7			20.7		12.5		
HCM LOS						C		B		
Minor Lane/Major Mvmt	NELn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1		
Capacity (veh/h)	501	1199	-	-	1075	-	-	251		
HCM Lane V/C Ratio	0.042	0.012	-	-	0.032	-	-	0.088		
HCM Control Delay (s/veh)	12.5	8	0	-	8.5	0	-	20.7		
HCM Lane LOS	B	A	A	-	A	A	-	C		
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1	-	-	0.3		

HCM 6th TWSC
21: Burkett Avenue & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	699	30	11	528	11	8	2	16	5	0	7
Future Vol, veh/h	17	699	30	11	528	11	8	2	16	5	0	7
Conflicting Peds, #/hr	3	0	3	3	0	3	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	752	32	12	568	12	9	2	17	5	0	8
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	583	0	0	787	0	0	1409	1414	771	1415	1424	577
Stage 1	-	-	-	-	-	-	807	807	-	601	601	-
Stage 2	-	-	-	-	-	-	602	607	-	814	823	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	991	-	-	832	-	-	116	138	400	115	136	516
Stage 1	-	-	-	-	-	-	375	394	-	487	489	-
Stage 2	-	-	-	-	-	-	486	486	-	372	388	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	988	-	-	830	-	-	109	130	399	104	128	515
Mov Cap-2 Maneuver	-	-	-	-	-	-	109	130	-	104	128	-
Stage 1	-	-	-	-	-	-	362	380	-	470	477	-
Stage 2	-	-	-	-	-	-	469	474	-	343	374	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.2			0.2			25.7			24.8		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	202	988	-	-	830	-	-	195				
HCM Lane V/C Ratio	0.138	0.019	-	-	0.014	-	-	0.066				
HCM Control Delay (s/veh)	25.7	8.7	0	-	9.4	0	-	24.8				
HCM Lane LOS	D	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.5	0.1	-	-	0	-	-	0.2				

HCM 6th TWSC
22: Shasta Avenue & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	696	15	5	541	10	5	0	12	3	1	5
Future Vol, veh/h	8	696	15	5	541	10	5	0	12	3	1	5
Conflicting Peds, #/hr	3	0	4	4	0	3	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	757	16	5	588	11	5	0	13	3	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	602	0	0	777	0	0	1395	1399	769	1397	1402	598
Stage 1	-	-	-	-	-	-	787	787	-	607	607	-
Stage 2	-	-	-	-	-	-	608	612	-	790	795	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	975	-	-	839	-	-	119	141	401	118	140	502
Stage 1	-	-	-	-	-	-	385	403	-	483	486	-
Stage 2	-	-	-	-	-	-	483	484	-	383	399	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	972	-	-	836	-	-	114	136	399	112	136	500
Mov Cap-2 Maneuver	-	-	-	-	-	-	114	136	-	112	136	-
Stage 1	-	-	-	-	-	-	377	395	-	474	480	-
Stage 2	-	-	-	-	-	-	472	478	-	365	391	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.1			22			23.5		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	230	972	-	-	836	-	-	204
HCM Lane V/C Ratio	0.08	0.009	-	-	0.007	-	-	0.048
HCM Control Delay (s/veh)	22	8.7	0	-	9.3	0	-	23.5
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0.2

HCM 6th TWSC
23: David Avenue & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	691	10	4	541	8	11	1	1	2	1	5
Future Vol, veh/h	8	691	10	4	541	8	11	1	1	2	1	5
Conflicting Peds, #/hr	1	0	4	4	0	1	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	751	11	4	588	9	12	1	1	2	1	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	598	0	0	766	0	0	1383	1385	763	1380	1386	594
Stage 1	-	-	-	-	-	-	779	779	-	602	602	-
Stage 2	-	-	-	-	-	-	604	606	-	778	784	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	979	-	-	847	-	-	121	143	404	122	143	505
Stage 1	-	-	-	-	-	-	389	406	-	486	489	-
Stage 2	-	-	-	-	-	-	485	487	-	389	404	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	978	-	-	844	-	-	117	139	402	118	139	505
Mov Cap-2 Maneuver	-	-	-	-	-	-	117	139	-	118	139	-
Stage 1	-	-	-	-	-	-	381	398	-	478	485	-
Stage 2	-	-	-	-	-	-	475	483	-	380	396	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.1			37.4			20.9		
HCM LOS							E			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	125	978	-	-	844	-	-	235				
HCM Lane V/C Ratio	0.113	0.009	-	-	0.005	-	-	0.037				
HCM Control Delay (s/veh)	37.4	8.7	0	-	9.3	0	-	20.9				
HCM Lane LOS	E	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.4	0	-	-	0	-	-	0.1				

HCM 6th TWSC
24: Rendon Avenue & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	655	34	18	518	12	16	4	11	6	3	12
Future Vol, veh/h	10	655	34	18	518	12	16	4	11	6	3	12
Conflicting Peds, #/hr	4	0	7	7	0	4	0	0	3	3	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	704	37	19	557	13	17	4	12	6	3	13
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	574	0	0	748	0	0	1362	1364	733	1362	1376	568
Stage 1	-	-	-	-	-	-	752	752	-	606	606	-
Stage 2	-	-	-	-	-	-	610	612	-	756	770	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	999	-	-	861	-	-	125	148	421	125	145	522
Stage 1	-	-	-	-	-	-	402	418	-	484	487	-
Stage 2	-	-	-	-	-	-	482	484	-	400	410	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	995	-	-	855	-	-	114	139	417	113	136	520
Mov Cap-2 Maneuver	-	-	-	-	-	-	114	139	-	113	136	-
Stage 1	-	-	-	-	-	-	392	407	-	473	469	-
Stage 2	-	-	-	-	-	-	451	466	-	376	399	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.3			33.5			23.8		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	159	995	-	-	855	-	-	214				
HCM Lane V/C Ratio	0.21	0.011	-	-	0.023	-	-	0.106				
HCM Control Delay (s/veh)	33.5	8.7	0	-	9.3	0	-	23.8				
HCM Lane LOS	D	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.8	0	-	-	0.1	-	-	0.3				

HCM 6th Signalized Intersection Summary 25: Golden Gate Avenue & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	486	190	23	399	9	128	23	24	13	30	8
Future Volume (veh/h)	8	486	190	23	399	9	128	23	24	13	30	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	517	202	24	424	10	136	24	26	14	32	9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	703	275	39	1030	24	284	46	37	119	218	51
Arrive On Green	0.01	0.55	0.55	0.02	0.57	0.57	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	1270	496	1781	1820	43	1019	258	208	250	1224	289
Grp Volume(v), veh/h	9	0	719	24	0	434	186	0	0	55	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1766	1781	0	1862	1485	0	0	1763	0	0
Q Serve(g_s), s	0.3	0.0	18.7	0.8	0.0	8.0	5.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	0.0	18.7	0.8	0.0	8.0	7.0	0.0	0.0	1.6	0.0	0.0
Prop In Lane	1.00		0.28	1.00		0.02	0.73		0.14	0.25		0.16
Lane Grp Cap(c), veh/h	17	0	978	39	0	1055	367	0	0	388	0	0
V/C Ratio(X)	0.54	0.00	0.74	0.61	0.00	0.41	0.51	0.00	0.00	0.14	0.00	0.00
Avail Cap(c_a), veh/h	585	0	1392	585	0	1468	1052	0	0	908	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.0	0.0	10.2	29.5	0.0	7.5	23.3	0.0	0.0	21.2	0.0	0.0
Incr Delay (d2), s/veh	10.0	0.0	3.9	5.7	0.0	0.9	0.4	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	6.4	0.4	0.0	2.7	2.4	0.0	0.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.0	0.0	14.2	35.2	0.0	8.4	23.7	0.0	0.0	21.3	0.0	0.0
LnGrp LOS	D		B	D		A	C			C		
Approach Vol, veh/h		728			458			186			55	
Approach Delay, s/veh		14.5			9.8			23.7			21.3	
Approach LOS		B			A			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	38.7		15.9	5.6	39.5		15.9				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	48.0		40.0	20.0	48.0		30.0				
Max Q Clear Time (g_c+I1), s	2.8	20.7		9.0	2.3	10.0		3.6				
Green Ext Time (p_c), s	0.0	13.1		0.8	0.0	7.7		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			14.4									
HCM 6th LOS			B									

HCM 6th TWSC
26: Windsor Avenue & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	500	26	4	417	4	11	0	5	4	2	7
Future Vol, veh/h	7	500	26	4	417	4	11	0	5	4	2	7
Conflicting Peds, #/hr	6	0	6	6	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	515	27	4	430	4	11	0	5	4	2	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	440	0	0	548	0	0	994	997	535	991	1008	438
Stage 1	-	-	-	-	-	-	549	549	-	446	446	-
Stage 2	-	-	-	-	-	-	445	448	-	545	562	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1120	-	-	1021	-	-	224	244	545	225	240	619
Stage 1	-	-	-	-	-	-	520	516	-	591	574	-
Stage 2	-	-	-	-	-	-	592	573	-	523	510	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1114	-	-	1015	-	-	216	238	542	219	234	615
Mov Cap-2 Maneuver	-	-	-	-	-	-	216	238	-	219	234	-
Stage 1	-	-	-	-	-	-	512	508	-	582	568	-
Stage 2	-	-	-	-	-	-	580	567	-	513	502	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.1			19.4			16		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	266	1114	-	-	1015	-	-	340
HCM Lane V/C Ratio	0.062	0.006	-	-	0.004	-	-	0.039
HCM Control Delay (s/veh)	19.4	8.3	0	-	8.6	0	-	16
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1

HCM Signalized Intersection Capacity Analysis

27: Netherton Avenue & Main Street

Existing Build Conditions

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	448	27	38	387	5	21	6	67	27	12	48
Future Volume (vph)	11	448	27	38	387	5	21	6	67	27	12	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Frt	1.00	0.99		1.00	0.99			0.90			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.98	
Satd. Flow (prot)	1770	1844		1770	1859			1646			1676	
Flt Permitted	0.95	1.00		0.95	1.00			0.89			0.86	
Satd. Flow (perm)	1770	1844		1770	1859			1496			1465	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	11	453	27	38	391	5	21	6	68	27	12	48
RTOR Reduction (vph)	0	0	0	0	0	0	0	57	0	0	40	0
Lane Group Flow (vph)	11	480	0	38	396	0	0	38	0	0	47	0
Confl. Peds. (#/hr)			4			1	2		6	6		2
Confl. Bikes (#/hr)			1									
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		
Actuated Green, G (s)	0.6	18.3		0.8	18.5			6.6			6.6	
Effective Green, g (s)	0.6	18.3		0.8	18.5			6.6			6.6	
Actuated g/C Ratio	0.01	0.45		0.02	0.45			0.16			0.16	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0			2.0			2.0	
Lane Grp Cap (vph)	26	829		34	845			242			237	
v/s Ratio Prot	0.01	c0.26		c0.02	0.21							
v/s Ratio Perm								0.03			c0.03	
v/c Ratio	0.42	0.57		1.11	0.46			0.15			0.19	
Uniform Delay, d1	19.8	8.3		19.9	7.6			14.6			14.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	3.9	1.9		191.7	1.1			0.1			0.1	
Delay (s)	23.8	10.2		211.7	8.8			14.7			14.9	
Level of Service	C	B		F	A			B			B	
Approach Delay (s/veh)		10.5			26.6			14.7			14.9	
Approach LOS		B			C			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.6			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.50									
Actuated Cycle Length (s)			40.7			Sum of lost time (s)				15.0		
Intersection Capacity Utilization			49.9%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC
28: Broadway Avenue & Main Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	478	6	10	392	16	12	2	11	13	5	14
Future Vol, veh/h	26	478	6	10	392	16	12	2	11	13	5	14
Conflicting Peds, #/hr	8	0	14	14	0	8	0	0	3	3	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	493	6	10	404	16	12	2	11	13	5	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	428	0	0	513	0	0	1006	1012	513	992	999	412
Stage 1	-	-	-	-	-	-	564	564	-	432	432	-
Stage 2	-	-	-	-	-	-	442	448	-	560	567	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1131	-	-	1052	-	-	220	239	561	225	243	640
Stage 1	-	-	-	-	-	-	510	508	-	602	582	-
Stage 2	-	-	-	-	-	-	594	573	-	513	507	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1122	-	-	1038	-	-	203	226	552	211	230	635
Mov Cap-2 Maneuver	-	-	-	-	-	-	203	226	-	211	230	-
Stage 1	-	-	-	-	-	-	491	489	-	583	572	-
Stage 2	-	-	-	-	-	-	570	563	-	487	488	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.4			0.2			18.9			18.3		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	284	1122	-	-	1038	-	-	304
HCM Lane V/C Ratio	0.091	0.024	-	-	0.01	-	-	0.109
HCM Control Delay (s/veh)	18.9	8.3	-	-	8.5	-	-	18.3
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q (veh)	0.3	0.1	-	-	0	-	-	0.4

HCM Signalized Intersection Capacity Analysis

29: S Center Street & Market Street

Existing Build Conditions

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										  		
Traffic Volume (vph)	0	39	58	0	0	0	0	0	0	56	1771	0
Future Volume (vph)	0	39	58	0	0	0	0	0	0	56	1771	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		1.00									0.91	
Frpb, ped/bikes		0.98									1.00	
Flpb, ped/bikes		1.00									0.99	
Frt		0.91									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		1688									5075	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		1688									5075	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	43	64	0	0	0	0	0	0	62	1946	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	10	0
Lane Group Flow (vph)	0	98	0	0	0	0	0	0	0	0	1998	0
Confl. Peds. (#/hr)	5		11							11		
Turn Type		NA								Perm	NA	
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		24.0									51.0	
Effective Green, g (s)		24.0									51.0	
Actuated g/C Ratio		0.28									0.60	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		476									3045	
v/s Ratio Prot		0.06										
v/s Ratio Perm											0.39	
v/c Ratio		0.20									0.65	
Uniform Delay, d1		23.2									11.2	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.9									1.1	
Delay (s)		24.2									12.3	
Level of Service		C									B	
Approach Delay (s/veh)		24.2			0.0			0.0			12.3	
Approach LOS		C			A			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			12.9									
HCM 2000 Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			85.0							10.0		
Intersection Capacity Utilization			62.9%									
Analysis Period (min)			15									
c Critical Lane Group												

Existing Build Conditions

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  				
Traffic Volume (vph)	67	57	0	0	0	0	0	1446	39	0	0	0
Future Volume (vph)	67	57	0	0	0	0	0	1446	39	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0				
Lane Util. Factor		1.00						0.91				
Frpb, ped/bikes		1.00						0.99				
Flpb, ped/bikes		0.99						1.00				
Frt		1.00						0.99				
Flt Protected		0.97						1.00				
Satd. Flow (prot)		1810						5060				
Flt Permitted		0.97						1.00				
Satd. Flow (perm)		1810						5060				
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	70	59	0	0	0	0	0	1506	41	0	0	0
RTOR Reduction (vph)	0	24	0	0	0	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	105	0	0	0	0	0	1544	0	0	0	0
Confl. Peds. (#/hr)	3								10			
Confl. Bikes (#/hr)			2						3			
Turn Type	Perm	NA						NA				
Protected Phases		2						1				
Permitted Phases	2											
Actuated Green, G (s)		25.0						50.0				
Effective Green, g (s)		25.0						50.0				
Actuated g/C Ratio		0.29						0.59				
Clearance Time (s)		5.0						5.0				
Vehicle Extension (s)		0.2						0.2				
Lane Grp Cap (vph)		532						2976				
v/s Ratio Prot								c0.31				
v/s Ratio Perm		0.06										
v/c Ratio		0.19						0.51				
Uniform Delay, d1		22.4						10.3				
Progression Factor		0.99						1.00				
Incremental Delay, d2		0.7						0.6				
Delay (s)		23.2						11.0				
Level of Service		C						B				
Approach Delay (s/veh)		23.2			0.0			11.0			0.0	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		12.0						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.41										
Actuated Cycle Length (s)		85.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		43.9%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM 6th AWSC
31: S Hunter Street & Market Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Intersection Delay, s/veh 7.7												
Intersection LOS A												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	82	13	0	0	0	0	0	24	32	36	0
Future Vol, veh/h	0	82	13	0	0	0	0	0	24	32	36	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	96	15	0	0	0	0	0	28	38	42	0
Number of Lanes	0	1	0	0	0	0	0	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.7	6.9	8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%
Vol Thru, %	0%	86%	0%	100%
Vol Right, %	100%	14%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	95	32	36
LT Vol	0	0	32	0
Through Vol	0	82	0	36
RT Vol	24	13	0	0
Lane Flow Rate	28	112	38	42
Geometry Grp	4a	2	5	5
Degree of Util (X)	0.029	0.125	0.055	0.056
Departure Headway (Hd)	3.69	4.033	5.247	4.746
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	954	876	680	750
Service Time	1.775	2.114	3.002	2.5
HCM Lane V/C Ratio	0.029	0.128	0.056	0.056
HCM Control Delay, s/veh	6.9	7.7	8.3	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.2	0.2

HCM Signalized Intersection Capacity Analysis32: S San Joaquin Street & Market Street

Existing Build Conditions

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	81	36	0	0	0	0	118	48	15	129	0
Future Volume (vph)	21	81	36	0	0	0	0	118	48	15	129	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						0.95			0.95	
Frpb, ped/bikes		0.98						0.95			1.00	
Flpb, ped/bikes		0.99						1.00			0.98	
Frt		0.96						0.95			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		1754						3216			3478	
Flt Permitted		0.99						1.00			0.92	
Satd. Flow (perm)		1754						3216			3232	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	24	92	41	0	0	0	0	134	55	17	147	0
RTOR Reduction (vph)	0	18	0	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	0	139	0	0	0	0	0	162	0	0	164	0
Confl. Peds. (#/hr)	19		49						78	78		
Confl. Bikes (#/hr)									4			
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						1			1	
Permitted Phases	2									1		
Actuated Green, G (s)		24.0						36.0			36.0	
Effective Green, g (s)		24.0						36.0			36.0	
Actuated g/C Ratio		0.34						0.51			0.51	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		601						1653			1662	
v/s Ratio Prot								0.05				
v/s Ratio Perm		0.08									c0.05	
v/c Ratio		0.23						0.09			0.09	
Uniform Delay, d1		16.4						8.6			8.6	
Progression Factor		1.00						1.00			0.36	
Incremental Delay, d2		0.8						0.1			0.1	
Delay (s)		17.3						8.8			3.2	
Level of Service		B						A			A	
Approach Delay (s/veh)		17.3			0.0			8.8			3.2	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		9.6										
HCM 2000 Volume to Capacity ratio		0.15										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		43.6%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

33: S Sutter Street & Market Street

Existing Build Conditions

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	97	30	0	0	0	0	112	41	18	124	0
Future Volume (vph)	18	97	30	0	0	0	0	112	41	18	124	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0		5.0	
Lane Util. Factor		1.00						1.00	1.00		0.95	
Frpb, ped/bikes		0.97						1.00	0.80		1.00	
Flpb, ped/bikes		0.99						1.00	1.00		0.98	
Frt		0.97						1.00	0.85		1.00	
Flt Protected		0.99						1.00	1.00		0.99	
Satd. Flow (prot)		1733						1863	1276		3451	
Flt Permitted		0.99						1.00	1.00		0.91	
Satd. Flow (perm)		1733						1863	1276		3180	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	24	128	39	0	0	0	0	147	54	24	163	0
RTOR Reduction (vph)	0	13	0	0	0	0	0	0	31	0	0	0
Lane Group Flow (vph)	0	178	0	0	0	0	0	147	23	0	187	0
Confl. Peds. (#/hr)	35		123						81	81		
Confl. Bikes (#/hr)									1			
Turn Type	Perm	NA						NA	Perm	Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)		30.0						30.0	30.0		30.0	
Effective Green, g (s)		30.0						30.0	30.0		30.0	
Actuated g/C Ratio		0.43						0.43	0.43		0.43	
Clearance Time (s)		5.0						5.0	5.0		5.0	
Vehicle Extension (s)		0.2						0.2	0.2		0.2	
Lane Grp Cap (vph)		742						798	546		1362	
v/s Ratio Prot								c0.08				
v/s Ratio Perm		0.10							0.02		0.06	
v/c Ratio		0.23						0.18	0.04		0.13	
Uniform Delay, d1		12.7						12.4	11.6		12.1	
Progression Factor		1.35						1.00	1.00		0.68	
Incremental Delay, d2		0.7						0.5	0.1		0.2	
Delay (s)		18.0						12.9	11.7		8.5	
Level of Service		B						B	B		A	
Approach Delay (s/veh)		18.0			0.0			12.6			8.5	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		13.1										
HCM 2000 Volume to Capacity ratio		0.21										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		45.6%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary34: California Street & Market Street

Existing Build Conditions

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	107	18	0	0	0	0	190	32	31	247	0
Future Volume (veh/h)	27	107	18	0	0	0	0	190	32	31	247	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	30	119	20				0	211	36	34	274	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	87	347	58				0	911	155	130	976	0
Arrive On Green	0.09	0.09	0.09				0.00	0.59	0.59	1.00	1.00	0.00
Sat Flow, veh/h	322	1277	215				0	1556	265	124	1666	0
Grp Volume(v), veh/h	169	0	0				0	0	247	308	0	0
Grp Sat Flow(s), veh/h/ln	1814	0	0				0	0	1821	1789	0	0
Q Serve(g_s), s	6.1	0.0	0.0				0.0	0.0	4.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.1	0.0	0.0				0.0	0.0	4.6	0.0	0.0	0.0
Prop In Lane	0.18		0.12				0.00		0.15	0.11		0.00
Lane Grp Cap(c), veh/h	492	0	0				0	0	1067	1105	0	0
V/C Ratio(X)	0.34	0.00	0.00				0.00	0.00	0.23	0.28	0.00	0.00
Avail Cap(c_a), veh/h	492	0	0				0	0	1067	1105	0	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.98	0.00	0.00				0.00	0.00	1.00	0.78	0.00	0.00
Uniform Delay (d), s/veh	26.0	0.0	0.0				0.0	0.0	6.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.9	0.0	0.0				0.0	0.0	0.5	0.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0				0.0	0.0	1.6	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.9	0.0	0.0				0.0	0.0	7.5	0.5	0.0	0.0
LnGrp LOS	C								A	A		
Approach Vol, veh/h		169						247			308	
Approach Delay, s/veh		27.9						7.5			0.5	
Approach LOS		C						A			A	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		46.0		24.0		46.0						
Change Period (Y+Rc), s		5.0		5.0		5.0						
Max Green Setting (Gmax), s		41.0		19.0		41.0						
Max Q Clear Time (g_c+I1), s		6.6		8.1		2.0						
Green Ext Time (p_c), s		0.3		0.1		0.3						
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			9.3									
HCM 6th LOS			A									

HCM Signalized Intersection Capacity Analysis

35: S American Street & Market Street

Existing Build Conditions

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	154	0	0	0	0	0	0	0	38	1	0
Future Volume (vph)	25	154	0	0	0	0	0	0	0	38	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		1.00									1.00	
Frpb, ped/bikes		1.00									1.00	
Flpb, ped/bikes		0.99									0.98	
Frt		1.00									1.00	
Flt Protected		0.99									0.95	
Satd. Flow (prot)		1847									1753	
Flt Permitted		0.99									0.77	
Satd. Flow (perm)		1847									1423	
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Adj. Flow (vph)	36	220	0	0	0	0	0	0	0	54	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	256	0	0	0	0	0	0	0	0	55	0
Confl. Peds. (#/hr)	5		1							6	6	
Turn Type	Perm	NA								Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		40.0									20.0	
Effective Green, g (s)		40.0									20.0	
Actuated g/C Ratio		0.57									0.29	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		1055									406	
v/s Ratio Prot												
v/s Ratio Perm		0.14									c0.04	
v/c Ratio		0.24									0.13	
Uniform Delay, d1		7.4									18.5	
Progression Factor		0.58									0.75	
Incremental Delay, d2		0.5									0.6	
Delay (s)		4.8									14.7	
Level of Service		A									B	
Approach Delay (s/veh)		4.8			0.0			0.0			14.7	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		6.6										
HCM 2000 Volume to Capacity ratio		0.21										
Actuated Cycle Length (s)		70.0								10.0		
Intersection Capacity Utilization		36.7%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

36: S Stanislaus Street & Market Street

Existing Build Conditions

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	111	64	0	0	0	0	263	32	6	365	0
Future Volume (vph)	17	111	64	0	0	0	0	263	32	6	365	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						0.95			0.95	
Frpb, ped/bikes		0.99						0.99			1.00	
Flpb, ped/bikes		0.99						1.00			0.99	
Frt		0.95						0.98			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		1759						3470			3536	
Flt Permitted		0.99						1.00			0.94	
Satd. Flow (perm)		1759						3470			3361	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	21	135	78	0	0	0	0	321	39	7	445	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	234	0	0	0	0	0	347	0	0	452	0
Confl. Peds. (#/hr)	4		5						5	5		
Confl. Bikes (#/hr)			1						1			
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		25.0						35.0			35.0	
Effective Green, g (s)		25.0						35.0			35.0	
Actuated g/C Ratio		0.36						0.50			0.50	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		628						1735			1680	
v/s Ratio Prot								0.10				
v/s Ratio Perm		0.13									c0.13	
v/c Ratio		0.37						0.19			0.26	
Uniform Delay, d1		16.6						9.7			10.1	
Progression Factor		0.55						1.00			0.75	
Incremental Delay, d2		1.6						0.2			0.3	
Delay (s)		10.9						9.9			8.0	
Level of Service		B						A			A	
Approach Delay (s/veh)		10.9			0.0			9.9			8.0	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		9.4										
HCM 2000 Volume to Capacity ratio		0.31										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		37.7%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th TWSC
37: S Grant Street & Market Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	24	125	2	0	0	0	0	2	5	26	10	0
Future Vol, veh/h	24	125	2	0	0	0	0	2	5	26	10	0
Conflicting Peds, #/hr	2	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	149	2	0	0	0	0	2	6	31	12	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	2	0	0	-	211	151	214	212	-
Stage 1	-	-	-	-	209	-	2	2	-
Stage 2	-	-	-	-	2	-	212	210	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1620	-	-	0	686	895	743	685	0
Stage 1	-	-	-	0	729	-	-	-	0
Stage 2	-	-	-	0	-	-	790	728	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1617	-	-	-	670	894	724	669	-
Mov Cap-2 Maneuver	-	-	-	-	670	-	724	669	-
Stage 1	-	-	-	-	714	-	-	-	-
Stage 2	-	-	-	-	-	-	766	713	-

Approach	EB	NB	SB
HCM Control Delay, s/v	1.2	9.5	10.4
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	816	1617	-	-	708
HCM Lane V/C Ratio	0.01	0.018	-	-	0.061
HCM Control Delay (s/veh)	9.5	7.3	0	-	10.4
HCM Lane LOS	A	A	A	-	B
HCM 95th %tile Q (veh)	0	0.1	-	-	0.2

HCM 6th TWSC
38: S Aurora Street & Market Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	104	21	0	0	0	0	115	28	8	53	0
Future Vol, veh/h	26	104	21	0	0	0	0	115	28	8	53	0
Conflicting Peds, #/hr	1	0	1	0	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	112	23	0	0	0	0	124	30	9	57	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	1	0	0	-	182	127	260	193	-
Stage 1	-	-	-	-	181	-	1	1	-
Stage 2	-	-	-	-	1	-	259	192	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1622	-	-	0	712	923	693	702	0
Stage 1	-	-	-	0	750	-	-	-	0
Stage 2	-	-	-	0	-	-	746	742	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1620	-	-	-	697	922	570	687	-
Mov Cap-2 Maneuver	-	-	-	-	697	-	570	687	-
Stage 1	-	-	-	-	735	-	-	-	-
Stage 2	-	-	-	-	-	-	589	727	-

Approach	EB	NB	SB
HCM Control Delay, s/v	1.3	11.2	11
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	732	1620	-	-	669
HCM Lane V/C Ratio	0.21	0.017	-	-	0.098
HCM Control Delay (s/veh)	11.2	7.3	0	-	11
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.8	0.1	-	-	0.3

HCM 6th TWSC
39: Union Street & Market Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔						↔			↔	
Traffic Vol, veh/h	17	142	7	0	0	0	0	87	27	16	91	0
Future Vol, veh/h	17	142	7	0	0	0	0	87	27	16	91	0
Conflicting Peds, #/hr	0	0	3	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	153	8	0	0	0	0	94	29	17	98	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	196	161	256	200	-
Stage 1	-	-	-	-	196	-	0	0	-
Stage 2	-	-	-	-	0	-	256	200	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	-	-	-	0	699	884	697	696	0
Stage 1	-	-	-	0	739	-	-	-	0
Stage 2	-	-	-	0	-	-	749	736	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	697	881	605	694	-
Mov Cap-2 Maneuver	-	-	-	-	697	-	605	694	-
Stage 1	-	-	-	-	737	-	-	-	-
Stage 2	-	-	-	-	-	-	632	734	-

Approach	EB	NB	SB
HCM Control Delay, s/v		10.9	11.4
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	733	-	-	-	679
HCM Lane V/C Ratio	0.167	-	-	-	0.169
HCM Control Delay (s/veh)	10.9	-	-	-	11.4
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q (veh)	0.6	-	-	-	0.6

HCM 6th TWSC
40: Pilgrim Street & Market Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	172	3	0	0	0	0	11	10	15	8	0
Future Vol, veh/h	11	172	3	0	0	0	0	11	10	15	8	0
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	8	8	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	185	3	0	0	0	0	12	11	16	9	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	212	196	230	213	-
Stage 1	-	-	-	-	212	-	0	0	-
Stage 2	-	-	-	-	0	-	230	213	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	-	-	-	0	685	845	725	684	0
Stage 1	-	-	-	0	727	-	-	-	0
Stage 2	-	-	-	0	-	-	773	726	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	684	844	706	683	-
Mov Cap-2 Maneuver	-	-	-	-	684	-	706	683	-
Stage 1	-	-	-	-	726	-	-	-	-
Stage 2	-	-	-	-	-	-	751	725	-

Approach	EB	NB	SB
HCM Control Delay, s/v		9.9	10.3
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	752	-	-	-	698
HCM Lane V/C Ratio	0.03	-	-	-	0.035
HCM Control Delay (s/veh)	9.9	-	-	-	10.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q (veh)	0.1	-	-	-	0.1

HCM 6th Signalized Intersection Summary

41: Airport Way & Market Street

Existing Build Conditions

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	136	22	0	0	0	0	845	53	97	688	0
Future Volume (veh/h)	23	136	22	0	0	0	0	845	53	97	688	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	25	149	24				0	929	58	107	756	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	31	186	30				0	2553	159	267	1845	0
Arrive On Green	0.14	0.14	0.14				0.00	0.75	0.75	1.00	1.00	0.00
Sat Flow, veh/h	229	1367	220				0	3484	212	286	2536	0
Grp Volume(v), veh/h	198	0	0				0	487	500	368	495	0
Grp Sat Flow(s), veh/h/ln	1816	0	0				0	1777	1826	1120	1617	0
Q Serve(g_s), s	9.5	0.0	0.0				0.0	8.4	8.4	2.7	0.0	0.0
Cycle Q Clear(g_c), s	9.5	0.0	0.0				0.0	8.4	8.4	11.1	0.0	0.0
Prop In Lane	0.13		0.12				0.00		0.12	0.29		0.00
Lane Grp Cap(c), veh/h	247	0	0				0	1338	1375	895	1217	0
V/C Ratio(X)	0.80	0.00	0.00				0.00	0.36	0.36	0.41	0.41	0.00
Avail Cap(c_a), veh/h	444	0	0				0	1338	1375	895	1217	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.94	0.94	0.00
Uniform Delay (d), s/veh	37.7	0.0	0.0				0.0	3.8	3.8	0.2	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	0.0				0.0	0.8	0.7	1.3	0.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	0.0				0.0	2.3	2.4	0.3	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.0	0.0	0.0				0.0	4.6	4.5	1.5	0.9	0.0
LnGrp LOS	D							A	A	A	A	
Approach Vol, veh/h		198						987			863	
Approach Delay, s/veh		40.0						4.5			1.2	
Approach LOS		D						A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		72.8				72.8		17.2				
Change Period (Y+Rc), s		5.0				5.0		5.0				
Max Green Setting (Gmax), s		58.0				58.0		22.0				
Max Q Clear Time (g_c+I1), s		13.1				10.4		11.5				
Green Ext Time (p_c), s		1.3				0.9		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			6.6									
HCM 6th LOS			A									

HCM 6th TWSC
42: Sierra Nevada Street & Market Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	23	260	5	0	0	0	0	20	15	70	26	0
Future Vol, veh/h	23	260	5	0	0	0	0	20	15	70	26	0
Conflicting Peds, #/hr	1	0	3	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	277	5	0	0	0	0	21	16	74	28	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	1	0	0	-	332	283	347	334	-
Stage 1	-	-	-	-	331	-	1	1	-
Stage 2	-	-	-	-	1	-	346	333	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1622	-	-	0	588	756	607	586	0
Stage 1	-	-	-	0	645	-	-	-	0
Stage 2	-	-	-	0	-	-	670	644	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1620	-	-	-	575	754	569	573	-
Mov Cap-2 Maneuver	-	-	-	-	575	-	569	573	-
Stage 1	-	-	-	-	631	-	-	-	-
Stage 2	-	-	-	-	-	-	622	630	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.6	11	12.7
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	640	1620	-	-	570
HCM Lane V/C Ratio	0.058	0.015	-	-	0.179
HCM Control Delay (s/veh)	11	7.3	0	-	12.7
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.2	0	-	-	0.6

HCM 6th Signalized Intersection Summary43: S Wilson Way & Market Street

Existing Build Conditions

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	238	75	0	0	0	0	850	112	188	814	0
Future Volume (veh/h)	38	238	75	0	0	0	0	850	112	188	814	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	40	251	79				0	895	118	198	857	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	44	278	87				0	1496	197	231	2343	0
Arrive On Green	0.08	0.08	0.08				0.00	0.47	0.47	0.17	0.88	0.00
Sat Flow, veh/h	193	1211	381				0	3249	416	1781	3647	0
Grp Volume(v), veh/h	370	0	0				0	504	509	198	857	0
Grp Sat Flow(s),veh/h/ln	1785	0	0				0	1777	1795	1781	1777	0
Q Serve(g_s), s	18.5	0.0	0.0				0.0	18.7	18.7	9.7	3.9	0.0
Cycle Q Clear(g_c), s	18.5	0.0	0.0				0.0	18.7	18.7	9.7	3.9	0.0
Prop In Lane	0.11		0.21				0.00		0.23	1.00		0.00
Lane Grp Cap(c), veh/h	410	0	0				0	842	851	231	2343	0
V/C Ratio(X)	0.90	0.00	0.00				0.00	0.60	0.60	0.86	0.37	0.00
Avail Cap(c_a), veh/h	416	0	0				0	842	851	257	2343	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.92	0.92	0.00
Uniform Delay (d), s/veh	40.6	0.0	0.0				0.0	17.4	17.4	36.4	2.1	0.0
Incr Delay (d2), s/veh	21.7	0.0	0.0				0.0	3.1	3.1	19.1	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	0.0	0.0				0.0	8.1	8.2	5.2	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	62.3	0.0	0.0				0.0	20.5	20.5	55.5	2.5	0.0
LnGrp LOS	E							C	C	E	A	
Approach Vol, veh/h		370						1013			1055	
Approach Delay, s/veh		62.3						20.5			12.5	
Approach LOS		E						C			B	
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	16.7	47.7				64.3		25.7				
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0				
Max Green Setting (Gmax), s	13.0	41.0				59.0		21.0				
Max Q Clear Time (g_c+I1), s	11.7	20.7				5.9		20.5				
Green Ext Time (p_c), s	0.0	13.7				20.7		0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			23.4									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
44: S Eugenia Street & Market Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	550	12	0	0	0	42
Future Vol, veh/h	550	12	0	0	0	42
Conflicting Peds, #/hr	0	6	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	598	13	0	0	0	46
Major/Minor	Major1		Minor1			
Conflicting Flow All	0	0			-	611
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Critical Hdwy	-	-			-	6.22
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	-			-	3.318
Pot Cap-1 Maneuver	-	-			0	494
Stage 1	-	-			0	-
Stage 2	-	-			0	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-			-	491
Mov Cap-2 Maneuver	-	-			-	-
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Approach	EB		NB			
HCM Control Delay, s/v	0				13.1	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR			
Capacity (veh/h)	491	-	-			
HCM Lane V/C Ratio	0.093	-	-			
HCM Control Delay (s/veh)	13.1	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q (veh)	0.3	-	-			

HCM 6th TWSC
45: Della Street & Market Street

Existing Build Conditions
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	55	511	18	0	0	0	0	1	1	34	44	0
Future Vol, veh/h	55	511	18	0	0	0	0	1	1	34	44	0
Conflicting Peds, #/hr	2	0	1	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	574	20	0	0	0	0	1	1	38	49	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	2	0	0	-	711	586	712	721	-
Stage 1	-	-	-	-	709	-	2	2	-
Stage 2	-	-	-	-	2	-	710	719	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1620	-	-	0	358	510	347	353	0
Stage 1	-	-	-	0	437	-	-	-	0
Stage 2	-	-	-	0	-	-	424	433	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1617	-	-	-	337	510	330	332	-
Mov Cap-2 Maneuver	-	-	-	-	337	-	330	332	-
Stage 1	-	-	-	-	412	-	-	-	-
Stage 2	-	-	-	-	-	-	398	408	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.7	13.9	19.7
HCM LOS		B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	406	1617	-	-	331
HCM Lane V/C Ratio	0.006	0.038	-	-	0.265
HCM Control Delay (s/veh)	13.9	7.3	0	-	19.7
HCM Lane LOS	B	A	A	-	C
HCM 95th %tile Q (veh)	0	0.1	-	-	1

Queues

Existing Build Conditions

2: S San Joaquin Street/N San Joaquin Street & Main Street

Timing Plan: AM PEAK



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	71	250	256
v/c Ratio	0.50	0.21	0.20
Control Delay (s/veh)	38.9	12.2	14.7
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	38.9	12.2	14.7
Queue Length 50th (ft)	29	27	36
Queue Length 95th (ft)	60	43	65
Internal Link Dist (ft)	301	264	331
Turn Bay Length (ft)			
Base Capacity (vph)	260	1163	1261
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.27	0.21	0.20
Intersection Summary			

Queues

Existing Build Conditions

3: S Sutter Street/N Sutter Street & Main Street

Timing Plan: AM PEAK



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	55	102	144
v/c Ratio	0.14	0.22	0.15
Control Delay (s/veh)	12.2	15.0	20.0
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	12.2	15.0	20.0
Queue Length 50th (ft)	15	20	24
Queue Length 95th (ft)	m33	36	41
Internal Link Dist (ft)	298	256	344
Turn Bay Length (ft)			
Base Capacity (vph)	382	451	904
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.14	0.23	0.16

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Existing Build Conditions

4: California Street & Main Street

Timing Plan: AM PEAK



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	143	307	255
v/c Ratio	0.38	0.62	0.50
Control Delay (s/veh)	38.8	21.8	25.8
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	38.8	21.8	25.8
Queue Length 50th (ft)	63	118	93
Queue Length 95th (ft)	m79	181	150
Internal Link Dist (ft)	307	257	324
Turn Bay Length (ft)			
Base Capacity (vph)	368	494	501
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.39	0.62	0.51

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Existing Build Conditions

5: S American Street/N American Street & Main Street

Timing Plan: AM PEAK



Lane Group	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	327	58	53	34
v/c Ratio	0.94	0.13	0.10	0.08
Control Delay (s/veh)	66.7	19.7	19.9	19.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.7	19.7	19.9	19.8
Queue Length 50th (ft)	141	13	17	11
Queue Length 95th (ft)	141	19	27	20
Internal Link Dist (ft)	303	260	330	
Turn Bay Length (ft)				
Base Capacity (vph)	346	439	505	412
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.95	0.13	0.10	0.08
Intersection Summary				

Queues

Existing Build Conditions

6: S Stanislaus Street/N Stanislaus Street & Main Street

Timing Plan: AM PEAK



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	179	712	311
v/c Ratio	0.27	0.48	0.17
Control Delay (s/veh)	17.5	9.6	9.4
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	17.5	9.7	9.4
Queue Length 50th (ft)	54	61	34
Queue Length 95th (ft)	76	67	42
Internal Link Dist (ft)	300	272	338
Turn Bay Length (ft)			
Base Capacity (vph)	648	1454	1755
Starvation Cap Reductn	0	47	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.28	0.51	0.18
Intersection Summary			

Queues

Existing Build Conditions

11: Airport Way & Main Street

Timing Plan: AM PEAK



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	218	866	728
v/c Ratio	0.50	0.40	0.32
Control Delay (s/veh)	22.8	5.3	7.5
Queue Delay	0.0	0.1	0.0
Total Delay (s/veh)	22.8	5.5	7.5
Queue Length 50th (ft)	91	121	86
Queue Length 95th (ft)	177	11	115
Internal Link Dist (ft)	310	254	262
Turn Bay Length (ft)			
Base Capacity (vph)	429	2125	2274
Starvation Cap Reductn	0	413	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.51	0.51	0.32
Intersection Summary			

Queues

Existing Build Conditions

13: S Wilson Way & Main Street

Timing Plan: AM PEAK



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	245	215	33	753	689
v/c Ratio	0.73	0.46	0.06	0.30	0.27
Control Delay (s/veh)	47.4	7.6	11.2	9.8	5.6
Queue Delay	0.0	0.0	0.0	0.4	0.0
Total Delay (s/veh)	47.4	7.6	11.2	10.3	5.6
Queue Length 50th (ft)	133	0	5	70	63
Queue Length 95th (ft)	195	53	m34	213	112
Internal Link Dist (ft)	710			271	283
Turn Bay Length (ft)		300	70		
Base Capacity (vph)	462	564	497	2495	2483
Starvation Cap Reductn	0	0	0	1205	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.53	0.38	0.07	0.58	0.28

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Existing Build Conditions

17: Main Street & D Street

Timing Plan: AM PEAK



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	291	447	15
v/c Ratio	0.21	0.26	0.03
Control Delay (s/veh)	2.6	2.0	8.1
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	2.6	2.0	8.1
Queue Length 50th (ft)	5	0	1
Queue Length 95th (ft)	46	75	11
Internal Link Dist (ft)	615	624	178
Turn Bay Length (ft)			
Base Capacity (vph)	1790	1797	1503
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.16	0.25	0.01
Intersection Summary			

Queues

Existing Build Conditions

25: Golden Gate Avenue & Main Street

Timing Plan: AM PEAK

						
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	3	452	29	522	124	54
v/c Ratio	0.01	0.44	0.11	0.45	0.34	0.13
Control Delay (s/veh)	32.0	13.6	29.3	11.2	19.9	17.5
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (s/veh)	32.0	13.6	29.3	11.3	19.9	17.5
Queue Length 50th (ft)	1	56	6	68	21	8
Queue Length 95th (ft)	10	288	41	320	89	45
Internal Link Dist (ft)		249		250	364	346
Turn Bay Length (ft)	95		95			
Base Capacity (vph)	944	1570	944	1628	1159	1366
Starvation Cap Reductn	0	0	0	352	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.29	0.03	0.41	0.11	0.04
Intersection Summary						

Queues

Existing Build Conditions

27: Netherton Avenue & Main Street

Timing Plan: AM PEAK



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	4	370	32	515	77	108
v/c Ratio	0.01	0.36	0.10	0.45	0.20	0.27
Control Delay (s/veh)	27.0	12.4	24.5	10.6	9.2	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.0	12.4	24.5	10.6	9.2	10.4
Queue Length 50th (ft)	1	32	5	49	3	6
Queue Length 95th (ft)	12	220	43	309	38	52
Internal Link Dist (ft)		247		244	354	364
Turn Bay Length (ft)	90		90			
Base Capacity (vph)	1222	1602	1436	1662	1246	1257
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.23	0.02	0.31	0.06	0.09
Intersection Summary						

Queues

Existing Build Conditions

29: S Center Street & Market Street

Timing Plan: AM PEAK



Lane Group	EBT	SBT
Lane Group Flow (vph)	111	1500
v/c Ratio	0.22	0.48
Control Delay (s/veh)	16.1	9.3
Queue Delay	0.0	0.0
Total Delay (s/veh)	16.1	9.3
Queue Length 50th (ft)	26	140
Queue Length 95th (ft)	65	169
Internal Link Dist (ft)	316	666
Turn Bay Length (ft)		
Base Capacity (vph)	504	3110
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.22	0.48
Intersection Summary		

Queues

Existing Build Conditions

30: S El Dorado Street & Market Street

Timing Plan: AM PEAK



Lane Group	EBT	NBT
Lane Group Flow (vph)	236	1974
v/c Ratio	0.48	0.62
Control Delay (s/veh)	26.5	10.8
Queue Delay	0.0	0.0
Total Delay (s/veh)	26.5	10.8
Queue Length 50th (ft)	102	212
Queue Length 95th (ft)	166	236
Internal Link Dist (ft)	266	322
Turn Bay Length (ft)		
Base Capacity (vph)	488	3142
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.48	0.63
Intersection Summary		

Queues

Existing Build Conditions

32: S San Joaquin Street & Market Street

Timing Plan: AM PEAK

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	271	262	155
v/c Ratio	0.44	0.15	0.10
Control Delay (s/veh)	19.4	7.4	3.8
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	19.4	7.4	3.8
Queue Length 50th (ft)	83	23	5
Queue Length 95th (ft)	125	35	8
Internal Link Dist (ft)	297	287	264
Turn Bay Length (ft)			
Base Capacity (vph)	615	1716	1544
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.44	0.15	0.10
Intersection Summary			

Queues

Existing Build Conditions

33: S Sutter Street & Market Street

Timing Plan: AM PEAK

	→	↑	↗	↓
Lane Group	EBT	NBT	NBR	SBT
Lane Group Flow (vph)	244	136	21	132
v/c Ratio	0.33	0.17	0.03	0.09
Control Delay (s/veh)	17.2	13.0	3.7	3.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.2	13.0	3.7	3.4
Queue Length 50th (ft)	71	35	0	3
Queue Length 95th (ft)	85	55	6	5
Internal Link Dist (ft)	296	293		256
Turn Bay Length (ft)				
Base Capacity (vph)	724	798	580	1431
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.34	0.17	0.04	0.09
Intersection Summary				

Queues

Existing Build Conditions

34: California Street & Market Street

Timing Plan: AM PEAK

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	131	450	327
v/c Ratio	0.26	0.42	0.33
Control Delay (s/veh)	9.8	8.7	1.1
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	9.8	8.7	1.1
Queue Length 50th (ft)	16	87	2
Queue Length 95th (ft)	27	111	2
Internal Link Dist (ft)	309	298	257
Turn Bay Length (ft)			
Base Capacity (vph)	497	1066	987
Starvation Cap Reductn	0	0	15
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.26	0.42	0.34
Intersection Summary			

Queues

Existing Build Conditions

35: S American Street & Market Street

Timing Plan: AM PEAK

	→	↓
Lane Group	EBT	SBT
Lane Group Flow (vph)	317	200
v/c Ratio	0.30	0.49
Control Delay (s/veh)	8.9	18.5
Queue Delay	0.0	0.0
Total Delay (s/veh)	8.9	18.5
Queue Length 50th (ft)	65	82
Queue Length 95th (ft)	59	75
Internal Link Dist (ft)	303	260
Turn Bay Length (ft)		
Base Capacity (vph)	1051	401
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.30	0.50
Intersection Summary		

Queues

Existing Build Conditions

36: S Stanislaus Street & Market Street

Timing Plan: AM PEAK

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	352	783	312
v/c Ratio	0.57	0.44	0.19
Control Delay (s/veh)	19.6	11.9	7.1
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	19.6	11.9	7.1
Queue Length 50th (ft)	136	103	15
Queue Length 95th (ft)	140	106	18
Internal Link Dist (ft)	304	325	272
Turn Bay Length (ft)			
Base Capacity (vph)	613	1752	1628
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.57	0.45	0.19
Intersection Summary			

Queues

Existing Build Conditions

41: Airport Way & Market Street

Timing Plan: AM PEAK

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	134	949	743
v/c Ratio	0.61	0.35	0.37
Control Delay (s/veh)	47.8	4.4	3.8
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	47.8	4.4	3.8
Queue Length 50th (ft)	75	63	35
Queue Length 95th (ft)	113	159	55
Internal Link Dist (ft)	289	285	254
Turn Bay Length (ft)			
Base Capacity (vph)	438	2693	1999
Starvation Cap Reductn	0	0	181
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.31	0.35	0.41
Intersection Summary			

Queues

Existing Build Conditions

43: S Wilson Way & Market Street

Timing Plan: AM PEAK

	→	↑	↘	↓
Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	218	797	126	663
v/c Ratio	0.72	0.41	0.62	0.26
Control Delay (s/veh)	51.7	13.6	45.3	6.4
Queue Delay	0.0	0.0	0.0	0.2
Total Delay (s/veh)	51.7	13.6	45.3	6.6
Queue Length 50th (ft)	117	130	70	90
Queue Length 95th (ft)	156	211	126	153
Internal Link Dist (ft)	296	296		271
Turn Bay Length (ft)			90	
Base Capacity (vph)	417	1922	255	2546
Starvation Cap Reductn	0	0	0	1082
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.52	0.41	0.49	0.45
Intersection Summary				

Queues

Existing Build Conditions

2: S San Joaquin Street/N San Joaquin Street & Main Street

Timing Plan: PM PEAK



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	84	146	165
v/c Ratio	0.54	0.11	0.12
Control Delay (s/veh)	41.4	10.6	14.5
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	41.4	10.6	14.5
Queue Length 50th (ft)	35	13	23
Queue Length 95th (ft)	69	22	44
Internal Link Dist (ft)	301	264	331
Turn Bay Length (ft)			
Base Capacity (vph)	261	1309	1356
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.32	0.11	0.12
Intersection Summary			

Queues

Existing Build Conditions

3: S Sutter Street/N Sutter Street & Main Street

Timing Plan: PM PEAK



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	79	186	137
v/c Ratio	0.21	0.38	0.15
Control Delay (s/veh)	16.5	16.7	19.9
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	16.5	16.7	19.9
Queue Length 50th (ft)	28	37	23
Queue Length 95th (ft)	m54	56	38
Internal Link Dist (ft)	298	256	344
Turn Bay Length (ft)			
Base Capacity (vph)	373	487	907
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.21	0.38	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Existing Build Conditions

4: California Street & Main Street

Timing Plan: PM PEAK

	←	↑	↓
Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	107	258	295
v/c Ratio	0.28	0.52	0.58
Control Delay (s/veh)	41.6	21.9	27.7
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	41.6	21.9	27.7
Queue Length 50th (ft)	49	98	110
Queue Length 95th (ft)	92	160	177
Internal Link Dist (ft)	307	257	324
Turn Bay Length (ft)			
Base Capacity (vph)	375	496	502
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.29	0.52	0.59
Intersection Summary			

Queues

Existing Build Conditions

5: S American Street/N American Street & Main Street

Timing Plan: PM PEAK



Lane Group	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	134	32	14	18
v/c Ratio	0.48	0.05	0.02	0.03
Control Delay (s/veh)	30.2	13.6	16.1	16.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.2	13.6	16.1	16.3
Queue Length 50th (ft)	52	4	4	5
Queue Length 95th (ft)	98	16	14	17
Internal Link Dist (ft)	303	260	330	
Turn Bay Length (ft)				
Base Capacity (vph)	279	600	612	508
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	0.05	0.02	0.04
Intersection Summary				

Queues

Existing Build Conditions

6: S Stanislaus Street/N Stanislaus Street & Main Street

Timing Plan: PM PEAK



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	143	313	330
v/c Ratio	0.22	0.20	0.18
Control Delay (s/veh)	16.9	8.1	9.8
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	16.9	8.1	9.8
Queue Length 50th (ft)	42	26	37
Queue Length 95th (ft)	81	38	59
Internal Link Dist (ft)	300	272	338
Turn Bay Length (ft)			
Base Capacity (vph)	639	1552	1764
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.22	0.20	0.19
Intersection Summary			

Queues

Existing Build Conditions

11: Airport Way & Main Street

Timing Plan: PM PEAK



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	189	926	806
v/c Ratio	0.44	0.43	0.35
Control Delay (s/veh)	24.1	4.7	7.8
Queue Delay	0.0	0.1	0.0
Total Delay (s/veh)	24.1	4.8	7.8
Queue Length 50th (ft)	75	130	98
Queue Length 95th (ft)	156	11	130
Internal Link Dist (ft)	310	254	262
Turn Bay Length (ft)			
Base Capacity (vph)	424	2153	2273
Starvation Cap Reductn	0	338	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.45	0.51	0.35
Intersection Summary			

Queues

Existing Build Conditions

13: S Wilson Way & Main Street

Timing Plan: PM PEAK



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	224	189	28	965	992
v/c Ratio	0.70	0.47	0.08	0.38	0.39
Control Delay (s/veh)	46.2	12.9	14.4	14.9	6.2
Queue Delay	0.0	0.0	0.0	1.7	0.0
Total Delay (s/veh)	46.2	12.9	14.4	16.7	6.2
Queue Length 50th (ft)	122	21	10	209	97
Queue Length 95th (ft)	179	72	m20	m283	176
Internal Link Dist (ft)	710			271	283
Turn Bay Length (ft)		300	70		
Base Capacity (vph)	464	508	349	2525	2513
Starvation Cap Reductn	0	0	0	1337	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.48	0.37	0.08	0.81	0.39

Intersection Summary

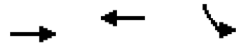
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Existing Build Conditions

17: Main Street & D Street

Timing Plan: PM PEAK



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	463	394	18
v/c Ratio	0.27	0.23	0.03
Control Delay (s/veh)	2.1	1.9	8.4
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	2.1	1.9	8.4
Queue Length 50th (ft)	0	0	1
Queue Length 95th (ft)	80	65	12
Internal Link Dist (ft)	615	624	178
Turn Bay Length (ft)			
Base Capacity (vph)	1770	1783	1481
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.26	0.22	0.01
Intersection Summary			

Queues

Existing Build Conditions

25: Golden Gate Avenue & Main Street

Timing Plan: PM PEAK

						
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	9	719	24	434	186	55
v/c Ratio	0.07	0.65	0.18	0.36	0.68	0.16
Control Delay (s/veh)	41.2	16.7	41.4	9.3	41.1	24.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	41.2	16.7	41.4	9.3	41.1	24.2
Queue Length 50th (ft)	4	148	9	69	68	16
Queue Length 95th (ft)	21	#590	40	246	161	52
Internal Link Dist (ft)		249		250	364	346
Turn Bay Length (ft)	95		95			
Base Capacity (vph)	474	1137	474	1248	732	899
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.63	0.05	0.35	0.25	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

Existing Build Conditions

27: Netherton Avenue & Main Street

Timing Plan: PM PEAK



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	11	480	38	396	95	87
v/c Ratio	0.03	0.46	0.11	0.37	0.23	0.22
Control Delay (s/veh)	23.1	12.3	21.4	10.6	8.1	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.1	12.3	21.4	10.6	8.1	9.6
Queue Length 50th (ft)	2	43	5	33	4	5
Queue Length 95th (ft)	20	311	45	232	40	43
Internal Link Dist (ft)		247		244	354	364
Turn Bay Length (ft)	90		90			
Base Capacity (vph)	1319	1635	1521	1676	1290	1264
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.29	0.02	0.24	0.07	0.07
Intersection Summary						

Queues

Existing Build Conditions

29: S Center Street & Market Street

Timing Plan: PM PEAK



Lane Group	EBT	SBT
Lane Group Flow (vph)	107	2008
v/c Ratio	0.22	0.65
Control Delay (s/veh)	21.9	12.3
Queue Delay	0.0	0.0
Total Delay (s/veh)	21.9	12.3
Queue Length 50th (ft)	38	232
Queue Length 95th (ft)	78	281
Internal Link Dist (ft)	316	666
Turn Bay Length (ft)		
Base Capacity (vph)	485	3053
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.22	0.66
Intersection Summary		

Queues

Existing Build Conditions

30: S El Dorado Street & Market Street

Timing Plan: PM PEAK



Lane Group	EBT	NBT
Lane Group Flow (vph)	129	1547
v/c Ratio	0.23	0.51
Control Delay (s/veh)	17.7	11.0
Queue Delay	0.0	0.0
Total Delay (s/veh)	17.7	11.0
Queue Length 50th (ft)	34	163
Queue Length 95th (ft)	m64	200
Internal Link Dist (ft)	266	322
Turn Bay Length (ft)		
Base Capacity (vph)	556	2979
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.23	0.52

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Existing Build Conditions

32: S San Joaquin Street & Market Street

Timing Plan: PM PEAK

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	157	189	164
v/c Ratio	0.25	0.11	0.09
Control Delay (s/veh)	14.8	6.3	3.2
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	14.8	6.3	3.2
Queue Length 50th (ft)	39	14	4
Queue Length 95th (ft)	77	28	7
Internal Link Dist (ft)	297	287	264
Turn Bay Length (ft)			
Base Capacity (vph)	619	1680	1661
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.25	0.11	0.10
Intersection Summary			

Queues

Existing Build Conditions

33: S Sutter Street & Market Street

Timing Plan: PM PEAK

	→	↑	↗	↓
Lane Group	EBT	NBT	NBR	SBT
Lane Group Flow (vph)	191	147	54	187
v/c Ratio	0.25	0.18	0.09	0.13
Control Delay (s/veh)	16.4	13.2	4.3	8.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.4	13.2	4.3	8.6
Queue Length 50th (ft)	58	38	0	13
Queue Length 95th (ft)	89	59	13	20
Internal Link Dist (ft)	296	293		256
Turn Bay Length (ft)				
Base Capacity (vph)	755	798	577	1363
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.25	0.18	0.09	0.14
Intersection Summary				

Queues

Existing Build Conditions

34: California Street & Market Street

Timing Plan: PM PEAK

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	169	247	308
v/c Ratio	0.34	0.23	0.29
Control Delay (s/veh)	14.9	6.9	0.6
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	14.9	6.9	0.6
Queue Length 50th (ft)	29	41	0
Queue Length 95th (ft)	56	74	0
Internal Link Dist (ft)	309	298	257
Turn Bay Length (ft)			
Base Capacity (vph)	497	1072	1037
Starvation Cap Reductn	0	0	52
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.34	0.23	0.31
Intersection Summary			

Queues

Existing Build Conditions

35: S American Street & Market Street

Timing Plan: PM PEAK



Lane Group	EBT	SBT
Lane Group Flow (vph)	256	55
v/c Ratio	0.24	0.13
Control Delay (s/veh)	5.0	15.0
Queue Delay	0.0	0.0
Total Delay (s/veh)	5.0	15.0
Queue Length 50th (ft)	32	12
Queue Length 95th (ft)	39	24
Internal Link Dist (ft)	303	260
Turn Bay Length (ft)		
Base Capacity (vph)	1055	406
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.24	0.14
Intersection Summary		

Queues

Existing Build Conditions

36: S Stanislaus Street & Market Street

Timing Plan: PM PEAK

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	234	360	452
v/c Ratio	0.37	0.20	0.26
Control Delay (s/veh)	11.2	9.3	8.1
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	11.2	9.3	8.1
Queue Length 50th (ft)	36	38	25
Queue Length 95th (ft)	47	55	32
Internal Link Dist (ft)	304	325	272
Turn Bay Length (ft)			
Base Capacity (vph)	628	1749	1681
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.37	0.21	0.27
Intersection Summary			

Queues

Existing Build Conditions

41: Airport Way & Market Street

Timing Plan: PM PEAK

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	198	987	863
v/c Ratio	0.73	0.38	0.46
Control Delay (s/veh)	52.1	5.2	5.0
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	52.1	5.2	5.0
Queue Length 50th (ft)	110	82	46
Queue Length 95th (ft)	161	167	69
Internal Link Dist (ft)	289	285	254
Turn Bay Length (ft)			
Base Capacity (vph)	444	2596	1838
Starvation Cap Reductn	0	0	3
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.45	0.38	0.47
Intersection Summary			

Queues

Existing Build Conditions

43: S Wilson Way & Market Street

Timing Plan: PM PEAK

	→	↑	↘	↓
Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	370	1013	198	857
v/c Ratio	0.92	0.61	0.82	0.36
Control Delay (s/veh)	59.3	19.6	59.0	9.1
Queue Delay	50.4	0.0	0.0	0.3
Total Delay (s/veh)	109.7	19.7	59.0	9.4
Queue Length 50th (ft)	156	219	112	146
Queue Length 95th (ft)	#348	286	#221	205
Internal Link Dist (ft)	296	296		271
Turn Bay Length (ft)			90	
Base Capacity (vph)	417	1650	255	2350
Starvation Cap Reductn	0	0	0	843
Spillback Cap Reductn	97	68	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.16	0.64	0.78	0.57

Intersection Summary

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

DETAILED OUTPUT

 Site: 101 [Main St._Market St._AM]

New Site
Site Category: (None)
Roundabout

OUTPUT TABLE LINKS

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Roundabouts

Roundabout Basic Parameters
Site: Main St._Market St._AM

Site ID: 101											
Roundabout											
Central Island Diam	Circ Width	Insc Diam.	Entry Radius	Entry Angle	Circ Lanes	Entry Lanes	Av.Entry Lane Width	App Dist	Prop Upstr	Queued Signal	Extra Bunching
ft	ft	ft	ft	deg			ft	ft			%

South: Locust Street											
40.0	25.0	120.0U	100.0	30.0	1	1	13.00	200		NA	0.0N

East: Main Street											
40.0	15.0	120.0U	100.0	30.0	1	1	13.00	400		NA	0.0N

NorthEast: Market Street											
40.0	15.0	120.0U	100.0	30.0	1	1	13.00	350		NA	0.0N

SouthWest: Market Street											
40.0	15.0	120.0U	100.0	30.0	1	1	13.00	300		NA	0.0N

Roundabout Capacity Model: SIDRA Standard											
U Inscribed diameter value was specified by the user.											
NA Not Applicable (single Site analysis or unconnected Site in Network analysis).											
N Program option resulted in zero value (single Site analysis or unconnected Site in Network analysis).											

[Go to Table Links \(Top\)](#)Roundabout Circulating / Exiting Stream Parameters
Site: Main St._Market St._AMSite ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	Opng Flow veh/h	HVE pcu/veh	Adj. Flow pcu/h	%Near Lane Only	%Exit Flow Incl.	Cap. Const. Effect	O-D Factor	Aver Speed mph	In-Bunch Headway sec	Prop. Bunched
South: Locust Street													
W	L2	1	Dominant	317	1.02	324	0.0	0.0	N	0.997	22.0	2.00	0.325
E	R2	1	Dominant	317	1.02	324	0.0	0.0	N	0.997	22.0	2.00	0.325
East: Main Street													
S	L2	1	Dominant	18	1.02	19	0.0	0.0	N	1.000	14.6	2.00	0.023
W	T1	1	Dominant	18	1.02	19	0.0	0.0	N	1.000	14.6	2.00	0.023
NorthEast: Market Street													
E	L3	1	Dominant	498	1.02	508	0.0	0.0	N	0.983	23.5	2.00	0.464
S	L1	1	Dominant	498	1.02	508	0.0	0.0	N	0.983	23.5	2.00	0.464
W	R1	1	Dominant	498	1.02	508	0.0	0.0	N	0.983	23.5	2.00	0.464
SouthWest: Market Street													
W	L3	1	Dominant	3	1.02	3	0.0	0.0	N	1.000	13.9	2.00	0.004
E	R1	1	Dominant	3	1.02	3	0.0	0.0	N	1.000	13.9	2.00	0.004
S	R3	1	Dominant	3	1.02	3	0.0	0.0	N	1.000	13.9	2.00	0.004
Roundabout Capacity Model: SIDRA Standard													

[Go to Table Links \(Top\)](#)Roundabout Gap Acceptance Parameters
Site: Main St._Market St._AMSite ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	In-Bunch Headway sec	Prop. Bunched	Priority Sharing	HVE for Entry	Critical Gap		Follow-up Headway sec
								Headway sec	Dist ft	
South: Locust Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
W	L2	1	Dominant	2.00	0.325	N	1.02	4.78	154.5	2.57
E	R2	1	Dominant	2.00	0.325	N	1.02	4.78	154.5	2.57
East: Main Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
S	L2	1	Dominant	2.00	0.023	N	1.02	5.28	113.5	2.69
W	T1	1	Dominant	2.00	0.023	N	1.02	5.28	113.5	2.69
NorthEast: Market Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
E	L3	1	Dominant	2.00	0.464	N	1.02	4.52	156.0	2.50
S	L1	1	Dominant	2.00	0.464	N	1.02	4.52	156.0	2.50
W	R1	1	Dominant	2.00	0.464	N	1.02	4.52	156.0	2.50
SouthWest: Market Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
W	L3	1	Dominant	2.00	0.004	N	1.02	5.31	108.5	2.69
E	R1	1	Dominant	2.00	0.004	N	1.02	5.31	108.5	2.69
S	R3	1	Dominant	2.00	0.004	N	1.02	5.31	108.5	2.69
Roundabout Capacity Model: SIDRA Standard										

Dist (Distance): Spacing, i.e. distance between the front ends of two successive vehicles across all lanes in the circulating or exiting stream

[Go to Table Links \(Top\)](#)

Roundabout Flow Rates

Site: Main St._Market St._AM

Site ID: 101
Roundabout

CIRCULATING LANE FLOW RATES

Lane No.	Circulating Flow Rate		
	veh/h	pcu/h	Percent
South: Locust Street			
1	317	324	100.0%
Total	317	324	
East: Main Street			
1	18	19	100.0%
Total	18	19	
NorthEast: Market Street			
1	498	508	100.0%
Total	498	508	
SouthWest: Market Street			
1	3	3	100.0%
Total	3	3	

The SIDRA Standard roundabout capacity model option is in use.
This model takes into account the total circulating flow as well as the effect of flow distribution in circulating lanes on the entry capacity results.

APPROACH LANE FLOW RATES

Lane No.	Approach Flows (veh/h)		
	Out	To Downst	Total
South: Locust Street			
1	2	1	3
Total	2	1	3
East: Main Street			
1	0	479	479
Total	0	479	479
NorthEast: Market Street			
1	37	2	39
Total	37	2	39
SouthWest: Market Street			
1	2	316	318
Total	2	316	318

[Go to Table Links \(Top\)](#)

Roundabout Pedestrian Effects

Site: Main St._Market St._AM

Site ID: 101
Roundabout

ROUNDAABOUT ENTRY

Lane	Turn	Pedestrian Flow Rate ped/h	Adj.Flow Rate ped/h	Opposing Ped.Factor	Circulating Flow Rate veh/h	Circulating Flow Rate pcu/h	Adjustment Factor
South: Locust Street							
1	L2	1	1	1.00	317	324	1.000
1	R2	1	1	1.00	317	324	1.000
East: Main Street							

Detailed Output

From Approach	To Exit	Turn	Radius ft	Speed mph	Dist ft	Dist ft	Dist ft	Dist ft

South: Locust Street								
	West	L2	49.0	14.6	192.4	200	91	NA
	East	R2	88.6	18.3	46.5	200	122	NA

East: Main Street								
	South	L2	44.5	14.1	174.8	400	61	NA
	West	T1	180.0	23.9	115.8	400	91	NA

NorthEast: Market Street								
	East	L3	43.0	13.9	202.6	350	122	NA
	South	L1	42.3	13.8	133.0	350	61	NA
	West	R1	180.0	23.9	86.9	350	91	NA

SouthWest: Market Street								
	West	L3	49.5	14.7	233.3	300	91	NA
	East	R1	153.0	22.5	85.8	300	122	NA
	South	R3	75.0	17.2	32.8	300	61	NA

Maximum Negotiation (Design) Speed = 30.0 mph

NA Downstream Distance does not apply if:

- Exit is an internal leg of a network
- "Program" option was specified
- Distance specified was less than the Exit Negotiation Distance
- Distance specified was greater than the exit leg length

MOVEMENT SPEEDS AND GEOMETRIC DELAY

		App. Speeds		Exit Speeds		Queue	Geom Delay
		Cruise	Negn	Negn	Cruise	Move-up	
Mov ID	Turn	mph	mph	mph	mph	Speed mph	sec

South: Locust Street							
3	L2	30.0	14.6	14.6	30.0	25.9	7.0
18	R2	30.0	18.3	18.3	30.0	25.9	2.4

East: Main Street							
1	L2	30.0	14.1	14.1	30.0	38.4	7.0
6	T1	30.0	23.9	23.9	30.0	38.4	1.6

NorthEast: Market Street							
1bx	L3	30.0	13.9	13.9	30.0	22.4	7.9
1ax	L1	30.0	13.8	13.8	30.0	22.4	6.1
16ax	R1	30.0	23.9	23.9	30.0	22.4	1.5

SouthWest: Market Street							
5bx	L3	30.0	14.7	14.7	30.0	35.4	8.0
12ax	R1	30.0	22.5	22.5	30.0	35.4	1.9
12bx	R3	30.0	17.2	17.2	30.0	35.4	2.6

[Go to Table Links \(Top\)](#)

Movement Capacity and Performance Parameters

Site: Main St._Market St._AM

Site ID: 101
Roundabout

MOVEMENT CAPACITY PARAMETERS

Mov ID	Turn	Mov Cl.	Arv Flow veh/h	Opng Flow veh/h	Movement Adjust. Flow pcu/h	Total Cap. veh/h	Prac. Deg. Satn xp	Prac. Spare Cap. %	Deg. Satn x

South: Locust Street									
3	L2	#	1	317	324	340	0.85	****	0.003
18	R2	#	2	317	324	681	0.85	****	0.003

East: Main Street

Detailed Output

1	L2	#	1	18	19	3	0.85	133	0.366*	
6	T1	#	478	18	19	1308	0.85	133	0.366*	

NorthEast: Market Street										
1bx	L3	#	1	498	508	25	0.85	1831	0.044	
1ax	L1	#	1	498	508	25	0.85	1831	0.044	
16ax	R1	#	37	498	508	839	0.85	1831	0.044	

SouthWest: Market Street										
5bx	L3	#	17	3	3	73	0.85	255	0.239	
12ax	R1	#	299	3	3	1249	0.85	255	0.239	
12bx	R3	#	2	3	3	9	0.85	255	0.239	

* Maximum degree of saturation										
# Combined Movement Capacity parameters are shown for all Movement Classes.										
MOVEMENT PERFORMANCE										

Mov ID	Turn	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Eff. Stop Rate	Total Stops	Perf. Index	Tot.Trav. Distance (veh-mi/h)	Tot.Trav. Time (veh-h/h)	Aver. Speed (mph)

South: Locust Street										
3	L2	0.00	0.00	8.4	0.48	0.5	0.02	0.1	0.0	19.8
18	R2	0.00	0.00	3.9	0.48	1.0	0.03	0.3	0.0	22.4

East: Main Street										
1	L2	0.00	0.00	7.2	0.23	0.2	1.95	0.1	0.0	24.2
6	T1	0.24	0.28	1.8	0.23	108.1	5.24	73.9	2.5	29.8

NorthEast: Market Street										
1bx	L3	0.00	0.00	10.6	0.50	0.5	0.19	0.2	0.0	27.6
1ax	L1	0.00	0.00	8.8	0.50	0.5	0.19	0.1	0.0	21.1
16ax	R1	0.04	0.05	4.1	0.50	18.5	0.50	5.2	0.2	25.4

SouthWest: Market Street										
5bx	L3	0.04	0.05	8.0	0.28	5.0	1.35	2.3	0.1	23.0
12ax	R1	0.16	0.19	1.9	0.28	85.1	3.34	44.9	1.6	28.7
12bx	R3	0.00	0.00	2.6	0.28	0.6	1.22	0.2	0.0	25.0

[Go to Table Links \(Top\)](#)

Fuel Consumption, Emissions and Cost

Site: Main St._Market St._AM

 Site ID: 101
 Roundabout

FUEL CONSUMPTION, EMISSIONS AND COST (TOTAL)

Mov ID	Turn	Cost Total \$/h	Fuel Total gal/h	CO2 Total kg/h	CO Total kg/h	HC Total kg/h	NOX Total kg/h

South: Locust Street							
3	L2	0.12	0.0	0.1	0.00	0.000	0.000
18	R2	0.24	0.0	0.2	0.00	0.000	0.000
		0.36	0.0	0.3	0.00	0.000	0.000

East: Main Street							
1	L2	0.09	0.0	0.1	0.00	0.000	0.000
6	T1	41.99	3.1	27.7	0.02	0.002	0.036
		42.08	3.1	27.8	0.02	0.002	0.036

NorthEast: Market Street							
1bx	L3	0.11	0.0	0.1	0.00	0.000	0.000
1ax	L1	0.11	0.0	0.1	0.00	0.000	0.000
16ax	R1	3.73	0.3	2.5	0.00	0.000	0.003
		3.95	0.3	2.6	0.00	0.000	0.004

SouthWest: Market Street							
5bx	L3	1.37	0.1	1.0	0.00	0.000	0.001

Detailed Output

12ax	R1	23.81	2.0	17.8	0.01	0.001	0.021
12bx	R3	0.17	0.0	0.1	0.00	0.000	0.000
		25.35	2.1	18.9	0.01	0.002	0.022
INTERSECTION:		71.74	5.5	49.6	0.04	0.004	0.062

FUEL CONSUMPTION, EMISSIONS AND COST (RATE)

Mov ID	Turn	Cost Rate \$/mi	Fuel Eff. mpg	CO2 Rate g/km	CO Rate g/km	HC Rate g/km	NOX Rate g/km
South: Locust Street							
3	L2	0.99	12.8	434.6	0.38	0.040	0.544
18	R2	0.85	14.1	393.6	0.34	0.036	0.483
		0.89	13.7	405.9	0.35	0.037	0.501
East: Main Street							
1	L2	0.64	22.7	244.6	0.18	0.019	0.323
6	T1	0.57	23.8	233.0	0.17	0.018	0.299
		0.57	23.8	233.0	0.17	0.018	0.299
NorthEast: Market Street							
1bx	L3	0.64	19.8	280.8	0.23	0.024	0.374
1ax	L1	0.82	17.2	321.7	0.27	0.028	0.452
16ax	R1	0.72	18.6	298.5	0.24	0.026	0.408
		0.72	18.6	298.5	0.24	0.026	0.408
SouthWest: Market Street							
5bx	L3	0.60	21.3	260.8	0.20	0.021	0.315
12ax	R1	0.53	22.5	246.8	0.19	0.020	0.291
12bx	R3	0.69	19.9	279.5	0.22	0.023	0.347
		0.53	22.4	247.6	0.19	0.020	0.292
INTERSECTION:		0.56	23.0	241.8	0.18	0.019	0.301

[Go to Table Links \(Top\)](#)

Lanes

Lane Performance and Capacity Information

Site: Main St._Market St._AM

 Site ID: 101
 Roundabout

LANE PERFORMANCE

Lane No.	Flow veh/h	Cap veh/h	Deg. Satn x	Aver. Delay sec	Eff. Stop Rate	Q u e u e 95% Back veh	Lane Length ft
South: Locust Street							
1	3	1021	0.003	5.4	0.48	0.0	200.0
East: Main Street							
1	479	1311	0.366	1.8	0.23	2.4	400.0
NorthEast: Market Street							
1	39	889	0.044	4.5	0.50	0.2	350.0
SouthWest: Market Street							
1	318	1331	0.239	2.2	0.28	1.5	300.0

Detailed Output

LANE FLOW AND CAPACITY INFORMATION

Lane No.	Total Arv Flow veh/h	Min Cap veh/h	Tot Cap veh/h	Deg. Satn x	Lane Util %
South: Locust Street					
1	3	3	1021	0.003	100
East: Main Street					
1	479	150	1311	0.366	100
NorthEast: Market Street					
1	39	39	889	0.044	100
SouthWest: Market Street					
1	318	150	1331	0.239	100

The capacity values of Continuous Lanes are obtained by adjusting the basic saturation flow for lane width, grade, movement class and turning vehicle effects. Saturation flow scale applies if specified.

[Go to Table Links \(Top\)](#)

Lane, Approach and Intersection Performance

Site: Main St._Market St._AM

Site ID: 101
Roundabout

Lane No.	Arrival Flow (veh/h)	%HV	Adj. Basic Satf.	Deg Sat x	Aver. Delay sec	Longest Queue ft	Lane Length ft
South: Locust Street							
1	3	2		0.003	5.4	0	200
	3	2		0.003	5.4	0	
East: Main Street							
1	479	2		0.366	1.8	61	400
	479	2		0.366	1.8	61	
NorthEast: Market Street							
1	39	2		0.044	4.5	6	350
	39	2		0.044	4.5	6	
SouthWest: Market Street							
1	318	2		0.239	2.2	38	300
	318	2		0.239	2.2	38	

ALL VEHICLES

Total Flow	% HV	Max X	Aver. Delay	Max Queue
840	2	0.366	2.1	61

Peak flow period = 15 minutes.

Queue values in this table are 95% queue (feet)

Note: Basic Saturation Flows at roundabouts or sign-controlled intersections apply only to continuous lanes.

[Go to Table Links \(Top\)](#)

Driver Characteristics

Site: Main St._Market St._AM

Site ID: 101
Roundabout

Lane	Satn	Satn	Satn	Satn	Average Queue	Driver Response

Detailed Output

No.	Speed mph	Flow veh/h	Hdwy sec	Spacing ft	Space ft	Time sec

South: Locust Street						
1	17.0	1400	2.57	64.32	25.40	1.56

East: Main Street						
1	23.9	1339	2.69	94.17	25.40	1.96

NorthEast: Market Street						
1	23.3	1439	2.50	85.67	25.40	1.76

SouthWest: Market Street						
1	22.0	1336	2.69	86.99	25.40	1.91

Saturation Flow and Saturation Headway are derived from follow-up headway.						

[Go to Table Links \(Top\)](#)

Lane Delays

Site: Main St._Market St._AM

Site ID: 101
Roundabout

LANE DELAYS

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Delay (seconds/veh)									
				Min Del dm	Stop-line 1st d1	2nd d2	Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
South: Locust Street													
1	0.003	NA	NA	1.3	1.5	0.0	1.5	1.6	0.0	0.0	0.0	3.9	5.4
East: Main Street													
1	0.366	NA	NA	0.1	0.1	0.0	0.1	0.8	0.0	0.0	0.0	1.7	1.8
NorthEast: Market Street													
1	0.044	NA	NA	2.3	2.7	0.0	2.7	2.8	0.1	0.0	0.1	1.8	4.5
SouthWest: Market Street													
1	0.239	NA	NA	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	2.2	2.2

SIDRA Standard Delay Model is used. Control Delay is the sum of Stop-line Delay and Geometric Delay.

dm: Minimum delay for gap acceptance cases

dSL: Stop-line delay (=d1+d2)

dn: Average stop-start delay for all vehicles queued and unqueued

dq: Queuing delay (the part of the stop-line delay that includes stopped delay and queue move-up delay)

dqm: Queue move-up delay

di: Stopped delay (stopped (idling) time at near-zero speed)

dig: Geometric delay

dic: Control delay

Geometric delay is less than 2 seconds for some movements. The negotiation speed may be too high or the approach and exit speeds may be too low for given geometric design (e.g. for a large roundabout).

Check Detailed Output for geometric delay data including negotiation speeds.

If necessary, specify appropriate values of approach and exit speeds, negotiation radius or negotiation speed data in the Path Data dialog.

[Go to Table Links \(Top\)](#)

Lane Queues

Site: Main St._Market St._AM

Site ID: 101
Roundabout

BACK OF QUEUE (VEHICLES)

Deg.	% Arv	Prog.	Ovrfl.	Back of Queue (veh)	Queue Stor.	Prob.	Prob.

Lane No.	Satn x	During Green	Factor	Queue No	-----				Ratio Av.	95%	Block %	SL Ov. %
					Nb1	Nb2	Nb	95%				

South: Locust Street												
1	0.003	NA	NA	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	NA

East: Main Street												
1	0.366	NA	NA	0.0	1.0	0.0	1.0	2.4	0.06	0.15	0.0	NA

NorthEast: Market Street												
1	0.044	NA	NA	0.0	0.1	0.0	0.1	0.2	0.01	0.02	0.0	NA

SouthWest: Market Street												
1	0.239	NA	NA	0.0	0.6	0.0	0.6	1.5	0.05	0.13	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

BACK OF QUEUE (DISTANCE)

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (ft)				Queue Stor. Ratio Av.	95%	Prob. Block %	Prob. SL Ov. %
					Nb1	Nb2	Nb	95%				

South: Locust Street												
1	0.003	NA	NA	0.0	0.2	0.0	0.2	0.4	0.00	0.00	0.0	NA

East: Main Street												
1	0.366	NA	NA	0.0	24.7	0.0	24.7	61.3	0.06	0.15	0.0	NA

NorthEast: Market Street												
1	0.044	NA	NA	0.0	2.3	0.0	2.3	5.7	0.01	0.02	0.0	NA

SouthWest: Market Street												
1	0.239	NA	NA	0.0	15.4	0.0	15.4	38.2	0.05	0.13	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

OTHER QUEUE RESULTS (VEHICLES)

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Queue Nc	95%

South: Locust Street						
1	0.003	NA	NA	0.0	0.0	0.0

East: Main Street						
1	0.366	NA	NA	0.0	0.0	0.0

NorthEast: Market Street						
1	0.044	NA	NA	0.0	0.0	0.1

SouthWest: Market Street						
1	0.239	NA	NA	0.0	0.0	0.0

OTHER QUEUE RESULTS (DISTANCE)

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Queue Nc	95%

South: Locust Street						
1	0.003	NA	NA	0.0	0.0	0.1

East: Main Street						
1	0.366	NA	NA	0.0	0.5	0.9

NorthEast: Market Street						
1	0.044	NA	NA	0.0	0.7	1.3

SouthWest: Market Street						

1	0.239	NA	NA	0.0	0.0	0.1

[Go to Table Links \(Top\)](#)

Lane Queue Percentiles

Site: Main St._Market St._AM

Site ID: 101
Roundabout

LANE QUEUE PERCENTILES (VEHICLES)

Lane No.	Deg. Satn x	Percentile Back of Queue (veh)						
		50%	70%	85%	90%	95%	98%	100%
South: Locust Street								
1	0.003	0.0	0.0	0.0	0.0	0.0	0.0	0.0
East: Main Street								
1	0.366	1.0	1.3	1.8	2.1	2.4	2.7	2.9
NorthEast: Market Street								
1	0.044	0.1	0.1	0.2	0.2	0.2	0.3	0.3
SouthWest: Market Street								
1	0.239	0.6	0.8	1.1	1.3	1.5	1.7	1.8

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

LANE QUEUE PERCENTILES (DISTANCE)

Lane No.	Deg. Satn x	Percentile Back of Queue (feet)						
		50%	70%	85%	90%	95%	98%	100%
South: Locust Street								
1	0.003	0.2	0.2	0.3	0.3	0.4	0.4	0.5
East: Main Street								
1	0.366	24.7	32.0	45.1	52.2	61.3	68.1	73.2
NorthEast: Market Street								
1	0.044	2.3	3.0	4.2	4.9	5.7	6.4	6.8
SouthWest: Market Street								
1	0.239	15.4	19.9	28.1	32.5	38.2	42.4	45.6

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

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Lane Stops

Site: Main St._Market St._AM

Site ID: 101
Roundabout

	Deg.	% Arv	Prog.	-- Effective Stop Rate --				Total	Queue	Total	Prop.	Aver.
Lane	Satn	During	Factor	Geom. Overall				Stops	Move-up	Queue	Queued	Num. of
No.	x	Green		he1	he2	hig	h	H	Rate	Move-ups	pq	Cycles to
									hqm	Hqm		Depart
South: Locust Street												
1	0.003	NA	NA	0.21	0.00	0.27	0.48	1.5	0.00	0.0	0.43	0.43
East: Main Street												
1	0.366	NA	NA	0.04	0.00	0.19	0.23	108.3	0.00	0.0	0.13	0.13

NorthEast: Market Street												
1	0.044	NA	NA	0.39	0.00	0.11	0.50	19.6	0.00	0.0	0.55	0.55

SouthWest: Market Street												
1	0.239	NA	NA	0.01	0.00	0.28	0.28	90.7	0.00	0.0	0.04	0.04

hig is the average value for all movements in a shared lane												
hqm is average queue move-up rate for all vehicles queued and unqueued												

[Go to Table Links \(Top\)](#)

Flow Rates

Origin-Destination Flow Rates (Total)

Site: Main St._Market St._AM

Site ID: 101
Roundabout

TOTAL FLOW RATES for All Movement Classes (veh/h)

From SOUTH To:	W	E		
Turn:	L2	R2	TOT	
Flow Rate	1.1	2.2	3.3	
%HV (all designations)	2.0	2.0	2.0	

From EAST To:	S	W		
Turn:	L2	T1	TOT	
Flow Rate	1.1	478.3	479.3	
%HV (all designations)	2.0	2.0	2.0	

From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT
Flow Rate	1.1	1.1	37.0	39.1
%HV (all designations)	2.0	2.0	2.0	2.0

From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT
Flow Rate	17.4	298.9	2.2	318.5
%HV (all designations)	2.0	2.0	2.0	2.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Origin-Destination Flow Rates by Movement Class

Site: Main St._Market St._AM

Site ID: 101
Roundabout

FLOW RATES for Light Vehicles (veh/h)

From SOUTH To:	W	E	
Turn:	L2	R2	TOT

Flow Rate	1.1	2.1	3.2
Mov Class %	98.0	98.0	98.0
Flow Scale	1.00	1.00	-
Peak Flow Factor	0.92	0.92	-
Residual Demand	0.0	0.0	0.0

From EAST To:	S	W	
Turn:	L2	T1	TOT

Flow Rate	1.1	468.7	469.8

Mov Class %	98.0	98.0	98.0	
Flow Scale	1.00	1.00	-	
Peak Flow Factor	0.92	0.92	-	
Residual Demand	0.0	0.0	0.0	

From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT

Flow Rate	1.1	1.1	36.2	38.3
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT

Flow Rate	17.0	292.9	2.1	312.1
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

FLOW RATES for Heavy Vehicles (veh/h)

From SOUTH To:	W	E		
Turn:	L2	R2		TOT

Flow Rate	0.0	0.0		0.1
Mov Class %	2.0	2.0		2.0
Flow Scale	1.00	1.00		-
Peak Flow Factor	0.92	0.92		-
Residual Demand	0.0	0.0		0.0

From EAST To:	S	W		
Turn:	L2	T1		TOT

Flow Rate	0.0	9.6		9.6
Mov Class %	2.0	2.0		2.0
Flow Scale	1.00	1.00		-
Peak Flow Factor	0.92	0.92		-
Residual Demand	0.0	0.0		0.0

From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT

Flow Rate	0.0	0.0	0.7	0.8
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT

Flow Rate	0.3	6.0	0.0	6.4
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Lane Flow Rates

Site: Main St._Market St._AM

Site ID: 101
Roundabout

LANE FLOW RATES AT STOP LINE (veh/h)

From SOUTH To:	W	E		
Turn:	L2	R2	TOT	
Lane 1				
LV	1.1	2.1	3.2	
HV	0.0	0.0	0.1	
Total	1.1	2.2	3.3	
Approach	1.1	2.2	3.3	
From EAST To:	S	W		
Turn:	L2	T1	TOT	
Lane 1				
LV	1.1	468.7	469.8	
HV	0.0	9.6	9.6	
Total	1.1	478.3	479.3	
Approach	1.1	478.3	479.3	
From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT
Lane 1				
LV	1.1	1.1	36.2	38.3
HV	0.0	0.0	0.7	0.8
Total	1.1	1.1	37.0	39.1
Approach	1.1	1.1	37.0	39.1
From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT
Lane 1				
LV	17.0	292.9	2.1	312.1
HV	0.3	6.0	0.0	6.4
Total	17.4	298.9	2.2	318.5
Approach	17.4	298.9	2.2	318.5

EXIT LANE FLOW RATES

Movement Class:	LV	HV	TOT
Exit: SOUTH			
Lane: 1	4.3	0.1	4.3
Total	4.3	0.1	4.3
Exit: EAST			
Lane: 1	296.1	6.0	302.2
Total	296.1	6.0	302.2
Exit: WEST			
Lane: 1	523.0	10.7	533.7
Total	523.0	10.7	533.7

DOWNSTREAM LANE FLOW RATES FOR EXIT ROADS

Movement Class:	LV	HV	TOT
Exit: SOUTH			
Lane: 1	4.3	0.1	4.3
Total	4.3	0.1	4.3
Exit: EAST			
Lane: 1	296.1	6.0	302.2
Total	296.1	6.0	302.2
Exit: WEST			
Lane: 1	523.0	10.7	533.7
Total	523.0	10.7	533.7

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Other

Parameter Settings Summary Site: Main St._Market St._AM

Site ID: 101
Roundabout

* Basic Parameters:
Intersection Type: Roundabout
Driving on the right-hand side of the road
Input data specified in US units
Model Defaults: US HCM (Customary)
Peak Flow Period (for performance): 15 minutes
Unit time (for volumes): 60 minutes.
SIDRA Standard Delay model used
HCM Queue Model option used
Level of Service based on: Delay and v/c (HCM 6)
Queue percentile: 95%

[Go to Table Links \(Top\)](#)

Diagnostics Site: Main St._Market St._AM

Site ID: 101
Roundabout

Lane Flow-Capacity Iterations:

Site Model Variability Index (Iterations 3 to N): 0.9%
Number of Iterations: 3 (Maximum: 10)

Other Diagnostic Messages (if any):

Geometric delay is less than 2 seconds for some movements. The negotiation speed may be too high or the approach and exit speeds may be too low for given geometric design (e.g. for a large roundabout).
Check Detailed Output for geometric delay data including negotiation speeds.
If necessary, specify appropriate values of approach and exit speeds, negotiation radius or negotiation speed data in the Path Data dialog.

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SIDRA INTERSECTION 8.0 | Copyright © 2000-2019 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: TJKM TRANSPORTATION CONSULTANTS | Processed: Tuesday, November 26, 2024 11:12:11 AM
Project: J:\JURISDICTION\Stockton\011-101 Main St Complete Streets\Analysis\Sidra\Project_v2.sip8

MOVEMENT SUMMARY

 **Site: 101 [Main St._Market St._AM]**

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Locust Street												
3	L2	1	2.0	0.003	8.4	LOS A	0.0	0.4	0.43	0.48	0.43	19.8
18	R2	2	2.0	0.003	3.9	LOS A	0.0	0.4	0.43	0.48	0.43	22.4
Approach		3	2.0	0.003	5.4	LOS A	0.0	0.4	0.43	0.48	0.43	21.6
East: Main Street												
1	L2	1	2.0	0.366	7.2	LOS A	2.4	61.3	0.13	0.23	0.13	24.2
6	T1	478	2.0	0.366	1.8	LOS A	2.4	61.3	0.13	0.23	0.13	29.8
Approach		479	2.0	0.366	1.8	LOS A	2.4	61.3	0.13	0.23	0.13	29.8
NorthEast: Market Street												
1bx	L3	1	2.0	0.044	10.6	LOS B	0.2	5.7	0.55	0.50	0.55	27.6
1ax	L1	1	2.0	0.044	8.8	LOS A	0.2	5.7	0.55	0.50	0.55	21.1
16ax	R1	37	2.0	0.044	4.1	LOS A	0.2	5.7	0.55	0.50	0.55	25.4
Approach		39	2.0	0.044	4.5	LOS A	0.2	5.7	0.55	0.50	0.55	25.4
SouthWest: Market Street												
5bx	L3	17	2.0	0.239	8.0	LOS A	1.5	38.2	0.04	0.28	0.04	23.0
12ax	R1	299	2.0	0.239	1.9	LOS A	1.5	38.2	0.04	0.28	0.04	28.7
12bx	R3	2	2.0	0.239	2.6	LOS A	1.5	38.2	0.04	0.28	0.04	25.0
Approach		318	2.0	0.239	2.2	LOS A	1.5	38.2	0.04	0.28	0.04	28.3
All Vehicles		840	2.0	0.366	2.1	LOS A	2.4	61.3	0.12	0.26	0.12	29.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

DETAILED OUTPUT

 Site: 101 [Main St._Market St._PM]

New Site
Site Category: (None)
Roundabout

OUTPUT TABLE LINKS

-  Roundabouts
 - Roundabout Basic Parameters
 - Roundabout Circulating / Exiting Stream Parameters
 - Roundabout Gap Acceptance Parameters
 - Roundabout Flow Rates
 - Roundabout Pedestrian Effects
-  Movements
 - Intersection Negotiation and Travel Data
 - Movement Capacity and Performance Parameters
 - Fuel Consumption, Emissions and Cost
-  Lanes
 - Lane Performance and Capacity Information
 - Lane, Approach and Intersection Performance
 - Driver Characteristics
 - Lane Delays
 - Lane Queues
 - Lane Queue Percentiles
 - Lane Stops
-  Flow Rates
 - Origin-Destination Flow Rates (Total)
 - Origin-Destination Flow Rates by Movement Class
 - Lane Flow Rates
-  Other
 - Parameter Settings Summary
 - Diagnostics

Roundabouts

Roundabout Basic Parameters
Site: Main St._Market St._PM

Site ID: 101											
Roundabout											
Central Island Diam ft	Circ Width ft	Insc Diam. ft	Entry Radius ft	Entry Angle deg	Circ Lanes	Entry Lanes	Av.Entry Lane Width ft	App Dist ft	Prop Upstr	Queued Signal	Extra Bunching %

South: Locust Street											
40.0	25.0	120.0U	100.0	30.0	1	1	13.00	200		NA	0.0N

East: Main Street											
40.0	15.0	120.0U	100.0	30.0	1	1	13.00	400		NA	0.0N

NorthEast: Market Street											
40.0	15.0	120.0U	100.0	30.0	1	1	13.00	350		NA	0.0N

SouthWest: Market Street											
40.0	15.0	120.0U	100.0	30.0	1	1	13.00	300		NA	0.0N

Roundabout Capacity Model: SIDRA Standard											
U Inscribed diameter value was specified by the user.											
NA Not Applicable (single Site analysis or unconnected Site in Network analysis).											
N Program option resulted in zero value (single Site analysis or unconnected Site in Network analysis).											

Detailed Output

[Go to Table Links \(Top\)](#)

Roundabout Circulating / Exiting Stream Parameters

Site: Main St._Market St._PM

Site ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	Opng Flow veh/h	HVE pcu/veh	Adj. Flow pcu/h	%Near Lane Only	%Exit Flow Incl.	Cap. Const. Effect	O-D Factor	Aver Speed mph	In-Bunch Headway sec	Prop. Bunched
South: Locust Street													
W	L2	1	Dominant	515	1.02	526	0.0	0.0	N	0.993	22.2	2.00	0.476
E	R2	1	Dominant	515	1.02	526	0.0	0.0	N	0.993	22.2	2.00	0.476
East: Main Street													
S	L2	1	Dominant	18	1.02	19	0.0	0.0	N	1.000	14.6	2.00	0.023
W	T1	1	Dominant	18	1.02	19	0.0	0.0	N	1.000	14.6	2.00	0.023
NorthEast: Market Street													
E	L3	1	Dominant	414	1.02	422	0.0	0.0	N	0.988	23.5	2.00	0.403
S	L1	1	Dominant	414	1.02	422	0.0	0.0	N	0.988	23.5	2.00	0.403
W	R1	1	Dominant	414	1.02	422	0.0	0.0	N	0.988	23.5	2.00	0.403
SouthWest: Market Street													
W	L3	1	Dominant	3	1.02	3	0.0	0.0	N	1.000	13.9	2.00	0.004
E	R1	1	Dominant	3	1.02	3	0.0	0.0	N	1.000	13.9	2.00	0.004
S	R3	1	Dominant	3	1.02	3	0.0	0.0	N	1.000	13.9	2.00	0.004
Roundabout Capacity Model: SIDRA Standard													

[Go to Table Links \(Top\)](#)

Roundabout Gap Acceptance Parameters

Site: Main St._Market St._PM

Site ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	In-Bunch Headway sec	Prop. Bunched	Priority Sharing	HVE for Entry	Critical Gap		Follow-up Headway sec
								Headway sec	Dist ft	
South: Locust Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
W	L2	1	Dominant	2.00	0.476	Y	1.02	4.49	146.3	2.50
E	R2	1	Dominant	2.00	0.476	Y	1.02	4.49	146.3	2.50
East: Main Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
S	L2	1	Dominant	2.00	0.023	N	1.02	5.28	113.5	2.69
W	T1	1	Dominant	2.00	0.023	N	1.02	5.28	113.5	2.69
NorthEast: Market Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
E	L3	1	Dominant	2.00	0.403	N	1.02	4.64	159.6	2.53
S	L1	1	Dominant	2.00	0.403	N	1.02	4.64	159.6	2.53
W	R1	1	Dominant	2.00	0.403	N	1.02	4.64	159.6	2.53
SouthWest: Market Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
W	L3	1	Dominant	2.00	0.004	N	1.02	5.31	108.5	2.69
E	R1	1	Dominant	2.00	0.004	N	1.02	5.31	108.5	2.69
S	R3	1	Dominant	2.00	0.004	N	1.02	5.31	108.5	2.69

Roundabout Capacity Model: SIDRA Standard
Priority sharing means Follow-up Headway plus Intra-bunch Headway is larger than the Critical Gap.

Dist (Distance): Spacing, i.e. distance between the front ends of two successive vehicles across all lanes in the circulating

or exiting stream

[Go to Table Links \(Top\)](#)

Roundabout Flow Rates
Site: Main St._Market St._PM

Site ID: 101
Roundabout

CIRCULATING LANE FLOW RATES

Lane No.	Circulating Flow Rate		
	veh/h	pcu/h	Percent
South: Locust Street			
1	515	526	100.0%
Total	515	526	
East: Main Street			
1	18	19	100.0%
Total	18	19	
NorthEast: Market Street			
1	414	422	100.0%
Total	414	422	
SouthWest: Market Street			
1	3	3	100.0%
Total	3	3	

The SIDRA Standard roundabout capacity model option is in use.
This model takes into account the total circulating flow as well as the effect of flow distribution in circulating lanes on the entry capacity results.

APPROACH LANE FLOW RATES

Lane No.	Approach Flows (veh/h)		
	Out	To Downst	Total
South: Locust Street			
1	4	1	5
Total	4	1	5
East: Main Street			
1	0	396	396
Total	0	396	396
NorthEast: Market Street			
1	29	3	32
Total	29	3	32
SouthWest: Market Street			
1	3	514	517
Total	3	514	517

[Go to Table Links \(Top\)](#)

Roundabout Pedestrian Effects
Site: Main St._Market St._PM

Site ID: 101
Roundabout

ROUNDBOUT ENTRY

Lane	Turn	Pedestrian		Opposing Ped.Factor	Circulating Flow Rate veh/h	Circulating Flow Rate pcu/h	Adjustment Factor
		Flow Rate	Adj.Flow Rate				
		ped/h	ped/h				

South: Locust Street							
1	L2	2	2	1.00	515	526	1.000
1	R2	2	2	1.00	515	526	1.000

East: Main Street									
1	L2	1	1	1.00	18	19	1.000		
1	T1	1	1	1.00	18	19	1.000		

NorthEast: Market Street									
1	L3	5	5	1.00	414	422	0.999		
1	L1	5	5	1.00	414	422	0.999		
1	R1	5	5	1.00	414	422	0.999		

ROUNDABOUT EXIT									

Flow Rate	Pedestrian	Adj.Flow Rate	Opposing	Conflict	Critical	Follow-up	Exit Lane	Exit Flow	
ped/h	ped/h	ped/h	Ped.Factor	Zone Length	Gap	Headway	Capacity	Total	Average

South: Locust Street									
1		1	1.00	16.00	3.72	2.23	1611	5	5

East: Main Street									
1		1	1.00	16.00	3.72	2.23	1611	502	502

West: Main Street									
1		1	1.00	16.00	3.72	2.23	1611	442	442

[Go to Table Links \(Top\)](#)

Movements

Intersection Negotiation and Travel Data
Site: Main St._Market St._PM

Site ID: 101
Roundabout

TRAVEL SPEED, TRAVEL DISTANCE AND TRAVEL TIME

From	To		Running	Travel	Travel	Travel	Total	Travel	Distance
Approach	Exit	Turn	Speed	Speed	Distance	Time	Dem Flows	Arv Flows	Tot.Trav.
			mph	mph	ft	s	veh-mi/h	veh-mi/h	Time

South: Locust Street									
	West	L2	19.8	19.3	575.6#	20.4#	0.1	0.1	0.0
	East	R2	22.4	21.9	675.6#	21.1#	0.6	0.6	0.0

East: Main Street									
	South	L2	24.3	24.3	716.0#	20.1#	0.1	0.1	0.0
	West	T1	29.9	29.9	816.0#	18.6#	61.0	61.0	2.0

NorthEast: Market Street									
	East	L3	28.0	27.9	842.5#	20.6#	0.2	0.2	0.0
	South	L1	21.4	21.3	642.5#	20.5#	0.1	0.1	0.0
	West	R1	25.8	25.7	742.5#	19.7#	4.1	4.1	0.2

SouthWest: Market Street									
	West	L3	23.1	23.1	690.4#	20.4#	2.3	2.3	0.1
	East	R1	28.8	28.8	790.4#	18.7#	74.4	74.4	2.6
	South	R3	25.1	25.1	590.4#	16.0#	0.4	0.4	0.0

ALL VEHICLES:			29.0	29.0	796.1#	18.7#	143.2	143.2	4.9

"Running Speed" is the average speed excluding stopped periods.

Travel Time values include cruise times and intersection delays including acceleration, deceleration and idling delays.

Travel Distance and Travel Time values include travel on the External Exit section based on the Exit Distance or user-specified Downstream Distance value as applicable.

INTERSECTION NEGOTIATION DATA

Detailed Output

From Approach	To Exit	Turn	Negn Radius ft	Negn Speed mph	Negn Dist ft	App Dist ft	Exit Dist ft	Downstr Dist ft
South: Locust Street								
	West	L2	49.0	14.6	192.4	200	91	NA
	East	R2	88.6	18.3	46.5	200	122	NA
East: Main Street								
	South	L2	44.5	14.1	174.8	400	61	NA
	West	T1	180.0	23.9	115.8	400	91	NA
NorthEast: Market Street								
	East	L3	43.0	13.9	202.6	350	122	NA
	South	L1	42.3	13.8	133.0	350	61	NA
	West	R1	180.0	23.9	86.9	350	91	NA
SouthWest: Market Street								
	West	L3	49.5	14.7	233.3	300	91	NA
	East	R1	153.0	22.5	85.8	300	122	NA
	South	R3	75.0	17.2	32.8	300	61	NA
Maximum Negotiation (Design) Speed = 30.0 mph								
NA Downstream Distance does not apply if:								
- Exit is an internal leg of a network								
- "Program" option was specified								
- Distance specified was less than the Exit Negotiation Distance								
- Distance specified was greater than the exit leg length								
MOVEMENT SPEEDS AND GEOMETRIC DELAY								
		App. Speeds		Exit Speeds		Queue		
		-----		-----		Move-up		
Mov ID	Turn	Cruise mph	Negn mph	Negn Cruise mph		Speed mph	Geom Delay sec	

South: Locust Street								
3	L2	30.0	14.6	14.6	30.0	22.1	7.0	
18	R2	30.0	18.3	18.3	30.0	22.1	2.4	

East: Main Street								
1	L2	30.0	14.1	14.1	30.0	38.4	7.0	
6	T1	30.0	23.9	23.9	30.0	38.4	1.6	

NorthEast: Market Street								
1bx	L3	30.0	13.9	13.9	30.0	23.7	7.9	
1ax	L1	30.0	13.8	13.8	30.0	23.7	6.1	
16ax	R1	30.0	23.9	23.9	30.0	23.7	1.5	

SouthWest: Market Street								
5bx	L3	30.0	14.7	14.7	30.0	35.7	8.0	
12ax	R1	30.0	22.5	22.5	30.0	35.7	1.9	
12bx	R3	30.0	17.2	17.2	30.0	35.7	2.6	

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Movement Capacity and Performance Parameters

Site: Main St._Market St._PM

 Site ID: 101
 Roundabout

MOVEMENT CAPACITY PARAMETERS

Mov ID	Turn	Mov Cl.	Arv Flow veh/h	Opng Flow veh/h	Movement Adjust. pcu/h	Total Cap. veh/h	Prac. Deg. Satn xp	Prac. Spare Cap. %	Deg. Satn x
South: Locust Street									
3	L2	#	1	515	526	176	0.85	****	0.006
18	R2	#	4	515	526	706	0.85	****	0.006

Detailed Output

East: Main Street									
1	L2	#	1	18	19	4	0.85	182	0.302
6	T1	#	395	18	19	1308	0.85	182	0.302

NorthEast: Market Street									
1bx	L3	#	1	414	422	33	0.85	2452	0.033
1ax	L1	#	1	414	422	33	0.85	2452	0.033
16ax	R1	#	29	414	422	881	0.85	2452	0.033

SouthWest: Market Street									
5bx	L3	#	17	3	3	45	0.85	119	0.389*
12ax	R1	#	497	3	3	1278	0.85	119	0.389*
12bx	R3	#	3	3	3	8	0.85	119	0.389*

* Maximum degree of saturation									
# Combined Movement Capacity parameters are shown for all Movement Classes.									

MOVEMENT PERFORMANCE

Mov ID	Turn	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Eff. Stop Rate	Total Stops	Perf. Index	Tot.Trav. Distance (veh-mi/h)	Tot.Trav. Time (veh-h/h)	Aver. Speed (mph)

South: Locust Street										
3	L2	0.00	0.00	9.6	0.52	0.6	0.03	0.1	0.0	19.3
18	R2	0.01	0.01	5.0	0.52	2.2	0.06	0.6	0.0	21.9

East: Main Street										
1	L2	0.00	0.00	7.2	0.22	0.2	1.49	0.1	0.0	24.3
6	T1	0.19	0.23	1.8	0.22	88.7	4.20	61.0	2.0	29.9

NorthEast: Market Street										
1bx	L3	0.00	0.00	10.0	0.46	0.5	0.14	0.2	0.0	27.9
1ax	L1	0.00	0.00	8.2	0.46	0.5	0.14	0.1	0.0	21.3
16ax	R1	0.03	0.04	3.6	0.46	13.4	0.37	4.1	0.2	25.7

SouthWest: Market Street										
5bx	L3	0.04	0.05	8.0	0.27	4.7	2.50	2.3	0.1	23.1
12ax	R1	0.26	0.31	1.9	0.27	135.6	5.85	74.4	2.6	28.8
12bx	R3	0.00	0.00	2.6	0.27	0.9	2.38	0.4	0.0	25.1

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Fuel Consumption, Emissions and Cost

Site: Main St._Market St._PM

Site ID: 101
Roundabout

FUEL CONSUMPTION, EMISSIONS AND COST (TOTAL)

Mov ID	Turn	Cost Total \$/h	Fuel Total gal/h	CO2 Total kg/h	CO Total kg/h	HC Total kg/h	NOX Total kg/h

South: Locust Street							
3	L2	0.12	0.0	0.1	0.00	0.000	0.000
18	R2	0.47	0.0	0.3	0.00	0.000	0.000
		0.59	0.0	0.4	0.00	0.000	0.001

East: Main Street							
1	L2	0.09	0.0	0.1	0.00	0.000	0.000
6	T1	34.49	2.5	22.8	0.02	0.002	0.029
		34.59	2.6	22.8	0.02	0.002	0.029

NorthEast: Market Street							
1bx	L3	0.11	0.0	0.1	0.00	0.000	0.000
1ax	L1	0.11	0.0	0.1	0.00	0.000	0.000
16ax	R1	2.91	0.2	1.9	0.00	0.000	0.003
		3.13	0.2	2.1	0.00	0.000	0.003

Detailed Output

SouthWest: Market Street							
5bx	L3	1.34	0.1	0.9	0.00	0.000	0.001
12ax	R1	38.91	3.3	29.2	0.02	0.002	0.035
12bx	R3	0.25	0.0	0.2	0.00	0.000	0.000
		40.50	3.4	30.3	0.02	0.002	0.036
INTERSECTION:		78.80	6.2	55.7	0.04	0.004	0.069

FUEL CONSUMPTION, EMISSIONS AND COST (RATE)

Mov ID	Turn	Cost Rate \$/mi	Fuel Eff. mpg	CO2 Rate g/km	CO Rate g/km	HC Rate g/km	NOX Rate g/km
South: Locust Street							
3	L2	0.98	13.0	426.6	0.37	0.040	0.553
18	R2	0.84	14.4	385.6	0.33	0.035	0.489
		0.87	14.1	392.8	0.34	0.036	0.500
East: Main Street							
1	L2	0.64	22.8	243.5	0.18	0.019	0.321
6	T1	0.57	23.9	232.0	0.17	0.018	0.297
		0.57	23.9	232.0	0.17	0.018	0.297
NorthEast: Market Street							
1bx	L3	0.63	20.1	276.2	0.22	0.023	0.364
1ax	L1	0.81	17.6	315.6	0.26	0.028	0.440
16ax	R1	0.71	18.9	293.3	0.24	0.025	0.397
		0.71	18.9	293.3	0.24	0.025	0.397
SouthWest: Market Street							
5bx	L3	0.59	21.5	257.8	0.20	0.021	0.314
12ax	R1	0.52	22.8	244.1	0.19	0.019	0.289
12bx	R3	0.68	20.1	276.2	0.22	0.023	0.346
		0.53	22.7	244.7	0.19	0.019	0.290
INTERSECTION:		0.55	23.0	241.5	0.18	0.019	0.297

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Lanes

Lane Performance and Capacity Information

Site: Main St._Market St._PM

 Site ID: 101
 Roundabout

LANE PERFORMANCE

Lane No.	Flow veh/h	Cap veh/h	Deg. Satn x	Aver. Delay sec	Eff. Stop Rate	Q u e u e 95% Back veh	Lane Length ft
South: Locust Street							
1	5	882	0.006	5.9	0.52	0.0	200.0
East: Main Street							
1	396	1311	0.302	1.8	0.22	1.8	400.0
NorthEast: Market Street							
1	32	946	0.033	4.0	0.46	0.2	350.0
SouthWest: Market Street							
1	517	1331	0.389	2.1	0.27	2.9	300.0

Detailed Output

LANE FLOW AND CAPACITY INFORMATION

Lane No.	Total Arv Flow veh/h	Min Cap veh/h	Tot Cap veh/h	Deg. Satn x	Lane Util %

South: Locust Street					
1	5	5	882	0.006	100

East: Main Street					
1	396	150	1311	0.302	100

NorthEast: Market Street					
1	32	32	946	0.033	100

SouthWest: Market Street					
1	517	150	1331	0.389	100

The capacity values of Continuous Lanes are obtained by adjusting the basic saturation flow for lane width, grade, movement class and turning vehicle effects. Saturation flow scale applies if specified.

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Lane, Approach and Intersection Performance

Site: Main St._Market St._PM

Site ID: 101
Roundabout

Lane No.	Arrival Flow (veh/h)	%HV	Adj. Basic Satf.	Deg Sat x	Aver. Delay sec	Longest Queue ft	Lane Length ft

South: Locust Street							
1	5	2		0.006	5.9	1	200
	5	2		0.006	5.9	1	

East: Main Street							
1	396	2		0.302	1.8	47	400
	396	2		0.302	1.8	47	

NorthEast: Market Street							
1	32	2		0.033	4.0	4	350
	32	2		0.033	4.0	4	

SouthWest: Market Street							
1	517	2		0.389	2.1	75	300
	517	2		0.389	2.1	75	
=====							
ALL VEHICLES							
	Total Flow	% HV		Max X	Aver. Delay	Max Queue	
	950	2		0.389	2.0	75	
=====							

Peak flow period = 15 minutes.

Queue values in this table are 95% queue (feet)
Note: Basic Saturation Flows at roundabouts or sign-controlled intersections apply only to continuous lanes.

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Driver Characteristics

Site: Main St._Market St._PM

Site ID: 101
Roundabout

Detailed Output

Lane No.	Satn Speed mph	Satn Flow veh/h	Satn Hdwy sec	Satn Spacing ft	Average Queue Space ft	Driver Response Time sec
South: Locust Street						
1	17.5	1443	2.50	64.19	25.40	1.51
East: Main Street						
1	23.9	1339	2.69	94.15	25.40	1.96
NorthEast: Market Street						
1	23.2	1420	2.53	86.28	25.40	1.79
SouthWest: Market Street						
1	22.2	1336	2.69	87.65	25.40	1.91

Saturation Flow and Saturation Headway are derived from follow-up headway.

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Lane Delays

Site: Main St._Market St._PM

Site ID: 101
Roundabout

LANE DELAYS

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Delay (seconds/veh)									
				Min Del dm	Stop-line 1st dl	2nd d2	Delay Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
South: Locust Street													
1	0.006	NA	NA	2.4	2.6	0.0	2.6	2.1	0.5	0.0	0.5	3.3	5.9
East: Main Street													
1	0.302	NA	NA	0.1	0.1	0.0	0.1	0.7	0.0	0.0	0.0	1.7	1.8
NorthEast: Market Street													
1	0.033	NA	NA	1.8	2.1	0.0	2.1	2.5	0.1	0.0	0.1	1.9	4.0
SouthWest: Market Street													
1	0.389	NA	NA	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	2.1	2.1

SIDRA Standard Delay Model is used. Control Delay is the sum of Stop-line Delay and Geometric Delay.

dm: Minimum delay for gap acceptance cases

dSL: Stop-line delay (=d1+d2)

dn: Average stop-start delay for all vehicles queued and unqueued

dq: Queuing delay (the part of the stop-line delay that includes stopped delay and queue move-up delay)

dqm: Queue move-up delay

di: Stopped delay (stopped (idling) time at near-zero speed)

dig: Geometric delay

dic: Control delay

Geometric delay is less than 2 seconds for some movements. The negotiation speed may be too high or the approach and exit speeds may be too low for given geometric design (e.g. for a large roundabout).

Check Detailed Output for geometric delay data including negotiation speeds.

If necessary, specify appropriate values of approach and exit speeds, negotiation radius or negotiation speed data in the Path Data dialog.

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Lane Queues

Site: Main St._Market St._PM

Site ID: 101
Roundabout

BACK OF QUEUE (VEHICLES)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (veh)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
	x				Nb1	Nb2	Nb	95%	Av.	95%		
South: Locust Street												
1	0.006	NA	NA	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	NA
East: Main Street												
1	0.302	NA	NA	0.0	0.7	0.0	0.7	1.8	0.05	0.12	0.0	NA
NorthEast: Market Street												
1	0.033	NA	NA	0.0	0.1	0.0	0.1	0.2	0.00	0.01	0.0	NA
SouthWest: Market Street												
1	0.389	NA	NA	0.0	1.2	0.0	1.2	2.9	0.10	0.25	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

BACK OF QUEUE (DISTANCE)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (ft)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
	x				Nb1	Nb2	Nb	95%	Av.	95%		
South: Locust Street												
1	0.006	NA	NA	0.0	0.3	0.0	0.3	0.8	0.00	0.00	0.0	NA
East: Main Street												
1	0.302	NA	NA	0.0	18.8	0.0	18.8	46.7	0.05	0.12	0.0	NA
NorthEast: Market Street												
1	0.033	NA	NA	0.0	1.7	0.0	1.7	4.2	0.00	0.01	0.0	NA
SouthWest: Market Street												
1	0.389	NA	NA	0.0	30.0	0.0	30.0	74.6	0.10	0.25	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

OTHER QUEUE RESULTS (VEHICLES)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Queue	
	x				Nc	95%
South: Locust Street						
1	0.006	NA	NA	0.0	0.0	0.0
East: Main Street						
1	0.302	NA	NA	0.0	0.0	0.0
NorthEast: Market Street						
1	0.033	NA	NA	0.0	0.0	0.0
SouthWest: Market Street						
1	0.389	NA	NA	0.0	0.0	0.0

OTHER QUEUE RESULTS (DISTANCE)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Queue	
	x				Nc	95%
South: Locust Street						
1	0.006	NA	NA	0.0	0.1	0.2
East: Main Street						
1	0.302	NA	NA	0.0	0.4	0.7
NorthEast: Market Street						
1	0.033	NA	NA	0.0	0.5	0.9

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SouthWest: Market Street
1      0.389      NA      NA      0.0      0.1      0.2
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[Go to Table Links \(Top\)](#)

Lane Queue Percentiles

Site: Main St._Market St._PM

Site ID: 101
Roundabout

LANE QUEUE PERCENTILES (VEHICLES)

Lane No.	Deg. Satn	Percentile Back of Queue (veh)						
	x	50%	70%	85%	90%	95%	98%	100%
South: Locust Street								
1	0.006	0.0	0.0	0.0	0.0	0.0	0.0	0.0
East: Main Street								
1	0.302	0.7	1.0	1.4	1.6	1.8	2.0	2.2
NorthEast: Market Street								
1	0.033	0.1	0.1	0.1	0.1	0.2	0.2	0.2
SouthWest: Market Street								
1	0.389	1.2	1.5	2.2	2.5	2.9	3.3	3.5

SIDRA Standard models are used for Back of Queue estimation since
HCM only gives Cycle-Average Queues for unsignalised intersections.

LANE QUEUE PERCENTILES (DISTANCE)

Lane No.	Deg. Satn	Percentile Back of Queue (feet)						
	x	50%	70%	85%	90%	95%	98%	100%
South: Locust Street								
1	0.006	0.3	0.4	0.6	0.7	0.8	0.9	0.9
East: Main Street								
1	0.302	18.8	24.4	34.3	39.7	46.7	51.9	55.8
NorthEast: Market Street								
1	0.033	1.7	2.2	3.1	3.6	4.2	4.7	5.0
SouthWest: Market Street								
1	0.389	30.0	38.9	54.8	63.4	74.6	82.8	89.0

SIDRA Standard models are used for Back of Queue estimation since
HCM only gives Cycle-Average Queues for unsignalised intersections.

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Lane Stops

Site: Main St._Market St._PM

Site ID: 101
Roundabout

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	-- Effective Stop Rate --				Total Stops H	Queue Move-up	Total Queue	Prop. Queued pq	Aver. Num. of Cycles to Depart
	x			he1	he2	Geom. hig	Overall h		Rate	Move-ups Hqm		
South: Locust Street												
1	0.006	NA	NA	0.32	0.00	0.20	0.52	2.8	0.00	0.0	0.54	0.54

East: Main Street												
1	0.302	NA	NA	0.03	0.00	0.19	0.22	89.0	0.00	0.0	0.12	0.12

NorthEast: Market Street												
1	0.033	NA	NA	0.33	0.00	0.13	0.46	14.4	0.00	0.0	0.50	0.50

SouthWest: Market Street												
1	0.389	NA	NA	0.01	0.00	0.27	0.27	141.2	0.00	0.0	0.05	0.05

hig is the average value for all movements in a shared lane												
hqm is average queue move-up rate for all vehicles queued and unqueued												

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Flow Rates

Origin-Destination Flow Rates (Total)

Site: Main St._Market St._PM

Site ID: 101
Roundabout

TOTAL FLOW RATES for All Movement Classes (veh/h)

From SOUTH To:	W	E		
Turn:	L2	R2	TOT	
Flow Rate	1.1	4.3	5.4	
%HV (all designations)	2.0	2.0	2.0	

From EAST To:	S	W		
Turn:	L2	T1	TOT	
Flow Rate	1.1	394.6	395.7	
%HV (all designations)	2.0	2.0	2.0	

From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT
Flow Rate	1.1	1.1	29.3	31.5
%HV (all designations)	2.0	2.0	2.0	2.0

From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT
Flow Rate	17.4	496.7	3.3	517.4
%HV (all designations)	2.0	2.0	2.0	2.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

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Origin-Destination Flow Rates by Movement Class

Site: Main St._Market St._PM

Site ID: 101
Roundabout

FLOW RATES for Light Vehicles (veh/h)

From SOUTH To:	W	E	
Turn:	L2	R2	TOT

Flow Rate	1.1	4.3	5.3
Mov Class %	98.0	98.0	98.0
Flow Scale	1.00	1.00	-
Peak Flow Factor	0.92	0.92	-
Residual Demand	0.0	0.0	0.0

From EAST To:	S	W	
Turn:	L2	T1	TOT

Flow Rate	1.1	386.7	387.7	
Mov Class %	98.0	98.0	98.0	
Flow Scale	1.00	1.00	-	
Peak Flow Factor	0.92	0.92	-	
Residual Demand	0.0	0.0	0.0	

From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT

Flow Rate	1.1	1.1	28.8	30.9
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT

Flow Rate	17.0	486.8	3.2	507.0
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

FLOW RATES for Heavy Vehicles (veh/h)

From SOUTH To:	W	E		
Turn:	L2	R2	TOT	

Flow Rate	0.0	0.1	0.1	
Mov Class %	2.0	2.0	2.0	
Flow Scale	1.00	1.00	-	
Peak Flow Factor	0.92	0.92	-	
Residual Demand	0.0	0.0	0.0	

From EAST To:	S	W		
Turn:	L2	T1	TOT	

Flow Rate	0.0	7.9	7.9	
Mov Class %	2.0	2.0	2.0	
Flow Scale	1.00	1.00	-	
Peak Flow Factor	0.92	0.92	-	
Residual Demand	0.0	0.0	0.0	

From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT

Flow Rate	0.0	0.0	0.6	0.6
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT

Flow Rate	0.3	9.9	0.1	10.3
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

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Lane Flow Rates

Site: Main St._Market St._PM

Site ID: 101
Roundabout

LANE FLOW RATES AT STOP LINE (veh/h)

From SOUTH To:	W	E		
Turn:	L2	R2	TOT	
Lane 1				
LV	1.1	4.3	5.3	
HV	0.0	0.1	0.1	
Total	1.1	4.3	5.4	
Approach	1.1	4.3	5.4	
From EAST To:	S	W		
Turn:	L2	T1	TOT	
Lane 1				
LV	1.1	386.7	387.7	
HV	0.0	7.9	7.9	
Total	1.1	394.6	395.7	
Approach	1.1	394.6	395.7	
From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT
Lane 1				
LV	1.1	1.1	28.8	30.9
HV	0.0	0.0	0.6	0.6
Total	1.1	1.1	29.3	31.5
Approach	1.1	1.1	29.3	31.5
From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT
Lane 1				
LV	17.0	486.8	3.2	507.0
HV	0.3	9.9	0.1	10.3
Total	17.4	496.7	3.3	517.4
Approach	17.4	496.7	3.3	517.4

EXIT LANE FLOW RATES

Movement Class:	LV	HV	TOT
Exit: SOUTH			
Lane: 1	5.3	0.1	5.4
Total	5.3	0.1	5.4
Exit: EAST			
Lane: 1	492.1	10.0	502.2
Total	492.1	10.0	502.2
Exit: WEST			
Lane: 1	433.5	8.8	442.4
Total	433.5	8.8	442.4

DOWNSTREAM LANE FLOW RATES FOR EXIT ROADS

Movement Class:	LV	HV	TOT
Exit: SOUTH			
Lane: 1	5.3	0.1	5.4
Total	5.3	0.1	5.4
Exit: EAST			
Lane: 1	492.1	10.0	502.2
Total	492.1	10.0	502.2
Exit: WEST			
Lane: 1	433.5	8.8	442.4
Total	433.5	8.8	442.4

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Other

Parameter Settings Summary
Site: Main St._Market St._PM

Site ID: 101
Roundabout

* Basic Parameters:
Intersection Type: Roundabout
Driving on the right-hand side of the road
Input data specified in US units
Model Defaults: US HCM (Customary)
Peak Flow Period (for performance): 15 minutes
Unit time (for volumes): 60 minutes.
SIDRA Standard Delay model used
HCM Queue Model option used
Level of Service based on: Delay and v/c (HCM 6)
Queue percentile: 95%

[Go to Table Links \(Top\)](#)

Diagnostics
Site: Main St._Market St._PM

Site ID: 101
Roundabout

Lane Flow-Capacity Iterations:

Site Model Variability Index (Iterations 3 to N): 0.6%
Number of Iterations: 3 (Maximum: 10)

Other Diagnostic Messages (if any):

Geometric delay is less than 2 seconds for some movements. The negotiation speed may be too high or the approach and exit speeds may be too low for given geometric design (e.g. for a large roundabout).
Check Detailed Output for geometric delay data including negotiation speeds.
If necessary, specify appropriate values of approach and exit speeds, negotiation radius or negotiation speed data in the Path Data dialog.

[Go to Table Links \(Top\)](#)

MOVEMENT SUMMARY

 **Site: 101 [Main St._Market St._PM]**

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Locust Street												
3	L2	1	2.0	0.006	9.6	LOS A	0.0	0.8	0.54	0.52	0.54	19.3
18	R2	4	2.0	0.006	5.0	LOS A	0.0	0.8	0.54	0.52	0.54	21.9
Approach		5	2.0	0.006	5.9	LOS A	0.0	0.8	0.54	0.52	0.54	21.3
East: Main Street												
1	L2	1	2.0	0.302	7.2	LOS A	1.8	46.7	0.12	0.22	0.12	24.3
6	T1	395	2.0	0.302	1.8	LOS A	1.8	46.7	0.12	0.22	0.12	29.9
Approach		396	2.0	0.302	1.8	LOS A	1.8	46.7	0.12	0.22	0.12	29.9
NorthEast: Market Street												
1bx	L3	1	2.0	0.033	10.0	LOS B	0.2	4.2	0.50	0.46	0.50	27.9
1ax	L1	1	2.0	0.033	8.2	LOS A	0.2	4.2	0.50	0.46	0.50	21.3
16ax	R1	29	2.0	0.033	3.6	LOS A	0.2	4.2	0.50	0.46	0.50	25.7
Approach		32	2.0	0.033	4.0	LOS A	0.2	4.2	0.50	0.46	0.50	25.6
SouthWest: Market Street												
5bx	L3	17	2.0	0.389	8.0	LOS A	2.9	74.6	0.05	0.27	0.05	23.1
12ax	R1	497	2.0	0.389	1.9	LOS A	2.9	74.6	0.05	0.27	0.05	28.8
12bx	R3	3	2.0	0.389	2.6	LOS A	2.9	74.6	0.05	0.27	0.05	25.1
Approach		517	2.0	0.389	2.1	LOS A	2.9	74.6	0.05	0.27	0.05	28.6
All Vehicles		950	2.0	0.389	2.0	LOS A	2.9	74.6	0.10	0.26	0.10	29.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

DETAILED OUTPUT

 Site: 101 [Main St._Filbert St._AM]

New Site
Site Category: (None)
Roundabout

OUTPUT TABLE LINKS

-  Roundabouts
 - Roundabout Basic Parameters
 - Roundabout Circulating / Exiting Stream Parameters
 - Roundabout Gap Acceptance Parameters
 - Roundabout Flow Rates
 - Roundabout Pedestrian Effects
-  Movements
 - Intersection Negotiation and Travel Data
 - Movement Capacity and Performance Parameters
 - Fuel Consumption, Emissions and Cost
-  Lanes
 - Lane Performance and Capacity Information
 - Lane, Approach and Intersection Performance
 - Driver Characteristics
 - Lane Delays
 - Lane Queues
 - Lane Queue Percentiles
 - Lane Stops
-  Flow Rates
 - Origin-Destination Flow Rates (Total)
 - Origin-Destination Flow Rates by Movement Class
 - Lane Flow Rates
-  Other
 - Parameter Settings Summary
 - Diagnostics

Roundabouts

Roundabout Basic Parameters
Site: Main St._Filbert St._AM

Site ID: 101											
Roundabout											
Central Island Diam ft	Circ Width ft	Insc Diam. ft	Entry Radius ft	Entry Angle deg	Circ Lanes	Entry Lanes	Av.Entry Lane Width ft	App Dist ft	Prop Upstr	Queued Signal	Extra Bunching %

South: Filbert Street											
30.0	15.0	100.0U	100.0	30.0	1	1	13.00	450		NA	0.0N

East: Main Street											
30.0	15.0	100.0U	100.0	30.0	1	1	13.00	400		NA	0.0N

North: Filbert Street											
30.0	15.0	100.0U	100.0	30.0	2	1	13.00	60		NA	0.0N

West: Main Street											
30.0	15.0	100.0U	100.0	30.0	1	1	13.00	630		NA	0.0N

Roundabout Capacity Model: SIDRA Standard											
U Inscribed diameter value was specified by the user.											
NA Not Applicable (single Site analysis or unconnected Site in Network analysis).											
N Program option resulted in zero value (single Site analysis or unconnected Site in Network analysis).											

Detailed Output

[Go to Table Links \(Top\)](#)

Roundabout Circulating / Exiting Stream Parameters

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	Opng Flow veh/h	HVE pcu/veh	Adj. Flow pcu/h	%Near Lane Only	%Exit Flow Incl.	Cap. Const. Effect	O-D Factor	Aver Speed mph	In-Bunch Headway sec	Prop. Bunched
South: Filbert Street													
W	L2	1	Dominant	562	1.02	573	0.0	0.0	N	0.948	17.0	2.00	0.507
N	T1	1	Dominant	562	1.02	573	0.0	0.0	N	0.948	17.0	2.00	0.507
E	R2	1	Dominant	562	1.02	573	0.0	0.0	N	0.948	17.0	2.00	0.507
East: Main Street													
S	L2	1	Dominant	126	1.02	129	0.0	0.0	N	0.988	16.9	2.00	0.145
W	T1	1	Dominant	126	1.02	129	0.0	0.0	N	0.988	16.9	2.00	0.145
N	R2	1	Dominant	126	1.02	129	0.0	0.0	N	0.988	16.9	2.00	0.145
North: Filbert Street													
E	L2	1	Dominant	408	1.02	416	0.0	0.0	N	0.945	21.1	2.00	0.398
S	T1	1	Dominant	408	1.02	416	0.0	0.0	N	0.945	21.1	2.00	0.398
W	R2	1	Dominant	408	1.02	416	0.0	0.0	N	0.945	21.1	2.00	0.398
West: Main Street													
N	L2	1	Dominant	297	1.02	303	0.0	0.0	N	0.951	14.4	2.00	0.308
E	T1	1	Dominant	297	1.02	303	0.0	0.0	N	0.951	14.4	2.00	0.308
S	R2	1	Dominant	297	1.02	303	0.0	0.0	N	0.951	14.4	2.00	0.308
Roundabout Capacity Model: SIDRA Standard													

[Go to Table Links \(Top\)](#)

Roundabout Gap Acceptance Parameters

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	In-Bunch Headway sec	Prop. Bunched	Priority Sharing	HVE for Entry	Critical Gap		Follow-up Headway sec
								Headway sec	Dist ft	
South: Filbert Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
W	L2	1	Dominant	2.00	0.507	N	1.02	4.59	114.3	2.57
N	T1	1	Dominant	2.00	0.507	N	1.02	4.59	114.3	2.57
E	R2	1	Dominant	2.00	0.507	N	1.02	4.59	114.3	2.57
East: Main Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
S	L2	1	Dominant	2.00	0.145	N	1.02	5.27	131.1	2.74
W	T1	1	Dominant	2.00	0.145	N	1.02	5.27	131.1	2.74
N	R2	1	Dominant	2.00	0.145	N	1.02	5.27	131.1	2.74
North: Filbert Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
E	L2	1	Dominant	2.00	0.398	Y	1.02	4.65	144.0	3.00
S	T1	1	Dominant	2.00	0.398	Y	1.02	4.65	144.0	3.00
W	R2	1	Dominant	2.00	0.398	Y	1.02	4.65	144.0	3.00
West: Main Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
N	L2	1	Dominant	2.00	0.308	N	1.02	4.99	105.3	2.67
E	T1	1	Dominant	2.00	0.308	N	1.02	4.99	105.3	2.67
S	R2	1	Dominant	2.00	0.308	N	1.02	4.99	105.3	2.67
Roundabout Capacity Model: SIDRA Standard										
Priority sharing means Follow-up Headway plus Intra-bunch Headway										

is larger than the Critical Gap.

Dist (Distance): Spacing, i.e. distance between the front ends of two successive vehicles across all lanes in the circulating or exiting stream

[Go to Table Links \(Top\)](#)

Roundabout Flow Rates

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

CIRCULATING LANE FLOW RATES

Lane No.	Circulating Flow Rate		
	veh/h	pcu/h	Percent
South: Filbert Street			
1	562	573	100.0%
Total	562	573	
East: Main Street			
1	126	129	100.0%
Total	126	129	
North: Filbert Street			
1	0	0	0.0%
2	408	416	100.0%
Total	408	416	
West: Main Street			
1	297	303	100.0%
Total	297	303	

The SIDRA Standard roundabout capacity model option is in use.
This model takes into account the total circulating flow as well as the effect of flow distribution in circulating lanes on the entry capacity results.

APPROACH LANE FLOW RATES

Lane No.	Approach Flows (veh/h)		
	Out	To Downst	Total
South: Filbert Street			
1	5	67	72
Total	5	67	72
East: Main Street			
1	272	394	666
Total	272	394	666
North: Filbert Street			
1	59	291	350
Total	59	291	350
West: Main Street			
1	4	299	303
Total	4	299	303

[Go to Table Links \(Top\)](#)

Roundabout Pedestrian Effects

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

ROUNDAABOUT ENTRY

Lane	Turn	Pedestrian Flow Rate	Adj.Flow Rate	Opposing Ped.Factor	Circulating Flow Rate	Circulating Flow Rate	Adjustment Factor

Detailed Output

ped/h		ped/h		veh/h		pcu/h			

South: Filbert Street									
1	L2	2	2	1.00	562	573	1.000		
1	T1	2	2	1.00	562	573	1.000		
1	R2	2	2	1.00	562	573	1.000		

East: Main Street									
1	L2	1	1	1.00	126	129	1.000		
1	T1	1	1	1.00	126	129	1.000		
1	R2	1	1	1.00	126	129	1.000		

North: Filbert Street									
1	L2	2	2	1.00	408	416	1.000		
1	T1	2	2	1.00	408	416	1.000		
1	R2	2	2	1.00	408	416	1.000		

West: Main Street									
1	L2	1	1	1.00	297	303	1.000		
1	T1	1	1	1.00	297	303	1.000		
1	R2	1	1	1.00	297	303	1.000		

ROUNDAABOUT EXIT									

Pedestrian		Opposing		Conflict	Critical	Follow-up	Exit Lane	Exit Flow	
Flow Rate	Adj.Flow Rate	Ped.Factor	Zone Length	Gap	Headway	Capacity	Total	Average	
ped/h	ped/h		ft	sec	sec	veh/h	veh/h	veh/h/lane	

South: Filbert Street									
2	2	1.00	16.00	3.72	2.23	1610	38	38	

East: Main Street									
1	1	1.00	16.00	3.72	2.23	1611	508	508	

North: Filbert Street									
3	3	1.00	16.00	3.72	2.23	1609	385	385	

West: Main Street									
1	1	1.00	16.00	3.72	2.23	1611	461	461	

[Go to Table Links \(Top\)](#)

Movements

Intersection Negotiation and Travel Data

Site: Main St._Filbert St._AM

 Site ID: 101
 Roundabout

TRAVEL SPEED, TRAVEL DISTANCE AND TRAVEL TIME

From Approach	To Exit	Turn	Running Speed mph	Travel Speed mph	Travel Distance ft	Travel Time s	Total Dem Flows veh-mi/h	Travel Distance Arv Flows veh-mi/h	Tot.Trav. Time veh-h/h
South: Filbert Street									
	West	L2	23.9	23.6	1183.3#	34.2#	2.9	2.9	0.1
	North	T1	15.2	15.0	613.3#	27.9#	6.2	6.2	0.4
	East	R2	21.5	21.2	953.3#	30.7#	1.0	1.0	0.0
East: Main Street									
	South	L2	27.2	27.2	923.0#	23.1#	1.0	1.0	0.0
	West	T1	28.1	28.1	1103.0#	26.7#	81.3	81.3	2.9
	North	R2	20.3	20.3	533.0#	17.9#	27.4	27.4	1.4
North: Filbert Street									
	East	L2	22.4	20.8	595.2#	19.5#	29.7	29.7	1.4
	South	T1	21.6	20.2	645.2#	21.8#	3.5	3.5	0.2
	West	R2	20.7	19.7	825.2#	28.6#	9.2	9.2	0.5
West: Main Street									

Detailed Output

North	L2	21.1	21.0	797.8#	25.9#	9.0	9.0	0.4
East	T1	25.7	25.6	1137.8#	30.3#	51.5	51.5	2.0
South	R2	24.5	24.4	1187.8#	33.2#	1.0	1.0	0.0

ALL VEHICLES:		23.8	23.8	848.5#	24.3#	223.6	223.6	9.4

"Running Speed" is the average speed excluding stopped periods.								
Travel Time values include cruise times and intersection delays including acceleration, deceleration and idling delays.								
# Travel Distance and Travel Time values include travel on the External Exit section based on the Exit Distance or user-specified Downstream Distance value as applicable.								
INTERSECTION NEGOTIATION DATA								

From	To		Negn	Negn	Negn	App	Exit	Downstr
Approach	Exit	Turn	Radius	Speed	Dist	Dist	Dist	Dist
			ft	mph	ft	ft	ft	ft

South: Filbert Street								
	West	L2	41.0	13.6	161.0	450	192	NA
	North	T1	135.4	21.5	95.8	450	18	NA
	East	R2	81.7	17.7	38.6	450	122	NA

East: Main Street								
	South	L2	41.0	13.6	161.0	400	137	NA
	West	T1	135.4	21.5	95.8	400	192	NA
	North	R2	81.7	17.7	38.6	400	18	NA

North: Filbert Street								
	East	L2	41.0	13.6	161.0	60	122	NA
	South	T1	135.4	21.5	95.8	60	137	NA
	West	R2	81.7	17.7	38.6	60	192	NA

West: Main Street								
	North	L2	41.0	13.6	161.0	630	18	NA
	East	T1	135.4	21.5	95.8	630	122	NA
	South	R2	81.7	17.7	38.6	630	137	NA

Maximum Negotiation (Design) Speed = 30.0 mph								
NA Downstream Distance does not apply if:								
- Exit is an internal leg of a network								
- "Program" option was specified								
- Distance specified was less than the Exit Negotiation Distance								
- Distance specified was greater than the exit leg length								
MOVEMENT SPEEDS AND GEOMETRIC DELAY								

		App. Speeds	Exit Speeds		Queue		Geom	
Mov		Cruise	Negn	Negn	Cruise	Move-up	Delay	
ID	Turn	mph	mph	mph	mph	Speed	sec	
		mph	mph	mph	mph	mph		

South: Filbert Street								
3	L2	25.0	13.6	13.6	25.0	21.3	5.5	
8	T1	25.0	21.5	21.5	25.0	21.3	1.0	
18	R2	25.0	17.7	17.7	25.0	21.3	1.6	

East: Main Street								
1	L2	35.0	13.6	13.6	35.0	32.0	8.2	
6	T1	35.0	21.5	21.5	35.0	32.0	3.3	
16	R2	35.0	17.7	17.7	35.0	32.0	3.4	

North: Filbert Street								
7	L2	25.0	13.6	13.6	25.0	22.1	4.4	
4	T1	25.0	21.5	21.5	25.0	22.1	0.7	
14	R2	25.0	17.7	17.7	25.0	22.1	0.9	

West: Main Street								
5	L2	30.0	13.6	13.6	30.0	26.1	7.0	
2	T1	30.0	21.5	21.5	30.0	26.1	2.2	
12	R2	30.0	17.7	17.7	30.0	26.1	2.6	

[Go to Table Links \(Top\)](#)Movement Capacity and Performance Parameters
Site: Main St._Filbert St._AMSite ID: 101
Roundabout

MOVEMENT CAPACITY PARAMETERS

Mov ID	Turn	Mov Cl.	Arv Flow veh/h	Opng Flow veh/h	Movement Adjust. Flow pcu/h	Total Cap. veh/h	Prac. Deg. Satn xp	Prac. Spare Cap. %	Deg. Satn x
South: Filbert Street									
3	L2	#	13	562	573	141	0.85	821	0.092
8	T1	#	53	562	573	577	0.85	821	0.092
18	R2	#	5	562	573	59	0.85	821	0.092
East: Main Street									
1	L2	#	5	126	129	9	0.85	45	0.588*
6	T1	#	389	126	129	662	0.85	45	0.588*
16	R2	#	272	126	129	462	0.85	45	0.588*
North: Filbert Street									
7	L2	#	263	408	416	590	0.85	91	0.446
4	T1	#	28	408	416	63	0.85	91	0.446
14	R2	#	59	408	416	132	0.85	91	0.446
West: Main Street									
5	L2	#	60	297	303	188	0.85	167	0.318
2	T1	#	239	297	303	751	0.85	167	0.318
12	R2	#	4	297	303	14	0.85	167	0.318

* Maximum degree of saturation

Combined Movement Capacity parameters are shown for all Movement Classes.

MOVEMENT PERFORMANCE

Mov ID	Turn	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Eff. Stop Rate	Total Stops	Perf. Index	Tot.Trav. Distance (veh-mi/h)	Tot.Trav. Time (veh-h/h)	Aver. Speed (mph)
South: Filbert Street										
3	L2	0.03	0.04	9.0	0.59	7.7	0.60	2.9	0.1	23.6
8	T1	0.07	0.08	4.5	0.59	31.6	0.90	6.2	0.4	15.0
18	R2	0.01	0.01	5.1	0.59	3.2	0.47	1.0	0.0	21.2
East: Main Street										
1	L2	0.01	0.02	9.6	0.52	2.8	4.35	1.0	0.0	27.2
6	T1	0.51	0.61	4.7	0.52	202.2	8.24	81.3	2.9	28.1
16	R2	0.36	0.44	4.8	0.52	141.2	6.22	27.4	1.4	20.3
North: Filbert Street										
7	L2	0.56	0.67	7.6	0.78	205.0	5.10	29.7	1.4	20.8
4	T1	0.03	0.04	3.9	0.78	22.0	2.50	3.5	0.2	20.2
14	R2	0.07	0.08	4.1	0.78	45.8	2.90	9.2	0.5	19.7
West: Main Street										
5	L2	0.15	0.18	9.1	0.59	35.5	2.33	9.0	0.4	21.0
2	T1	0.29	0.34	4.3	0.59	141.8	4.48	51.5	2.0	25.6
12	R2	0.01	0.01	4.7	0.59	2.6	1.74	1.0	0.0	24.4

[Go to Table Links \(Top\)](#)Fuel Consumption, Emissions and Cost
Site: Main St._Filbert St._AMSite ID: 101
Roundabout

FUEL CONSUMPTION, EMISSIONS AND COST (TOTAL)

Detailed Output

Mov ID	Turn	Cost Total \$/h	Fuel Total gal/h	CO2 Total kg/h	CO Total kg/h	HC Total kg/h	NOX Total kg/h
South: Filbert Street							
3	L2	1.58	0.1	1.1	0.00	0.000	0.001
8	T1	6.09	0.3	2.9	0.00	0.000	0.003
18	R2	0.64	0.0	0.4	0.00	0.000	0.000
		8.32	0.5	4.4	0.00	0.000	0.005
East: Main Street							
1	L2	0.59	0.0	0.4	0.00	0.000	0.001
6	T1	42.89	3.8	33.6	0.03	0.003	0.042
16	R2	28.50	1.9	16.6	0.02	0.002	0.024
		71.98	5.7	50.6	0.05	0.005	0.066
North: Filbert Street							
7	L2	30.27	2.2	19.9	0.01	0.002	0.023
4	T1	3.27	0.2	2.2	0.00	0.000	0.003
14	R2	6.92	0.6	5.1	0.00	0.000	0.006
		40.46	3.0	27.2	0.02	0.002	0.031
West: Main Street							
5	L2	8.14	0.5	4.2	0.00	0.000	0.005
2	T1	33.42	2.3	20.7	0.02	0.002	0.025
12	R2	0.61	0.0	0.4	0.00	0.000	0.000
		42.17	2.8	25.3	0.02	0.002	0.031
INTERSECTION:		162.93	12.0	107.5	0.09	0.009	0.133
FUEL CONSUMPTION, EMISSIONS AND COST (RATE)							
Mov ID	Turn	Cost Rate \$/mi	Fuel Eff. mpg	CO2 Rate g/km	CO Rate g/km	HC Rate g/km	NOX Rate g/km
South: Filbert Street							
3	L2	0.54	24.2	229.8	0.14	0.018	0.232
8	T1	0.98	18.8	294.9	0.21	0.026	0.329
18	R2	0.66	22.5	246.7	0.16	0.020	0.258
		0.82	20.4	271.4	0.18	0.023	0.294
East: Main Street							
1	L2	0.62	19.9	278.5	0.27	0.025	0.359
6	T1	0.53	21.6	256.8	0.25	0.023	0.320
16	R2	1.04	14.8	375.7	0.35	0.036	0.534
		0.66	19.4	286.7	0.27	0.026	0.374
North: Filbert Street							
7	L2	1.02	13.3	416.8	0.29	0.037	0.483
4	T1	0.95	14.0	396.9	0.28	0.035	0.456
14	R2	0.75	16.1	345.1	0.23	0.030	0.384
		0.96	13.9	399.6	0.28	0.035	0.459
West: Main Street							
5	L2	0.90	19.0	292.2	0.24	0.025	0.374
2	T1	0.65	22.2	249.6	0.20	0.020	0.298
12	R2	0.62	22.6	245.4	0.19	0.020	0.291
		0.69	21.7	255.8	0.20	0.021	0.309
INTERSECTION:		0.73	18.6	298.9	0.25	0.026	0.369

[Go to Table Links \(Top\)](#)

Lanes

Lane Performance and Capacity Information
Site: Main St._Filbert St._AMSite ID: 101
Roundabout

LANE PERFORMANCE

						Q u e u e		
Lane	Flow	Cap	Deg.	Aver.	Eff.	95% Back		Lane
No.	veh/h	veh/h	Satn x	Delay sec	Stop Rate	----- veh	ft	Length ft
South: Filbert Street								
1	72	777	0.092	5.3	0.59	0.5	12.9	450.0
East: Main Street								
1	666	1133	0.588	4.8	0.52	5.3	135.4	400.0
North: Filbert Street								
1	350	785	0.446	6.7	0.78	2.8	69.9	60.0
West: Main Street								
1	303	952	0.318	5.3	0.59	2.1	53.2	630.0

LANE FLOW AND CAPACITY INFORMATION

Lane No.	Total Arv Flow veh/h	Min Cap veh/h	Tot Cap veh/h	Deg. Satn x	Lane Util %
South: Filbert Street					
1	72	72	777	0.092	100
East: Main Street					
1	666	150	1133	0.588	100
North: Filbert Street					
1	350	150	785	0.446	100
West: Main Street					
1	303	150	952	0.318	100

The capacity values of Continuous Lanes are obtained by adjusting the basic saturation flow for lane width, grade, movement class and turning vehicle effects. Saturation flow scale applies if specified.

[Go to Table Links \(Top\)](#)Lane, Approach and Intersection Performance
Site: Main St._Filbert St._AMSite ID: 101
Roundabout

Lane No.	Arrival Flow (veh/h)	%HV	Adj. Basic Satf.	Deg Sat x	Aver. Delay sec	Longest Queue ft	Lane Length ft
South: Filbert Street							
1	72	2		0.092	5.3	13	450
	72	2		0.092	5.3	13	
East: Main Street							
1	666	2		0.588	4.8	135	400
	666	2		0.588	4.8	135	
North: Filbert Street							
1	350	2		0.446	6.7	70	60

Detailed Output

	350	2	0.446	6.7	70	

West: Main Street						
1	303	2	0.318	5.3	53	630

	303	2	0.318	5.3	53	
=====						
ALL VEHICLES						
Total	%	Max	Aver.	Max		
Flow	HV	X	Delay	Queue		
1391	2	0.588	5.4	135		
=====						
Peak flow period = 15 minutes.						
Queue values in this table are 95% queue (feet)						
Note: Basic Saturation Flows at roundabouts or sign-controlled intersections apply only to continuous lanes.						

[Go to Table Links \(Top\)](#)

Driver Characteristics

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

Lane No.	Satn Speed mph	Satn Flow veh/h	Satn Hdwy sec	Satn Spacing ft	Average Queue Space ft	Driver Response Time sec

South: Filbert Street	19.8	1401	2.57	74.45	25.40	1.69
1						

East: Main Street	19.9	1314	2.74	79.84	25.40	1.87
1						

North: Filbert Street	15.0	1201	3.00	65.76	25.40	1.84
1						

West: Main Street	19.9	1347	2.67	77.87	25.40	1.80
1						

Saturation Flow and Saturation Headway are derived from follow-up headway.

[Go to Table Links \(Top\)](#)

Lane Delays

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

LANE DELAYS

				Delay (seconds/veh)									
Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Min Del dm	Stop-line 1st d1	2nd d2	Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic

South: Filbert Street	0.092	NA	NA	2.8	3.5	0.0	3.5	3.1	0.4	0.0	0.4	1.9	5.3
1													

East: Main Street	0.588	NA	NA	0.5	1.4	0.0	1.4	2.6	0.0	0.0	0.0	3.4	4.8
1													

North: Filbert Street	0.446	NA	NA	1.8	3.1	0.1	3.2	1.7	1.5	0.1	1.4	3.5	6.7
1													

West: Main Street	0.318	NA	NA	1.3	2.1	0.0	2.1	2.9	0.1	0.0	0.1	3.2	5.3
1													

SIDRA Standard Delay Model is used. Control Delay is the sum of Stop-line Delay and Geometric Delay.

dm: Minimum delay for gap acceptance cases
 dSl: Stop-line delay (=d1+d2)
 dn: Average stop-start delay for all vehicles queued and unqueued
 dq: Queuing delay (the part of the stop-line delay that includes stopped delay and queue move-up delay)
 dqm: Queue move-up delay
 di: Stopped delay (stopped (idling) time at near-zero speed)
 dig: Geometric delay
 dic: Control delay

Geometric delay is less than 2 seconds for some movements. The negotiation speed may be too high or the approach and exit speeds may be too low for given geometric design (e.g. for a large roundabout).
 Check Detailed Output for geometric delay data including negotiation speeds.
 If necessary, specify appropriate values of approach and exit speeds, negotiation radius or negotiation speed data in the Path Data dialog.

[Go to Table Links \(Top\)](#)

Lane Queues

Site: Main St._Filbert St._AM

Site ID: 101
 Roundabout

BACK OF QUEUE (VEHICLES)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (veh)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
	x				Nb1	Nb2	Nb	95%	Av.	95%		
South: Filbert Street												
1	0.092	NA	NA	0.0	0.2	0.0	0.2	0.5	0.01	0.03	0.0	NA
East: Main Street												
1	0.588	NA	NA	0.0	2.1	0.0	2.1	5.3	0.14	0.34	0.0	NA
North: Filbert Street												
1	0.446	NA	NA	0.0	1.1	0.0	1.1	2.8	0.47	1.16	9.7	NA
West: Main Street												
1	0.318	NA	NA	0.0	0.8	0.0	0.8	2.1	0.03	0.08	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

BACK OF QUEUE (DISTANCE)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (ft)				Queue Stor. Ratio	Prob. Block	Prob. SL Ov.	
	x				Nb1	Nb2	Nb	95%	Av.	95%	%	%
South: Filbert Street												
1	0.092	NA	NA	0.0	5.2	0.0	5.2	12.9	0.01	0.03	0.0	NA
East: Main Street												
1	0.588	NA	NA	0.0	54.5	0.0	54.5	135.4	0.14	0.34	0.0	NA
North: Filbert Street												
1	0.446	NA	NA	0.5	27.5	0.6	28.1	69.9	0.47	1.16	9.7	NA
West: Main Street												
1	0.318	NA	NA	0.0	21.4	0.0	21.4	53.2	0.03	0.08	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

OTHER QUEUE RESULTS (VEHICLES)

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Queue	
					Nc	95%

South: Filbert Street						
1	0.092	NA	NA	0.0	0.1	0.1

East: Main Street						
1	0.588	NA	NA	0.0	0.3	0.5

North: Filbert Street						
1	0.446	NA	NA	0.0	0.3	0.6

West: Main Street						
1	0.318	NA	NA	0.0	0.2	0.3

OTHER QUEUE RESULTS (DISTANCE)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Nc	Queue 95%
	x					

South: Filbert Street						
1	0.092	NA	NA	0.0	1.7	3.2

East: Main Street						
1	0.588	NA	NA	0.0	6.5	11.9

North: Filbert Street						
1	0.446	NA	NA	0.5	8.0	14.5

West: Main Street						
1	0.318	NA	NA	0.0	4.5	8.1

[Go to Table Links \(Top\)](#)

Lane Queue Percentiles
Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

LANE QUEUE PERCENTILES (VEHICLES)

Lane No.	Deg. Satn	Percentile Back of Queue (veh)						
	x	50%	70%	85%	90%	95%	98%	100%

South: Filbert Street								
1	0.092	0.2	0.3	0.4	0.4	0.5	0.6	0.6

East: Main Street								
1	0.588	2.1	2.8	3.9	4.5	5.3	5.9	6.4

North: Filbert Street								
1	0.446	1.1	1.4	2.0	2.3	2.8	3.1	3.3

West: Main Street								
1	0.318	0.8	1.1	1.5	1.8	2.1	2.3	2.5

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

LANE QUEUE PERCENTILES (DISTANCE)

Lane No.	Deg. Satn	Percentile Back of Queue (feet)						
	x	50%	70%	85%	90%	95%	98%	100%

South: Filbert Street								
1	0.092	5.2	6.7	9.5	11.0	12.9	14.3	15.4

East: Main Street								

1	0.588	54.5	70.6	99.5	115.2	135.4	150.3	161.6

North: Filbert Street								
1	0.446	28.1	36.4	51.3	59.4	69.9	77.6	83.4

West: Main Street								
1	0.318	21.4	27.7	39.0	45.2	53.2	59.0	63.4

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

[Go to Table Links \(Top\)](#)

Lane Stops

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	-- Effective		Stop Rate --		Total Stops H	Queue Move-up Rate hqm	Total Queue Move-ups Hqm	Prop. Queued pq	Aver. Num. of Cycles to Depart
				he1	he2	Geom. hig	Overall h					

South: Filbert Street												
1	0.092	NA	NA	0.50	0.00	0.10	0.59	42.5	0.00	0.0	0.63	0.63

East: Main Street												
1	0.588	NA	NA	0.33	0.00	0.19	0.52	346.2	0.00	0.0	0.53	0.53

North: Filbert Street												
1	0.446	NA	NA	0.59	0.01	0.18	0.78	272.8	0.02	5.3	0.66	0.67

West: Main Street												
1	0.318	NA	NA	0.44	0.00	0.15	0.59	179.8	0.00	0.0	0.59	0.59

hig is the average value for all movements in a shared lane												
hqm is average queue move-up rate for all vehicles queued and unqueued												

[Go to Table Links \(Top\)](#)

Flow Rates

Origin-Destination Flow Rates (Total)

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

TOTAL FLOW RATES for All Movement Classes (veh/h)

From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT
Flow Rate	13.0	53.3	5.4	71.7
%HV (all designations)	2.0	2.0	2.0	2.0

From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
Flow Rate	5.4	389.1	271.7	666.3
%HV (all designations)	2.0	2.0	2.0	2.0

From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
Flow Rate	263.0	28.3	58.7	350.0
%HV (all designations)	2.0	2.0	2.0	2.0

From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT
Flow Rate	59.8	239.1	4.3	303.3
%HV (all designations)	2.0	2.0	2.0	2.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:

Unit Time for Volumes = 60 minutes
 Peak Flow Period = 15 minutes
 Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
 Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Origin-Destination Flow Rates by Movement Class Site: Main St._Filbert St._AM

Site ID: 101
 Roundabout

FLOW RATES for Light Vehicles (veh/h)

From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT
Flow Rate	12.8	52.2	5.3	70.3
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
Flow Rate	5.3	381.3	266.3	653.0
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
Flow Rate	257.8	27.7	57.5	343.0
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT
Flow Rate	58.6	234.3	4.3	297.2
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

FLOW RATES for Heavy Vehicles (veh/h)

From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT
Flow Rate	0.3	1.1	0.1	1.4
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
Flow Rate	0.1	7.8	5.4	13.3
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
Flow Rate	5.3	0.6	1.2	7.0

Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT

Flow Rate	1.2	4.8	0.1	6.1
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:

Unit Time for Volumes = 60 minutes

Peak Flow Period = 15 minutes

Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.

Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Lane Flow Rates

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

LANE FLOW RATES AT STOP LINE (veh/h)

From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT

Lane 1				
LV	12.8	52.2	5.3	70.3
HV	0.3	1.1	0.1	1.4
Total	13.0	53.3	5.4	71.7

Approach	13.0	53.3	5.4	71.7

From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT

Lane 1				
LV	5.3	381.3	266.3	653.0
HV	0.1	7.8	5.4	13.3
Total	5.4	389.1	271.7	666.3

Approach	5.4	389.1	271.7	666.3

From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT

Lane 1				
LV	257.8	27.7	57.5	343.0
HV	5.3	0.6	1.2	7.0
Total	263.0	28.3	58.7	350.0

Approach	263.0	28.3	58.7	350.0

From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT

Lane 1				
LV	58.6	234.3	4.3	297.2
HV	1.2	4.8	0.1	6.1
Total	59.8	239.1	4.3	303.3

Approach	59.8	239.1	4.3	303.3

EXIT LANE FLOW RATES

Movement Class:	LV	HV	TOT

Exit: SOUTH			
Lane: 1	37.3	0.8	38.0
Total	37.3	0.8	38.0

Exit: EAST			
Lane: 1	497.5	10.2	507.6
Total	497.5	10.2	507.6

Exit: NORTH			
Lane: 1	377.1	7.7	384.8
Total	377.1	7.7	384.8

Exit: WEST			
Lane: 1	451.7	9.2	460.9
Total	451.7	9.2	460.9

DOWNSTREAM LANE FLOW RATES FOR EXIT ROADS

Movement Class:	LV	HV	TOT

Exit: SOUTH			
Lane: 1	37.3	0.8	38.0
Total	37.3	0.8	38.0

Exit: EAST			
Lane: 1	497.5	10.2	507.6
Total	497.5	10.2	507.6

Exit: NORTH			
Lane: 1	377.1	7.7	384.8
Total	377.1	7.7	384.8

Exit: WEST			
Lane: 1	451.7	9.2	460.9
Total	451.7	9.2	460.9

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Other

Parameter Settings Summary
Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

* Basic Parameters:
Intersection Type: Roundabout
Driving on the right-hand side of the road
Input data specified in US units
Model Defaults: US HCM (Customary)
Peak Flow Period (for performance): 15 minutes
Unit time (for volumes): 60 minutes.
SIDRA Standard Delay model used
HCM Queue Model option used
Level of Service based on: Delay and v/c (HCM 6)
Queue percentile: 95%

[Go to Table Links \(Top\)](#)

Diagnostics
Site: Main St._Filbert St._AM

Site ID: 101

Roundabout

Lane Flow-Capacity Iterations:

Site Model Variability Index (Iterations 3 to N): 1.6%

Number of Iterations: 5 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations:
2.6% 1.5% 0.8%

Other Diagnostic Messages (if any):

Geometric delay is less than 2 seconds for some movements. The negotiation speed may be too high or the approach and exit speeds may be too low for given geometric design (e.g. for a large roundabout).
Check Detailed Output for geometric delay data including negotiation speeds. If necessary, specify appropriate values of approach and exit speeds, negotiation radius or negotiation speed data in the Path Data dialog.

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Organisation: TJKM TRANSPORTATION CONSULTANTS | Processed: Tuesday, November 26, 2024 11:12:12 AM

Project: J:\JURISDICTION\Stockton\011-101 Main St Complete Streets\Analysis\Sidra\Project_v2.sip8

MOVEMENT SUMMARY

 **Site: 101 [Main St._Filbert St._AM]**

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Filbert Street												
3	L2	13	2.0	0.092	9.0	LOS A	0.5	12.9	0.63	0.59	0.63	23.6
8	T1	53	2.0	0.092	4.5	LOS A	0.5	12.9	0.63	0.59	0.63	15.0
18	R2	5	2.0	0.092	5.1	LOS A	0.5	12.9	0.63	0.59	0.63	21.2
Approach		72	2.0	0.092	5.3	LOS A	0.5	12.9	0.63	0.59	0.63	17.3
East: Main Street												
1	L2	5	2.0	0.588	9.6	LOS A	5.3	135.4	0.53	0.52	0.53	27.2
6	T1	389	2.0	0.588	4.7	LOS A	5.3	135.4	0.53	0.52	0.53	28.1
16	R2	272	2.0	0.588	4.8	LOS A	5.3	135.4	0.53	0.52	0.53	20.3
Approach		666	2.0	0.588	4.8	LOS A	5.3	135.4	0.53	0.52	0.53	25.6
North: Filbert Street												
7	L2	263	2.0	0.446	7.6	LOS A	2.8	69.9	0.66	0.78	0.67	20.8
4	T1	28	2.0	0.446	3.9	LOS A	2.8	69.9	0.66	0.78	0.67	20.2
14	R2	59	2.0	0.446	4.1	LOS A	2.8	69.9	0.66	0.78	0.67	19.7
Approach		350	2.0	0.446	6.7	LOS A	2.8	69.9	0.66	0.78	0.67	20.5
West: Main Street												
5	L2	60	2.0	0.318	9.1	LOS A	2.1	53.2	0.59	0.59	0.59	21.0
2	T1	239	2.0	0.318	4.3	LOS A	2.1	53.2	0.59	0.59	0.59	25.6
12	R2	4	2.0	0.318	4.7	LOS A	2.1	53.2	0.59	0.59	0.59	24.4
Approach		303	2.0	0.318	5.3	LOS A	2.1	53.2	0.59	0.59	0.59	24.8
All Vehicles		1391	2.0	0.588	5.4	LOS A	5.3	135.4	0.58	0.60	0.59	23.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: TJKM TRANSPORTATION CONSULTANTS | Processed: Tuesday, November 26, 2024 11:12:12 AM

Project: J:\JURISDICTION\Stockton\011-101 Main St Complete Streets\Analysis\Sidra\Project_v2.sip8

DETAILED OUTPUT

 Site: 101 [Main St._Filbert St._PM]

New Site
Site Category: (None)
Roundabout

OUTPUT TABLE LINKS

-  Roundabouts
 - Roundabout Basic Parameters
 - Roundabout Circulating / Exiting Stream Parameters
 - Roundabout Gap Acceptance Parameters
 - Roundabout Flow Rates
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-  Movements
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Roundabouts

Roundabout Basic Parameters
Site: Main St._Filbert St._PM

Site ID: 101											
Roundabout											
Central Island Diam ft	Circ Width ft	Insc Diam. ft	Entry Radius ft	Entry Angle deg	Circ Lanes	Entry Lanes	Av.Entry Lane Width ft	App Dist ft	Prop Upstr	Queued Signal	Extra Bunching %

South: Filbert Street											
30.0	15.0	100.0U	100.0	30.0	1	1	13.00	450		NA	0.0N

East: Main Street											
30.0	15.0	100.0U	100.0	30.0	1	1	13.00	400		NA	0.0N

North: Filbert Street											
30.0	15.0	100.0U	100.0	30.0	2	1	13.00	60		NA	0.0N

West: Main Street											
30.0	15.0	100.0U	100.0	30.0	1	1	13.00	630		NA	0.0N

Roundabout Capacity Model: SIDRA Standard											
U Inscribed diameter value was specified by the user.											
NA Not Applicable (single Site analysis or unconnected Site in Network analysis).											
N Program option resulted in zero value (single Site analysis or unconnected Site in Network analysis).											

Detailed Output

[Go to Table Links \(Top\)](#)

Roundabout Circulating / Exiting Stream Parameters

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	Opng Flow veh/h	HVE pcu/veh	Adj. Flow pcu/h	%Near Lane Only	%Exit Flow Incl.	Cap. Const. Effect	O-D Factor	Aver Speed mph	In-Bunch Headway sec	Prop. Bunched
South: Filbert Street													
W	L2	1	Dominant	889	1.02	907	0.0	0.0	N	0.849	17.2	2.00	0.691
N	T1	1	Dominant	889	1.02	907	0.0	0.0	N	0.849	17.2	2.00	0.691
E	R2	1	Dominant	889	1.02	907	0.0	0.0	N	0.849	17.2	2.00	0.691
East: Main Street													
S	L2	1	Dominant	132	1.02	134	0.0	0.0	N	0.983	16.8	2.00	0.151
W	T1	1	Dominant	132	1.02	134	0.0	0.0	N	0.983	16.8	2.00	0.151
N	R2	1	Dominant	132	1.02	134	0.0	0.0	N	0.983	16.8	2.00	0.151
North: Filbert Street													
E	L2	1	Dominant	351	1.02	358	0.0	0.0	N	0.956	21.0	2.00	0.353
S	T1	1	Dominant	351	1.02	358	0.0	0.0	N	0.956	21.0	2.00	0.353
W	R2	1	Dominant	351	1.02	358	0.0	0.0	N	0.956	21.0	2.00	0.353
West: Main Street													
N	L2	1	Dominant	464	1.02	473	0.0	0.0	N	0.904	14.3	2.00	0.440
E	T1	1	Dominant	464	1.02	473	0.0	0.0	N	0.904	14.3	2.00	0.440
S	R2	1	Dominant	464	1.02	473	0.0	0.0	N	0.904	14.3	2.00	0.440
Roundabout Capacity Model: SIDRA Standard													

[Go to Table Links \(Top\)](#)

Roundabout Gap Acceptance Parameters

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	In-Bunch Headway sec	Prop. Bunched	Priority Sharing	HVE for Entry	Critical Gap		Follow-up Headway sec
								Headway sec	Dist ft	
South: Filbert Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
W	L2	1	Dominant	2.00	0.691	Y	1.02	4.18	105.4	2.44
N	T1	1	Dominant	2.00	0.691	Y	1.02	4.18	105.4	2.44
E	R2	1	Dominant	2.00	0.691	Y	1.02	4.18	105.4	2.44
East: Main Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
S	L2	1	Dominant	2.00	0.151	N	1.02	5.26	129.8	2.74
W	T1	1	Dominant	2.00	0.151	N	1.02	5.26	129.8	2.74
N	R2	1	Dominant	2.00	0.151	N	1.02	5.26	129.8	2.74
North: Filbert Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
E	L2	1	Dominant	2.00	0.353	Y	1.02	4.74	146.0	3.02
S	T1	1	Dominant	2.00	0.353	Y	1.02	4.74	146.0	3.02
W	R2	1	Dominant	2.00	0.353	Y	1.02	4.74	146.0	3.02
West: Main Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
N	L2	1	Dominant	2.00	0.440	N	1.02	4.73	99.1	2.61
E	T1	1	Dominant	2.00	0.440	N	1.02	4.73	99.1	2.61
S	R2	1	Dominant	2.00	0.440	N	1.02	4.73	99.1	2.61
Roundabout Capacity Model: SIDRA Standard										
Priority sharing means Follow-up Headway plus Intra-bunch Headway										

is larger than the Critical Gap.

Dist (Distance): Spacing, i.e. distance between the front ends of two successive vehicles across all lanes in the circulating or exiting stream

[Go to Table Links \(Top\)](#)

Roundabout Flow Rates

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

CIRCULATING LANE FLOW RATES

Lane No.	Circulating Flow Rate		
	veh/h	pcu/h	Percent
South: Filbert Street			
1	889	907	100.0%
Total	889	907	
East: Main Street			
1	132	134	100.0%
Total	132	134	
North: Filbert Street			
1	0	0	0.0%
2	351	358	100.0%
Total	351	358	
West: Main Street			
1	464	473	100.0%
Total	464	473	

The SIDRA Standard roundabout capacity model option is in use.
This model takes into account the total circulating flow as well as the effect of flow distribution in circulating lanes on the entry capacity results.

APPROACH LANE FLOW RATES

Lane No.	Approach Flows (veh/h)		
	Out	To Downst	Total
South: Filbert Street			
1	11	72	83
Total	11	72	83
East: Main Street			
1	258	332	590
Total	258	332	590
North: Filbert Street			
1	77	462	539
Total	77	462	539
West: Main Street			
1	17	466	483
Total	17	466	483

[Go to Table Links \(Top\)](#)

Roundabout Pedestrian Effects

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

ROUNDAABOUT ENTRY

Lane	Turn	Pedestrian Flow Rate	Pedestrian Adj.Flow Rate	Opposing Ped.Factor	Circulating Flow Rate	Circulating Flow Rate	Adjustment Factor

Detailed Output

North	L2	19.4	19.0	791.8#	28.5#	9.0	9.0	0.5
East	T1	23.9	23.4	1131.8#	32.9#	86.9	86.9	3.7
South	R2	22.9	22.5	1181.8#	35.8#	3.9	3.9	0.2

ALL VEHICLES:		22.8	22.1	847.9#	26.1#	272.1	272.1	12.3

"Running Speed" is the average speed excluding stopped periods.								
Travel Time values include cruise times and intersection delays including acceleration, deceleration and idling delays.								
# Travel Distance and Travel Time values include travel on the External Exit section based on the Exit Distance or user-specified Downstream Distance value as applicable.								
INTERSECTION NEGOTIATION DATA								

From	To		Negn	Negn	Negn	App	Exit	Downstr
Approach	Exit	Turn	Radius	Speed	Dist	Dist	Dist	Dist
			ft	mph	ft	ft	ft	ft

South: Filbert Street								
	West	L2	41.0	13.6	161.0	450	192	NA
	North	T1	135.4	21.5	95.8	450	18	NA
	East	R2	81.7	17.7	38.6	450	122	NA

East: Main Street								
	South	L2	41.0	13.6	161.0	400	137	NA
	West	T1	135.4	21.5	95.8	400	192	NA
	North	R2	81.7	17.7	38.6	400	18	NA

North: Filbert Street								
	East	L2	41.0	13.6	161.0	60	122	NA
	South	T1	135.4	21.5	95.8	60	137	NA
	West	R2	81.7	17.7	38.6	60	192	NA

West: Main Street								
	North	L2	41.0	13.6	161.0	630	18	NA
	East	T1	135.4	21.5	95.8	630	122	NA
	South	R2	81.7	17.7	38.6	630	137	NA

Maximum Negotiation (Design) Speed = 30.0 mph								
NA Downstream Distance does not apply if:								
- Exit is an internal leg of a network								
- "Program" option was specified								
- Distance specified was less than the Exit Negotiation Distance								
- Distance specified was greater than the exit leg length								
MOVEMENT SPEEDS AND GEOMETRIC DELAY								

		App. Speeds	Exit Speeds		Queue	Geom		
Mov		Cruise	Negn	Negn	Move-up	Delay		
ID	Turn	mph	mph	mph	Speed	sec		
		mph	mph	mph	mph			

South: Filbert Street								
3	L2	25.0	13.6	13.6	25.0	19.0	5.5	
8	T1	25.0	21.5	21.5	25.0	19.0	1.0	
18	R2	25.0	17.7	17.7	25.0	19.0	1.6	

East: Main Street								
1	L2	35.0	13.6	13.6	35.0	31.9	8.2	
6	T1	35.0	21.5	21.5	35.0	31.9	3.3	
16	R2	35.0	17.7	17.7	35.0	31.9	3.4	

North: Filbert Street								
7	L2	25.0	13.6	13.6	25.0	23.2	4.4	
4	T1	25.0	21.5	21.5	25.0	23.2	0.7	
14	R2	25.0	17.7	17.7	25.0	23.2	0.9	

West: Main Street								
5	L2	30.0	13.6	13.6	30.0	22.5	7.0	
2	T1	30.0	21.5	21.5	30.0	22.5	2.2	
12	R2	30.0	17.7	17.7	30.0	22.5	2.6	

Detailed Output

[Go to Table Links \(Top\)](#)

Movement Capacity and Performance Parameters

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

MOVEMENT CAPACITY PARAMETERS

Mov ID	Turn	Mov Cl.	Arv Flow veh/h	Opng Flow veh/h	Movement Adjust. Flow pcu/h	Total Cap. veh/h	Prac. Deg. Satn xp	Prac. Spare Cap. %	Deg. Satn x
South: Filbert Street									
3	L2	#	18	889	907	118	0.85	444	0.156
8	T1	#	53	889	907	341	0.85	444	0.156
18	R2	#	11	889	907	70	0.85	444	0.156
East: Main Street									
1	L2	#	2	132	134	4	0.85	61	0.527
6	T1	#	330	132	134	627	0.85	61	0.527
16	R2	#	258	132	134	489	0.85	61	0.527
North: Filbert Street									
7	L2	#	424	351	358	647	0.85	30	0.655*
4	T1	#	38	351	358	58	0.85	30	0.655*
14	R2	#	77	351	358	118	0.85	30	0.655*
West: Main Street									
5	L2	#	60	464	473	98	0.85	40	0.608
2	T1	#	405	464	473	667	0.85	40	0.608
12	R2	#	17	464	473	29	0.85	40	0.608

* Maximum degree of saturation

Combined Movement Capacity parameters are shown for all Movement Classes.

MOVEMENT PERFORMANCE

Mov ID	Turn	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Eff. Stop Rate	Total Stops	Perf. Index	Tot.Trav. Distance (veh-mi/h)	Tot.Trav. Time (veh-h/h)	Aver. Speed (mph)
South: Filbert Street										
3	L2	0.07	0.08	12.7	0.80	14.8	1.11	4.1	0.2	21.2
8	T1	0.12	0.15	8.2	0.80	42.7	1.40	6.2	0.5	13.1
18	R2	0.03	0.03	8.8	0.80	8.7	0.95	2.0	0.1	18.8
East: Main Street										
1	L2	0.01	0.01	9.5	0.52	1.1	3.59	0.4	0.0	27.4
6	T1	0.42	0.51	4.6	0.52	170.5	6.91	68.9	2.4	28.3
16	R2	0.34	0.41	4.7	0.52	133.0	5.39	25.9	1.3	20.4
North: Filbert Street										
7	L2	1.12	1.34	9.5	0.90	381.4	9.99	48.1	2.5	18.9
4	T1	0.06	0.07	5.7	0.90	34.2	5.26	4.7	0.3	18.5
14	R2	0.13	0.15	6.0	0.90	69.4	5.83	12.1	0.7	18.4
West: Main Street										
5	L2	0.22	0.26	13.1	0.92	55.1	5.61	9.0	0.5	19.0
2	T1	0.94	1.12	8.3	0.92	373.6	10.70	86.9	3.7	23.4
12	R2	0.04	0.05	8.7	0.92	16.0	5.05	3.9	0.2	22.5

[Go to Table Links \(Top\)](#)

Fuel Consumption, Emissions and Cost

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

FUEL CONSUMPTION, EMISSIONS AND COST (TOTAL)

Detailed Output

Mov ID	Turn	Cost Total \$/h	Fuel Total gal/h	CO2 Total kg/h	CO Total kg/h	HC Total kg/h	NOX Total kg/h
South: Filbert Street							
3	L2	2.63	0.2	1.7	0.00	0.000	0.002
8	T1	7.21	0.4	3.3	0.00	0.000	0.004
18	R2	1.52	0.1	0.9	0.00	0.000	0.001
		11.35	0.7	5.8	0.00	0.001	0.006
East: Main Street							
1	L2	0.23	0.0	0.2	0.00	0.000	0.000
6	T1	35.75	3.1	28.0	0.03	0.002	0.035
16	R2	26.49	1.7	15.3	0.01	0.001	0.022
		62.47	4.9	43.5	0.04	0.004	0.056
North: Filbert Street							
7	L2	54.80	3.9	34.7	0.02	0.003	0.040
4	T1	4.94	0.4	3.2	0.00	0.000	0.004
14	R2	10.20	0.8	7.2	0.00	0.001	0.008
		69.94	5.0	45.1	0.03	0.004	0.052
West: Main Street							
5	L2	9.11	0.5	4.8	0.00	0.000	0.007
2	T1	63.25	4.3	38.8	0.03	0.003	0.049
12	R2	2.72	0.2	1.7	0.00	0.000	0.002
		75.08	5.1	45.2	0.04	0.004	0.058
INTERSECTION:		218.84	15.6	139.6	0.11	0.012	0.173
FUEL CONSUMPTION, EMISSIONS AND COST (RATE)							
Mov ID	Turn	Cost Rate \$/mi	Fuel Eff. mpg	CO2 Rate g/km	CO Rate g/km	HC Rate g/km	NOX Rate g/km
South: Filbert Street							
3	L2	0.64	22.3	249.7	0.16	0.021	0.254
8	T1	1.17	16.6	333.4	0.24	0.031	0.370
18	R2	0.77	20.5	271.4	0.18	0.023	0.284
		0.92	18.8	295.3	0.20	0.026	0.317
East: Main Street							
1	L2	0.61	20.3	273.3	0.26	0.025	0.349
6	T1	0.52	22.0	252.4	0.24	0.022	0.312
16	R2	1.02	15.1	367.1	0.34	0.036	0.518
		0.66	19.6	283.7	0.27	0.026	0.368
North: Filbert Street							
7	L2	1.14	12.4	448.4	0.32	0.041	0.521
4	T1	1.06	13.0	426.2	0.30	0.039	0.490
14	R2	0.84	15.1	368.3	0.25	0.032	0.412
		1.08	12.9	431.8	0.31	0.039	0.498
West: Main Street							
5	L2	1.02	16.7	331.9	0.28	0.030	0.451
2	T1	0.73	20.0	277.1	0.22	0.024	0.352
12	R2	0.70	20.4	271.7	0.22	0.023	0.343
		0.75	19.7	281.8	0.23	0.024	0.361
INTERSECTION:		0.80	17.4	318.8	0.26	0.028	0.394

[Go to Table Links \(Top\)](#)

Lanes

Lane Performance and Capacity Information
Site: Main St._Filbert St._PMSite ID: 101
Roundabout

LANE PERFORMANCE

Lane No.	Flow veh/h	Cap veh/h	Deg. Satn x	Aver. Delay sec	Eff. Stop Rate	Queue		Lane Length ft
						95% Back veh	ft	
South: Filbert Street								
1	83	529	0.156	9.3	0.80	1.0	25.1	450.0
East: Main Street								
1	590	1121	0.527	4.7	0.52	4.4	112.7	400.0
North: Filbert Street								
1	539	823	0.655	8.7	0.90	6.0	152.4	60.0
West: Main Street								
1	483	794	0.608	8.9	0.92	5.9	151.1	630.0

LANE FLOW AND CAPACITY INFORMATION

Lane No.	Total Arv Flow veh/h	Min Cap veh/h	Tot Cap veh/h	Deg. Satn x	Lane Util %
South: Filbert Street					
1	83	83	529	0.156	100
East: Main Street					
1	590	150	1121	0.527	100
North: Filbert Street					
1	539	150	823	0.655	100
West: Main Street					
1	483	150	794	0.608	100

The capacity values of Continuous Lanes are obtained by adjusting the basic saturation flow for lane width, grade, movement class and turning vehicle effects. Saturation flow scale applies if specified.

[Go to Table Links \(Top\)](#)Lane, Approach and Intersection Performance
Site: Main St._Filbert St._PMSite ID: 101
Roundabout

Lane No.	Arrival Flow (veh/h)	%HV	Adj. Basic Satf.	Deg Sat x	Aver. Delay sec	Longest Queue ft	Lane Length ft
South: Filbert Street							
1	83	2		0.156	9.3	25	450
	83	2		0.156	9.3	25	
East: Main Street							
1	590	2		0.527	4.7	113	400
	590	2		0.527	4.7	113	
North: Filbert Street							
1	539	2		0.655	8.7	152	60

Detailed Output

	539	2	0.655	8.7	152	

West: Main Street						
1	483	2	0.608	8.9	151	630

	483	2	0.608	8.9	151	
=====						
ALL VEHICLES						
Total	%		Max	Aver.	Max	
Flow	HV		X	Delay	Queue	
1695	2		0.655	7.4	152	
=====						
Peak flow period = 15 minutes.						
Queue values in this table are 95% queue (feet)						
Note: Basic Saturation Flows at roundabouts or sign-controlled						
intersections apply only to continuous lanes.						

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Driver Characteristics

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

Lane	Satn	Satn	Satn	Satn	Average	Driver
No.	Speed	Flow	Hdwy	Spacing	Queue	Response
	mph	veh/h	sec	ft	Space	Time
					ft	sec

South: Filbert Street						
1	19.2	1474	2.44	68.84	25.40	1.54

East: Main Street						
1	19.8	1315	2.74	79.49	25.40	1.86

North: Filbert Street						
1	14.8	1192	3.02	65.44	25.40	1.85

West: Main Street						
1	20.4	1381	2.61	77.85	25.40	1.76

Saturation Flow and Saturation Headway are derived from follow-up headway.

[Go to Table Links \(Top\)](#)

Lane Delays

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

LANE DELAYS

				Delay (seconds/veh)									
Lane	Deg.	% Arv	Prog.	Min	Stop-line	Delay	Acc.	Queuing	Stopd				
No.	Satn	During	Factor	Del	1st	2nd Total	Dec.	Total	MvUp	(Idle)	Geom	Control	
	x	Green		dm	d1	d2 dSL	dn	dq dqm	di	dig	dic		

South: Filbert Street													
1	0.156	NA	NA	5.8	7.2	0.0 7.2	3.9	3.3 0.0	3.3	2.1	9.3		

East: Main Street													
1	0.527	NA	NA	0.6	1.3	0.0 1.3	2.5	0.0 0.0	0.0	3.4	4.7		

North: Filbert Street													
1	0.655	NA	NA	1.5	3.4	1.6 5.1	2.0	3.1 0.9	2.2	3.6	8.7		

West: Main Street													
1	0.608	NA	NA	2.2	4.2	1.9 6.1	4.4	1.7 1.1	0.6	2.8	8.9		

SIDRA Standard Delay Model is used. Control Delay is the sum of Stop-line Delay and Geometric Delay.

dm: Minimum delay for gap acceptance cases
 dSI: Stop-line delay (=d1+d2)
 dn: Average stop-start delay for all vehicles queued and unqueued
 dq: Queuing delay (the part of the stop-line delay that includes
 stopped delay and queue move-up delay)
 dqm: Queue move-up delay
 di: Stopped delay (stopped (idling) time at near-zero speed)
 dig: Geometric delay
 dic: Control delay

[Go to Table Links \(Top\)](#)

Lane Queues

Site: Main St._Filbert St._PM

Site ID: 101
 Roundabout

BACK OF QUEUE (VEHICLES)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (veh)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
	x				Nb1	Nb2	Nb	95%	Av.	95%		
South: Filbert Street												
1	0.156	NA	NA	0.0	0.4	0.0	0.4	1.0	0.02	0.06	0.0	NA
East: Main Street												
1	0.527	NA	NA	0.0	1.8	0.0	1.8	4.4	0.11	0.28	0.0	NA
North: Filbert Street												
1	0.655	NA	NA	0.3	1.9	0.5	2.4	6.0	1.02	2.54	52.6	NA
West: Main Street												
1	0.608	NA	NA	0.3	2.0	0.4	2.4	5.9	0.10	0.24	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

BACK OF QUEUE (DISTANCE)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (ft)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
	x				Nb1	Nb2	Nb	95%	Av.	95%		
South: Filbert Street												
1	0.156	NA	NA	0.0	10.1	0.0	10.1	25.1	0.02	0.06	0.0	NA
East: Main Street												
1	0.527	NA	NA	0.0	45.3	0.0	45.3	112.7	0.11	0.28	0.0	NA
North: Filbert Street												
1	0.655	NA	NA	7.7	49.5	11.8	61.3	152.4	1.02	2.54	52.6	NA
West: Main Street												
1	0.608	NA	NA	7.7	50.3	10.4	60.8	151.1	0.10	0.24	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

OTHER QUEUE RESULTS (VEHICLES)

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Nc	Queue ----- 95%
South: Filbert Street						
1	0.156	NA	NA	0.0	0.2	0.3
East: Main Street						
1	0.527	NA	NA	0.0	0.2	0.4

North: Filbert Street

1	0.655	NA	NA	0.3	0.8	1.4

West: Main Street						
1	0.608	NA	NA	0.3	0.8	1.5

OTHER QUEUE RESULTS (DISTANCE)

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Nc	Queue 95%

South: Filbert Street						
1	0.156	NA	NA	0.0	4.2	7.6

East: Main Street						
1	0.527	NA	NA	0.0	5.4	9.8

North: Filbert Street						
1	0.655	NA	NA	7.7	19.4	35.1

West: Main Street						
1	0.608	NA	NA	7.7	20.7	37.6

[Go to Table Links \(Top\)](#)

Lane Queue Percentiles
Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

LANE QUEUE PERCENTILES (VEHICLES)

Lane No.	Deg. Satn x	Percentile Back of Queue (veh)						
		50%	70%	85%	90%	95%	98%	100%

South: Filbert Street								
1	0.156	0.4	0.5	0.7	0.8	1.0	1.1	1.2

East: Main Street								
1	0.527	1.8	2.3	3.3	3.8	4.4	4.9	5.3

North: Filbert Street								
1	0.655	2.4	3.1	4.4	5.1	6.0	6.7	7.2

West: Main Street								
1	0.608	2.4	3.1	4.4	5.1	5.9	6.6	7.1

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

LANE QUEUE PERCENTILES (DISTANCE)

Lane No.	Deg. Satn x	Percentile Back of Queue (feet)						
		50%	70%	85%	90%	95%	98%	100%

South: Filbert Street								
1	0.156	10.1	13.1	18.4	21.3	25.1	27.8	29.9

East: Main Street								
1	0.527	45.3	58.7	82.8	95.8	112.7	125.1	134.4

North: Filbert Street								
1	0.655	61.3	79.4	111.9	129.6	152.4	169.1	181.8

West: Main Street								
1	0.608	60.8	78.7	110.9	128.5	151.1	167.7	180.2

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

[Go to Table Links \(Top\)](#)

Lane Stops

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	-- Effective Stop Rate --		Geom. Overall		Total Stops H	Queue Move-up Rate hqm	Total Queue Move-ups Hqm	Prop. Queued pq	Aver. Num. of Cycles to Depart
				he1	he2	hig	h					
South: Filbert Street												
1	0.156	NA	NA	0.75	0.00	0.05	0.80	66.3	0.00	0.0	0.83	0.83
East: Main Street												
1	0.527	NA	NA	0.31	0.00	0.20	0.52	304.6	0.00	0.0	0.51	0.51
North: Filbert Street												
1	0.655	NA	NA	0.68	0.09	0.13	0.90	485.0	0.14	77.4	0.76	0.90
West: Main Street												
1	0.608	NA	NA	0.79	0.09	0.05	0.92	444.7	0.16	79.2	0.87	1.03
hig is the average value for all movements in a shared lane												
hqm is average queue move-up rate for all vehicles queued and unqueued												

[Go to Table Links \(Top\)](#)

Flow Rates

Origin-Destination Flow Rates (Total)

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

TOTAL FLOW RATES for All Movement Classes (veh/h)

From SOUTH To:				
Turn:	W	N	E	TOT
	L2	T1	R2	
Flow Rate	18.5	53.3	10.9	82.6
%HV (all designations)	2.0	2.0	2.0	2.0
From EAST To:				
Turn:	S	W	N	TOT
	L2	T1	R2	
Flow Rate	2.2	330.4	257.6	590.2
%HV (all designations)	2.0	2.0	2.0	2.0
From NORTH To:				
Turn:	E	S	W	TOT
	L2	T1	R2	
Flow Rate	423.9	38.0	77.2	539.1
%HV (all designations)	2.0	2.0	2.0	2.0
From WEST To:				
Turn:	N	E	S	TOT
	L2	T1	R2	
Flow Rate	59.8	405.4	17.4	482.6
%HV (all designations)	2.0	2.0	2.0	2.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Origin-Destination Flow Rates by Movement Class
Site: Main St._Filbert St._PMSite ID: 101
Roundabout

FLOW RATES for Light Vehicles (veh/h)

From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT
Flow Rate	18.1	52.2	10.7	81.0
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
Flow Rate	2.1	323.8	252.5	578.4
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
Flow Rate	415.4	37.3	75.6	528.3
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT
Flow Rate	58.6	397.3	17.0	473.0
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

FLOW RATES for Heavy Vehicles (veh/h)

From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT
Flow Rate	0.4	1.1	0.2	1.7
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
Flow Rate	0.0	6.6	5.2	11.8
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
Flow Rate	8.5	0.8	1.5	10.8
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT

Flow Rate	1.2	8.1	0.3	9.7
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Lane Flow Rates

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

LANE FLOW RATES AT STOP LINE (veh/h)

From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT
Lane 1				
LV	18.1	52.2	10.7	81.0
HV	0.4	1.1	0.2	1.7
Total	18.5	53.3	10.9	82.6
Approach	18.5	53.3	10.9	82.6
From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
Lane 1				
LV	2.1	323.8	252.5	578.4
HV	0.0	6.6	5.2	11.8
Total	2.2	330.4	257.6	590.2
Approach	2.2	330.4	257.6	590.2
From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
Lane 1				
LV	415.4	37.3	75.6	528.3
HV	8.5	0.8	1.5	10.8
Total	423.9	38.0	77.2	539.1
Approach	423.9	38.0	77.2	539.1
From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT
Lane 1				
LV	58.6	397.3	17.0	473.0
HV	1.2	8.1	0.3	9.7
Total	59.8	405.4	17.4	482.6
Approach	59.8	405.4	17.4	482.6

EXIT LANE FLOW RATES

Movement Class:	LV	HV	TOT
Exit: SOUTH			
Lane: 1	56.5	1.2	57.6
Total	56.5	1.2	57.6
Exit: EAST			
Lane: 1	823.4	16.8	840.2

Total	823.4	16.8	840.2

Exit: NORTH			
Lane: 1	363.2	7.4	370.7
Total	363.2	7.4	370.7

Exit: WEST			
Lane: 1	417.6	8.5	426.1
Total	417.6	8.5	426.1

DOWNSTREAM LANE FLOW RATES FOR EXIT ROADS

Movement Class:	LV	HV	TOT

Exit: SOUTH			
Lane: 1	56.5	1.2	57.6
Total	56.5	1.2	57.6

Exit: EAST			
Lane: 1	823.4	16.8	840.2
Total	823.4	16.8	840.2

Exit: NORTH			
Lane: 1	363.2	7.4	370.7
Total	363.2	7.4	370.7

Exit: WEST			
Lane: 1	417.6	8.5	426.1
Total	417.6	8.5	426.1

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Other

Parameter Settings Summary

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

* Basic Parameters:
Intersection Type: Roundabout
Driving on the right-hand side of the road
Input data specified in US units
Model Defaults: US HCM (Customary)
Peak Flow Period (for performance): 15 minutes
Unit time (for volumes): 60 minutes.
SIDRA Standard Delay model used
HCM Queue Model option used
Level of Service based on: Delay and v/c (HCM 6)
Queue percentile: 95%

[Go to Table Links \(Top\)](#)

Diagnostics

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

Lane Flow-Capacity Iterations:

Site Model Variability Index (Iterations 3 to N): 3.1%
Number of Iterations: 7 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations:
2.5% 1.3% 0.6%

Other Diagnostic Messages (if any):

[Go to Table Links \(Top\)](#)

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Organisation: TJKM TRANSPORTATION CONSULTANTS | Processed: Tuesday, November 26, 2024 11:12:12 AM
Project: J:\JURISDICTION\Stockton\011-101 Main St Complete Streets\Analysis\Sidra\Project_v2.sip8

MOVEMENT SUMMARY

 Site: 101 [Main St._Filbert St._PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Filbert Street												
3	L2	18	2.0	0.156	12.7	LOS B	1.0	25.1	0.83	0.80	0.83	21.2
8	T1	53	2.0	0.156	8.2	LOS A	1.0	25.1	0.83	0.80	0.83	13.1
18	R2	11	2.0	0.156	8.8	LOS A	1.0	25.1	0.83	0.80	0.83	18.8
Approach		83	2.0	0.156	9.3	LOS A	1.0	25.1	0.83	0.80	0.83	15.9
East: Main Street												
1	L2	2	2.0	0.527	9.5	LOS A	4.4	112.7	0.51	0.52	0.51	27.4
6	T1	330	2.0	0.527	4.6	LOS A	4.4	112.7	0.51	0.52	0.51	28.3
16	R2	258	2.0	0.527	4.7	LOS A	4.4	112.7	0.51	0.52	0.51	20.4
Approach		590	2.0	0.527	4.7	LOS A	4.4	112.7	0.51	0.52	0.51	25.6
North: Filbert Street												
7	L2	424	2.0	0.655	9.5	LOS A	6.0	152.4	0.76	0.90	0.90	18.9
4	T1	38	2.0	0.655	5.7	LOS A	6.0	152.4	0.76	0.90	0.90	18.5
14	R2	77	2.0	0.655	6.0	LOS A	6.0	152.4	0.76	0.90	0.90	18.4
Approach		539	2.0	0.655	8.7	LOS A	6.0	152.4	0.76	0.90	0.90	18.8
West: Main Street												
5	L2	60	2.0	0.608	13.1	LOS B	5.9	151.1	0.87	0.92	1.03	19.0
2	T1	405	2.0	0.608	8.3	LOS A	5.9	151.1	0.87	0.92	1.03	23.4
12	R2	17	2.0	0.608	8.7	LOS A	5.9	151.1	0.87	0.92	1.03	22.5
Approach		483	2.0	0.608	8.9	LOS A	5.9	151.1	0.87	0.92	1.03	22.9
All Vehicles		1695	2.0	0.655	7.4	LOS A	6.0	152.4	0.71	0.77	0.80	22.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: TJKM TRANSPORTATION CONSULTANTS | Processed: Tuesday, November 26, 2024 11:12:12 AM

Project: J:\JURISDICTION\Stockton\011-101 Main St Complete Streets\Analysis\Sidra\Project_v2.sip8

HCM 6th TWSC
22: Shasta Avenue & Main Street

Existing Build Conditions_Mitigated

Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	426	5	4	597	5	9	1	5	2	0	2
Future Vol, veh/h	2	426	5	4	597	5	9	1	5	2	0	2
Conflicting Peds, #/hr	7	0	2	2	0	7	1	0	3	3	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	468	5	4	656	5	10	1	5	2	0	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	668	0	0	475	0	0	1146	1153	476	1152	1150	664
Stage 1	-	-	-	-	-	-	477	477	-	671	671	-
Stage 2	-	-	-	-	-	-	669	676	-	481	479	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	922	-	-	1087	-	-	176	197	589	175	198	461
Stage 1	-	-	-	-	-	-	569	556	-	446	455	-
Stage 2	-	-	-	-	-	-	447	453	-	566	555	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	916	-	-	1085	-	-	174	193	586	170	194	457
Mov Cap-2 Maneuver	-	-	-	-	-	-	174	193	-	170	194	-
Stage 1	-	-	-	-	-	-	566	553	-	442	449	-
Stage 2	-	-	-	-	-	-	442	447	-	556	552	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0.1			21.9			19.8		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	229	916	-	-	1085	-	-	248				
HCM Lane V/C Ratio	0.072	0.002	-	-	0.004	-	-	0.018				
HCM Control Delay (s/veh)	21.9	8.9	0	-	8.3	0	-	19.8				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1				

HCM 6th TWSC
23: David Avenue & Main Street

Existing Build Conditions_Mitigated
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	1	432	6	3	587	5	10	1	4	3	0	9
Future Vol, veh/h	1	432	6	3	587	5	10	1	4	3	0	9
Conflicting Peds, #/hr	3	0	3	3	0	3	3	0	1	1	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	470	7	3	638	5	11	1	4	3	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	646	0	0	480	0	0	807	1131	243	889	1132	328
Stage 1	-	-	-	-	-	-	479	479	-	650	650	-
Stage 2	-	-	-	-	-	-	328	652	-	239	482	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	935	-	-	1079	-	-	273	202	758	238	202	668
Stage 1	-	-	-	-	-	-	537	553	-	424	463	-
Stage 2	-	-	-	-	-	-	659	462	-	743	552	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	932	-	-	1076	-	-	266	200	755	234	200	664
Mov Cap-2 Maneuver	-	-	-	-	-	-	266	200	-	234	200	-
Stage 1	-	-	-	-	-	-	535	551	-	422	460	-
Stage 2	-	-	-	-	-	-	645	459	-	736	550	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0			17.1			13.1		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	313	932	-	-	1076	-	-	455				
HCM Lane V/C Ratio	0.052	0.001	-	-	0.003	-	-	0.029				
HCM Control Delay (s/veh)	17.1	8.9	0	-	8.4	0	-	13.1				
HCM Lane LOS	C	A	A	-	A	A	-	B				
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1				

HCM 6th TWSC
24: Rendon Avenue & Main Street

Existing Build Conditions_Mitigated
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	411	12	8	572	9	11	3	3	13	1	18
Future Vol, veh/h	11	411	12	8	572	9	11	3	3	13	1	18
Conflicting Peds, #/hr	5	0	1	1	0	5	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	447	13	9	622	10	12	3	3	14	1	20
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	637	0	0	461	0	0	1128	1127	448	1131	1135	632
Stage 1	-	-	-	-	-	-	472	472	-	650	650	-
Stage 2	-	-	-	-	-	-	656	655	-	481	485	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	947	-	-	1100	-	-	181	205	611	181	202	480
Stage 1	-	-	-	-	-	-	573	559	-	458	465	-
Stage 2	-	-	-	-	-	-	454	463	-	566	552	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	942	-	-	1099	-	-	169	198	610	173	195	478
Mov Cap-2 Maneuver	-	-	-	-	-	-	169	198	-	173	195	-
Stage 1	-	-	-	-	-	-	563	549	-	448	457	-
Stage 2	-	-	-	-	-	-	429	455	-	550	542	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.2			0.1			24.8			20.2		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	200	942	-	-	1099	-	-	271				
HCM Lane V/C Ratio	0.092	0.013	-	-	0.008	-	-	0.128				
HCM Control Delay (s/veh)	24.8	8.9	0	-	8.3	-	-	20.2				
HCM Lane LOS	C	A	A	-	A	-	-	C				
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0.4				

HCM 6th Signalized Intersection Summary 43: S Wilson Way & Market Street

Existing Build Conditions_Mitigated

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	140	50	0	0	0	0	686	63	118	623	0
Future Volume (veh/h)	15	140	50	0	0	0	0	686	63	118	623	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	16	149	53				0	730	67	126	663	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	25	234	86				0	2137	196	155	2815	0
Arrive On Green	0.03	0.03	0.03				0.00	0.65	0.65	0.17	1.00	0.00
Sat Flow, veh/h	256	2420	886				0	3384	302	1781	3647	0
Grp Volume(v), veh/h	116	0	102				0	394	403	126	663	0
Grp Sat Flow(s), veh/h/ln	1858	0	1704				0	1777	1815	1781	1777	0
Q Serve(g_s), s	5.6	0.0	5.3				0.0	9.0	9.0	6.1	0.0	0.0
Cycle Q Clear(g_c), s	5.6	0.0	5.3				0.0	9.0	9.0	6.1	0.0	0.0
Prop In Lane	0.14		0.52				0.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	180	0	165				0	1154	1179	155	2815	0
V/C Ratio(X)	0.65	0.00	0.62				0.00	0.34	0.34	0.81	0.24	0.00
Avail Cap(c_a), veh/h	619	0	568				0	1154	1179	257	2815	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	42.0	0.0	41.9				0.0	7.1	7.1	36.5	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	1.4				0.0	0.8	0.8	3.7	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	2.4				0.0	3.3	3.4	2.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.5	0.0	43.3				0.0	7.9	7.9	40.2	0.2	0.0
LnGrp LOS	D		D					A	A	D	A	
Approach Vol, veh/h		218						797			789	
Approach Delay, s/veh		43.4						7.9			6.6	
Approach LOS		D						A			A	
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	12.8	63.4				76.3		13.7				
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0				
Max Green Setting (Gmax), s	13.0	32.0				50.0		30.0				
Max Q Clear Time (g_c+I1), s	8.1	11.0				2.0		7.6				
Green Ext Time (p_c), s	0.1	11.3				14.3		0.8				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			11.6									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
44: S Eugenia Street & Market Street

Existing Build Conditions_Mitigated
Timing Plan: AM PEAK

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↑
Traffic Vol, veh/h	304	16	0	0	0	37
Future Vol, veh/h	304	16	0	0	0	37
Conflicting Peds, #/hr	0	2	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	330	17	0	0	0	40
Major/Minor	Major1		Minor1			
Conflicting Flow All	0	0			-	177
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Critical Hdwy	-	-			-	6.94
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	-			-	3.32
Pot Cap-1 Maneuver	-	-			0	835
Stage 1	-	-			0	-
Stage 2	-	-			0	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-			-	833
Mov Cap-2 Maneuver	-	-			-	-
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Approach	EB		NB			
HCM Control Delay, s/v	0		9.5			
HCM LOS			A			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR			
Capacity (veh/h)	833	-	-			
HCM Lane V/C Ratio	0.048	-	-			
HCM Control Delay (s/veh)	9.5	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q (veh)	0.2	-	-			

HCM 6th TWSC
22: Shasta Avenue & Main Street

Existing Build Conditions_Mitigated
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	696	15	5	541	10	5	0	12	3	1	5
Future Vol, veh/h	8	696	15	5	541	10	5	0	12	3	1	5
Conflicting Peds, #/hr	3	0	4	4	0	3	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	757	16	5	588	11	5	0	13	3	1	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	602	0	0	777	0	0	1395	1399	769	1391	1396	592
Stage 1	-	-	-	-	-	-	787	787	-	601	601	-
Stage 2	-	-	-	-	-	-	608	612	-	790	795	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	975	-	-	839	-	-	119	141	401	120	141	506
Stage 1	-	-	-	-	-	-	385	403	-	487	489	-
Stage 2	-	-	-	-	-	-	483	484	-	383	399	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	972	-	-	836	-	-	114	136	399	114	136	504
Mov Cap-2 Maneuver	-	-	-	-	-	-	114	136	-	114	136	-
Stage 1	-	-	-	-	-	-	377	395	-	478	483	-
Stage 2	-	-	-	-	-	-	472	478	-	365	391	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.1			22			23.3		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	230	972	-	-	836	-	-	206				
HCM Lane V/C Ratio	0.08	0.009	-	-	0.007	-	-	0.047				
HCM Control Delay (s/veh)	22	8.7	0	-	9.3	0	-	23.3				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0.1				

HCM 6th TWSC
23: David Avenue & Main Street

Existing Build Conditions_Mitigated
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	8	691	10	4	541	8	11	1	1	2	1	5
Future Vol, veh/h	8	691	10	4	541	8	11	1	1	2	1	5
Conflicting Peds, #/hr	1	0	4	4	0	1	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	751	11	4	588	9	12	1	1	2	1	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	598	0	0	766	0	0	1082	1385	387	998	1386	300
Stage 1	-	-	-	-	-	-	779	779	-	602	602	-
Stage 2	-	-	-	-	-	-	303	606	-	396	784	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	975	-	-	843	-	-	172	142	611	198	142	696
Stage 1	-	-	-	-	-	-	355	404	-	453	487	-
Stage 2	-	-	-	-	-	-	681	485	-	601	402	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	974	-	-	840	-	-	166	138	608	192	138	695
Mov Cap-2 Maneuver	-	-	-	-	-	-	166	138	-	192	138	-
Stage 1	-	-	-	-	-	-	348	396	-	445	483	-
Stage 2	-	-	-	-	-	-	669	481	-	588	394	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.2			0.1			27.7			16.5		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	173	974	-	-	840	-	-	322				
HCM Lane V/C Ratio	0.082	0.009	-	-	0.005	-	-	0.027				
HCM Control Delay (s/veh)	27.7	8.7	0.1	-	9.3	0	-	16.5				
HCM Lane LOS	D	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0.1				

HCM 6th TWSC
24: Rendon Avenue & Main Street

Existing Build Conditions_Mitigated
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	655	34	18	518	12	16	4	11	6	3	12
Future Vol, veh/h	10	655	34	18	518	12	16	4	11	6	3	12
Conflicting Peds, #/hr	4	0	7	7	0	4	0	0	3	3	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	704	37	19	557	13	17	4	12	6	3	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	574	0	0	748	0	0	1343	1345	714	1362	1376	568
Stage 1	-	-	-	-	-	-	733	733	-	606	606	-
Stage 2	-	-	-	-	-	-	610	612	-	756	770	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	999	-	-	861	-	-	129	151	431	125	145	522
Stage 1	-	-	-	-	-	-	412	426	-	484	487	-
Stage 2	-	-	-	-	-	-	482	484	-	400	410	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	995	-	-	855	-	-	118	142	427	113	136	520
Mov Cap-2 Maneuver	-	-	-	-	-	-	118	142	-	113	136	-
Stage 1	-	-	-	-	-	-	401	415	-	473	469	-
Stage 2	-	-	-	-	-	-	451	466	-	376	399	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.3			32.5			23.8		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	164	995	-	-	855	-	-	214
HCM Lane V/C Ratio	0.203	0.011	-	-	0.023	-	-	0.106
HCM Control Delay (s/veh)	32.5	8.7	0	-	9.3	0	-	23.8
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.7	0	-	-	0.1	-	-	0.3

HCM 6th Signalized Intersection Summary 43: S Wilson Way & Market Street

Existing Build Conditions_Mitigated

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	238	75	0	0	0	0	850	112	188	814	0
Future Volume (veh/h)	38	238	75	0	0	0	0	850	112	188	814	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	40	251	79				0	895	118	198	857	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	59	382	125				0	1720	227	230	2592	0
Arrive On Green	0.05	0.05	0.05				0.00	0.55	0.55	0.26	1.00	0.00
Sat Flow, veh/h	373	2400	786				0	3249	416	1781	3647	0
Grp Volume(v), veh/h	198	0	172				0	504	509	198	857	0
Grp Sat Flow(s), veh/h/ln	1852	0	1707				0	1777	1795	1781	1777	0
Q Serve(g_s), s	9.5	0.0	8.9				0.0	16.2	16.2	9.5	0.0	0.0
Cycle Q Clear(g_c), s	9.5	0.0	8.9				0.0	16.2	16.2	9.5	0.0	0.0
Prop In Lane	0.20		0.46				0.00		0.23	1.00		0.00
Lane Grp Cap(c), veh/h	295	0	272				0	968	978	230	2592	0
V/C Ratio(X)	0.67	0.00	0.63				0.00	0.52	0.52	0.86	0.33	0.00
Avail Cap(c_a), veh/h	617	0	569				0	968	978	336	2592	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.92	0.92	0.00
Uniform Delay (d), s/veh	40.3	0.0	40.0				0.0	13.0	13.0	32.6	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.9				0.0	2.0	2.0	9.5	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	4.1				0.0	6.7	6.7	4.2	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.3	0.0	40.9				0.0	15.0	15.0	42.1	0.3	0.0
LnGrp LOS	D		D				B	B	D	A		
Approach Vol, veh/h		370						1013			1055	
Approach Delay, s/veh		41.1						15.0			8.2	
Approach LOS		D						B			A	
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	16.6	54.1				70.7		19.3				
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0				
Max Green Setting (Gmax), s	17.0	28.0				50.0		30.0				
Max Q Clear Time (g_c+I1), s	11.5	18.2				2.0		11.5				
Green Ext Time (p_c), s	0.1	7.5				19.9		1.4				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			16.0									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
44: S Eugenia Street & Market Street

Existing Build Conditions_Mitigated
Timing Plan: PM PEAK

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↑
Traffic Vol, veh/h	550	12	0	0	0	42
Future Vol, veh/h	550	12	0	0	0	42
Conflicting Peds, #/hr	0	6	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	598	13	0	0	0	46
Major/Minor	Major1		Minor1			
Conflicting Flow All	0	0			-	312
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Critical Hdwy	-	-			-	6.94
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	-			-	3.32
Pot Cap-1 Maneuver	-	-			0	684
Stage 1	-	-			0	-
Stage 2	-	-			0	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-			-	680
Mov Cap-2 Maneuver	-	-			-	-
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Approach	EB		NB			
HCM Control Delay, s/v	0				10.7	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR			
Capacity (veh/h)	680	-	-			
HCM Lane V/C Ratio	0.067	-	-			
HCM Control Delay (s/veh)	10.7	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q (veh)	0.2	-	-			

Queues

Existing Build Conditions_Mitigated

43: S Wilson Way & Market Street

Timing Plan: AM PEAK

	→	↑	↘	↓
Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	218	797	126	663
v/c Ratio	0.47	0.39	0.60	0.24
Control Delay (s/veh)	43.4	12.5	41.1	3.4
Queue Delay	0.0	0.0	0.0	0.1
Total Delay (s/veh)	43.4	12.5	41.1	3.5
Queue Length 50th (ft)	65	111	54	32
Queue Length 95th (ft)	93	232	98	77
Internal Link Dist (ft)	296	296		271
Turn Bay Length (ft)			90	
Base Capacity (vph)	1128	2027	264	2669
Starvation Cap Reductn	0	0	0	1015
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.19	0.39	0.48	0.40
Intersection Summary				

Queues

Existing Build Conditions_Mitigated

43: S Wilson Way & Market Street

Timing Plan: PM PEAK

	→	↑	↘	↓
Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	370	1013	198	857
v/c Ratio	0.64	0.57	0.70	0.33
Control Delay (s/veh)	44.7	18.7	41.2	2.3
Queue Delay	0.0	0.0	0.0	0.1
Total Delay (s/veh)	44.7	18.7	41.2	2.4
Queue Length 50th (ft)	112	193	78	33
Queue Length 95th (ft)	148	345	97	41
Internal Link Dist (ft)	296	296		271
Turn Bay Length (ft)			90	
Base Capacity (vph)	1129	1765	345	2548
Starvation Cap Reductn	0	0	0	615
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.33	0.57	0.57	0.44
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

2: S San Joaquin Street/N San Joaquin Street & Main Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔			↔↔			↔↔	
Traffic Volume (vph)	0	0	0	13	48	28	55	175	0	0	119	117
Future Volume (vph)	0	0	0	13	48	28	55	175	0	0	119	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					0.95			1.00			0.98	
Flpb, ped/bikes					0.97			0.99			1.00	
Frt					0.95			1.00			0.92	
Flt Protected					0.99			0.98			1.00	
Satd. Flow (prot)					3115			3481			3211	
Flt Permitted					0.99			0.83			1.00	
Satd. Flow (perm)					3115			2927			3211	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	14	52	30	60	190	0	0	129	127
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	96	0	0	250	0	0	256	0
Confl. Peds. (#/hr)				45		31	39					39
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					5.0			29.0			29.0	
Effective Green, g (s)					5.0			29.0			29.0	
Actuated g/C Ratio					0.07			0.41			0.41	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					222			1212			1330	
v/s Ratio Prot											0.08	
v/s Ratio Perm					0.03			0.09				
v/c Ratio					0.43			0.20			0.19	
Uniform Delay, d1					31.1			13.1			13.0	
Progression Factor					1.14			0.81			1.00	
Incremental Delay, d2					0.4			0.3			0.3	
Delay (s)					36.0			11.1			13.3	
Level of Service					D			B			B	
Approach Delay (s/veh)		0.0			36.0			11.1			13.3	
Approach LOS		A			D			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			16.1									
HCM 2000 Volume to Capacity ratio			0.14									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			31.1%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: S Sutter Street/N Sutter Street & Main Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔			↔			↔↔	
Traffic Volume (vph)	0	0	0	9	53	6	20	64	0	0	94	24
Future Volume (vph)	0	0	0	9	53	6	20	64	0	0	94	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			1.00			0.95	
Frpb, ped/bikes					0.99			1.00			0.98	
Flpb, ped/bikes					0.99			0.98			1.00	
Frt					0.98			1.00			0.96	
Flt Protected					0.99			0.98			1.00	
Satd. Flow (prot)					3434			1814			3372	
Flt Permitted					0.99			0.91			1.00	
Satd. Flow (perm)					3434			1679			3372	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	11	65	7	24	78	0	0	115	29
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	83	0	0	102	0	0	144	0
Confl. Peds. (#/hr)				36		13	69					69
Confl. Bikes (#/hr)												1
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					2			4			4	
Permitted Phases				2			4					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					735			455			915	
v/s Ratio Prot											0.04	
v/s Ratio Perm					0.02			c0.06				
v/c Ratio					0.11			0.22			0.15	
Uniform Delay, d1					22.1			19.7			19.4	
Progression Factor					0.54			0.70			1.00	
Incremental Delay, d2					0.3			1.1			0.3	
Delay (s)					12.3			15.0			19.7	
Level of Service					B			B			B	
Approach Delay (s/veh)		0.0			12.3			15.0			19.7	
Approach LOS		A			B			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			16.4									
HCM 2000 Volume to Capacity ratio			0.10									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			22.8%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

Background Conditions

4: California Street & Main Street

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	63	49	34	13	251	0	0	208	11
Future Volume (vph)	0	0	0	63	49	34	13	251	0	0	208	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					0.99			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.96			1.00			0.99	
Flt Protected					0.97			0.99			1.00	
Satd. Flow (prot)					3315			3530			3509	
Flt Permitted					0.97			0.93			1.00	
Satd. Flow (perm)					3315			3303			3509	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	0	0	0	73	57	40	15	292	0	0	242	13
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	170	0	0	307	0	0	255	0
Confl. Peds. (#/hr)				7		4	5					5
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					710			896			952	
v/s Ratio Prot											0.07	
v/s Ratio Perm					0.05			0.09				
v/c Ratio					0.23			0.34			0.26	
Uniform Delay, d1					22.7			20.4			20.0	
Progression Factor					1.56			0.77			1.00	
Incremental Delay, d2					0.6			1.0			0.6	
Delay (s)					36.3			16.8			20.7	
Level of Service					D			B			C	
Approach Delay (s/veh)		0.0			36.3			16.8			20.7	
Approach LOS		A			D			B			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			22.7									
HCM 2000 Volume to Capacity ratio			0.18									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			29.3%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis5: S American Street/N American Street & Main Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕↕			↕			↕	↕
Traffic Volume (vph)	0	0	0	82	110	24	16	18	0	0	31	20
Future Volume (vph)	0	0	0	82	110	24	16	18	0	0	31	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	5.0
Lane Util. Factor					0.95			1.00			1.00	1.00
Frpb, ped/bikes					0.99			1.00			1.00	0.97
Flpb, ped/bikes					0.88			0.99			1.00	1.00
Frt					0.98			1.00			1.00	0.85
Flt Protected					0.98			0.97			1.00	1.00
Satd. Flow (prot)					3013			1812			1863	1549
Flt Permitted					0.98			0.88			1.00	1.00
Satd. Flow (perm)					3013			1643			1863	1549
Peak-hour factor, PHF	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
Adj. Flow (vph)	0	0	0	139	186	41	27	31	0	0	53	34
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	366	0	0	58	0	0	53	34
Confl. Peds. (#/hr)				96		2	11					11
Turn Type				Perm	NA		Perm	NA			NA	Perm
Protected Phases					2			4			4	
Permitted Phases				2			4					4
Actuated Green, G (s)					11.0			23.0			23.0	23.0
Effective Green, g (s)					11.0			23.0			23.0	23.0
Actuated g/C Ratio					0.16			0.33			0.33	0.33
Clearance Time (s)					5.0			5.0			5.0	5.0
Vehicle Extension (s)					0.2			0.2			0.2	0.2
Lane Grp Cap (vph)					473			539			612	508
v/s Ratio Prot											0.03	
v/s Ratio Perm					0.12			0.04				0.02
v/c Ratio					0.77			0.10			0.08	0.06
Uniform Delay, d1					28.3			16.3			16.2	16.1
Progression Factor					1.00			0.51			1.00	1.00
Incremental Delay, d2					11.5			0.3			0.2	0.2
Delay (s)					39.8			8.8			16.5	16.3
Level of Service					D			A			B	B
Approach Delay (s/veh)		0.0			39.8			8.8			16.4	
Approach LOS		A			D			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			32.4									
HCM 2000 Volume to Capacity ratio			0.19									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			25.4%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

6: S Stanislaus Street/N Stanislaus Street & Main Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔			↔↔			↔↔	
Traffic Volume (vph)	0	0	0	46	101	5	86	427	0	0	209	15
Future Volume (vph)	0	0	0	46	101	5	86	427	0	0	209	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					0.99			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.99			1.00			0.98	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					3461			3506			3498	
Flt Permitted					0.98			0.82			1.00	
Satd. Flow (perm)					3461			2908			3498	
Peak-hour factor, PHF	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	0	0	0	64	140	7	119	593	0	0	290	21
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	8	0
Lane Group Flow (vph)	0	0	0	0	208	0	0	712	0	0	304	0
Confl. Peds. (#/hr)				5		2	7					7
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					1			2			2	
Permitted Phases				1			2					
Actuated Green, G (s)					25.0			35.0			35.0	
Effective Green, g (s)					25.0			35.0			35.0	
Actuated g/C Ratio					0.36			0.50			0.50	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					1236			1454			1749	
v/s Ratio Prot											0.09	
v/s Ratio Perm					0.06			c0.24				
v/c Ratio					0.16			0.48			0.17	
Uniform Delay, d1					15.3			11.5			9.5	
Progression Factor					1.00			0.76			1.00	
Incremental Delay, d2					0.2			1.0			0.2	
Delay (s)					15.6			9.9			9.7	
Level of Service					B			A			A	
Approach Delay (s/veh)		0.0			15.6			9.9			9.7	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			10.9									
HCM 2000 Volume to Capacity ratio			0.36									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			55.1%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC

7: S Grant Street/N Grant Street & Main Street

Background Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EB			E			B	
Traffic Vol, veh/h	0	0	0	6	130	7	9	43	0	0	16	16
Future Vol, veh/h	0	0	0	6	130	7	9	43	0	0	16	16
Conflicting Peds, #/hr	0	0	0	2	0	5	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	9	200	11	14	66	0	0	25	25
Major/Minor	Major2			Minor1			Minor2					
Conflicting Flow All	2			0	0	137	236	-	-	231	115	
Stage 1	-			-	-	2	2	-	-	229	-	
Stage 2	-			-	-	135	234	-	-	2	-	
Critical Hdwy	4.14			-	-	7.54	6.54	-	-	6.54	6.94	
Critical Hdwy Stg 1	-			-	-	-	-	-	-	5.54	-	
Critical Hdwy Stg 2	-			-	-	6.54	5.54	-	-	-	-	
Follow-up Hdwy	2.22			-	-	3.52	4.02	-	-	4.02	3.32	
Pot Cap-1 Maneuver	1619			-	-	820	664	0	0	668	916	
Stage 1	-			-	-	-	-	0	0	713	-	
Stage 2	-			-	-	854	710	0	0	-	-	
Platoon blocked, %				-	-							
Mov Cap-1 Maneuver	1616			-	-	770	655	-	-	659	912	
Mov Cap-2 Maneuver	-			-	-	770	655	-	-	659	-	
Stage 1	-			-	-	-	-	-	-	705	-	
Stage 2	-			-	-	797	702	-	-	-	-	
Approach	WB			NB			SB					
HCM Control Delay, s/v	0.3			11.1			10					
HCM LOS				B			B					
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	672	1616	-	-	765							
HCM Lane V/C Ratio	0.119	0.006	-	-	0.064							
HCM Control Delay (s/veh)	11.1	7.2	0	-	10							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.4	0	-	-	0.2							

HCM 6th TWSC

8: S Aurora Street/N Aurora Street & Main Street

Background Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EBB			EB			EB	
Traffic Vol, veh/h	0	0	0	9	126	4	24	103	0	0	34	6
Future Vol, veh/h	0	0	0	9	126	4	24	103	0	0	34	6
Conflicting Peds, #/hr	0	0	0	1	0	4	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	12	173	5	33	141	0	0	47	8
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				1	0	0	137	207	-	-	205	95
Stage 1				-	-	-	1	1	-	-	204	-
Stage 2				-	-	-	136	206	-	-	1	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				1620	-	-	820	689	0	0	690	943
Stage 1				-	-	-	-	-	0	0	732	-
Stage 2				-	-	-	853	730	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1618	-	-	765	680	-	-	681	939
Mov Cap-2 Maneuver				-	-	-	765	680	-	-	681	-
Stage 1				-	-	-	-	-	-	-	723	-
Stage 2				-	-	-	785	721	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.5		11.9		10.5				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	695	1618	-	-	710							
HCM Lane V/C Ratio	0.25	0.008	-	-	0.077							
HCM Control Delay (s/veh)	11.9	7.2	0	-	10.5							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	1	0	-	-	0.3							

HCM 6th AWSC
9: Union Street & Main Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Intersection Delay, s/veh	8.2											
Intersection LOS	A											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	12	119	14	9	90	0	0	66	9
Future Vol, veh/h	0	0	0	12	119	14	9	90	0	0	66	9
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	14	138	16	10	105	0	0	77	10
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0
Approach				WB			NB			SB		
Opposing Approach							SB			NB		
Opposing Lanes				0			1			1		
Conflicting Approach Left				NB						WB		
Conflicting Lanes Left				1			0			2		
Conflicting Approach Right				SB			WB					
Conflicting Lanes Right				1			2			0		
HCM Control Delay, s/veh				8.3			8.2			8		
HCM LOS				A			A			A		
Lane	NBLn1	WBLn1	WBLn2	SBLn1								
Vol Left, %	9%	17%	0%	0%								
Vol Thru, %	91%	83%	81%	88%								
Vol Right, %	0%	0%	19%	12%								
Sign Control	Stop	Stop	Stop	Stop								
Traffic Vol by Lane	99	72	74	75								
LT Vol	9	12	0	0								
Through Vol	90	60	60	66								
RT Vol	0	0	14	9								
Lane Flow Rate	115	83	85	87								
Geometry Grp	2	5	5	2								
Degree of Util (X)	0.143	0.117	0.115	0.107								
Departure Headway (Hd)	4.467	5.082	4.864	4.409								
Convergence, Y/N	Yes	Yes	Yes	Yes								
Cap	806	708	739	815								
Service Time	2.478	2.799	2.58	2.421								
HCM Lane V/C Ratio	0.143	0.117	0.115	0.107								
HCM Control Delay, s/veh	8.2	8.5	8.2	8								
HCM Lane LOS	A	A	A	A								
HCM 95th-tile Q	0.5	0.4	0.4	0.4								

HCM 6th TWSC
10: Pilgrim Street & Main Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EB			E			B	
Traffic Vol, veh/h	0	0	0	9	145	5	3	7	0	0	11	0
Future Vol, veh/h	0	0	0	9	145	5	3	7	0	0	11	0
Conflicting Peds, #/hr	0	0	0	4	0	4	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	13	207	7	4	10	0	0	16	0
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				4	0	0	145	248	-	-	245	114
Stage 1				-	-	-	4	4	-	-	241	-
Stage 2				-	-	-	141	244	-	-	4	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				1616	-	-	810	653	0	0	656	917
Stage 1				-	-	-	-	-	0	0	705	-
Stage 2				-	-	-	847	703	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1610	-	-	787	642	-	-	645	914
Mov Cap-2 Maneuver				-	-	-	787	642	-	-	645	-
Stage 1				-	-	-	-	-	-	-	696	-
Stage 2				-	-	-	820	694	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.4		10.4		10.7				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	680	1610	-	-	645							
HCM Lane V/C Ratio	0.021	0.008	-	-	0.024							
HCM Control Delay (s/veh)	10.4	7.3	0	-	10.7							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1							

HCM 6th Signalized Intersection Summary

11: Airport Way & Main Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	35	126	64	18	788	0	0	662	15
Future Volume (veh/h)	0	0	0	35	126	64	18	788	0	0	662	15
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				38	135	69	19	847	0	0	712	16
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				61	219	115	69	2637	0	0	2759	62
Arrive On Green				0.04	0.04	0.04	1.00	1.00	0.00	0.00	0.78	0.78
Sat Flow, veh/h				541	1946	1020	36	3481	0	0	3646	80
Grp Volume(v), veh/h				129	0	113	458	408	0	0	356	372
Grp Sat Flow(s),veh/h/ln				1843	0	1664	1814	1617	0	0	1777	1856
Q Serve(g_s), s				6.2	0.0	6.0	0.0	0.0	0.0	0.0	5.0	5.0
Cycle Q Clear(g_c), s				6.2	0.0	6.0	0.0	0.0	0.0	0.0	5.0	5.0
Prop In Lane				0.29		0.61	0.04		0.00	0.00		0.04
Lane Grp Cap(c), veh/h				207	0	187	1451	1256	0	0	1380	1441
V/C Ratio(X)				0.63	0.00	0.60	0.32	0.32	0.00	0.00	0.26	0.26
Avail Cap(c_a), veh/h				451	0	407	1451	1256	0	0	1380	1441
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.95	0.95	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				41.5	0.0	41.4	0.0	0.0	0.0	0.0	2.8	2.8
Incr Delay (d2), s/veh				1.2	0.0	1.2	0.5	0.7	0.0	0.0	0.5	0.4
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.0	0.0	2.6	0.2	0.2	0.0	0.0	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				42.6	0.0	42.5	0.5	0.7	0.0	0.0	3.3	3.2
LnGrp LOS				D		D	A	A			A	A
Approach Vol, veh/h					242			866			728	
Approach Delay, s/veh					42.6			0.6			3.3	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	74.9			15.1			74.9					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	58.0			22.0			58.0					
Max Q Clear Time (g_c+I1), s	2.0			8.2			7.0					
Green Ext Time (p_c), s	0.8			0.8			0.7					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				7.2								
HCM 6th LOS				A								

HCM 6th TWSC
12: Sierra Nevada Street & Main Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					RT			LT			RT	
Traffic Vol, veh/h	0	0	0	9	195	12	17	17	0	0	33	11
Future Vol, veh/h	0	0	0	9	195	12	17	17	0	0	33	11
Conflicting Peds, #/hr	0	0	0	13	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	10	224	14	20	20	0	0	38	13
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				13	0	0	164	277	-	-	270	125
Stage 1				-	-	-	13	13	-	-	257	-
Stage 2				-	-	-	151	264	-	-	13	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				1604	-	-	785	629	0	0	635	902
Stage 1				-	-	-	-	-	0	0	694	-
Stage 2				-	-	-	836	689	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1584	-	-	725	613	-	-	619	897
Mov Cap-2 Maneuver				-	-	-	725	613	-	-	619	-
Stage 1				-	-	-	-	-	-	-	685	-
Stage 2				-	-	-	773	680	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.3		10.8		10.8				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	664	1584	-	-	671							
HCM Lane V/C Ratio	0.059	0.007	-	-	0.075							
HCM Control Delay (s/veh)	10.8	7.3	0	-	10.8							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.2	0	-	-	0.2							

HCM 6th Signalized Intersection Summary13: S Wilson Way & Main Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 			 			 	
Traffic Volume (veh/h)	0	0	0	115	145	209	32	730	0	0	648	20
Future Volume (veh/h)	0	0	0	115	145	209	32	730	0	0	648	20
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				119	149	215	33	753	0	0	668	21
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				261	357	271	569	2544	0	0	2518	79
Arrive On Green				0.17	0.17	0.17	1.00	1.00	0.00	0.00	0.72	0.72
Sat Flow, veh/h				1508	2064	1566	754	3647	0	0	3610	111
Grp Volume(v), veh/h				142	126	215	33	753	0	0	337	352
Grp Sat Flow(s),veh/h/ln				1795	1777	1566	754	1777	0	0	1777	1850
Q Serve(g_s), s				6.4	5.7	11.8	0.4	0.0	0.0	0.0	6.0	6.0
Cycle Q Clear(g_c), s				6.4	5.7	11.8	6.4	0.0	0.0	0.0	6.0	6.0
Prop In Lane				0.84		1.00	1.00		0.00	0.00		0.06
Lane Grp Cap(c), veh/h				310	307	271	569	2544	0	0	1272	1325
V/C Ratio(X)				0.46	0.41	0.79	0.06	0.30	0.00	0.00	0.27	0.27
Avail Cap(c_a), veh/h				459	454	400	569	2544	0	0	1272	1325
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	0.93	0.93	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				33.4	33.1	35.7	0.3	0.0	0.0	0.0	4.5	4.5
Incr Delay (d2), s/veh				0.4	0.3	3.7	0.2	0.3	0.0	0.0	0.5	0.5
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.8	2.4	4.7	0.0	0.1	0.0	0.0	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				33.8	33.5	39.4	0.5	0.3	0.0	0.0	5.0	5.0
LnGrp LOS				C	C	D	A	A			A	A
Approach Vol, veh/h					483			786			689	
Approach Delay, s/veh					36.2			0.3			5.0	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	69.4			20.6			69.4					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	57.0			23.0			57.0					
Max Q Clear Time (g_c+I1), s	8.4			13.8			8.0					
Green Ext Time (p_c), s	2.5			1.0			1.7					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				10.8								
HCM 6th LOS				B								

HCM Signalized Intersection Capacity Analysis

14: Market Street/E Market Street & Main St/Main Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	463	0	8	8	0	0	0	34
Future Volume (vph)	0	0	0	0	463	0	8	8	0	0	0	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0				5.0
Lane Util. Factor					0.95			1.00				1.00
Frpb, ped/bikes					1.00			1.00				0.98
Flpb, ped/bikes					1.00			0.99				1.00
Frt					1.00			1.00				0.86
Flt Protected					1.00			0.97				1.00
Satd. Flow (prot)					3539			1813				1584
Flt Permitted					1.00			0.97				1.00
Satd. Flow (perm)					3539			1813				1584
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	503	0	9	9	0	0	0	37
RTOR Reduction (vph)	0	0	0	0	0	0	0	17	0	0	0	35
Lane Group Flow (vph)	0	0	0	0	503	0	0	1	0	0	0	2
Confl. Peds. (#/hr)						5	1					1
Turn Type					NA		Perm	NA				Perm
Protected Phases					6 4			5				
Permitted Phases							5					5
Actuated Green, G (s)					26.7			2.3				2.3
Effective Green, g (s)					26.7			2.3				2.3
Actuated g/C Ratio					0.68			0.06				0.06
Clearance Time (s)								5.0				5.0
Vehicle Extension (s)								2.0				2.0
Lane Grp Cap (vph)					2422			106				93
v/s Ratio Prot					c0.14							
v/s Ratio Perm								0.00				c0.00
v/c Ratio					0.20			0.01				0.02
Uniform Delay, d1					2.2			17.2				17.2
Progression Factor					1.00			1.00				1.00
Incremental Delay, d2					0.1			0.0				0.0
Delay (s)					2.3			17.2				17.3
Level of Service					A			B				B
Approach Delay (s/veh)		0.0			2.3			17.2			17.3	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			3.9									
HCM 2000 Volume to Capacity ratio			0.29									
Actuated Cycle Length (s)			39.0									
Intersection Capacity Utilization			32.9%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC
15: B Street/E Washington Street & Main Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	247	18	16	429	2	23	0	30	0	0	9
Future Vol, veh/h	3	247	18	16	429	2	23	0	30	0	0	9
Conflicting Peds, #/hr	4	0	2	2	0	4	4	0	1	1	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	266	19	17	461	2	25	0	32	0	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	467	0	0	287	0	0	553	785	146	640	793	240
Stage 1	-	-	-	-	-	-	284	284	-	500	500	-
Stage 2	-	-	-	-	-	-	269	501	-	140	293	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1091	-	-	1272	-	-	416	323	875	360	320	761
Stage 1	-	-	-	-	-	-	699	675	-	521	541	-
Stage 2	-	-	-	-	-	-	713	541	-	849	669	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1087	-	-	1270	-	-	402	314	873	339	311	755
Mov Cap-2 Maneuver	-	-	-	-	-	-	402	314	-	339	311	-
Stage 1	-	-	-	-	-	-	696	672	-	517	529	-
Stage 2	-	-	-	-	-	-	689	529	-	814	666	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.4			11.9			9.8		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	579	1087	-	-	1270	-	-	755				
HCM Lane V/C Ratio	0.098	0.003	-	-	0.014	-	-	0.013				
HCM Control Delay (s/veh)	11.9	8.3	0	-	7.9	0.1	-	9.8				
HCM Lane LOS	B	A	A	-	A	A	-	A				
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0				

HCM 6th TWSC
16: E Lafayette Street & Main Street

Background Conditions
Timing Plan: AM Peak Hour

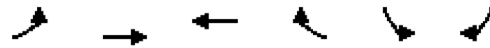
Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	36	232	4	18	393	0	13	10	17	0	4	42
Future Vol, veh/h	36	232	4	18	393	0	13	10	17	0	4	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	255	4	20	432	0	14	11	19	0	4	46
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	432	0	0	259	0	0	595	809	130	685	811	216
Stage 1	-	-	-	-	-	-	337	337	-	472	472	-
Stage 2	-	-	-	-	-	-	258	472	-	213	339	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1124	-	-	1303	-	-	388	313	896	334	312	789
Stage 1	-	-	-	-	-	-	651	640	-	542	557	-
Stage 2	-	-	-	-	-	-	724	557	-	769	638	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1124	-	-	1303	-	-	344	294	896	303	293	789
Mov Cap-2 Maneuver	-	-	-	-	-	-	344	294	-	303	293	-
Stage 1	-	-	-	-	-	-	624	613	-	519	546	-
Stage 2	-	-	-	-	-	-	663	546	-	708	611	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.2			0.4			14.1			10.6		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	441	1124	-	-	1303	-	-	688				
HCM Lane V/C Ratio	0.1	0.035	-	-	0.015	-	-	0.073				
HCM Control Delay (s/veh)	14.1	8.3	0.1	-	7.8	0.1	-	10.6				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q (veh)	0.3	0.1	-	-	0	-	-	0.2				

HCM Signalized Intersection Capacity Analysis

Background Conditions

17: Main Street & D Street

Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Volume (vph)	3	270	425	5	6	7
Future Volume (vph)	3	270	425	5	6	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0	
Lane Util. Factor		0.95	0.95		1.00	
Frt		1.00	0.99		0.92	
Flt Protected		0.99	1.00		0.97	
Satd. Flow (prot)		3537	3534		1689	
Flt Permitted		0.94	1.00		0.97	
Satd. Flow (perm)		3356	3534		1689	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	3	297	467	5	7	8
RTOR Reduction (vph)	0	0	2	0	8	0
Lane Group Flow (vph)	0	300	470	0	7	0
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		9.7	9.7		0.6	
Effective Green, g (s)		9.7	9.7		0.6	
Actuated g/C Ratio		0.48	0.48		0.03	
Clearance Time (s)		5.0	5.0		5.0	
Vehicle Extension (s)		6.0	6.0		2.0	
Lane Grp Cap (vph)		1603	1688		49	
v/s Ratio Prot			c0.13			
v/s Ratio Perm		0.09			c0.00	
v/c Ratio		0.18	0.27		0.14	
Uniform Delay, d1		3.0	3.1		9.6	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.1	0.2		0.5	
Delay (s)		3.1	3.4		10.1	
Level of Service		A	A		B	
Approach Delay (s/veh)		3.1	3.4		10.1	
Approach LOS		A	A		B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			3.5		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.27			
Actuated Cycle Length (s)			20.3		Sum of lost time (s)	10.0
Intersection Capacity Utilization			23.6%		ICU Level of Service	A
Analysis Period (min)			15			

c Critical Lane Group

HCM 6th TWSC
18: Marsh Street/E Street & Main Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	239	1	12	395	42	0	0	10	28	3	10
Future Vol, veh/h	16	239	1	12	395	42	0	0	10	28	3	10
Conflicting Peds, #/hr	2	0	1	1	0	2	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	285	1	14	470	50	0	0	12	33	4	12
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	522	0	0	287	0	0	591	875	144	706	850	263
Stage 1	-	-	-	-	-	-	325	325	-	525	525	-
Stage 2	-	-	-	-	-	-	266	550	-	181	325	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1041	-	-	1272	-	-	391	286	877	323	296	735
Stage 1	-	-	-	-	-	-	661	648	-	504	528	-
Stage 2	-	-	-	-	-	-	716	514	-	803	648	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1039	-	-	1271	-	-	369	274	876	309	284	733
Mov Cap-2 Maneuver	-	-	-	-	-	-	369	274	-	309	284	-
Stage 1	-	-	-	-	-	-	646	633	-	492	518	-
Stage 2	-	-	-	-	-	-	688	505	-	775	633	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.6			0.3			9.2			16.7		
HCM LOS							A			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	876	1039	-	-	1271	-	-	357				
HCM Lane V/C Ratio	0.014	0.018	-	-	0.011	-	-	0.137				
HCM Control Delay (s/veh)	9.2	8.5	0.1	-	7.9	0.1	-	16.7				
HCM Lane LOS	A	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0	0.1	-	-	0	-	-	0.5				

HCM 6th TWSC
19: Alma Street/F Street & Main Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	13	270	0	18	409	10	0	2	13	5	4	3
Future Vol, veh/h	13	270	0	18	409	10	0	2	13	5	4	3
Conflicting Peds, #/hr	4	0	5	5	0	4	0	0	5	5	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	293	0	20	445	11	0	2	14	5	4	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	460	0	0	298	0	0	593	826	157	676	821	234
Stage 1	-	-	-	-	-	-	326	326	-	495	495	-
Stage 2	-	-	-	-	-	-	267	500	-	181	326	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1097	-	-	1260	-	-	389	306	861	339	308	768
Stage 1	-	-	-	-	-	-	661	647	-	525	544	-
Stage 2	-	-	-	-	-	-	715	541	-	803	647	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1093	-	-	1254	-	-	370	293	853	320	294	764
Mov Cap-2 Maneuver	-	-	-	-	-	-	370	293	-	320	294	-
Stage 1	-	-	-	-	-	-	648	634	-	515	530	-
Stage 2	-	-	-	-	-	-	690	527	-	771	634	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.5			0.4			10.4			15.3		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	680	1093	-	-	1254	-	-	362
HCM Lane V/C Ratio	0.024	0.013	-	-	0.016	-	-	0.036
HCM Control Delay (s/veh)	10.4	8.3	0.1	-	7.9	0.1	-	15.3
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1

HCM Signalized Intersection Capacity Analysis

20: S Filbert Street & Main Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	228	4	5	381	250	12	49	5	242	26	54
Future Volume (vph)	55	228	4	5	381	250	12	49	5	242	26	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			5.0		5.0	5.0	
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	
Frpb, ped/bikes		0.99			0.98			0.99		1.00	0.98	
Flpb, ped/bikes		0.99			0.99			1.00		1.00	1.00	
Frt		0.99			0.94			0.98		1.00	0.89	
Flt Protected		0.99			0.99			0.99		0.95	1.00	
Satd. Flow (prot)		3496			3294			1825		1770	1656	
Flt Permitted		0.76			0.95			0.99		0.95	1.00	
Satd. Flow (perm)		2704			3138			1825		1770	1656	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	56	233	4	5	389	255	12	50	5	247	27	55
RTOR Reduction (vph)	0	1	0	0	92	0	0	3	0	0	42	0
Lane Group Flow (vph)	0	292	0	0	557	0	0	64	0	247	40	0
Confl. Peds. (#/hr)	7		2	2		7	7		13	13		7
Confl. Bikes (#/hr)			1									
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		3	3	
Permitted Phases	2			6								
Actuated Green, G (s)		21.9			21.9			5.4		13.7	13.7	
Effective Green, g (s)		21.9			21.9			5.4		13.7	13.7	
Actuated g/C Ratio		0.38			0.38			0.09		0.24	0.24	
Clearance Time (s)		6.0			6.0			5.0		5.0	5.0	
Vehicle Extension (s)		6.0			6.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		1038			1205			172		425	398	
v/s Ratio Prot								c0.04		c0.14	0.02	
v/s Ratio Perm		0.11			c0.18							
v/c Ratio		0.28			0.46			0.37		0.58	0.10	
Uniform Delay, d1		12.1			13.1			24.2		19.1	16.8	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.4			0.7			0.4		1.3	0.0	
Delay (s)		12.5			13.9			24.7		20.4	16.8	
Level of Service		B			B			C		C	B	
Approach Delay (s/veh)		12.5			13.9			24.7			19.5	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		15.5			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.49										
Actuated Cycle Length (s)		57.0			Sum of lost time (s)			16.0				
Intersection Capacity Utilization		62.8%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th TWSC
21: Burkett Avenue & Main Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		TT			TT			T			T	
Traffic Vol, veh/h	19	428	14	13	604	12	9	2	6	5	2	13
Future Vol, veh/h	19	428	14	13	604	12	9	2	6	5	2	13
Conflicting Peds, #/hr	7	0	0	0	0	7	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	451	15	14	636	13	9	2	6	5	2	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	656	0	0	466	0	0	848	1183	234	946	1184	334
Stage 1	-	-	-	-	-	-	499	499	-	678	678	-
Stage 2	-	-	-	-	-	-	349	684	-	268	506	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	927	-	-	1092	-	-	255	188	768	216	188	662
Stage 1	-	-	-	-	-	-	522	542	-	408	450	-
Stage 2	-	-	-	-	-	-	640	447	-	714	538	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	921	-	-	1092	-	-	238	178	767	203	178	656
Mov Cap-2 Maneuver	-	-	-	-	-	-	238	178	-	203	178	-
Stage 1	-	-	-	-	-	-	507	526	-	394	438	-
Stage 2	-	-	-	-	-	-	610	435	-	684	522	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.5			0.3			17.8			15.7		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	299	921	-	-	1092	-	-	359
HCM Lane V/C Ratio	0.06	0.022	-	-	0.013	-	-	0.059
HCM Control Delay (s/veh)	17.8	9	0.1	-	8.3	0.1	-	15.7
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.2	0.1	-	-	0	-	-	0.2

HCM 6th TWSC
22: Shasta Avenue & Main Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	434	5	4	620	5	9	1	5	2	0	2
Future Vol, veh/h	2	434	5	4	620	5	9	1	5	2	0	2
Conflicting Peds, #/hr	7	0	2	2	0	7	1	0	3	3	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	477	5	4	681	5	10	1	5	2	0	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	693	0	0	484	0	0	836	1187	246	945	1187	351
Stage 1	-	-	-	-	-	-	486	486	-	699	699	-
Stage 2	-	-	-	-	-	-	350	701	-	246	488	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	898	-	-	1075	-	-	260	187	754	217	187	645
Stage 1	-	-	-	-	-	-	531	549	-	397	440	-
Stage 2	-	-	-	-	-	-	639	439	-	736	548	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	892	-	-	1073	-	-	257	184	750	211	184	640
Mov Cap-2 Maneuver	-	-	-	-	-	-	257	184	-	211	184	-
Stage 1	-	-	-	-	-	-	528	546	-	393	434	-
Stage 2	-	-	-	-	-	-	632	433	-	725	545	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0.1			16.9			16.5		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	318	892	-	-	1073	-	-	317				
HCM Lane V/C Ratio	0.052	0.002	-	-	0.004	-	-	0.014				
HCM Control Delay (s/veh)	16.9	9	0	-	8.4	0	-	16.5				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0				

HCM 6th TWSC
23: David Avenue & Main Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↕			↕	
Traffic Vol, veh/h	1	440	6	3	610	5	10	1	4	3	0	9
Future Vol, veh/h	1	440	6	3	610	5	10	1	4	3	0	9
Conflicting Peds, #/hr	3	0	3	3	0	3	3	0	1	1	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	478	7	3	663	5	11	1	4	3	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	671	0	0	488	0	0	828	1164	247	918	1165	340
Stage 1	-	-	-	-	-	-	487	487	-	675	675	-
Stage 2	-	-	-	-	-	-	341	677	-	243	490	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	915	-	-	1071	-	-	263	193	753	227	193	656
Stage 1	-	-	-	-	-	-	531	549	-	410	451	-
Stage 2	-	-	-	-	-	-	647	450	-	739	547	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	912	-	-	1068	-	-	256	191	750	223	191	652
Mov Cap-2 Maneuver	-	-	-	-	-	-	256	191	-	223	191	-
Stage 1	-	-	-	-	-	-	528	546	-	408	448	-
Stage 2	-	-	-	-	-	-	633	447	-	731	544	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0			17.6			13.4		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	302	912	-	-	1068	-	-	440				
HCM Lane V/C Ratio	0.054	0.001	-	-	0.003	-	-	0.03				
HCM Control Delay (s/veh)	17.6	9	0	-	8.4	0	-	13.4				
HCM Lane LOS	C	A	A	-	A	A	-	B				
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1				

HCM 6th TWSC
24: Rendon Avenue & Main Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	11	419	12	8	595	9	11	3	3	13	1	18
Future Vol, veh/h	11	419	12	8	595	9	11	3	3	13	1	18
Conflicting Peds, #/hr	5	0	1	1	0	5	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	455	13	9	647	10	12	3	3	14	1	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	662	0	0	469	0	0	829	1167	235	928	1168	334
Stage 1	-	-	-	-	-	-	487	487	-	675	675	-
Stage 2	-	-	-	-	-	-	342	680	-	253	493	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	922	-	-	1089	-	-	263	192	767	223	192	662
Stage 1	-	-	-	-	-	-	531	549	-	410	451	-
Stage 2	-	-	-	-	-	-	646	449	-	729	545	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	918	-	-	1088	-	-	248	185	766	213	185	659
Mov Cap-2 Maneuver	-	-	-	-	-	-	248	185	-	213	185	-
Stage 1	-	-	-	-	-	-	521	539	-	401	443	-
Stage 2	-	-	-	-	-	-	617	441	-	709	535	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.3			0.2			19.7			16.8		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	264	918	-	-	1088	-	-	341
HCM Lane V/C Ratio	0.07	0.013	-	-	0.008	-	-	0.102
HCM Control Delay (s/veh)	19.7	9	0.1	-	8.3	0.1	-	16.8
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.3

HCM 6th Signalized Intersection Summary25: Golden Gate Avenue & Main Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	345	92	87	514	5	74	17	44	12	32	7
Future Volume (veh/h)	3	345	92	87	514	5	74	17	44	12	32	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	363	97	92	541	5	78	18	46	13	34	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	1031	272	119	1567	14	264	39	71	161	182	32
Arrive On Green	0.00	0.37	0.37	0.07	0.43	0.43	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1781	2780	734	1781	3607	33	761	278	498	253	1286	229
Grp Volume(v), veh/h	3	230	230	92	266	280	142	0	0	54	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1737	1781	1777	1863	1537	0	0	1768	0	0
Q Serve(g_s), s	0.1	3.3	3.4	1.8	3.6	3.6	2.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	3.3	3.4	1.8	3.6	3.6	3.0	0.0	0.0	0.9	0.0	0.0
Prop In Lane	1.00		0.42	1.00		0.02	0.55		0.32	0.24		0.13
Lane Grp Cap(c), veh/h	6	659	644	119	772	809	374	0	0	376	0	0
V/C Ratio(X)	0.51	0.35	0.36	0.77	0.35	0.35	0.38	0.00	0.00	0.14	0.00	0.00
Avail Cap(c_a), veh/h	999	2391	2338	999	2391	2507	1823	0	0	1543	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.7	8.1	8.1	16.4	6.7	6.7	14.4	0.0	0.0	13.5	0.0	0.0
Incr Delay (d2), s/veh	23.5	1.2	1.2	3.9	1.0	0.9	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.0	1.0	0.7	1.0	1.0	0.9	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.2	9.3	9.4	20.3	7.7	7.6	14.6	0.0	0.0	13.6	0.0	0.0
LnGrp LOS	D	A	A	C	A	A	B			B		
Approach Vol, veh/h	463			638			142			54		
Approach Delay, s/veh	9.5			9.5			14.6			13.6		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	18.2		10.1	5.1	20.5		10.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	48.0		40.0	20.0	48.0		30.0				
Max Q Clear Time (g_c+I1), s	3.8	5.4		5.0	2.1	5.6		2.9				
Green Ext Time (p_c), s	0.1	7.9		0.6	0.0	9.5		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				10.2								
HCM 6th LOS				B								

HCM 6th TWSC
26: Windsor Avenue & Main Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	2	376	15	13	597	3	8	1	5	6	3	13
Future Vol, veh/h	2	376	15	13	597	3	8	1	5	6	3	13
Conflicting Peds, #/hr	9	0	3	3	0	9	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	396	16	14	628	3	8	1	5	6	3	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	640	0	0	415	0	0	755	1079	209	870	1086	325
Stage 1	-	-	-	-	-	-	411	411	-	667	667	-
Stage 2	-	-	-	-	-	-	344	668	-	203	419	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	940	-	-	1140	-	-	298	217	797	246	215	671
Stage 1	-	-	-	-	-	-	589	593	-	414	455	-
Stage 2	-	-	-	-	-	-	645	455	-	780	588	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	932	-	-	1137	-	-	283	210	795	237	208	665
Mov Cap-2 Maneuver	-	-	-	-	-	-	283	210	-	237	208	-
Stage 1	-	-	-	-	-	-	585	589	-	409	442	-
Stage 2	-	-	-	-	-	-	615	442	-	771	584	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0.3			15.5			15.3		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	356	932	-	-	1137	-	-	371
HCM Lane V/C Ratio	0.041	0.002	-	-	0.012	-	-	0.062
HCM Control Delay (s/veh)	15.5	8.9	0	-	8.2	0.1	-	15.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.2

HCM Signalized Intersection Capacity Analysis

27: Netherton Avenue & Main Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	358	4	29	548	3	11	7	52	19	18	61
Future Volume (vph)	4	358	4	29	548	3	11	7	52	19	18	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Frt	1.00	0.99		1.00	0.99			0.90			0.91	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	3533		1770	3536			1643			1676	
Flt Permitted	0.95	1.00		0.95	1.00			0.92			0.91	
Satd. Flow (perm)	1770	3533		1770	3536			1530			1544	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	4	393	4	32	602	3	12	8	57	21	20	67
RTOR Reduction (vph)	0	1	0	0	0	0	0	48	0	0	56	0
Lane Group Flow (vph)	4	396	0	32	605	0	0	29	0	0	52	0
Confl. Peds. (#/hr)			2			10	1		11	11		1
Confl. Bikes (#/hr)						2						
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		
Actuated Green, G (s)	0.5	18.0		0.8	18.3			6.6			6.6	
Effective Green, g (s)	0.5	18.0		0.8	18.3			6.6			6.6	
Actuated g/C Ratio	0.01	0.45		0.02	0.45			0.16			0.16	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0			2.0			2.0	
Lane Grp Cap (vph)	21	1574		35	1601			249			252	
v/s Ratio Prot	0.00	0.11		c0.02	c0.17							
v/s Ratio Perm								0.02			c0.03	
v/c Ratio	0.19	0.25		0.91	0.37			0.11			0.20	
Uniform Delay, d1	19.7	6.9		19.7	7.2			14.4			14.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.6	0.2		115.2	0.4			0.0			0.1	
Delay (s)	21.3	7.2		135.0	7.7			14.4			14.7	
Level of Service	C	A		F	A			B			B	
Approach Delay (s/veh)		7.3			14.1			14.4			14.7	
Approach LOS		A			B			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			12.0			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.35									
Actuated Cycle Length (s)			40.4			Sum of lost time (s)				15.0		
Intersection Capacity Utilization			42.2%			ICU Level of Service				A		
Analysis Period (min)			15									

c Critical Lane Group

HCM 6th TWSC
28: Broadway Avenue & Main Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↗	↕↔			↔			↕↔	
Traffic Vol, veh/h	105	313	5	12	514	51	3	3	6	24	5	49
Future Vol, veh/h	105	313	5	12	514	51	3	3	6	24	5	49
Conflicting Peds, #/hr	13	0	4	4	0	13	0	0	13	13	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	119	356	6	14	584	58	3	3	7	27	6	56

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	655	0	0	366	0	0	924	1284	198	1085	1258	334
Stage 1	-	-	-	-	-	-	601	601	-	654	654	-
Stage 2	-	-	-	-	-	-	323	683	-	431	604	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	928	-	-	1189	-	-	224	164	810	171	170	662
Stage 1	-	-	-	-	-	-	454	488	-	422	461	-
Stage 2	-	-	-	-	-	-	663	447	-	573	486	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	917	-	-	1184	-	-	172	134	797	141	139	654
Mov Cap-2 Maneuver	-	-	-	-	-	-	172	134	-	141	139	-
Stage 1	-	-	-	-	-	-	379	407	-	349	450	-
Stage 2	-	-	-	-	-	-	592	436	-	466	406	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	2.7			0.2			20			24		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	253	917	-	-	1184	-	-	277
HCM Lane V/C Ratio	0.054	0.13	-	-	0.012	-	-	0.32
HCM Control Delay (s/veh)	20	9.5	0.5	-	8.1	-	-	24
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q (veh)	0.2	0.4	-	-	0	-	-	1.3

HCM Signalized Intersection Capacity Analysis

29: S Center Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  									  	
Traffic Volume (vph)	0	63	44	0	0	0	0	0	0	166	1169	0
Future Volume (vph)	0	63	44	0	0	0	0	0	0	166	1169	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		0.95									0.91	
Frpb, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.99	
Frt		0.93									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		3303									5050	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		3303									5050	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	71	49	0	0	0	0	0	0	187	1313	0
RTOR Reduction (vph)	0	36	0	0	0	0	0	0	0	0	22	0
Lane Group Flow (vph)	0	84	0	0	0	0	0	0	0	0	1478	0
Confl. Peds. (#/hr)			2								6	
Turn Type		NA								Perm	NA	
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		23.0									52.0	
Effective Green, g (s)		23.0									52.0	
Actuated g/C Ratio		0.27									0.61	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		893									3089	
v/s Ratio Prot		0.03										
v/s Ratio Perm											0.29	
v/c Ratio		0.09									0.47	
Uniform Delay, d1		23.2									9.0	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.2									0.5	
Delay (s)		23.4									9.5	
Level of Service		C									A	
Approach Delay (s/veh)		23.4			0.0			0.0			9.5	
Approach LOS		C			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			10.6									
HCM 2000 Volume to Capacity ratio			0.36									
Actuated Cycle Length (s)			85.0							10.0		
Intersection Capacity Utilization			53.5%								A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

30: S El Dorado Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	115	0	0	0	0	0	1598	100	0	0	0
Future Volume (vph)	96	115	0	0	0	0	0	1598	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0				
Lane Util. Factor		0.95						0.86				
Frpb, ped/bikes		1.00						0.99				
Flpb, ped/bikes		0.99						1.00				
Frt		1.00						0.99				
Flt Protected		0.97						1.00				
Satd. Flow (prot)		3444						6342				
Flt Permitted		0.97						1.00				
Satd. Flow (perm)		3444						6342				
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	112	134	0	0	0	0	0	1858	116	0	0	0
RTOR Reduction (vph)	0	19	0	0	0	0	0	11	0	0	0	0
Lane Group Flow (vph)	0	227	0	0	0	0	0	1963	0	0	0	0
Confl. Peds. (#/hr)	9								11			
Turn Type	Perm	NA						NA				
Protected Phases		2						1				
Permitted Phases	2											
Actuated Green, G (s)		22.0						53.0				
Effective Green, g (s)		22.0						53.0				
Actuated g/C Ratio		0.26						0.62				
Clearance Time (s)		5.0						5.0				
Vehicle Extension (s)		0.2						0.2				
Lane Grp Cap (vph)		891						3954				
v/s Ratio Prot								c0.31				
v/s Ratio Perm		0.07										
v/c Ratio		0.25						0.49				
Uniform Delay, d1		24.9						8.7				
Progression Factor		0.99						1.00				
Incremental Delay, d2		0.6						0.4				
Delay (s)		25.5						9.1				
Level of Service		C						A				
Approach Delay (s/veh)		25.5			0.0			9.1			0.0	
Approach LOS		C			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		11.0						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.43										
Actuated Cycle Length (s)		85.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		39.2%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th AWSC

31: S Hunter Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

Intersection

Intersection Delay, s/veh 9

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑							↑↑	↑	↑	
Traffic Vol, veh/h	0	141	66	0	0	0	0	0	29	62	84	0
Future Vol, veh/h	0	141	66	0	0	0	0	0	29	62	84	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	193	90	0	0	0	0	0	40	85	115	0
Number of Lanes	0	2	0	0	0	0	0	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay, s/veh	8.9	8.2	9.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	42%	0%	100%
Vol Right, %	100%	0%	58%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	94	113	62	84
LT Vol	0	0	0	62	0
Through Vol	0	94	47	0	84
RT Vol	29	0	66	0	0
Lane Flow Rate	40	129	155	85	115
Geometry Grp	4b	5	5	5	5
Degree of Util (X)	0.054	0.185	0.204	0.136	0.168
Departure Headway (Hd)	4.857	5.162	4.752	5.759	5.257
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	735	695	755	623	682
Service Time	2.899	2.89	2.48	3.496	2.993
HCM Lane V/C Ratio	0.054	0.186	0.205	0.136	0.169
HCM Control Delay, s/veh	8.2	9.1	8.7	9.4	9.1
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.2	0.7	0.8	0.5	0.6

HCM Signalized Intersection Capacity Analysis

32: S San Joaquin Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	122	36	0	0	0	0	170	39	25	99	0
Future Volume (vph)	66	122	36	0	0	0	0	170	39	25	99	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		0.98						0.97			1.00	
Flpb, ped/bikes		0.99						1.00			0.98	
Frt		0.97						0.97			1.00	
Flt Protected		0.98						1.00			0.99	
Satd. Flow (prot)		3349						3351			3441	
Flt Permitted		0.98						1.00			0.87	
Satd. Flow (perm)		3349						3351			3042	
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	82	152	45	0	0	0	0	212	49	31	124	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	24	0	0	0	0
Lane Group Flow (vph)	0	259	0	0	0	0	0	238	0	0	155	0
Confl. Peds. (#/hr)	23		61						111	111		
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						1			1	
Permitted Phases	2									1		
Actuated Green, G (s)		24.0						36.0			36.0	
Effective Green, g (s)		24.0						36.0			36.0	
Actuated g/C Ratio		0.34						0.51			0.51	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		1148						1723			1564	
v/s Ratio Prot								c0.07				
v/s Ratio Perm		0.08									0.05	
v/c Ratio		0.22						0.13			0.09	
Uniform Delay, d1		16.3						8.8			8.7	
Progression Factor		1.00						1.00			0.41	
Incremental Delay, d2		0.4						0.1			0.1	
Delay (s)		16.8						9.0			3.7	
Level of Service		B						A			A	
Approach Delay (s/veh)		16.8			0.0			9.0			3.7	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		11.0										
HCM 2000 Volume to Capacity ratio		0.17										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		49.3%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

33: S Sutter Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔↔						↑	↗		↖↖	
Traffic Volume (vph)	22	89	80	0	0	0	0	102	16	4	95	0
Future Volume (vph)	22	89	80	0	0	0	0	102	16	4	95	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0		5.0	
Lane Util. Factor		0.95						1.00	1.00		0.95	
Frpb, ped/bikes		0.92						1.00	0.89		1.00	
Flpb, ped/bikes		0.99						1.00	1.00		0.99	
Frt		0.93						1.00	0.85		1.00	
Flt Protected		0.99						1.00	1.00		0.99	
Satd. Flow (prot)		3034						1863	1420		3522	
Flt Permitted		0.99						1.00	1.00		0.94	
Satd. Flow (perm)		3034						1863	1420		3346	
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	29	119	107	0	0	0	0	136	21	5	127	0
RTOR Reduction (vph)	0	61	0	0	0	0	0	0	12	0	0	0
Lane Group Flow (vph)	0	194	0	0	0	0	0	136	9	0	132	0
Confl. Peds. (#/hr)	24		154						70	70		
Confl. Bikes (#/hr)			1						2			
Turn Type	Perm	NA						NA	Perm	Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)		30.0						30.0	30.0		30.0	
Effective Green, g (s)		30.0						30.0	30.0		30.0	
Actuated g/C Ratio		0.43						0.43	0.43		0.43	
Clearance Time (s)		5.0						5.0	5.0		5.0	
Vehicle Extension (s)		0.2						0.2	0.2		0.2	
Lane Grp Cap (vph)		1300						798	608		1434	
v/s Ratio Prot								c0.07				
v/s Ratio Perm		0.06							0.01		0.04	
v/c Ratio		0.14						0.17	0.01		0.09	
Uniform Delay, d1		12.2						12.3	11.5		11.8	
Progression Factor		1.95						1.00	1.00		0.28	
Incremental Delay, d2		0.2						0.4	0.0		0.1	
Delay (s)		24.0						12.7	11.5		3.5	
Level of Service		C						B	B		A	
Approach Delay (s/veh)		24.0			0.0			12.6			3.5	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		15.8										
HCM 2000 Volume to Capacity ratio		0.16										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		45.0%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

34: California Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	78	14	0	0	0	0	268	74	34	214	0
Future Volume (veh/h)	16	78	14	0	0	0	0	268	74	34	214	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	21	103	18				0	353	97	45	282	0
Peak Hour Factor	0.76	0.76	0.76				0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	141	714	129				0	1617	438	267	1640	0
Arrive On Green	0.27	0.27	0.27				0.00	0.59	0.59	1.00	1.00	0.00
Sat Flow, veh/h	519	2629	476				0	2855	748	345	2885	0
Grp Volume(v), veh/h	75	0	67				0	225	225	167	160	0
Grp Sat Flow(s),veh/h/ln	1844	0	1779				0	1777	1733	1528	1617	0
Q Serve(g_s), s	2.2	0.0	2.0				0.0	4.2	4.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.2	0.0	2.0				0.0	4.2	4.3	0.0	0.0	0.0
Prop In Lane	0.28		0.27				0.00		0.43	0.27		0.00
Lane Grp Cap(c), veh/h	501	0	483				0	1041	1015	960	947	0
V/C Ratio(X)	0.15	0.00	0.14				0.00	0.22	0.22	0.17	0.17	0.00
Avail Cap(c_a), veh/h	501	0	483				0	1041	1015	960	947	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.99	0.00	0.99				0.00	1.00	1.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	19.4	0.0	19.3				0.0	6.9	6.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.6				0.0	0.5	0.5	0.4	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.9				0.0	1.5	1.5	0.1	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.0	0.0	19.9				0.0	7.4	7.4	0.4	0.4	0.0
LnGrp LOS	B		B					A	A	A	A	
Approach Vol, veh/h		142						450			327	
Approach Delay, s/veh		19.9						7.4			0.4	
Approach LOS		B						A			A	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		46.0		24.0				46.0				
Change Period (Y+Rc), s		5.0		5.0				5.0				
Max Green Setting (Gmax), s		41.0		19.0				41.0				
Max Q Clear Time (g_c+I1), s		6.3		4.2				2.0				
Green Ext Time (p_c), s		0.5		0.1				0.4				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			6.8									
HCM 6th LOS			A									

HCM Signalized Intersection Capacity Analysis

35: S American Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	149	0	0	0	0	0	0	0	108	0	0
Future Volume (vph)	30	149	0	0	0	0	0	0	0	108	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		0.95									1.00	
Frpb, ped/bikes		1.00									1.00	
Flpb, ped/bikes		0.99									0.99	
Frt		1.00									1.00	
Flt Protected		0.99									0.95	
Satd. Flow (prot)		3498									1765	
Flt Permitted		0.99									0.75	
Satd. Flow (perm)		3498									1407	
Peak-hour factor, PHF	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Adj. Flow (vph)	56	276	0	0	0	0	0	0	0	200	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	332	0	0	0	0	0	0	0	0	200	0
Confl. Peds. (#/hr)	10		2							2	2	
Confl. Bikes (#/hr)			1									
Turn Type	Perm	NA								Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		40.0									20.0	
Effective Green, g (s)		40.0									20.0	
Actuated g/C Ratio		0.57									0.29	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		1998									402	
v/s Ratio Prot												
v/s Ratio Perm		0.09									c0.14	
v/c Ratio		0.16									0.49	
Uniform Delay, d1		7.1									20.8	
Progression Factor		0.86									0.64	
Incremental Delay, d2		0.1									3.6	
Delay (s)		6.3									17.0	
Level of Service		A									B	
Approach Delay (s/veh)		6.3			0.0			0.0			17.0	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		10.3										
HCM 2000 Volume to Capacity ratio		0.28										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		36.7%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

36: S Stanislaus Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	102	108	0	0	0	0	512	52	9	215	0
Future Volume (vph)	51	102	108	0	0	0	0	512	52	9	215	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		0.99						0.99			1.00	
Flpb, ped/bikes		0.99						1.00			0.99	
Frt		0.93						0.98			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		3255						3486			3532	
Flt Permitted		0.99						1.00			0.92	
Satd. Flow (perm)		3255						3486			3256	
Peak-hour factor, PHF	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	71	142	150	0	0	0	0	711	72	12	299	0
RTOR Reduction (vph)	0	96	0	0	0	0	0	11	0	0	0	0
Lane Group Flow (vph)	0	267	0	0	0	0	0	772	0	0	312	0
Confl. Peds. (#/hr)	13		4						2	2		
Confl. Bikes (#/hr)			1									
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		25.0						35.0			35.0	
Effective Green, g (s)		25.0						35.0			35.0	
Actuated g/C Ratio		0.36						0.50			0.50	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		1162						1743			1628	
v/s Ratio Prot								c0.22				
v/s Ratio Perm		0.08									0.10	
v/c Ratio		0.22						0.44			0.19	
Uniform Delay, d1		15.7						11.2			9.6	
Progression Factor		0.90						1.00			0.70	
Incremental Delay, d2		0.4						0.8			0.2	
Delay (s)		14.7						12.0			7.0	
Level of Service		B						B			A	
Approach Delay (s/veh)		14.7			0.0			12.0			7.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		11.7										
HCM 2000 Volume to Capacity ratio		0.35										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		39.2%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th TWSC
37: S Grant Street & Market Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		LT						RT			LT	
Traffic Vol, veh/h	52	110	0	0	0	0	0	8	0	9	5	0
Future Vol, veh/h	52	110	0	0	0	0	0	8	0	9	5	0
Conflicting Peds, #/hr	10	0	0	0	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	157	0	0	0	0	0	11	0	13	7	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	10	0	0	-	315	83	246	315	-
Stage 1	-	-	-	-	305	-	10	10	-
Stage 2	-	-	-	-	10	-	236	305	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1608	-	-	0	599	960	687	599	0
Stage 1	-	-	-	0	661	-	-	-	0
Stage 2	-	-	-	0	-	-	746	661	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1593	-	-	-	563	960	644	563	-
Mov Cap-2 Maneuver	-	-	-	-	563	-	644	563	-
Stage 1	-	-	-	-	627	-	-	-	-
Stage 2	-	-	-	-	-	-	695	627	-

Approach	EB	NB	SB
HCM Control Delay, s/v	2.4	11.5	11.1
HCM LOS	B	B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	563	1593	-	-	613
HCM Lane V/C Ratio	0.02	0.047	-	-	0.033
HCM Control Delay (s/veh)	11.5	7.4	0.1	-	11.1
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0.1	-	-	0.1

HCM 6th TWSC

38: S Aurora Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	6.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↔			↔	
Traffic Vol, veh/h	9	96	15	0	0	0	0	102	9	4	36	0
Future Vol, veh/h	9	96	15	0	0	0	0	102	9	4	36	0
Conflicting Peds, #/hr	2	0	1	0	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	123	19	0	0	0	0	131	12	5	46	0
Major/Minor	Major1			Minor1			Minor2					
Conflicting Flow All	2	0	0				-	160	74	155	169	-
Stage 1	-	-	-				-	158	-	2	2	-
Stage 2	-	-	-				-	2	-	153	167	-
Critical Hdwy	4.14	-	-				-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-				-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-				-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1619	-	-				0	731	973	797	723	0
Stage 1	-	-	-				0	766	-	-	-	0
Stage 2	-	-	-				0	-	-	834	759	0
Platoon blocked, %		-	-									
Mov Cap-1 Maneuver	1616	-	-				-	723	972	673	715	-
Mov Cap-2 Maneuver	-	-	-				-	723	-	673	715	-
Stage 1	-	-	-				-	759	-	-	-	-
Stage 2	-	-	-				-	-	-	677	752	-
Approach	EB			NB			SB					
HCM Control Delay, s/v	0.5			11			10.5					
HCM LOS				B			B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1							
Capacity (veh/h)	738	1616	-	-	711							
HCM Lane V/C Ratio	0.193	0.007	-	-	0.072							
HCM Control Delay (s/veh)	11	7.2	0	-	10.5							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.7	0	-	-	0.2							

HCM 6th TWSC
39: Union Street & Market Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		EB						EB			EB	
Traffic Vol, veh/h	8	88	5	0	0	0	0	90	8	15	39	0
Future Vol, veh/h	8	88	5	0	0	0	0	90	8	15	39	0
Conflicting Peds, #/hr	1	0	1	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	97	5	0	0	0	0	99	9	16	43	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	1	0	0	-	120	53	118	122	-
Stage 1	-	-	-	-	119	-	1	1	-
Stage 2	-	-	-	-	1	-	117	121	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1620	-	-	0	769	1003	846	767	0
Stage 1	-	-	-	0	796	-	-	-	0
Stage 2	-	-	-	0	-	-	875	795	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1618	-	-	-	763	1002	751	761	-
Mov Cap-2 Maneuver	-	-	-	-	763	-	751	761	-
Stage 1	-	-	-	-	790	-	-	-	-
Stage 2	-	-	-	-	-	-	754	789	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.6	10.4	10.2
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	778	1618	-	-	758
HCM Lane V/C Ratio	0.138	0.005	-	-	0.078
HCM Control Delay (s/veh)	10.4	7.2	0	-	10.2
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.5	0	-	-	0.3

HCM 6th TWSC
40: Pilgrim Street & Market Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		EB						EB			EB	
Traffic Vol, veh/h	6	108	2	0	0	0	0	8	9	13	4	0
Future Vol, veh/h	6	108	2	0	0	0	0	8	9	13	4	0
Conflicting Peds, #/hr	3	0	1	0	0	0	0	0	9	9	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	161	3	0	0	0	0	12	13	19	6	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	3	0	0	-	185	92	117	186	-
Stage 1	-	-	-	-	182	-	3	3	-
Stage 2	-	-	-	-	3	-	114	183	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1618	-	-	0	708	947	847	707	0
Stage 1	-	-	-	0	748	-	-	-	0
Stage 2	-	-	-	0	-	-	879	747	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1613	-	-	-	701	946	818	700	-
Mov Cap-2 Maneuver	-	-	-	-	701	-	818	700	-
Stage 1	-	-	-	-	743	-	-	-	-
Stage 2	-	-	-	-	-	-	847	742	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.4	9.6	9.7
HCM LOS	A	A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	812	1613	-	-	787
HCM Lane V/C Ratio	0.031	0.006	-	-	0.032
HCM Control Delay (s/veh)	9.6	7.2	0	-	9.7
HCM Lane LOS	A	A	A	-	A
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1

HCM 6th Signalized Intersection Summary

41: Airport Way & Market Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	84	19	0	0	0	0	815	39	77	591	0
Future Volume (veh/h)	26	84	19	0	0	0	0	815	39	77	591	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	29	93	21				0	906	43	86	657	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	56	185	43				0	2796	133	282	2081	0
Arrive On Green	0.08	0.08	0.08				0.00	0.81	0.81	1.00	1.00	0.00
Sat Flow, veh/h	706	2331	541				0	3547	164	286	2656	0
Grp Volume(v), veh/h	75	0	68				0	466	483	329	414	0
Grp Sat Flow(s), veh/h/ln	1835	0	1743				0	1777	1840	1240	1617	0
Q Serve(g_s), s	3.6	0.0	3.3				0.0	6.1	6.1	0.2	0.0	0.0
Cycle Q Clear(g_c), s	3.6	0.0	3.3				0.0	6.1	6.1	6.3	0.0	0.0
Prop In Lane	0.38		0.31				0.00		0.09	0.26		0.00
Lane Grp Cap(c), veh/h	145	0	138				0	1439	1490	1054	1309	0
V/C Ratio(X)	0.52	0.00	0.49				0.00	0.32	0.32	0.31	0.32	0.00
Avail Cap(c_a), veh/h	449	0	426				0	1439	1490	1054	1309	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.96	0.96	0.00
Uniform Delay (d), s/veh	39.8	0.0	39.7				0.0	2.2	2.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	1.0				0.0	0.6	0.6	0.7	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	1.5				0.0	1.3	1.3	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.9	0.0	40.7				0.0	2.8	2.8	0.7	0.6	0.0
LnGrp LOS	D		D					A	A	A	A	
Approach Vol, veh/h		143						949			743	
Approach Delay, s/veh		40.8						2.8			0.7	
Approach LOS		D						A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		77.9				77.9		12.1				
Change Period (Y+Rc), s		5.0				5.0		5.0				
Max Green Setting (Gmax), s		58.0				58.0		22.0				
Max Q Clear Time (g_c+I1), s		8.3				8.1		5.6				
Green Ext Time (p_c), s		1.0				0.9		0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			4.9									
HCM 6th LOS			A									

HCM 6th TWSC

42: Sierra Nevada Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↔			↔	
Traffic Vol, veh/h	14	186	2	0	0	0	0	15	15	24	7	0
Future Vol, veh/h	14	186	2	0	0	0	0	15	15	24	7	0
Conflicting Peds, #/hr	2	0	2	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	209	2	0	0	0	0	17	17	27	8	0
Major/Minor	Major1			Minor1			Minor2					
Conflicting Flow All	2	0	0				-	246	108	147	247	-
Stage 1	-	-	-				-	244	-	2	2	-
Stage 2	-	-	-				-	2	-	145	245	-
Critical Hdwy	4.14	-	-				-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-				-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-				-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1619	-	-				0	655	925	807	654	0
Stage 1	-	-	-				0	703	-	-	-	0
Stage 2	-	-	-				0	-	-	843	702	0
Platoon blocked, %		-	-									
Mov Cap-1 Maneuver	1616	-	-				-	645	923	768	644	-
Mov Cap-2 Maneuver	-	-	-				-	645	-	768	644	-
Stage 1	-	-	-				-	694	-	-	-	-
Stage 2	-	-	-				-	-	-	799	693	-
Approach	EB			NB			SB					
HCM Control Delay, s/v	0.5			10			10.1					
HCM LOS				B			B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1							
Capacity (veh/h)	759	1616	-	-	736							
HCM Lane V/C Ratio	0.044	0.01	-	-	0.047							
HCM Control Delay (s/veh)	10	7.3	0	-	10.1							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1							

HCM 6th Signalized Intersection Summary

43: S Wilson Way & Market Street

Background Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	148	50	0	0	0	0	686	63	118	623	0
Future Volume (veh/h)	15	148	50	0	0	0	0	686	63	118	623	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	16	157	53				0	730	67	126	663	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	24	239	83				0	2133	196	157	2813	0
Arrive On Green	0.03	0.03	0.03				0.00	0.65	0.65	0.12	1.00	0.00
Sat Flow, veh/h	247	2463	857				0	3384	302	1781	3647	0
Grp Volume(v), veh/h	120	0	106				0	394	403	126	663	0
Grp Sat Flow(s), veh/h/ln	1858	0	1710				0	1777	1815	1781	1777	0
Q Serve(g_s), s	5.8	0.0	5.5				0.0	9.0	9.0	6.2	0.0	0.0
Cycle Q Clear(g_c), s	5.8	0.0	5.5				0.0	9.0	9.0	6.2	0.0	0.0
Prop In Lane	0.13		0.50				0.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	181	0	166				0	1152	1177	157	2813	0
V/C Ratio(X)	0.67	0.00	0.64				0.00	0.34	0.34	0.80	0.24	0.00
Avail Cap(c_a), veh/h	434	0	399				0	1152	1177	257	2813	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	42.1	0.0	42.0				0.0	7.2	7.2	39.0	0.0	0.0
Incr Delay (d2), s/veh	1.6	0.0	1.5				0.0	0.8	0.8	3.5	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	2.5				0.0	3.4	3.4	2.8	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.7	0.0	43.5				0.0	8.0	8.0	42.5	0.2	0.0
LnGrp LOS	D		D					A	A	D	A	
Approach Vol, veh/h		226						797			789	
Approach Delay, s/veh		43.6						8.0			7.0	
Approach LOS		D						A			A	
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	12.9	63.3				76.3		13.7				
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0				
Max Green Setting (Gmax), s	13.0	41.0				59.0		21.0				
Max Q Clear Time (g_c+I1), s	8.2	11.0				2.0		7.8				
Green Ext Time (p_c), s	0.1	14.0				15.0		0.7				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			12.0									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
44: S Eugenia Street & Market Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↗
Traffic Vol, veh/h	312	16	0	0	0	37
Future Vol, veh/h	312	16	0	0	0	37
Conflicting Peds, #/hr	0	2	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	339	17	0	0	0	40
Major/Minor	Major1		Minor1			
Conflicting Flow All	0	0			-	181
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Critical Hdwy	-	-			-	6.94
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	-			-	3.32
Pot Cap-1 Maneuver	-	-			0	831
Stage 1	-	-			0	-
Stage 2	-	-			0	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-			-	829
Mov Cap-2 Maneuver	-	-			-	-
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Approach	EB		NB			
HCM Control Delay, s/v	0		9.6			
HCM LOS			A			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR			
Capacity (veh/h)	829	-	-			
HCM Lane V/C Ratio	0.049	-	-			
HCM Control Delay (s/veh)	9.6	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q (veh)	0.2	-	-			

HCM 6th TWSC
45: Della Street & Market Street

Background Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		TT						T			T	
Traffic Vol, veh/h	54	264	12	0	0	0	0	3	2	5	54	0
Future Vol, veh/h	54	264	12	0	0	0	0	3	2	5	54	0
Conflicting Peds, #/hr	0	0	4	0	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	297	13	0	0	0	0	3	2	6	61	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	430	161	274	436	-
Stage 1	-	-	-	-	430	-	0	0	-
Stage 2	-	-	-	-	0	-	274	436	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	0	516	855	657	512	0
Stage 1	-	-	-	0	582	-	-	-	0
Stage 2	-	-	-	0	-	-	709	578	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	514	852	652	510	-
Mov Cap-2 Maneuver	-	-	-	-	514	-	652	510	-
Stage 1	-	-	-	-	580	-	-	-	-
Stage 2	-	-	-	-	-	-	703	576	-

Approach	EB	NB	SB
HCM Control Delay, s/v		10.9	12.9
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	611	-	-	-	520
HCM Lane V/C Ratio	0.009	-	-	-	0.127
HCM Control Delay (s/veh)	10.9	-	-	-	12.9
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q (veh)	0	-	-	-	0.4

HCM Signalized Intersection Capacity Analysis

2: S San Joaquin Street/N San Joaquin Street & Main Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	
Traffic Volume (vph)	0	0	0	23	28	38	7	121	0	0	128	18
Future Volume (vph)	0	0	0	23	28	38	7	121	0	0	128	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					0.97			1.00			0.99	
Flpb, ped/bikes					0.98			0.99			1.00	
Frt					0.93			1.00			0.98	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					3140			3526			3461	
Flt Permitted					0.98			0.94			1.00	
Satd. Flow (perm)					3140			3332			3461	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	0	0	26	32	43	8	138	0	0	145	20
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	101	0	0	146	0	0	165	0
Confl. Peds. (#/hr)				16		10	28					28
Confl. Bikes (#/hr)						1						1
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					5.1			28.9			28.9	
Effective Green, g (s)					5.1			28.9			28.9	
Actuated g/C Ratio					0.07			0.41			0.41	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					228			1375			1428	
v/s Ratio Prot											c0.05	
v/s Ratio Perm					0.03			0.04				
v/c Ratio					0.44			0.10			0.11	
Uniform Delay, d1					31.0			12.6			12.6	
Progression Factor					1.13			0.72			1.00	
Incremental Delay, d2					0.4			0.1			0.1	
Delay (s)					35.8			9.3			12.8	
Level of Service					D			A			B	
Approach Delay (s/veh)		0.0			35.8			9.3			12.8	
Approach LOS		A			D			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.2									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.10									
Actuated Cycle Length (s)			70.0									Sum of lost time (s) 13.0
Intersection Capacity Utilization			20.2%									ICU Level of Service A
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 3: S Sutter Street/N Sutter Street & Main Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	23	43	12	13	134	0	0	85	23
Future Volume (vph)	0	0	0	23	43	12	13	134	0	0	85	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			1.00			0.95	
Frpb, ped/bikes					0.99			1.00			0.98	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.97			1.00			0.96	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					3347			1847			3377	
Flt Permitted					0.98			0.97			1.00	
Satd. Flow (perm)					3347			1800			3377	
Peak-hour factor, PHF	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	0	0	0	29	54	15	16	170	0	0	108	29
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	98	0	0	186	0	0	137	0
Confl. Peds. (#/hr)				24		14	52					52
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					2			4			4	
Permitted Phases				2			4					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					717			488			916	
v/s Ratio Prot											0.04	
v/s Ratio Perm					0.03			0.10				
v/c Ratio					0.13			0.38			0.14	
Uniform Delay, d1					22.2			20.7			19.3	
Progression Factor					0.67			0.68			1.00	
Incremental Delay, d2					0.3			2.2			0.3	
Delay (s)					15.4			16.4			19.7	
Level of Service					B			B			B	
Approach Delay (s/veh)		0.0			15.4			16.4			19.7	
Approach LOS		A			B			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.3									
HCM 2000 Volume to Capacity ratio			0.16									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			26.1%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

Background Conditions

4: California Street & Main Street

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	27	57	24	9	216	0	0	249	8
Future Volume (vph)	0	0	0	27	57	24	9	216	0	0	249	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					0.99			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.96			1.00			0.99	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					3358			3531			3521	
Flt Permitted					0.98			0.93			1.00	
Satd. Flow (perm)					3358			3321			3521	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	0	0	0	31	66	28	10	248	0	0	286	9
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	125	0	0	258	0	0	295	0
Confl. Peds. (#/hr)				2		9	9					9
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					719			901			955	
v/s Ratio Prot											c0.08	
v/s Ratio Perm					0.04			0.08				
v/c Ratio					0.17			0.28			0.30	
Uniform Delay, d1					22.4			20.1			20.2	
Progression Factor					1.79			0.83			1.00	
Incremental Delay, d2					0.5			0.7			0.8	
Delay (s)					40.7			17.5			21.1	
Level of Service					D			B			C	
Approach Delay (s/veh)		0.0			40.7			17.5			21.1	
Approach LOS		A			D			B			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			23.4									
HCM 2000 Volume to Capacity ratio			0.15									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			24.2%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis5: S American Street/N American Street & Main Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	22	88	19	3	24	0	0	12	15
Future Volume (vph)	0	0	0	22	88	19	3	24	0	0	12	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	5.0
Lane Util. Factor					0.95			1.00			1.00	1.00
Frpb, ped/bikes					0.99			1.00			1.00	0.98
Flpb, ped/bikes					0.99			0.99			1.00	1.00
Frt					0.97			1.00			1.00	0.85
Flt Protected					0.99			0.99			1.00	1.00
Satd. Flow (prot)					3394			1851			1863	1561
Flt Permitted					0.99			0.98			1.00	1.00
Satd. Flow (perm)					3394			1829			1863	1561
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	26	104	22	4	28	0	0	14	18
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	152	0	0	32	0	0	14	18
Confl. Peds. (#/hr)				15		5	2					2
Turn Type				Perm	NA		Perm	NA			NA	Perm
Protected Phases					2			4			4	
Permitted Phases				2			4					4
Actuated Green, G (s)					11.0			23.0			23.0	23.0
Effective Green, g (s)					11.0			23.0			23.0	23.0
Actuated g/C Ratio					0.16			0.33			0.33	0.33
Clearance Time (s)					5.0			5.0			5.0	5.0
Vehicle Extension (s)					0.2			0.2			0.2	0.2
Lane Grp Cap (vph)					533			600			612	512
v/s Ratio Prot											0.01	
v/s Ratio Perm					0.04			c0.02				0.01
v/c Ratio					0.28			0.05			0.02	0.03
Uniform Delay, d1					26.0			16.0			15.8	15.9
Progression Factor					0.89			0.57			1.00	1.00
Incremental Delay, d2					1.3			0.1			0.0	0.1
Delay (s)					24.5			9.4			15.9	16.0
Level of Service					C			A			B	B
Approach Delay (s/veh)		0.0			24.5			9.4			16.0	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			21.1									
HCM 2000 Volume to Capacity ratio			0.08									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			22.9%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

6: S Stanislaus Street/N Stanislaus Street & Main Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	66	68	12	39	249	0	0	295	8
Future Volume (vph)	0	0	0	66	68	12	39	249	0	0	295	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					1.00			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.98			1.00			0.99	
Flt Protected					0.97			0.99			1.00	
Satd. Flow (prot)					3411			3514			3523	
Flt Permitted					0.97			0.87			1.00	
Satd. Flow (perm)					3411			3104			3523	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	72	74	13	42	271	0	0	321	9
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	0	151	0	0	313	0	0	327	0
Confl. Peds. (#/hr)				4			5					5
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					1			2			2	
Permitted Phases				1			2					
Actuated Green, G (s)					25.0			35.0			35.0	
Effective Green, g (s)					25.0			35.0			35.0	
Actuated g/C Ratio					0.36			0.50			0.50	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					1218			1552			1761	
v/s Ratio Prot											0.09	
v/s Ratio Perm					0.04			c0.10				
v/c Ratio					0.12			0.20			0.18	
Uniform Delay, d1					15.1			9.7			9.6	
Progression Factor					1.00			0.80			1.00	
Incremental Delay, d2					0.2			0.2			0.2	
Delay (s)					15.3			8.0			9.8	
Level of Service					B			A			A	
Approach Delay (s/veh)		0.0			15.3			8.0			9.8	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			10.3									B
HCM 2000 Volume to Capacity ratio			0.17									
Actuated Cycle Length (s)			70.0								10.0	
Intersection Capacity Utilization			38.0%								A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC

7: S Grant Street/N Grant Street & Main Street

Background Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EB			E			B	
Traffic Vol, veh/h	0	0	0	7	124	11	10	21	0	0	31	25
Future Vol, veh/h	0	0	0	7	124	11	10	21	0	0	31	25
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	10	177	16	14	30	0	0	44	36
Major/Minor												
	Major2			Minor1			Minor2					
Conflicting Flow All				1	0	0	132	215	-	-	207	98
Stage 1				-	-	-	1	1	-	-	206	-
Stage 2				-	-	-	131	214	-	-	1	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				1620	-	-	827	682	0	0	689	939
Stage 1				-	-	-	-	-	0	0	730	-
Stage 2				-	-	-	859	724	0	0	-	-
Platoon blocked, %				-	-							
Mov Cap-1 Maneuver				1618	-	-	752	676	-	-	683	938
Mov Cap-2 Maneuver				-	-	-	752	676	-	-	683	-
Stage 1				-	-	-	-	-	-	-	724	-
Stage 2				-	-	-	770	718	-	-	-	-
Approach												
	WB			NB			SB					
HCM Control Delay, s/v				0.4			10.5			10.2		
HCM LOS							B			B		
Minor Lane/Major Mvmt												
	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	699	1618	-	-	777							
HCM Lane V/C Ratio	0.063	0.006	-	-	0.103							
HCM Control Delay (s/veh)	10.5	7.2	0	-	10.2							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.2	0	-	-	0.3							

HCM 6th TWSC

8: S Aurora Street/N Aurora Street & Main Street

Background Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	7.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EB			E			B	
Traffic Vol, veh/h	0	0	0	15	75	1	12	96	0	0	38	5
Future Vol, veh/h	0	0	0	15	75	1	12	96	0	0	38	5
Conflicting Peds, #/hr	0	0	0	8	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	18	90	1	14	116	0	0	46	6
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				8	0	0	113	136	-	-	136	48
Stage 1				-	-	-	8	8	-	-	128	-
Stage 2				-	-	-	105	128	-	-	8	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				1611	-	-	853	754	0	0	754	1011
Stage 1				-	-	-	-	-	0	0	789	-
Stage 2				-	-	-	889	789	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1599	-	-	794	738	-	-	738	1010
Mov Cap-2 Maneuver				-	-	-	794	738	-	-	738	-
Stage 1				-	-	-	-	-	-	-	779	-
Stage 2				-	-	-	822	779	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				1.2		10.9		10.1				
HCM LOS						B		B				
Minor Lane/Major Mvmt		NBLn1	WBL	WBT	WBR	SBLn1						
Capacity (veh/h)		744	1599	-	-	762						
HCM Lane V/C Ratio		0.175	0.011	-	-	0.068						
HCM Control Delay (s/veh)		10.9	7.3	0	-	10.1						
HCM Lane LOS		B	A	A	-	B						
HCM 95th %tile Q (veh)		0.6	0	-	-	0.2						

HCM 6th AWSC
9: Union Street & Main Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Intersection Delay, s/veh	8											
Intersection LOS	A											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑			↱			↑	
Traffic Vol, veh/h	0	0	0	13	78	15	13	108	0	0	76	7
Future Vol, veh/h	0	0	0	13	78	15	13	108	0	0	76	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	14	82	16	14	114	0	0	80	7
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0
Approach				WB			NB			SB		
Opposing Approach							SB			NB		
Opposing Lanes				0			1			1		
Conflicting Approach Left				NB						WB		
Conflicting Lanes Left				1			0			2		
Conflicting Approach Right				SB			WB					
Conflicting Lanes Right				1			2			0		
HCM Control Delay, s/veh				8.1			8.1			7.8		
HCM LOS				A			A			A		
Lane	NBLn1	WBLn1	WBLn2	SBLn1								
Vol Left, %	11%	25%	0%	0%								
Vol Thru, %	89%	75%	72%	92%								
Vol Right, %	0%	0%	28%	8%								
Sign Control	Stop	Stop	Stop	Stop								
Traffic Vol by Lane	121	52	54	83								
LT Vol	13	13	0	0								
Through Vol	108	39	39	76								
RT Vol	0	0	15	7								
Lane Flow Rate	127	55	57	87								
Geometry Grp	2	5	5	2								
Degree of Util (X)	0.153	0.078	0.076	0.104								
Departure Headway (Hd)	4.328	5.14	4.819	4.298								
Convergence, Y/N	Yes	Yes	Yes	Yes								
Cap	832	700	746	837								
Service Time	2.338	2.853	2.532	2.309								
HCM Lane V/C Ratio	0.153	0.079	0.076	0.104								
HCM Control Delay, s/veh	8.1	8.3	7.9	7.8								
HCM Lane LOS	A	A	A	A								
HCM 95th-tile Q	0.5	0.3	0.2	0.3								

HCM 6th TWSC
10: Pilgrim Street & Main Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EB			E			B	
Traffic Vol, veh/h	0	0	0	18	97	15	8	16	0	0	20	5
Future Vol, veh/h	0	0	0	18	97	15	8	16	0	0	20	5
Conflicting Peds, #/hr	0	0	0	4	0	1	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	23	123	19	10	20	0	0	25	6

Major/Minor	Major2		Minor1		Minor2	
Conflicting Flow All	4	0	0	127	193	-
Stage 1	-	-	-	4	4	-
Stage 2	-	-	-	123	189	-
Critical Hdwy	4.14	-	-	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	3.52	4.02	-
Pot Cap-1 Maneuver	1616	-	-	834	701	0
Stage 1	-	-	-	-	-	0
Stage 2	-	-	-	868	743	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1610	-	-	792	686	-
Mov Cap-2 Maneuver	-	-	-	792	686	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	819	730	-

Approach	WB	NB	SB
HCM Control Delay, s/v	1	10.2	10.1
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	718	1610	-	-	736
HCM Lane V/C Ratio	0.042	0.014	-	-	0.043
HCM Control Delay (s/veh)	10.2	7.3	0	-	10.1
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1

HCM 6th Signalized Intersection Summary

11: Airport Way & Main Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	41	93	61	10	869	0	0	749	17
Future Volume (veh/h)	0	0	0	41	93	61	10	869	0	0	749	17
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				43	98	64	11	915	0	0	788	18
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				74	170	113	51	2711	0	0	2789	64
Arrive On Green				0.10	0.10	0.10	1.00	1.00	0.00	0.00	0.79	0.79
Sat Flow, veh/h				718	1646	1089	13	3536	0	0	3644	81
Grp Volume(v), veh/h				110	0	95	494	432	0	0	394	412
Grp Sat Flow(s),veh/h/ln				1834	0	1618	1847	1617	0	0	1777	1855
Q Serve(g_s), s				5.1	0.0	5.0	0.0	0.0	0.0	0.0	5.5	5.5
Cycle Q Clear(g_c), s				5.1	0.0	5.0	0.0	0.0	0.0	0.0	5.5	5.5
Prop In Lane				0.39		0.67	0.02		0.00	0.00		0.04
Lane Grp Cap(c), veh/h				190	0	167	1492	1270	0	0	1396	1457
V/C Ratio(X)				0.58	0.00	0.57	0.33	0.34	0.00	0.00	0.28	0.28
Avail Cap(c_a), veh/h				448	0	396	1492	1270	0	0	1396	1457
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.94	0.94	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				38.5	0.0	38.4	0.0	0.0	0.0	0.0	2.7	2.7
Incr Delay (d2), s/veh				1.0	0.0	1.1	0.6	0.7	0.0	0.0	0.5	0.5
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.4	0.0	2.0	0.2	0.2	0.0	0.0	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				39.5	0.0	39.6	0.6	0.7	0.0	0.0	3.2	3.1
LnGrp LOS				D		D	A	A			A	A
Approach Vol, veh/h					205			926			806	
Approach Delay, s/veh					39.5			0.6			3.2	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	75.7			14.3			75.7					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	58.0			22.0			58.0					
Max Q Clear Time (g_c+I1), s	2.0			7.1			7.5					
Green Ext Time (p_c), s	0.9			0.7			0.7					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				5.8								
HCM 6th LOS				A								

HCM 6th TWSC
12: Sierra Nevada Street & Main Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EB			EB			EB	
Traffic Vol, veh/h	0	0	0	30	154	40	9	37	0	0	49	32
Future Vol, veh/h	0	0	0	30	154	40	9	37	0	0	49	32
Conflicting Peds, #/hr	0	0	0	6	0	3	9	0	0	0	0	9
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	32	164	43	10	39	0	0	52	34
Major/Minor	Major2			Minor1			Minor2					
Conflicting Flow All	6			0	0	187	280	-	-	259	116	
Stage 1	-			-	-	6	6	-	-	253	-	
Stage 2	-			-	-	181	274	-	-	6	-	
Critical Hdwy	4.14			-	-	7.54	6.54	-	-	6.54	6.94	
Critical Hdwy Stg 1	-			-	-	-	-	-	-	5.54	-	
Critical Hdwy Stg 2	-			-	-	6.54	5.54	-	-	-	-	
Follow-up Hdwy	2.22			-	-	3.52	4.02	-	-	4.02	3.32	
Pot Cap-1 Maneuver	1613			-	-	756	627	0	0	644	914	
Stage 1	-			-	-	-	-	0	0	696	-	
Stage 2	-			-	-	803	682	0	0	-	-	
Platoon blocked, %				-	-							
Mov Cap-1 Maneuver	1604			-	-	665	607	-	-	623	911	
Mov Cap-2 Maneuver	-			-	-	665	607	-	-	623	-	
Stage 1	-			-	-	-	-	-	-	678	-	
Stage 2				-	-	697	664	-	-	-	-	
Approach	WB			NB			SB					
HCM Control Delay, s/v	1			11.3			10.8					
HCM LOS				B			B					
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	618	1604	-	-	712							
HCM Lane V/C Ratio	0.079	0.02	-	-	0.121							
HCM Control Delay (s/veh)	11.3	7.3	0.1	-	10.8							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.3	0.1	-	-	0.4							

HCM 6th Signalized Intersection Summary13: S Wilson Way & Main Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 			 			 	
Traffic Volume (veh/h)	0	0	0	107	126	183	27	936	0	0	933	29
Future Volume (veh/h)	0	0	0	107	126	183	27	936	0	0	933	29
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				110	130	189	28	965	0	0	962	30
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				232	301	237	444	2628	0	0	2600	81
Arrive On Green				0.15	0.15	0.15	1.00	1.00	0.00	0.00	0.74	0.74
Sat Flow, veh/h				1553	2016	1582	567	3647	0	0	3611	110
Grp Volume(v), veh/h				127	113	189	28	965	0	0	486	506
Grp Sat Flow(s),veh/h/ln				1793	1777	1582	567	1777	0	0	1777	1850
Q Serve(g_s), s				5.8	5.2	10.4	0.6	0.0	0.0	0.0	8.8	8.8
Cycle Q Clear(g_c), s				5.8	5.2	10.4	9.5	0.0	0.0	0.0	8.8	8.8
Prop In Lane				0.87		1.00	1.00		0.00	0.00		0.06
Lane Grp Cap(c), veh/h				268	266	237	444	2628	0	0	1314	1368
V/C Ratio(X)				0.47	0.43	0.80	0.06	0.37	0.00	0.00	0.37	0.37
Avail Cap(c_a), veh/h				458	454	404	444	2628	0	0	1314	1368
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	0.81	0.81	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				35.0	34.8	37.0	0.6	0.0	0.0	0.0	4.2	4.2
Incr Delay (d2), s/veh				0.5	0.4	2.4	0.2	0.3	0.0	0.0	0.8	0.8
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.5	2.2	4.1	0.0	0.1	0.0	0.0	2.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				35.5	35.2	39.3	0.8	0.3	0.0	0.0	5.0	5.0
LnGrp LOS				D	D	D	A	A			A	A
Approach Vol, veh/h					429			993			992	
Approach Delay, s/veh					37.1			0.3			5.0	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	71.5			18.5			71.5					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	57.0			23.0			57.0					
Max Q Clear Time (g_c+I1), s	11.5			12.4			10.8					
Green Ext Time (p_c), s	3.4			0.9			2.6					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				8.8								
HCM 6th LOS				A								

HCM Signalized Intersection Capacity Analysis

14: Market Street/E Market Street & Main St/Main Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	378	1	9	7	0	0	0	27
Future Volume (vph)	0	0	0	0	378	1	9	7	0	0	0	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0				5.0
Lane Util. Factor					0.95			1.00				1.00
Frpb, ped/bikes					0.99			1.00				0.94
Flpb, ped/bikes					1.00			0.98				1.00
Frt					0.99			1.00				0.86
Flt Protected					1.00			0.97				1.00
Satd. Flow (prot)					3538			1774				1530
Flt Permitted					1.00			0.97				1.00
Satd. Flow (perm)					3538			1774				1530
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	0	402	1	10	7	0	0	0	29
RTOR Reduction (vph)	0	0	0	0	0	0	0	16	0	0	0	28
Lane Group Flow (vph)	0	0	0	0	403	0	0	1	0	0	0	1
Confl. Peds. (#/hr)						1	4					4
Confl. Bikes (#/hr)						2						1
Turn Type					NA		Perm	NA				Perm
Protected Phases					6 4			5				
Permitted Phases							5					5
Actuated Green, G (s)					27.6			1.4				1.4
Effective Green, g (s)					27.6			1.4				1.4
Actuated g/C Ratio					0.71			0.04				0.04
Clearance Time (s)								5.0				5.0
Vehicle Extension (s)								2.0				2.0
Lane Grp Cap (vph)					2503			63				54
v/s Ratio Prot					c0.11							
v/s Ratio Perm								0.00				c0.00
v/c Ratio					0.16			0.00				0.01
Uniform Delay, d1					1.8			18.1				18.1
Progression Factor					1.00			1.00				1.00
Incremental Delay, d2					0.0			0.0				0.0
Delay (s)					1.9			18.1				18.1
Level of Service					A			B				B
Approach Delay (s/veh)		0.0			1.9			18.1			18.1	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			3.6									
HCM 2000 Volume to Capacity ratio			0.24									
Actuated Cycle Length (s)			39.0									
Intersection Capacity Utilization			29.9%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC
15: B Street/E Washington Street & Main Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	5	416	32	15	326	1	28	2	38	1	2	14
Future Vol, veh/h	5	416	32	15	326	1	28	2	38	1	2	14
Conflicting Peds, #/hr	1	0	1	1	0	1	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	443	34	16	347	1	30	2	40	1	2	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	349	0	0	478	0	0	681	852	240	614	869	178
Stage 1	-	-	-	-	-	-	471	471	-	381	381	-
Stage 2	-	-	-	-	-	-	210	381	-	233	488	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1207	-	-	1081	-	-	336	295	761	376	289	834
Stage 1	-	-	-	-	-	-	542	558	-	613	612	-
Stage 2	-	-	-	-	-	-	773	612	-	749	548	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1206	-	-	1080	-	-	321	287	760	347	281	831
Mov Cap-2 Maneuver	-	-	-	-	-	-	321	287	-	347	281	-
Stage 1	-	-	-	-	-	-	538	554	-	609	600	-
Stage 2	-	-	-	-	-	-	741	600	-	702	544	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.5			14			10.9		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	472	1206	-	-	1080	-	-	633
HCM Lane V/C Ratio	0.153	0.004	-	-	0.015	-	-	0.029
HCM Control Delay (s/veh)	14	8	0	-	8.4	0.1	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.5	0	-	-	0	-	-	0.1

HCM 6th TWSC
16: E Lafayette Street & Main Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	40	394	9	25	333	12	11	4	31	0	3	15
Future Vol, veh/h	40	394	9	25	333	12	11	4	31	0	3	15
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	402	9	26	340	12	11	4	32	0	3	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	353	0	0	411	0	0	713	894	206	684	892	177
Stage 1	-	-	-	-	-	-	489	489	-	399	399	-
Stage 2	-	-	-	-	-	-	224	405	-	285	493	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1202	-	-	1144	-	-	319	279	800	335	280	835
Stage 1	-	-	-	-	-	-	529	548	-	598	601	-
Stage 2	-	-	-	-	-	-	758	597	-	698	545	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1201	-	-	1144	-	-	293	259	800	300	260	834
Mov Cap-2 Maneuver	-	-	-	-	-	-	293	259	-	300	260	-
Stage 1	-	-	-	-	-	-	506	524	-	571	584	-
Stage 2	-	-	-	-	-	-	719	580	-	636	521	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.8			0.6			12.9			11.1		
HCM LOS							B			B		

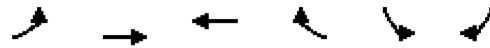
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	501	1201	-	-	1144	-	-	610
HCM Lane V/C Ratio	0.094	0.034	-	-	0.022	-	-	0.03
HCM Control Delay (s/veh)	12.9	8.1	0.1	-	8.2	0.1	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.3	0.1	-	-	0.1	-	-	0.1

HCM Signalized Intersection Capacity Analysis

17: Main Street & D Street

Background Conditions

Timing Plan: PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Volume (vph)	9	450	370	15	8	8
Future Volume (vph)	9	450	370	15	8	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0	
Lane Util. Factor		0.95	0.95		1.00	
Frpb, ped/bikes		1.00	0.99		1.00	
Flpb, ped/bikes		0.99	1.00		1.00	
Frt		1.00	0.99		0.93	
Flt Protected		0.99	1.00		0.97	
Satd. Flow (prot)		3536	3516		1695	
Flt Permitted		0.94	1.00		0.97	
Satd. Flow (perm)		3333	3516		1695	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	10	479	394	16	9	9
RTOR Reduction (vph)	0	0	5	0	9	0
Lane Group Flow (vph)	0	489	405	0	9	0
Confl. Peds. (#/hr)	1			1		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		9.9	9.9		0.6	
Effective Green, g (s)		9.9	9.9		0.6	
Actuated g/C Ratio		0.48	0.48		0.03	
Clearance Time (s)		5.0	5.0		5.0	
Vehicle Extension (s)		6.0	6.0		2.0	
Lane Grp Cap (vph)		1609	1697		49	
v/s Ratio Prot			0.12			
v/s Ratio Perm		c0.15			c0.01	
v/c Ratio		0.30	0.23		0.18	
Uniform Delay, d1		3.2	3.0		9.7	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.3	0.2		0.6	
Delay (s)		3.5	3.3		10.3	
Level of Service		A	A		B	
Approach Delay (s/veh)		3.5	3.3		10.3	
Approach LOS		A	A		B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			3.6		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.30			
Actuated Cycle Length (s)			20.5		Sum of lost time (s)	10.0
Intersection Capacity Utilization			30.5%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th TWSC
18: Marsh Street/E Street & Main Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	6	428	0	18	332	37	4	3	18	51	8	25
Future Vol, veh/h	6	428	0	18	332	37	4	3	18	51	8	25
Conflicting Peds, #/hr	1	0	5	5	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	465	0	20	361	40	4	3	20	55	9	27
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	402	0	0	470	0	0	710	926	238	670	906	203
Stage 1	-	-	-	-	-	-	484	484	-	422	422	-
Stage 2	-	-	-	-	-	-	226	442	-	248	484	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1153	-	-	1088	-	-	321	267	763	343	275	804
Stage 1	-	-	-	-	-	-	533	550	-	580	587	-
Stage 2	-	-	-	-	-	-	756	575	-	734	550	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1152	-	-	1083	-	-	293	257	759	323	265	802
Mov Cap-2 Maneuver	-	-	-	-	-	-	293	257	-	323	265	-
Stage 1	-	-	-	-	-	-	526	543	-	575	572	-
Stage 2	-	-	-	-	-	-	701	561	-	705	543	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.5			12.5			17.3		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	510	1152	-	-	1083	-	-	383				
HCM Lane V/C Ratio	0.053	0.006	-	-	0.018	-	-	0.238				
HCM Control Delay (s/veh)	12.5	8.1	0	-	8.4	0.1	-	17.3				
HCM Lane LOS	B	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.2	0	-	-	0.1	-	-	0.9				

HCM 6th TWSC
19: Alma Street/F Street & Main Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	13	458	1	31	331	12	2	0	17	17	2	3
Future Vol, veh/h	13	458	1	31	331	12	2	0	17	17	2	3
Conflicting Peds, #/hr	0	0	5	5	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	503	1	34	364	13	2	0	19	19	2	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	377	0	0	509	0	0	788	982	258	720	976	189
Stage 1	-	-	-	-	-	-	537	537	-	439	439	-
Stage 2	-	-	-	-	-	-	251	445	-	281	537	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1178	-	-	1052	-	-	282	248	741	315	250	821
Stage 1	-	-	-	-	-	-	496	521	-	567	576	-
Stage 2	-	-	-	-	-	-	731	573	-	702	521	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1178	-	-	1047	-	-	265	233	737	293	235	821
Mov Cap-2 Maneuver	-	-	-	-	-	-	265	233	-	293	235	-
Stage 1	-	-	-	-	-	-	485	510	-	557	552	-
Stage 2	-	-	-	-	-	-	695	550	-	672	510	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.3			0.8			11			17.5		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	621	1178	-	-	1047	-	-	313
HCM Lane V/C Ratio	0.034	0.012	-	-	0.033	-	-	0.077
HCM Control Delay (s/veh)	11	8.1	0.1	-	8.6	0.1	-	17.5
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1	-	-	0.2

HCM Signalized Intersection Capacity Analysis

20: S Filbert Street & Main Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	397	16	2	319	237	17	49	10	390	35	71
Future Volume (vph)	55	397	16	2	319	237	17	49	10	390	35	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			5.0		5.0	5.0	
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	
Frpb, ped/bikes		0.99			0.98			1.00		1.00	0.99	
Flpb, ped/bikes		0.99			0.99			1.00		1.00	1.00	
Frt		0.99			0.93			0.98		1.00	0.89	
Flt Protected		0.99			0.99			0.98		0.95	1.00	
Satd. Flow (prot)		3496			3279			1809		1770	1661	
Flt Permitted		0.81			0.95			0.98		0.95	1.00	
Satd. Flow (perm)		2866			3127			1809		1770	1661	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	58	418	17	2	336	249	18	52	11	411	37	75
RTOR Reduction (vph)	0	3	0	0	124	0	0	5	0	0	51	0
Lane Group Flow (vph)	0	490	0	0	463	0	0	76	0	411	61	0
Confl. Peds. (#/hr)	4		5	5		4	1					1
Confl. Bikes (#/hr)			2									
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		3	3	
Permitted Phases	2			6								
Actuated Green, G (s)		22.1			22.1			6.2		20.9	20.9	
Effective Green, g (s)		22.1			22.1			6.2		20.9	20.9	
Actuated g/C Ratio		0.34			0.34			0.10		0.32	0.32	
Clearance Time (s)		6.0			6.0			5.0		5.0	5.0	
Vehicle Extension (s)		6.0			6.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		971			1059			172		567	532	
v/s Ratio Prot								c0.04		c0.23	0.04	
v/s Ratio Perm		c0.17			0.15							
v/c Ratio		0.50			0.43			0.43		0.72	0.11	
Uniform Delay, d1		17.1			16.7			27.8		19.6	15.6	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		1.1			0.8			0.6		3.8	0.0	
Delay (s)		18.3			17.5			28.5		23.4	15.6	
Level of Service		B			B			C		C	B	
Approach Delay (s/veh)		18.3			17.5			28.5			21.8	
Approach LOS		B			B			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		19.6			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.59										
Actuated Cycle Length (s)		65.2			Sum of lost time (s)			16.0				
Intersection Capacity Utilization		73.7%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th TWSC
21: Burkett Avenue & Main Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	17	723	30	11	543	11	8	2	16	5	0	7
Future Vol, veh/h	17	723	30	11	543	11	8	2	16	5	0	7
Conflicting Peds, #/hr	3	0	3	3	0	3	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	777	32	12	584	12	9	2	17	5	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	599	0	0	812	0	0	1148	1455	408	1043	1465	301
Stage 1	-	-	-	-	-	-	832	832	-	617	617	-
Stage 2	-	-	-	-	-	-	316	623	-	426	848	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	974	-	-	810	-	-	154	129	593	184	127	695
Stage 1	-	-	-	-	-	-	330	382	-	444	479	-
Stage 2	-	-	-	-	-	-	670	476	-	577	376	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	971	-	-	808	-	-	146	121	591	168	119	693
Mov Cap-2 Maneuver	-	-	-	-	-	-	146	121	-	168	119	-
Stage 1	-	-	-	-	-	-	318	368	-	428	467	-
Stage 2	-	-	-	-	-	-	648	464	-	538	362	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.3			0.3			20.2			17.5		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	264	971	-	-	808	-	-	301
HCM Lane V/C Ratio	0.106	0.019	-	-	0.015	-	-	0.043
HCM Control Delay (s/veh)	20.2	8.8	0.1	-	9.5	0.1	-	17.5
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.4	0.1	-	-	0	-	-	0.1

HCM 6th TWSC
22: Shasta Avenue & Main Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	8	720	15	5	556	10	5	0	12	3	1	5
Future Vol, veh/h	8	720	15	5	556	10	5	0	12	3	1	5
Conflicting Peds, #/hr	3	0	4	4	0	3	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	783	16	5	604	11	5	0	13	3	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	618	0	0	803	0	0	1127	1441	404	1033	1444	312
Stage 1	-	-	-	-	-	-	813	813	-	623	623	-
Stage 2	-	-	-	-	-	-	314	628	-	410	821	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	958	-	-	817	-	-	159	131	596	187	131	684
Stage 1	-	-	-	-	-	-	339	390	-	440	476	-
Stage 2	-	-	-	-	-	-	671	474	-	589	387	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	955	-	-	814	-	-	153	127	594	179	127	681
Mov Cap-2 Maneuver	-	-	-	-	-	-	153	127	-	179	127	-
Stage 1	-	-	-	-	-	-	332	382	-	431	470	-
Stage 2	-	-	-	-	-	-	658	468	-	566	379	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.2			0.1			16.9			18.3		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	321	955	-	-	814	-	-	281
HCM Lane V/C Ratio	0.058	0.009	-	-	0.007	-	-	0.035
HCM Control Delay (s/veh)	16.9	8.8	0.1	-	9.5	0	-	18.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1

HCM 6th TWSC
23: David Avenue & Main Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	8	715	10	4	556	8	11	1	1	2	1	5
Future Vol, veh/h	8	715	10	4	556	8	11	1	1	2	1	5
Conflicting Peds, #/hr	1	0	4	4	0	1	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	777	11	4	604	9	12	1	1	2	1	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	614	0	0	792	0	0	1116	1427	400	1027	1428	308
Stage 1	-	-	-	-	-	-	805	805	-	618	618	-
Stage 2	-	-	-	-	-	-	311	622	-	409	810	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	961	-	-	824	-	-	162	134	600	189	134	688
Stage 1	-	-	-	-	-	-	342	393	-	443	479	-
Stage 2	-	-	-	-	-	-	674	477	-	590	391	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	960	-	-	821	-	-	156	130	597	184	130	687
Mov Cap-2 Maneuver	-	-	-	-	-	-	156	130	-	184	130	-
Stage 1	-	-	-	-	-	-	335	385	-	435	475	-
Stage 2	-	-	-	-	-	-	662	473	-	576	383	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.2			0.1			29.2			16.9		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	163	960	-	-	821	-	-	310				
HCM Lane V/C Ratio	0.087	0.009	-	-	0.005	-	-	0.028				
HCM Control Delay (s/veh)	29.2	8.8	0.1	-	9.4	0	-	16.9				
HCM Lane LOS	D	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0.1				

HCM 6th TWSC
24: Rendon Avenue & Main Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	10	679	34	18	533	12	16	4	11	6	3	12
Future Vol, veh/h	10	679	34	18	533	12	16	4	11	6	3	12
Conflicting Peds, #/hr	4	0	7	7	0	4	0	0	3	3	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	730	37	19	573	13	17	4	12	6	3	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	590	0	0	774	0	0	1104	1406	394	1014	1418	297
Stage 1	-	-	-	-	-	-	778	778	-	622	622	-
Stage 2	-	-	-	-	-	-	326	628	-	392	796	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	982	-	-	837	-	-	166	138	605	193	136	699
Stage 1	-	-	-	-	-	-	355	405	-	441	477	-
Stage 2	-	-	-	-	-	-	661	474	-	604	397	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	978	-	-	831	-	-	152	129	599	176	127	696
Mov Cap-2 Maneuver	-	-	-	-	-	-	152	129	-	176	127	-
Stage 1	-	-	-	-	-	-	345	394	-	430	459	-
Stage 2	-	-	-	-	-	-	622	456	-	572	386	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.2			0.5			26.6			19		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	200	978	-	-	831	-	-	280
HCM Lane V/C Ratio	0.167	0.011	-	-	0.023	-	-	0.081
HCM Control Delay (s/veh)	26.6	8.7	0.1	-	9.4	0.2	-	19
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.6	0	-	-	0.1	-	-	0.3

HCM 6th Signalized Intersection Summary25: Golden Gate Avenue & Main Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	510	190	62	414	9	128	23	81	13	30	8
Future Volume (veh/h)	8	510	190	62	414	9	128	23	81	13	30	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	543	202	66	440	10	136	24	86	14	32	9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	1129	418	84	1726	39	269	54	118	143	272	65
Arrive On Green	0.01	0.45	0.45	0.05	0.49	0.49	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	2518	933	1781	3552	81	735	239	523	262	1210	288
Grp Volume(v), veh/h	9	383	362	66	220	230	246	0	0	55	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1674	1781	1777	1855	1497	0	0	1760	0	0
Q Serve(g_s), s	0.3	8.1	8.2	2.0	3.9	3.9	6.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	8.1	8.2	2.0	3.9	3.9	8.1	0.0	0.0	1.3	0.0	0.0
Prop In Lane	1.00		0.56	1.00		0.04	0.55		0.35	0.25		0.16
Lane Grp Cap(c), veh/h	17	797	750	84	863	901	441	0	0	480	0	0
V/C Ratio(X)	0.54	0.48	0.48	0.79	0.25	0.26	0.56	0.00	0.00	0.11	0.00	0.00
Avail Cap(c_a), veh/h	665	1592	1500	665	1592	1663	1205	0	0	1026	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.4	10.4	10.4	25.3	8.1	8.1	19.1	0.0	0.0	16.6	0.0	0.0
Incr Delay (d2), s/veh	9.7	1.6	1.7	6.1	0.6	0.5	0.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.8	2.7	0.9	1.3	1.3	2.7	0.0	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.1	12.0	12.2	31.4	8.6	8.6	19.5	0.0	0.0	16.6	0.0	0.0
LnGrp LOS	D	B	B	C	A	A	B			B		
Approach Vol, veh/h		754			516			246			55	
Approach Delay, s/veh		12.4			11.5			19.5			16.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	29.0		17.0	5.5	31.0		17.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	48.0		40.0	20.0	48.0		30.0				
Max Q Clear Time (g_c+I1), s	4.0	10.2		10.1	2.3	5.9		3.3				
Green Ext Time (p_c), s	0.1	13.8		1.1	0.0	7.6		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				13.4								
HCM 6th LOS				B								

HCM 6th TWSC
26: Windsor Avenue & Main Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	7	581	26	4	471	4	11	0	5	4	2	7
Future Vol, veh/h	7	581	26	4	471	4	11	0	5	4	2	7
Conflicting Peds, #/hr	6	0	6	6	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	599	27	4	486	4	11	0	5	4	2	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	496	0	0	632	0	0	885	1137	319	816	1148	251
Stage 1	-	-	-	-	-	-	633	633	-	502	502	-
Stage 2	-	-	-	-	-	-	252	504	-	314	646	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1064	-	-	947	-	-	239	200	677	269	197	749
Stage 1	-	-	-	-	-	-	434	472	-	520	540	-
Stage 2	-	-	-	-	-	-	730	539	-	671	465	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1058	-	-	942	-	-	231	194	673	262	191	745
Mov Cap-2 Maneuver	-	-	-	-	-	-	231	194	-	262	191	-
Stage 1	-	-	-	-	-	-	427	464	-	512	534	-
Stage 2	-	-	-	-	-	-	716	533	-	659	458	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.1			18.1			15.1		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	291	1058	-	-	942	-	-	370
HCM Lane V/C Ratio	0.057	0.007	-	-	0.004	-	-	0.036
HCM Control Delay (s/veh)	18.1	8.4	0	-	8.8	0	-	15.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1

HCM Signalized Intersection Capacity Analysis

27: Netherton Avenue & Main Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	529	27	38	441	5	21	6	67	27	12	48
Future Volume (vph)	11	529	27	38	441	5	21	6	67	27	12	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Frt	1.00	0.99		1.00	0.99			0.90			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.98	
Satd. Flow (prot)	1770	3509		1770	3532			1647			1684	
Flt Permitted	0.95	1.00		0.95	1.00			0.89			0.86	
Satd. Flow (perm)	1770	3509		1770	3532			1497			1472	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	11	534	27	38	445	5	21	6	68	27	12	48
RTOR Reduction (vph)	0	3	0	0	1	0	0	56	0	0	40	0
Lane Group Flow (vph)	11	558	0	38	449	0	0	39	0	0	47	0
Confl. Peds. (#/hr)			4			1	2		6	6		2
Confl. Bikes (#/hr)			1									
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		
Actuated Green, G (s)	0.6	15.4		0.8	15.6			6.5			6.5	
Effective Green, g (s)	0.6	15.4		0.8	15.6			6.5			6.5	
Actuated g/C Ratio	0.02	0.41		0.02	0.41			0.17			0.17	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0			2.0			2.0	
Lane Grp Cap (vph)	28	1433		37	1461			258			253	
v/s Ratio Prot	0.01	c0.16		c0.02	0.13							
v/s Ratio Perm								0.03			c0.03	
v/c Ratio	0.39	0.38		1.02	0.30			0.15			0.18	
Uniform Delay, d1	18.3	7.8		18.4	7.4			13.2			13.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	3.2	0.4		156.1	0.3			0.0			0.1	
Delay (s)	21.6	8.3		174.5	7.7			13.3			13.4	
Level of Service	C	A		F	A			B			B	
Approach Delay (s/veh)		8.5			20.7			13.3			13.4	
Approach LOS		A			C			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			14.1			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.35									
Actuated Cycle Length (s)			37.7			Sum of lost time (s)				15.0		
Intersection Capacity Utilization			41.3%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC
28: Broadway Avenue & Main Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔			↔	
Traffic Vol, veh/h	26	559	6	10	446	16	12	2	11	13	5	14
Future Vol, veh/h	26	559	6	10	446	16	12	2	11	13	5	14
Conflicting Peds, #/hr	8	0	14	14	0	8	0	0	3	3	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	576	6	10	460	16	12	2	11	13	5	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	484	0	0	596	0	0	900	1151	308	842	1146	246
Stage 1	-	-	-	-	-	-	647	647	-	496	496	-
Stage 2	-	-	-	-	-	-	253	504	-	346	650	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1075	-	-	976	-	-	233	197	688	257	198	754
Stage 1	-	-	-	-	-	-	426	465	-	524	544	-
Stage 2	-	-	-	-	-	-	729	539	-	643	463	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1067	-	-	963	-	-	213	184	677	239	185	748
Mov Cap-2 Maneuver	-	-	-	-	-	-	213	184	-	239	185	-
Stage 1	-	-	-	-	-	-	405	442	-	501	534	-
Stage 2	-	-	-	-	-	-	701	529	-	604	440	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.5			0.2			18.1			17.5		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	300	1067	-	-	963	-	-	320
HCM Lane V/C Ratio	0.086	0.025	-	-	0.011	-	-	0.103
HCM Control Delay (s/veh)	18.1	8.5	0.1	-	8.8	-	-	17.5
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q (veh)	0.3	0.1	-	-	0	-	-	0.3

HCM Signalized Intersection Capacity Analysis

29: S Center Street & Market Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  									  	
Traffic Volume (vph)	0	63	58	0	0	0	0	0	0	56	1771	0
Future Volume (vph)	0	63	58	0	0	0	0	0	0	56	1771	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		0.95									0.91	
Frpb, ped/bikes		0.98									1.00	
Flpb, ped/bikes		1.00									0.99	
Frt		0.92									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		3246									5076	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		3246									5076	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	69	64	0	0	0	0	0	0	62	1946	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	10	0
Lane Group Flow (vph)	0	124	0	0	0	0	0	0	0	0	1998	0
Confl. Peds. (#/hr)	5		11							11		
Turn Type		NA								Perm	NA	
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		24.0									51.0	
Effective Green, g (s)		24.0									51.0	
Actuated g/C Ratio		0.28									0.60	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		916									3045	
v/s Ratio Prot		0.04										
v/s Ratio Perm											0.39	
v/c Ratio		0.13									0.65	
Uniform Delay, d1		22.7									11.2	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.3									1.1	
Delay (s)		23.0									12.3	
Level of Service		C									B	
Approach Delay (s/veh)		23.0			0.0			0.0			12.3	
Approach LOS		C			A			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			13.0									
HCM 2000 Volume to Capacity ratio			0.49									
Actuated Cycle Length (s)			85.0							10.0		
Intersection Capacity Utilization			62.9%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis30: S El Dorado Street & Market Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	81	0	0	0	0	0	1446	39	0	0	0
Future Volume (vph)	67	81	0	0	0	0	0	1446	39	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0				
Lane Util. Factor		0.95						0.86				
Frpb, ped/bikes		1.00						0.99				
Flpb, ped/bikes		0.99						1.00				
Frt		1.00						0.99				
Flt Protected		0.97						1.00				
Satd. Flow (prot)		3455						6378				
Flt Permitted		0.97						1.00				
Satd. Flow (perm)		3455						6378				
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	70	84	0	0	0	0	0	1506	41	0	0	0
RTOR Reduction (vph)	0	24	0	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	130	0	0	0	0	0	1543	0	0	0	0
Confl. Peds. (#/hr)	3								10			
Confl. Bikes (#/hr)			2						3			
Turn Type	Perm	NA						NA				
Protected Phases		2						1				
Permitted Phases	2											
Actuated Green, G (s)		25.0						50.0				
Effective Green, g (s)		25.0						50.0				
Actuated g/C Ratio		0.29						0.59				
Clearance Time (s)		5.0						5.0				
Vehicle Extension (s)		0.2						0.2				
Lane Grp Cap (vph)		1016						3751				
v/s Ratio Prot								c0.24				
v/s Ratio Perm		0.04										
v/c Ratio		0.12						0.41				
Uniform Delay, d1		22.0						9.5				
Progression Factor		0.79						1.00				
Incremental Delay, d2		0.2						0.3				
Delay (s)		17.7						9.8				
Level of Service		B						A				
Approach Delay (s/veh)		17.7			0.0			9.8			0.0	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		10.6						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.32										
Actuated Cycle Length (s)		85.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		34.2%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th AWSC

31: S Hunter Street & Market Street

Background Conditions

Timing Plan: PM Peak Hour

Intersection

Intersection Delay, s/veh 7.9

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑							↑↑	↑	↑	
Traffic Vol, veh/h	0	106	13	0	0	0	0	0	24	32	36	0
Future Vol, veh/h	0	106	13	0	0	0	0	0	24	32	36	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	125	15	0	0	0	0	0	28	38	42	0
Number of Lanes	0	2	0	0	0	0	0	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay, s/veh	7.9	7.5	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	73%	0%	100%
Vol Right, %	100%	0%	27%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	71	48	32	36
LT Vol	0	0	0	32	0
Through Vol	0	71	35	0	36
RT Vol	24	0	13	0	0
Lane Flow Rate	28	83	57	38	42
Geometry Grp	4b	5	5	5	5
Degree of Util (X)	0.034	0.109	0.072	0.056	0.058
Departure Headway (Hd)	4.371	4.717	4.529	5.402	4.901
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	824	749	779	667	735
Service Time	2.373	2.514	2.326	3.103	2.601
HCM Lane V/C Ratio	0.034	0.111	0.073	0.057	0.057
HCM Control Delay, s/veh	7.5	8.1	7.7	8.4	7.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.2	0.2	0.2

HCM Signalized Intersection Capacity Analysis

32: S San Joaquin Street & Market Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	105	36	0	0	0	0	118	48	15	129	0
Future Volume (vph)	21	105	36	0	0	0	0	118	48	15	129	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		0.98						0.97			1.00	
Flpb, ped/bikes		0.99						1.00			0.99	
Frt		0.96						0.95			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		3351						3284			3495	
Flt Permitted		0.99						1.00			0.92	
Satd. Flow (perm)		3351						3284			3248	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	24	119	41	0	0	0	0	134	55	17	147	0
RTOR Reduction (vph)	0	27	0	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	0	157	0	0	0	0	0	162	0	0	164	0
Confl. Peds. (#/hr)	19		49						78	78		
Confl. Bikes (#/hr)									4			
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						1			1	
Permitted Phases	2									1		
Actuated Green, G (s)		24.0						36.0			36.0	
Effective Green, g (s)		24.0						36.0			36.0	
Actuated g/C Ratio		0.34						0.51			0.51	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		1148						1688			1670	
v/s Ratio Prot								0.05				
v/s Ratio Perm		0.05									c0.05	
v/c Ratio		0.13						0.09			0.09	
Uniform Delay, d1		15.8						8.6			8.6	
Progression Factor		1.00						1.00			0.35	
Incremental Delay, d2		0.2						0.1			0.1	
Delay (s)		16.1						8.8			3.1	
Level of Service		B						A			A	
Approach Delay (s/veh)		16.1			0.0			8.8			3.1	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		9.6										
HCM 2000 Volume to Capacity ratio		0.11										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		43.6%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

33: S Sutter Street & Market Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	121	30	0	0	0	0	112	41	18	124	0
Future Volume (vph)	18	121	30	0	0	0	0	112	41	18	124	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0		5.0	
Lane Util. Factor		0.95						1.00	1.00		0.95	
Frpb, ped/bikes		0.97						1.00	0.88		1.00	
Flpb, ped/bikes		0.99						1.00	1.00		0.98	
Frt		0.97						1.00	0.85		1.00	
Flt Protected		0.99						1.00	1.00		0.99	
Satd. Flow (prot)		3317						1863	1399		3478	
Flt Permitted		0.99						1.00	1.00		0.91	
Satd. Flow (perm)		3317						1863	1399		3204	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	24	159	39	0	0	0	0	147	54	24	163	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	31	0	0	0
Lane Group Flow (vph)	0	200	0	0	0	0	0	147	23	0	187	0
Confl. Peds. (#/hr)	35		123						81	81		
Confl. Bikes (#/hr)									1			
Turn Type	Perm	NA						NA	Perm	Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)		30.0						30.0	30.0		30.0	
Effective Green, g (s)		30.0						30.0	30.0		30.0	
Actuated g/C Ratio		0.43						0.43	0.43		0.43	
Clearance Time (s)		5.0						5.0	5.0		5.0	
Vehicle Extension (s)		0.2						0.2	0.2		0.2	
Lane Grp Cap (vph)		1421						798	599		1373	
v/s Ratio Prot								c0.08				
v/s Ratio Perm		0.06							0.02		0.06	
v/c Ratio		0.14						0.18	0.03		0.13	
Uniform Delay, d1		12.1						12.4	11.6		12.1	
Progression Factor		1.48						1.00	1.00		0.71	
Incremental Delay, d2		0.2						0.5	0.1		0.2	
Delay (s)		18.2						12.9	11.7		8.9	
Level of Service		B						B	B		A	
Approach Delay (s/veh)		18.2			0.0			12.6			8.9	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		13.5										
HCM 2000 Volume to Capacity ratio		0.16										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		45.6%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

34: California Street & Market Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	131	18	0	0	0	0	190	32	31	247	0
Future Volume (veh/h)	27	131	18	0	0	0	0	190	32	31	247	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	30	146	20				0	211	36	34	274	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	146	738	105				0	1782	299	228	1769	0
Arrive On Green	0.27	0.27	0.27				0.00	0.59	0.59	1.00	1.00	0.00
Sat Flow, veh/h	537	2718	387				0	3136	511	283	3105	0
Grp Volume(v), veh/h	103	0	93				0	122	125	162	146	0
Grp Sat Flow(s), veh/h/ln	1844	0	1799				0	1777	1777	1685	1617	0
Q Serve(g_s), s	3.0	0.0	2.8				0.0	2.1	2.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	2.8				0.0	2.1	2.2	0.0	0.0	0.0
Prop In Lane	0.29		0.22				0.00		0.29	0.21		0.00
Lane Grp Cap(c), veh/h	500	0	488				0	1041	1041	1049	947	0
V/C Ratio(X)	0.21	0.00	0.19				0.00	0.12	0.12	0.15	0.15	0.00
Avail Cap(c_a), veh/h	500	0	488				0	1041	1041	1049	947	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.96	0.96	0.00
Uniform Delay (d), s/veh	19.7	0.0	19.6				0.0	6.4	6.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.9				0.0	0.2	0.2	0.3	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	1.2				0.0	0.7	0.8	0.1	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.6	0.0	20.5				0.0	6.7	6.7	0.3	0.3	0.0
LnGrp LOS	C		C					A	A	A	A	
Approach Vol, veh/h		196						247			308	
Approach Delay, s/veh		20.5						6.7			0.3	
Approach LOS		C						A			A	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		46.0		24.0		46.0						
Change Period (Y+Rc), s		5.0		5.0		5.0						
Max Green Setting (Gmax), s		41.0		19.0		41.0						
Max Q Clear Time (g_c+I1), s		4.2		5.0		2.0						
Green Ext Time (p_c), s		0.3		0.2		0.3						
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			7.7									
HCM 6th LOS			A									

HCM Signalized Intersection Capacity Analysis

35: S American Street & Market Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	178	0	0	0	0	0	0	0	38	1	0
Future Volume (vph)	25	178	0	0	0	0	0	0	0	38	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		0.95									1.00	
Frpb, ped/bikes		1.00									1.00	
Flpb, ped/bikes		0.99									0.99	
Frt		1.00									1.00	
Flt Protected		0.99									0.95	
Satd. Flow (prot)		3513									1762	
Flt Permitted		0.99									0.77	
Satd. Flow (perm)		3513									1430	
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Adj. Flow (vph)	36	254	0	0	0	0	0	0	0	54	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	290	0	0	0	0	0	0	0	0	55	0
Confl. Peds. (#/hr)	5		1							6	6	
Turn Type	Perm	NA								Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		40.0									20.0	
Effective Green, g (s)		40.0									20.0	
Actuated g/C Ratio		0.57									0.29	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		2007									408	
v/s Ratio Prot												
v/s Ratio Perm		0.08									c0.04	
v/c Ratio		0.14									0.13	
Uniform Delay, d1		7.0									18.5	
Progression Factor		0.55									0.78	
Incremental Delay, d2		0.1									0.6	
Delay (s)		4.0									15.2	
Level of Service		A									B	
Approach Delay (s/veh)		4.0			0.0			0.0			15.2	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		5.8										
HCM 2000 Volume to Capacity ratio		0.14										
Actuated Cycle Length (s)		70.0								10.0		
Intersection Capacity Utilization		36.7%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

36: S Stanislaus Street & Market Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	135	64	0	0	0	0	263	32	6	365	0
Future Volume (vph)	17	135	64	0	0	0	0	263	32	6	365	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		0.99						0.99			1.00	
Flpb, ped/bikes		0.99						1.00			0.99	
Frt		0.95						0.98			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		3349						3475			3536	
Flt Permitted		0.99						1.00			0.94	
Satd. Flow (perm)		3349						3475			3361	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	21	165	78	0	0	0	0	321	39	7	445	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	214	0	0	0	0	0	347	0	0	452	0
Confl. Peds. (#/hr)	4		5						5	5		
Confl. Bikes (#/hr)			1						1			
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		25.0						35.0			35.0	
Effective Green, g (s)		25.0						35.0			35.0	
Actuated g/C Ratio		0.36						0.50			0.50	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		1196						1737			1680	
v/s Ratio Prot								0.10				
v/s Ratio Perm		0.06									c0.13	
v/c Ratio		0.17						0.19			0.26	
Uniform Delay, d1		15.4						9.7			10.1	
Progression Factor		0.40						1.00			0.73	
Incremental Delay, d2		0.3						0.2			0.3	
Delay (s)		6.6						9.9			7.8	
Level of Service		A						A			A	
Approach Delay (s/veh)		6.6			0.0			9.9			7.8	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		8.3										
HCM 2000 Volume to Capacity ratio		0.23										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		37.7%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th TWSC
37: S Grant Street & Market Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		LT						RT			LT	
Traffic Vol, veh/h	24	149	2	0	0	0	0	2	5	26	10	0
Future Vol, veh/h	24	149	2	0	0	0	0	2	5	26	10	0
Conflicting Peds, #/hr	2	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	177	2	0	0	0	0	2	6	31	12	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	2	0	0	-	239	91	150	240	-
Stage 1	-	-	-	-	237	-	2	2	-
Stage 2	-	-	-	-	2	-	148	238	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1619	-	-	0	661	949	803	660	0
Stage 1	-	-	-	0	708	-	-	-	0
Stage 2	-	-	-	0	-	-	840	707	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1616	-	-	-	646	948	782	645	-
Mov Cap-2 Maneuver	-	-	-	-	646	-	782	645	-
Stage 1	-	-	-	-	693	-	-	-	-
Stage 2	-	-	-	-	-	-	815	692	-

Approach	EB	NB	SB
HCM Control Delay, s/v	1.1	9.4	10.2
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	836	1616	-	-	738
HCM Lane V/C Ratio	0.01	0.018	-	-	0.058
HCM Control Delay (s/veh)	9.4	7.3	0.1	-	10.2
HCM Lane LOS	A	A	A	-	B
HCM 95th %tile Q (veh)	0	0.1	-	-	0.2

HCM 6th TWSC

38: S Aurora Street & Market Street

Background Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	6.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		TT						T			T	
Traffic Vol, veh/h	26	128	21	0	0	0	0	115	28	8	53	0
Future Vol, veh/h	26	128	21	0	0	0	0	115	28	8	53	0
Conflicting Peds, #/hr	1	0	1	0	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	138	23	0	0	0	0	124	30	9	57	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	1	0	0	-	208	84	190	219	-
Stage 1	-	-	-	-	207	-	1	1	-
Stage 2	-	-	-	-	1	-	189	218	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1620	-	-	0	688	958	753	678	0
Stage 1	-	-	-	0	729	-	-	-	0
Stage 2	-	-	-	0	-	-	795	721	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1618	-	-	-	674	957	617	664	-
Mov Cap-2 Maneuver	-	-	-	-	674	-	617	664	-
Stage 1	-	-	-	-	714	-	-	-	-
Stage 2	-	-	-	-	-	-	625	707	-

Approach	EB	NB	SB
HCM Control Delay, s/v	1.1	11.4	11.1
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	715	1618	-	-	657
HCM Lane V/C Ratio	0.215	0.017	-	-	0.1
HCM Control Delay (s/veh)	11.4	7.3	0	-	11.1
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.8	0.1	-	-	0.3

HCM 6th TWSC
39: Union Street & Market Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		TT						T			T	
Traffic Vol, veh/h	17	166	7	0	0	0	0	87	27	16	91	0
Future Vol, veh/h	17	166	7	0	0	0	0	87	27	16	91	0
Conflicting Peds, #/hr	0	0	3	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	178	8	0	0	0	0	94	29	17	98	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	221	97	173	225	-
Stage 1	-	-	-	-	221	-	0	0	-
Stage 2	-	-	-	-	0	-	173	225	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	0	676	940	774	673	0
Stage 1	-	-	-	0	719	-	-	-	0
Stage 2	-	-	-	0	-	-	812	716	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	674	937	670	671	-
Mov Cap-2 Maneuver	-	-	-	-	674	-	670	671	-
Stage 1	-	-	-	-	717	-	-	-	-
Stage 2	-	-	-	-	-	-	684	714	-

Approach	EB	NB	SB
HCM Control Delay, s/v		11	11.5
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	722	-	-	-	671
HCM Lane V/C Ratio	0.17	-	-	-	0.171
HCM Control Delay (s/veh)	11	-	-	-	11.5
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q (veh)	0.6	-	-	-	0.6

HCM 6th TWSC
40: Pilgrim Street & Market Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		EB						EB			EB	
Traffic Vol, veh/h	11	196	3	0	0	0	0	11	10	15	8	0
Future Vol, veh/h	11	196	3	0	0	0	0	11	10	15	8	0
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	8	8	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	211	3	0	0	0	0	12	11	16	9	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	238	116	144	239	-
Stage 1	-	-	-	-	238	-	0	0	-
Stage 2	-	-	-	-	0	-	144	239	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	0	662	914	811	661	0
Stage 1	-	-	-	0	707	-	-	-	0
Stage 2	-	-	-	0	-	-	844	706	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	661	913	791	660	-
Mov Cap-2 Maneuver	-	-	-	-	661	-	791	660	-
Stage 1	-	-	-	-	706	-	-	-	-
Stage 2	-	-	-	-	-	-	820	705	-

Approach	EB	NB	SB
HCM Control Delay, s/v		9.9	10
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	761	-	-	-	740
HCM Lane V/C Ratio	0.03	-	-	-	0.033
HCM Control Delay (s/veh)	9.9	-	-	-	10
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q (veh)	0.1	-	-	-	0.1

HCM 6th Signalized Intersection Summary

41: Airport Way & Market Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	160	22	0	0	0	0	845	53	97	688	0
Future Volume (veh/h)	23	160	22	0	0	0	0	845	53	97	688	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	25	176	24				0	929	58	107	756	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	37	273	39				0	2689	168	286	1952	0
Arrive On Green	0.10	0.10	0.10				0.00	0.79	0.79	1.00	1.00	0.00
Sat Flow, veh/h	390	2847	404				0	3485	212	295	2547	0
Grp Volume(v), veh/h	119	0	106				0	487	500	367	496	0
Grp Sat Flow(s), veh/h/ln	1851	0	1790				0	1777	1826	1140	1617	0
Q Serve(g_s), s	5.6	0.0	5.1				0.0	7.0	7.0	1.5	0.0	0.0
Cycle Q Clear(g_c), s	5.6	0.0	5.1				0.0	7.0	7.0	8.6	0.0	0.0
Prop In Lane	0.21		0.23				0.00		0.12	0.29		0.00
Lane Grp Cap(c), veh/h	178	0	172				0	1409	1448	956	1282	0
V/C Ratio(X)	0.67	0.00	0.62				0.00	0.35	0.35	0.38	0.39	0.00
Avail Cap(c_a), veh/h	452	0	438				0	1409	1448	956	1282	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.94	0.94	0.00
Uniform Delay (d), s/veh	39.3	0.0	39.1				0.0	2.7	2.7	0.1	0.0	0.0
Incr Delay (d2), s/veh	1.6	0.0	1.3				0.0	0.7	0.7	1.1	0.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	2.3				0.0	1.7	1.7	0.3	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.9	0.0	40.4				0.0	3.3	3.3	1.2	0.8	0.0
LnGrp LOS	D		D					A	A	A	A	
Approach Vol, veh/h		225						987			863	
Approach Delay, s/veh		40.7						3.3			1.0	
Approach LOS		D						A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		76.4				76.4		13.6				
Change Period (Y+Rc), s		5.0				5.0		5.0				
Max Green Setting (Gmax), s		58.0				58.0		22.0				
Max Q Clear Time (g_c+I1), s		10.6				9.0		7.6				
Green Ext Time (p_c), s		1.3				0.9		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			6.4									
HCM 6th LOS			A									

HCM 6th TWSC
42: Sierra Nevada Street & Market Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		LT						RT			LT	
Traffic Vol, veh/h	23	284	5	0	0	0	0	20	15	70	26	0
Future Vol, veh/h	23	284	5	0	0	0	0	20	15	70	26	0
Conflicting Peds, #/hr	1	0	3	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	302	5	0	0	0	0	21	16	74	28	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	1	0	0	-	357	157	211	359	-
Stage 1	-	-	-	-	356	-	1	1	-
Stage 2	-	-	-	-	1	-	210	358	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1620	-	-	0	568	861	728	566	0
Stage 1	-	-	-	0	628	-	-	-	0
Stage 2	-	-	-	0	-	-	773	626	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1618	-	-	-	556	859	684	554	-
Mov Cap-2 Maneuver	-	-	-	-	556	-	684	554	-
Stage 1	-	-	-	-	615	-	-	-	-
Stage 2	-	-	-	-	-	-	719	613	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.6	10.8	11.7
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	655	1618	-	-	643
HCM Lane V/C Ratio	0.057	0.015	-	-	0.159
HCM Control Delay (s/veh)	10.8	7.3	0.1	-	11.7
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.2	0	-	-	0.6

HCM 6th Signalized Intersection Summary

43: S Wilson Way & Market Street

Background Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	262	75	0	0	0	0	850	112	188	814	0
Future Volume (veh/h)	38	262	75	0	0	0	0	850	112	188	814	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	40	276	79				0	895	118	198	857	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	56	395	118				0	1722	227	228	2592	0
Arrive On Green	0.05	0.05	0.05				0.00	0.55	0.55	0.26	1.00	0.00
Sat Flow, veh/h	350	2480	740				0	3249	416	1781	3647	0
Grp Volume(v), veh/h	212	0	183				0	504	509	198	857	0
Grp Sat Flow(s), veh/h/ln	1853	0	1717				0	1777	1795	1781	1777	0
Q Serve(g_s), s	10.1	0.0	9.4				0.0	16.2	16.2	9.6	0.0	0.0
Cycle Q Clear(g_c), s	10.1	0.0	9.4				0.0	16.2	16.2	9.6	0.0	0.0
Prop In Lane	0.19		0.43				0.00		0.23	1.00		0.00
Lane Grp Cap(c), veh/h	295	0	274				0	970	980	228	2592	0
V/C Ratio(X)	0.72	0.00	0.67				0.00	0.52	0.52	0.87	0.33	0.00
Avail Cap(c_a), veh/h	432	0	401				0	970	980	257	2592	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.93	0.93	0.00
Uniform Delay (d), s/veh	40.6	0.0	40.3				0.0	13.0	13.0	32.7	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	1.1				0.0	2.0	2.0	20.6	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	4.4				0.0	6.6	6.7	4.9	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.9	0.0	41.4				0.0	14.9	14.9	53.3	0.3	0.0
LnGrp LOS	D		D					B	B	D	A	
Approach Vol, veh/h		395						1013			1055	
Approach Delay, s/veh		41.6						14.9			10.3	
Approach LOS		D						B			B	
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	16.5	54.1				70.7		19.3				
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0				
Max Green Setting (Gmax), s	13.0	41.0				59.0		21.0				
Max Q Clear Time (g_c+I1), s	11.6	18.2				2.0		12.1				
Green Ext Time (p_c), s	0.0	15.0				21.3		1.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			17.2									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
44: S Eugenia Street & Market Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↑
Traffic Vol, veh/h	574	12	0	0	0	42
Future Vol, veh/h	574	12	0	0	0	42
Conflicting Peds, #/hr	0	6	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	624	13	0	0	0	46
Major/Minor	Major1		Minor1			
Conflicting Flow All	0	0			-	325
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Critical Hdwy	-	-			-	6.94
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	-			-	3.32
Pot Cap-1 Maneuver	-	-			0	671
Stage 1	-	-			0	-
Stage 2	-	-			0	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-			-	667
Mov Cap-2 Maneuver	-	-			-	-
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Approach	EB		NB			
HCM Control Delay, s/v	0				10.8	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR			
Capacity (veh/h)	667	-	-			
HCM Lane V/C Ratio	0.068	-	-			
HCM Control Delay (s/veh)	10.8	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q (veh)	0.2	-	-			

HCM 6th TWSC
45: Della Street & Market Street

Background Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		EB						EB			EB	
Traffic Vol, veh/h	55	535	18	0	0	0	0	1	1	34	44	0
Future Vol, veh/h	55	535	18	0	0	0	0	1	1	34	44	0
Conflicting Peds, #/hr	2	0	1	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	601	20	0	0	0	0	1	1	38	49	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	2	0	0	-	738	313	428	748	-
Stage 1	-	-	-	-	736	-	2	2	-
Stage 2	-	-	-	-	2	-	426	746	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	1619	-	-	0	344	683	511	339	0
Stage 1	-	-	-	0	423	-	-	-	0
Stage 2	-	-	-	0	-	-	577	419	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1616	-	-	-	323	682	485	318	-
Mov Cap-2 Maneuver	-	-	-	-	323	-	485	318	-
Stage 1	-	-	-	-	398	-	-	-	-
Stage 2	-	-	-	-	-	-	541	394	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.8	13.3	17.5
HCM LOS		B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	438	1616	-	-	374
HCM Lane V/C Ratio	0.005	0.038	-	-	0.234
HCM Control Delay (s/veh)	13.3	7.3	0.2	-	17.5
HCM Lane LOS	B	A	A	-	C
HCM 95th %tile Q (veh)	0	0.1	-	-	0.9

Queues

Background Conditions

2: S San Joaquin Street/N San Joaquin Street & Main Street

Timing Plan: AM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	96	250	256
v/c Ratio	0.41	0.20	0.19
Control Delay (s/veh)	40.8	11.5	13.8
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	40.8	11.5	13.8
Queue Length 50th (ft)	22	26	35
Queue Length 95th (ft)	43	42	61
Internal Link Dist (ft)	301	264	331
Turn Bay Length (ft)			
Base Capacity (vph)	508	1211	1326
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.19	0.21	0.19
Intersection Summary			

Queues

Background Conditions

3: S Sutter Street/N Sutter Street & Main Street

Timing Plan: AM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	83	102	144
v/c Ratio	0.11	0.22	0.15
Control Delay (s/veh)	12.5	15.3	20.0
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	12.5	15.3	20.0
Queue Length 50th (ft)	14	20	24
Queue Length 95th (ft)	27	36	41
Internal Link Dist (ft)	298	256	344
Turn Bay Length (ft)			
Base Capacity (vph)	735	455	915
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.11	0.22	0.16
Intersection Summary			

Queues

Background Conditions

4: California Street & Main Street

Timing Plan: AM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	170	307	255
v/c Ratio	0.23	0.34	0.26
Control Delay (s/veh)	36.7	17.0	20.9
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	36.7	17.0	20.9
Queue Length 50th (ft)	38	56	45
Queue Length 95th (ft)	m53	85	70
Internal Link Dist (ft)	307	257	324
Turn Bay Length (ft)			
Base Capacity (vph)	710	897	952
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.24	0.34	0.27

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Background Conditions

5: S American Street/N American Street & Main Street

Timing Plan: AM Peak Hour



Lane Group	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	366	58	53	34
v/c Ratio	0.77	0.10	0.08	0.06
Control Delay (s/veh)	41.2	9.0	16.8	16.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	41.2	9.0	16.8	16.7
Queue Length 50th (ft)	82	8	16	10
Queue Length 95th (ft)	80	11	24	18
Internal Link Dist (ft)	303	260	330	
Turn Bay Length (ft)				
Base Capacity (vph)	473	539	612	508
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.77	0.11	0.09	0.07
Intersection Summary				

Queues

Background Conditions

6: S Stanislaus Street/N Stanislaus Street & Main Street

Timing Plan: AM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	211	712	311
v/c Ratio	0.17	0.48	0.17
Control Delay (s/veh)	15.5	10.1	9.4
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	15.5	10.2	9.4
Queue Length 50th (ft)	31	64	34
Queue Length 95th (ft)	41	73	42
Internal Link Dist (ft)	300	272	338
Turn Bay Length (ft)			
Base Capacity (vph)	1239	1455	1757
Starvation Cap Reductn	0	46	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.17	0.51	0.18
Intersection Summary			

Queues

11: Airport Way & Main Street

Background Conditions

Timing Plan: AM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	242	866	728
v/c Ratio	0.28	0.40	0.32
Control Delay (s/veh)	9.1	5.8	7.5
Queue Delay	0.0	0.1	0.0
Total Delay (s/veh)	9.1	6.0	7.5
Queue Length 50th (ft)	11	120	86
Queue Length 95th (ft)	40	11	115
Internal Link Dist (ft)	310	254	262
Turn Bay Length (ft)			
Base Capacity (vph)	864	2125	2274
Starvation Cap Reductn	0	439	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.28	0.51	0.32
Intersection Summary			

Queues

13: S Wilson Way & Main Street

Background Conditions

Timing Plan: AM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	268	215	33	753	689
v/c Ratio	0.53	0.52	0.06	0.28	0.26
Control Delay (s/veh)	38.7	9.2	9.2	7.7	4.5
Queue Delay	0.0	0.0	0.0	0.3	0.0
Total Delay (s/veh)	38.7	9.2	9.2	8.1	4.5
Queue Length 50th (ft)	77	0	4	52	47
Queue Length 95th (ft)	98	53	36	215	112
Internal Link Dist (ft)	710			271	283
Turn Bay Length (ft)		215	70		
Base Capacity (vph)	881	564	533	2633	2621
Starvation Cap Reductn	0	0	0	1263	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.30	0.38	0.06	0.55	0.26
Intersection Summary					

Queues

Background Conditions

14: Market Street/E Market Street & Main St/Main Street

Timing Plan: AM Peak Hour



Lane Group	WBT	NET	SWR
Lane Group Flow (vph)	503	18	37
v/c Ratio	0.17	0.05	0.06
Control Delay (s/veh)	2.2	0.2	0.2
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	2.2	0.2	0.2
Queue Length 50th (ft)	18	0	0
Queue Length 95th (ft)	27	0	0
Internal Link Dist (ft)	87	10	
Turn Bay Length (ft)			
Base Capacity (vph)	3369	1182	1164
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.15	0.02	0.03
Intersection Summary			

Queues

17: Main Street & D Street

Background Conditions

Timing Plan: AM Peak Hour



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	300	472	15
v/c Ratio	0.11	0.15	0.03
Control Delay (s/veh)	1.7	1.5	7.2
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	1.7	1.5	7.2
Queue Length 50th (ft)	0	0	1
Queue Length 95th (ft)	20	31	9
Internal Link Dist (ft)	615	624	178
Turn Bay Length (ft)			
Base Capacity (vph)	3311	3486	1541
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.09	0.14	0.01
Intersection Summary			

Queues

20: S Filbert Street & Main Street

Background Conditions

Timing Plan: AM Peak Hour

	→	←	↑	↘	↓
Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	293	649	67	247	82
v/c Ratio	0.27	0.49	0.24	0.57	0.18
Control Delay (s/veh)	15.9	13.7	25.7	27.1	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.9	13.7	25.7	27.1	11.6
Queue Length 50th (ft)	35	63	19	69	7
Queue Length 95th (ft)	98	176	63	197	46
Internal Link Dist (ft)	616	739	220		239
Turn Bay Length (ft)				50	
Base Capacity (vph)	2079	2442	733	1236	1168
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.14	0.27	0.09	0.20	0.07
Intersection Summary					

Queues

25: Golden Gate Avenue & Main Street

Background Conditions

Timing Plan: AM Peak Hour

						
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	3	460	92	546	142	54
v/c Ratio	0.01	0.29	0.28	0.24	0.37	0.13
Control Delay (s/veh)	28.0	14.0	25.2	8.5	18.2	15.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.0	14.0	25.2	8.5	18.2	15.5
Queue Length 50th (ft)	1	44	22	30	29	11
Queue Length 95th (ft)	10	129	82	141	80	37
Internal Link Dist (ft)		249		250	364	346
Turn Bay Length (ft)	95		95			
Base Capacity (vph)	904	3116	904	3228	1168	1367
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.15	0.10	0.17	0.12	0.04
Intersection Summary						

Queues

27: Netherton Avenue & Main Street

Background Conditions

Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	4	397	32	605	77	108
v/c Ratio	0.01	0.20	0.10	0.30	0.19	0.26
Control Delay (s/veh)	22.7	9.1	20.7	9.0	7.3	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.7	9.1	20.7	9.0	7.3	8.3
Queue Length 50th (ft)	1	15	4	25	3	6
Queue Length 95th (ft)	10	107	38	156	30	41
Internal Link Dist (ft)		247		244	354	364
Turn Bay Length (ft)	90		90			
Base Capacity (vph)	1307	3158	1523	3221	1316	1336
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.13	0.02	0.19	0.06	0.08
Intersection Summary						

Queues

29: S Center Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

	→	↓
Lane Group	EBT	SBT
Lane Group Flow (vph)	120	1500
v/c Ratio	0.12	0.48
Control Delay (s/veh)	14.9	9.3
Queue Delay	0.0	0.0
Total Delay (s/veh)	14.9	9.3
Queue Length 50th (ft)	14	140
Queue Length 95th (ft)	34	169
Internal Link Dist (ft)	316	666
Turn Bay Length (ft)		
Base Capacity (vph)	929	3111
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.13	0.48
Intersection Summary		

Queues

30: S El Dorado Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

	→	↑
Lane Group	EBT	NBT
Lane Group Flow (vph)	246	1974
v/c Ratio	0.27	0.49
Control Delay (s/veh)	23.1	9.1
Queue Delay	0.0	0.0
Total Delay (s/veh)	23.1	9.1
Queue Length 50th (ft)	53	147
Queue Length 95th (ft)	84	163
Internal Link Dist (ft)	266	322
Turn Bay Length (ft)		
Base Capacity (vph)	910	3964
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.27	0.50
Intersection Summary		

Queues

32: S San Joaquin Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	281	262	155
v/c Ratio	0.24	0.14	0.09
Control Delay (s/veh)	15.0	7.4	3.8
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	15.0	7.4	3.8
Queue Length 50th (ft)	38	23	5
Queue Length 95th (ft)	56	35	8
Internal Link Dist (ft)	297	287	264
Turn Bay Length (ft)			
Base Capacity (vph)	1169	1747	1563
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.24	0.15	0.10
Intersection Summary			

Queues

33: S Sutter Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

	→	↑	↗	↓
Lane Group	EBT	NBT	NBR	SBT
Lane Group Flow (vph)	255	136	21	132
v/c Ratio	0.18	0.17	0.03	0.09
Control Delay (s/veh)	14.2	13.0	3.6	3.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.2	13.0	3.6	3.5
Queue Length 50th (ft)	28	35	0	3
Queue Length 95th (ft)	46	55	6	5
Internal Link Dist (ft)	296	293		256
Turn Bay Length (ft)				
Base Capacity (vph)	1361	798	626	1434
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.19	0.17	0.03	0.09
Intersection Summary				

Queues

Background Conditions

34: California Street & Market Street

Timing Plan: AM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	142	450	327
v/c Ratio	0.15	0.22	0.18
Control Delay (s/veh)	8.6	5.8	0.5
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	8.6	5.8	0.5
Queue Length 50th (ft)	10	34	1
Queue Length 95th (ft)	14	43	1
Internal Link Dist (ft)	309	298	257
Turn Bay Length (ft)			
Base Capacity (vph)	946	2034	1777
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.15	0.22	0.18
Intersection Summary			

Queues

Background Conditions

35: S American Street & Market Street

Timing Plan: AM Peak Hour



Lane Group	EBT	SBT
Lane Group Flow (vph)	332	200
v/c Ratio	0.16	0.49
Control Delay (s/veh)	6.3	17.5
Queue Delay	0.0	0.0
Total Delay (s/veh)	6.3	17.5
Queue Length 50th (ft)	27	91
Queue Length 95th (ft)	27	56
Internal Link Dist (ft)	303	260
Turn Bay Length (ft)		
Base Capacity (vph)	1999	401
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.17	0.50
Intersection Summary		

Queues

36: S Stanislaus Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	363	783	312
v/c Ratio	0.28	0.44	0.19
Control Delay (s/veh)	9.0	11.9	7.1
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	9.0	11.9	7.1
Queue Length 50th (ft)	21	103	15
Queue Length 95th (ft)	30	106	18
Internal Link Dist (ft)	304	325	272
Turn Bay Length (ft)			
Base Capacity (vph)	1258	1753	1628
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.29	0.45	0.19
Intersection Summary			

Queues

41: Airport Way & Market Street

Background Conditions

Timing Plan: AM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	143	949	743
v/c Ratio	0.40	0.34	0.35
Control Delay (s/veh)	34.1	3.8	3.4
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	34.1	3.8	3.5
Queue Length 50th (ft)	36	46	35
Queue Length 95th (ft)	53	158	56
Internal Link Dist (ft)	289	285	254
Turn Bay Length (ft)			
Base Capacity (vph)	849	2783	2065
Starvation Cap Reductn	0	0	222
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.17	0.34	0.40
Intersection Summary			

Queues

43: S Wilson Way & Market Street

Background Conditions

Timing Plan: AM Peak Hour

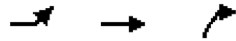
	→	↑	↘	↓
Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	226	797	126	663
v/c Ratio	0.50	0.38	0.62	0.24
Control Delay (s/veh)	35.7	11.3	46.3	4.5
Queue Delay	0.0	0.0	0.0	0.1
Total Delay (s/veh)	35.7	11.3	46.3	4.7
Queue Length 50th (ft)	55	107	70	67
Queue Length 95th (ft)	61	211	126	135
Internal Link Dist (ft)	296	296		271
Turn Bay Length (ft)			90	
Base Capacity (vph)	823	2087	255	2712
Starvation Cap Reductn	0	0	0	1160
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.27	0.38	0.49	0.43
Intersection Summary				

Queues

205: Locust Street & Market Street

Background Conditions

Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	NBR2
Lane Group Flow (vph)	17	310	2
v/c Ratio	0.05	0.17	0.00
Control Delay (s/veh)	0.3	5.1	0.0
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	0.3	5.1	0.0
Queue Length 50th (ft)	0	11	0
Queue Length 95th (ft)	0	44	0
Internal Link Dist (ft)	239		
Turn Bay Length (ft)	100		
Base Capacity (vph)	1153	3535	974
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.01	0.09	0.00
Intersection Summary			

Queues

Background Conditions

2: S San Joaquin Street/N San Joaquin Street & Main Street

Timing Plan: PM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	101	146	165
v/c Ratio	0.43	0.10	0.11
Control Delay (s/veh)	40.8	9.6	13.3
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	40.8	9.6	13.3
Queue Length 50th (ft)	23	13	22
Queue Length 95th (ft)	45	21	41
Internal Link Dist (ft)	301	264	331
Turn Bay Length (ft)			
Base Capacity (vph)	502	1375	1428
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.20	0.11	0.12
Intersection Summary			

Queues

Background Conditions

3: S Sutter Street/N Sutter Street & Main Street

Timing Plan: PM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	98	186	137
v/c Ratio	0.13	0.38	0.14
Control Delay (s/veh)	15.6	16.8	19.9
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	15.6	16.8	19.9
Queue Length 50th (ft)	19	37	23
Queue Length 95th (ft)	34	56	38
Internal Link Dist (ft)	298	256	344
Turn Bay Length (ft)			
Base Capacity (vph)	716	488	916
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.14	0.38	0.15
Intersection Summary			

Queues

Background Conditions

4: California Street & Main Street

Timing Plan: PM Peak Hour

	←	↑	↓
Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	125	258	295
v/c Ratio	0.17	0.28	0.30
Control Delay (s/veh)	41.2	17.8	21.3
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	41.2	17.8	21.3
Queue Length 50th (ft)	30	48	53
Queue Length 95th (ft)	54	75	81
Internal Link Dist (ft)	307	257	324
Turn Bay Length (ft)			
Base Capacity (vph)	719	900	955
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.17	0.29	0.31
Intersection Summary			

Queues

Background Conditions

5: S American Street/N American Street & Main Street

Timing Plan: PM Peak Hour



Lane Group	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	152	32	14	18
v/c Ratio	0.28	0.05	0.02	0.03
Control Delay (s/veh)	24.8	9.5	16.1	16.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.8	9.5	16.1	16.3
Queue Length 50th (ft)	31	3	4	5
Queue Length 95th (ft)	54	12	14	17
Internal Link Dist (ft)	303	260	330	
Turn Bay Length (ft)				
Base Capacity (vph)	533	600	612	512
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.29	0.05	0.02	0.04
Intersection Summary				

Queues

Background Conditions

6: S Stanislaus Street/N Stanislaus Street & Main Street

Timing Plan: PM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	159	313	330
v/c Ratio	0.12	0.20	0.18
Control Delay (s/veh)	14.2	8.1	9.8
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	14.2	8.1	9.8
Queue Length 50th (ft)	21	26	37
Queue Length 95th (ft)	40	39	59
Internal Link Dist (ft)	300	272	338
Turn Bay Length (ft)			
Base Capacity (vph)	1227	1553	1764
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.13	0.20	0.19
Intersection Summary			

Queues

11: Airport Way & Main Street

Background Conditions

Timing Plan: PM Peak Hour

	←	↑	↓
Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	205	926	806
v/c Ratio	0.23	0.43	0.35
Control Delay (s/veh)	9.8	5.6	7.8
Queue Delay	0.0	0.1	0.0
Total Delay (s/veh)	9.8	5.7	7.8
Queue Length 50th (ft)	11	130	98
Queue Length 95th (ft)	40	10	130
Internal Link Dist (ft)	310	254	262
Turn Bay Length (ft)			
Base Capacity (vph)	856	2153	2274
Starvation Cap Reductn	0	376	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.24	0.52	0.35
Intersection Summary			

Queues

13: S Wilson Way & Main Street

Background Conditions

Timing Plan: PM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	240	189	28	965	992
v/c Ratio	0.50	0.55	0.07	0.36	0.37
Control Delay (s/veh)	38.4	15.7	11.7	10.7	5.0
Queue Delay	0.0	0.0	0.0	1.0	0.0
Total Delay (s/veh)	38.4	15.7	11.7	11.7	5.0
Queue Length 50th (ft)	69	22	5	126	73
Queue Length 95th (ft)	90	72	m23	287	176
Internal Link Dist (ft)	710			271	283
Turn Bay Length (ft)		215	70		
Base Capacity (vph)	884	508	377	2656	2643
Starvation Cap Reductn	0	0	0	1342	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.27	0.37	0.07	0.73	0.38

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Background Conditions

14: Market Street/E Market Street & Main St/Main Street

Timing Plan: PM Peak Hour



Lane Group	WBT	NET	SWR
Lane Group Flow (vph)	403	17	29
v/c Ratio	0.13	0.04	0.04
Control Delay (s/veh)	1.5	0.2	0.1
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	1.5	0.2	0.1
Queue Length 50th (ft)	0	0	0
Queue Length 95th (ft)	22	0	0
Internal Link Dist (ft)	87	10	
Turn Bay Length (ft)			
Base Capacity (vph)	3369	1125	1157
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.12	0.02	0.03
Intersection Summary			

Queues

17: Main Street & D Street

Background Conditions

Timing Plan: PM Peak Hour



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	489	410	18
v/c Ratio	0.16	0.13	0.03
Control Delay (s/veh)	1.5	1.5	7.2
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	1.5	1.5	7.2
Queue Length 50th (ft)	0	0	1
Queue Length 95th (ft)	33	27	10
Internal Link Dist (ft)	615	624	178
Turn Bay Length (ft)			
Base Capacity (vph)	3275	3453	1537
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.15	0.12	0.01
Intersection Summary			

Queues

20: S Filbert Street & Main Street

Background Conditions

Timing Plan: PM Peak Hour

	→	←	↑	↘	↓
Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	493	587	81	411	112
v/c Ratio	0.50	0.49	0.35	0.72	0.19
Control Delay (s/veh)	21.5	14.6	34.9	29.6	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.5	14.6	34.9	29.6	9.0
Queue Length 50th (ft)	82	63	28	146	10
Queue Length 95th (ft)	172	148	86	300	49
Internal Link Dist (ft)	616	739	220		239
Turn Bay Length (ft)				50	
Base Capacity (vph)	1876	2106	627	1057	1022
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.26	0.28	0.13	0.39	0.11
Intersection Summary					

Queues

25: Golden Gate Avenue & Main Street

Background Conditions

Timing Plan: PM Peak Hour

						
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	9	745	66	450	246	55
v/c Ratio	0.05	0.54	0.29	0.24	0.64	0.12
Control Delay (s/veh)	34.2	16.4	33.0	9.2	28.2	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.2	16.4	33.0	9.2	28.2	18.0
Queue Length 50th (ft)	3	100	22	35	72	13
Queue Length 95th (ft)	20	207	72	112	174	45
Internal Link Dist (ft)		249		250	364	346
Turn Bay Length (ft)	95		95			
Base Capacity (vph)	654	2674	654	2792	986	1138
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.28	0.10	0.16	0.25	0.05
Intersection Summary						

Queues

27: Netherton Avenue & Main Street

Background Conditions

Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	11	561	38	450	95	87
v/c Ratio	0.03	0.30	0.11	0.24	0.22	0.21
Control Delay (s/veh)	20.4	10.0	19.0	9.3	6.7	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.4	10.0	19.0	9.3	6.7	8.0
Queue Length 50th (ft)	1	22	4	17	3	5
Queue Length 95th (ft)	18	153	40	117	33	35
Internal Link Dist (ft)		247		244	354	364
Turn Bay Length (ft)	90		90			
Base Capacity (vph)	1391	3155	1569	3236	1330	1310
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.18	0.02	0.14	0.07	0.07
Intersection Summary						

Queues

29: S Center Street & Market Street

Background Conditions

Timing Plan: PM Peak Hour

	→	↓
Lane Group	EBT	SBT
Lane Group Flow (vph)	133	2008
v/c Ratio	0.14	0.65
Control Delay (s/veh)	21.0	12.3
Queue Delay	0.0	0.0
Total Delay (s/veh)	21.0	12.3
Queue Length 50th (ft)	25	232
Queue Length 95th (ft)	46	281
Internal Link Dist (ft)	316	666
Turn Bay Length (ft)		
Base Capacity (vph)	926	3054
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.14	0.66
Intersection Summary		

Queues

30: S El Dorado Street & Market Street

Background Conditions

Timing Plan: PM Peak Hour



Lane Group	EBT	NBT
Lane Group Flow (vph)	154	1547
v/c Ratio	0.14	0.41
Control Delay (s/veh)	14.0	9.8
Queue Delay	0.0	0.0
Total Delay (s/veh)	14.0	9.8
Queue Length 50th (ft)	17	118
Queue Length 95th (ft)	m33	142
Internal Link Dist (ft)	266	322
Turn Bay Length (ft)		
Base Capacity (vph)	1040	3755
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.15	0.41

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

32: S San Joaquin Street & Market Street

Background Conditions

Timing Plan: PM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	184	189	164
v/c Ratio	0.15	0.11	0.09
Control Delay (s/veh)	12.7	6.3	3.2
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	12.7	6.3	3.2
Queue Length 50th (ft)	22	14	4
Queue Length 95th (ft)	41	28	7
Internal Link Dist (ft)	297	287	264
Turn Bay Length (ft)			
Base Capacity (vph)	1176	1714	1669
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.16	0.11	0.10
Intersection Summary			

Queues

33: S Sutter Street & Market Street

Background Conditions

Timing Plan: PM Peak Hour

	→	↑	↗	↓
Lane Group	EBT	NBT	NBR	SBT
Lane Group Flow (vph)	222	147	54	187
v/c Ratio	0.15	0.18	0.08	0.13
Control Delay (s/veh)	15.2	13.2	4.2	9.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.2	13.2	4.2	9.0
Queue Length 50th (ft)	30	38	0	13
Queue Length 95th (ft)	46	59	13	20
Internal Link Dist (ft)	296	293		256
Turn Bay Length (ft)				
Base Capacity (vph)	1444	798	630	1374
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.15	0.18	0.09	0.14
Intersection Summary				

Queues

Background Conditions

34: California Street & Market Street

Timing Plan: PM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	196	247	308
v/c Ratio	0.20	0.12	0.16
Control Delay (s/veh)	11.8	5.6	0.2
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	11.8	5.6	0.2
Queue Length 50th (ft)	15	18	0
Queue Length 95th (ft)	28	33	0
Internal Link Dist (ft)	309	298	257
Turn Bay Length (ft)			
Base Capacity (vph)	949	2036	1877
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.21	0.12	0.16
Intersection Summary			

Queues

Background Conditions

35: S American Street & Market Street

Timing Plan: PM Peak Hour



Lane Group	EBT	SBT
Lane Group Flow (vph)	290	55
v/c Ratio	0.14	0.13
Control Delay (s/veh)	4.0	15.6
Queue Delay	0.0	0.0
Total Delay (s/veh)	4.0	15.6
Queue Length 50th (ft)	17	12
Queue Length 95th (ft)	21	28
Internal Link Dist (ft)	303	260
Turn Bay Length (ft)		
Base Capacity (vph)	2008	408
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.14	0.13
Intersection Summary		

Queues

Background Conditions

36: S Stanislaus Street & Market Street

Timing Plan: PM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	264	360	452
v/c Ratio	0.21	0.20	0.26
Control Delay (s/veh)	4.8	9.3	7.9
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	4.8	9.3	7.9
Queue Length 50th (ft)	1	38	24
Queue Length 95th (ft)	1	55	32
Internal Link Dist (ft)	304	325	272
Turn Bay Length (ft)			
Base Capacity (vph)	1246	1751	1681
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.21	0.21	0.27
Intersection Summary			

Queues

41: Airport Way & Market Street

Background Conditions

Timing Plan: PM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	225	987	863
v/c Ratio	0.55	0.36	0.44
Control Delay (s/veh)	39.1	4.3	4.5
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	39.1	4.3	4.5
Queue Length 50th (ft)	62	60	41
Queue Length 95th (ft)	82	167	66
Internal Link Dist (ft)	289	285	254
Turn Bay Length (ft)			
Base Capacity (vph)	854	2714	1922
Starvation Cap Reductn	0	0	2
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.26	0.36	0.45
Intersection Summary			

Queues

Background Conditions

43: S Wilson Way & Market Street

Timing Plan: PM Peak Hour

	→	↑	↘	↓
Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	395	1013	198	857
v/c Ratio	0.68	0.55	0.74	0.33
Control Delay (s/veh)	46.2	16.7	50.2	6.6
Queue Delay	0.2	0.0	0.0	0.2
Total Delay (s/veh)	46.5	16.7	50.2	6.8
Queue Length 50th (ft)	113	195	109	116
Queue Length 95th (ft)	111	286	#220	191
Internal Link Dist (ft)	296	296		271
Turn Bay Length (ft)			90	
Base Capacity (vph)	817	1819	280	2571
Starvation Cap Reductn	0	0	0	911
Spillback Cap Reductn	93	69	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.55	0.58	0.71	0.52

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

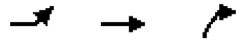
Queue shown is maximum after two cycles.

Queues

205: Locust Street & Market Street

Background Conditions

Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	NBR2
Lane Group Flow (vph)	17	526	4
v/c Ratio	0.04	0.29	0.00
Control Delay (s/veh)	0.2	5.7	0.0
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	0.2	5.7	0.0
Queue Length 50th (ft)	0	20	0
Queue Length 95th (ft)	0	74	0
Internal Link Dist (ft)	239		
Turn Bay Length (ft)	100		
Base Capacity (vph)	1105	3535	862
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.02	0.15	0.00
Intersection Summary			

HCM Signalized Intersection Capacity Analysis

2: S San Joaquin Street/N San Joaquin Street & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Volume (vph)	0	0	0	13	48	28	55	175	0	0	119	117
Future Volume (vph)	0	0	0	13	48	28	55	175	0	0	119	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			0.95			0.95	
Frpb, ped/bikes					0.96			1.00			0.96	
Flpb, ped/bikes					0.97			0.99			1.00	
Frt					0.95			1.00			0.92	
Flt Protected					0.99			0.98			1.00	
Satd. Flow (prot)					1678			3468			3163	
Flt Permitted					0.99			0.82			1.00	
Satd. Flow (perm)					1678			2911			3163	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	14	52	30	60	190	0	0	129	127
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	96	0	0	250	0	0	256	0
Confl. Peds. (#/hr)				45		31	39					39
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					6.8			27.2			27.2	
Effective Green, g (s)					6.8			27.2			27.2	
Actuated g/C Ratio					0.10			0.39			0.39	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					163			1131			1229	
v/s Ratio Prot											0.08	
v/s Ratio Perm					0.06			0.09				
v/c Ratio					0.58			0.22			0.20	
Uniform Delay, d1					30.2			14.3			14.2	
Progression Factor					1.10			0.82			1.00	
Incremental Delay, d2					3.4			0.4			0.3	
Delay (s)					36.9			12.2			14.6	
Level of Service					D			B			B	
Approach Delay (s/veh)		0.0			36.9			12.2			14.6	
Approach LOS		A			D			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.2									
HCM 2000 Volume to Capacity ratio			0.18									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			33.5%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 3: S Sutter Street/N Sutter Street & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	9	53	6	20	64	0	0	94	24
Future Volume (vph)	0	0	0	9	53	6	20	64	0	0	94	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			1.00			0.95	
Frpb, ped/bikes					0.99			1.00			0.97	
Flpb, ped/bikes					0.99			0.97			1.00	
Frt					0.98			1.00			0.96	
Flt Protected					0.99			0.98			1.00	
Satd. Flow (prot)					1810			1796			3332	
Flt Permitted					0.99			0.91			1.00	
Satd. Flow (perm)					1810			1662			3332	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	11	65	7	24	78	0	0	115	29
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	83	0	0	102	0	0	144	0
Confl. Peds. (#/hr)				36		13	69					69
Confl. Bikes (#/hr)												1
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					2			4			4	
Permitted Phases				2			4					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					387			451			904	
v/s Ratio Prot											0.04	
v/s Ratio Perm					0.05			c0.06				
v/c Ratio					0.21			0.22			0.15	
Uniform Delay, d1					22.6			19.7			19.4	
Progression Factor					0.54			0.68			1.00	
Incremental Delay, d2					1.1			1.1			0.3	
Delay (s)					13.5			14.7			19.7	
Level of Service					B			B			B	
Approach Delay (s/veh)		0.0			13.5			14.7			19.7	
Approach LOS		A			B			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			16.6									B
HCM 2000 Volume to Capacity ratio			0.13									
Actuated Cycle Length (s)			70.0								13.0	
Intersection Capacity Utilization			23.2%								A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

Background Build Conditions

4: California Street & Main Street

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	63	49	34	13	251	0	0	208	11
Future Volume (vph)	0	0	0	63	49	34	13	251	0	0	208	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.99			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.96			1.00			0.99	
Flt Protected					0.97			0.99			1.00	
Satd. Flow (prot)					1741			1858			1847	
Flt Permitted					0.97			0.97			1.00	
Satd. Flow (perm)					1741			1821			1847	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	0	0	0	73	57	40	15	292	0	0	242	13
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	170	0	0	307	0	0	255	0
Confl. Peds. (#/hr)				7		4	5					5
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					373			494			501	
v/s Ratio Prot											0.14	
v/s Ratio Perm					0.10			c0.17				
v/c Ratio					0.45			0.62			0.50	
Uniform Delay, d1					23.9			22.3			21.5	
Progression Factor					1.58			0.71			1.00	
Incremental Delay, d2					2.2			5.3			3.6	
Delay (s)					40.2			21.3			25.2	
Level of Service					D			C			C	
Approach Delay (s/veh)		0.0			40.2			21.3			25.2	
Approach LOS		A			D			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			27.1									
HCM 2000 Volume to Capacity ratio			0.33									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			40.4%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: S American Street/N American Street & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	82	110	24	16	18	0	0	31	20
Future Volume (vph)	0	0	0	82	110	24	16	18	0	0	31	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	5.0
Lane Util. Factor					1.00			1.00			1.00	1.00
Frpb, ped/bikes					0.99			1.00			1.00	0.96
Flpb, ped/bikes					0.91			0.99			1.00	1.00
Frt					0.98			1.00			1.00	0.85
Flt Protected					0.98			0.97			1.00	1.00
Satd. Flow (prot)					1643			1804			1863	1520
Flt Permitted					0.98			0.87			1.00	1.00
Satd. Flow (perm)					1643			1620			1863	1520
Peak-hour factor, PHF	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
Adj. Flow (vph)	0	0	0	139	186	41	27	31	0	0	53	34
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	366	0	0	58	0	0	53	34
Confl. Peds. (#/hr)				96		2	11					11
Turn Type				Perm	NA		Perm	NA			NA	Perm
Protected Phases					2			4			4	
Permitted Phases				2			4					4
Actuated Green, G (s)					15.0			19.0			19.0	19.0
Effective Green, g (s)					15.0			19.0			19.0	19.0
Actuated g/C Ratio					0.21			0.27			0.27	0.27
Clearance Time (s)					5.0			5.0			5.0	5.0
Vehicle Extension (s)					0.2			0.2			0.2	0.2
Lane Grp Cap (vph)					352			439			505	412
v/s Ratio Prot											0.03	
v/s Ratio Perm					0.22			0.04				0.02
v/c Ratio					1.03			0.13			0.10	0.08
Uniform Delay, d1					27.5			19.2			19.1	19.0
Progression Factor					0.98			1.00			1.00	1.00
Incremental Delay, d2					57.9			0.6			0.4	0.3
Delay (s)					84.9			20.0			19.5	19.3
Level of Service					F			C			B	B
Approach Delay (s/veh)		0.0			84.9			20.0			19.4	
Approach LOS		A			F			C			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			66.4									
HCM 2000 Volume to Capacity ratio			0.32									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			31.0%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

6: S Stanislaus Street/N Stanislaus Street & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	46	101	5	86	427	0	0	209	15
Future Volume (vph)	0	0	0	46	101	5	86	427	0	0	209	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			0.95			0.95	
Frpb, ped/bikes					0.99			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.99			1.00			0.98	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					1823			3504			3495	
Flt Permitted					0.98			0.82			1.00	
Satd. Flow (perm)					1823			2906			3495	
Peak-hour factor, PHF	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	0	0	0	64	140	7	119	593	0	0	290	21
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	8	0
Lane Group Flow (vph)	0	0	0	0	211	0	0	712	0	0	304	0
Confl. Peds. (#/hr)				5		2	7					7
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					1			2			2	
Permitted Phases				1			2					
Actuated Green, G (s)					25.0			35.0			35.0	
Effective Green, g (s)					25.0			35.0			35.0	
Actuated g/C Ratio					0.36			0.50			0.50	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					651			1453			1747	
v/s Ratio Prot											0.09	
v/s Ratio Perm					0.12			c0.24				
v/c Ratio					0.32			0.49			0.17	
Uniform Delay, d1					16.3			11.5			9.5	
Progression Factor					1.00			0.72			1.00	
Incremental Delay, d2					1.3			1.0			0.2	
Delay (s)					17.6			9.4			9.7	
Level of Service					B			A			A	
Approach Delay (s/veh)		0.0			17.6			9.4			9.7	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			11.0									
HCM 2000 Volume to Capacity ratio			0.42									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			55.1%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC

Background Build Conditions

7: S Grant Street/N Grant Street & Main Street

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	6	130	7	9	43	0	0	16	16
Future Vol, veh/h	0	0	0	6	130	7	9	43	0	0	16	16
Conflicting Peds, #/hr	0	0	0	2	0	5	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	9	200	11	14	66	0	0	25	25
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				2	0	0	255	236	-	-	231	215
Stage 1				-	-	-	2	2	-	-	229	-
Stage 2				-	-	-	253	234	-	-	2	-
Critical Hdwy				4.12	-	-	7.12	6.52	-	-	6.52	6.22
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.52	-
Critical Hdwy Stg 2				-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy				2.218	-	-	3.518	4.018	-	-	4.018	3.318
Pot Cap-1 Maneuver				1620	-	-	698	665	0	0	669	825
Stage 1				-	-	-	-	-	0	0	715	-
Stage 2				-	-	-	751	711	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1617	-	-	653	656	-	-	660	821
Mov Cap-2 Maneuver				-	-	-	653	656	-	-	660	-
Stage 1				-	-	-	-	-	-	-	707	-
Stage 2				-	-	-	699	703	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.3		11.3		10.3				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	655	1617	-	-	732							
HCM Lane V/C Ratio	0.122	0.006	-	-	0.067							
HCM Control Delay (s/veh)	11.3	7.2	0	-	10.3							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.4	0	-	-	0.2							

HCM 6th TWSC

Background Build Conditions

8: S Aurora Street/N Aurora Street & Main Street

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	6.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	9	126	4	24	103	0	0	34	6
Future Vol, veh/h	0	0	0	9	126	4	24	103	0	0	34	6
Conflicting Peds, #/hr	0	0	0	1	0	4	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	12	173	5	33	141	0	0	47	8
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				1	0	0	230	207	-	-	205	182
Stage 1				-	-	-	1	1	-	-	204	-
Stage 2				-	-	-	229	206	-	-	1	-
Critical Hdwy				4.12	-	-	7.12	6.52	-	-	6.52	6.22
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.52	-
Critical Hdwy Stg 2				-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy				2.218	-	-	3.518	4.018	-	-	4.018	3.318
Pot Cap-1 Maneuver				1622	-	-	725	690	0	0	691	861
Stage 1				-	-	-	-	-	0	0	733	-
Stage 2				-	-	-	774	731	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1620	-	-	676	681	-	-	682	858
Mov Cap-2 Maneuver				-	-	-	676	681	-	-	682	-
Stage 1				-	-	-	-	-	-	-	724	-
Stage 2				-	-	-	712	722	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.5		12.1		10.5				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	680	1620	-	-	704							
HCM Lane V/C Ratio	0.256	0.008	-	-	0.078							
HCM Control Delay (s/veh)	12.1	7.2	0	-	10.5							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	1	0	-	-	0.3							

HCM 6th AWSC
9: Union Street & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

Intersection												
Intersection Delay, s/veh	8.3											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	12	119	14	9	90	0	0	66	9
Future Vol, veh/h	0	0	0	12	119	14	9	90	0	0	66	9
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	14	138	16	10	105	0	0	77	10
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB			NB			SB		
Opposing Approach				SB			NB		
Opposing Lanes	0			1			1		
Conflicting Approach Left	NB						WB		
Conflicting Lanes Left	1			0			1		
Conflicting Approach Right	SB			WB					
Conflicting Lanes Right	1			1			0		
HCM Control Delay, s/veh	8.5			8.2			7.9		
HCM LOS	A			A			A		

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	9%	8%	0%
Vol Thru, %	91%	82%	88%
Vol Right, %	0%	10%	12%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	99	145	75
LT Vol	9	12	0
Through Vol	90	119	66
RT Vol	0	14	9
Lane Flow Rate	115	169	87
Geometry Grp	1	1	1
Degree of Util (X)	0.142	0.204	0.106
Departure Headway (Hd)	4.439	4.354	4.381
Convergence, Y/N	Yes	Yes	Yes
Cap	810	826	821
Service Time	2.452	2.367	2.395
HCM Lane V/C Ratio	0.142	0.205	0.106
HCM Control Delay, s/veh	8.2	8.5	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.8	0.4

HCM 6th TWSC
10: Pilgrim Street & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	9	145	5	3	7	0	0	11	0
Future Vol, veh/h	0	0	0	9	145	5	3	7	0	0	11	0
Conflicting Peds, #/hr	0	0	0	4	0	4	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	13	207	7	4	10	0	0	16	0
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				4	0	0	252	248	-	-	245	218
Stage 1				-	-	-	4	4	-	-	241	-
Stage 2				-	-	-	248	244	-	-	4	-
Critical Hdwy				4.12	-	-	7.12	6.52	-	-	6.52	6.22
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.52	-
Critical Hdwy Stg 2				-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy				2.218	-	-	3.518	4.018	-	-	4.018	3.318
Pot Cap-1 Maneuver				1618	-	-	701	655	0	0	657	822
Stage 1				-	-	-	-	-	0	0	706	-
Stage 2				-	-	-	756	704	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1612	-	-	681	644	-	-	646	819
Mov Cap-2 Maneuver				-	-	-	681	644	-	-	646	-
Stage 1				-	-	-	-	-	-	-	697	-
Stage 2				-	-	-	732	695	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.4		10.6		10.7				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	655	1612	-	-	646							
HCM Lane V/C Ratio	0.022	0.008	-	-	0.024							
HCM Control Delay (s/veh)	10.6	7.3	0	-	10.7							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1							

HCM 6th Signalized Intersection Summary

11: Airport Way & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	35	126	64	18	788	0	0	662	15
Future Volume (veh/h)	0	0	0	35	126	64	18	788	0	0	662	15
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				38	135	69	19	847	0	0	712	16
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				47	168	86	66	2440	0	0	2550	57
Arrive On Green				0.06	0.06	0.06	1.00	1.00	0.00	0.00	0.72	0.72
Sat Flow, veh/h				276	981	502	34	3485	0	0	3646	80
Grp Volume(v), veh/h				242	0	0	459	407	0	0	356	372
Grp Sat Flow(s),veh/h/ln				1759	0	0	1817	1617	0	0	1777	1856
Q Serve(g_s), s				12.2	0.0	0.0	0.0	0.0	0.0	0.0	6.4	6.4
Cycle Q Clear(g_c), s				12.2	0.0	0.0	0.0	0.0	0.0	0.0	6.4	6.4
Prop In Lane				0.16		0.29	0.04		0.00	0.00		0.04
Lane Grp Cap(c), veh/h				301	0	0	1346	1161	0	0	1275	1332
V/C Ratio(X)				0.80	0.00	0.00	0.34	0.35	0.00	0.00	0.28	0.28
Avail Cap(c_a), veh/h				430	0	0	1346	1161	0	0	1275	1332
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.94	0.94	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				41.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	4.5
Incr Delay (d2), s/veh				4.6	0.0	0.0	0.6	0.8	0.0	0.0	0.5	0.5
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.1	0.0	0.0	0.2	0.3	0.0	0.0	2.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				45.5	0.0	0.0	0.6	0.8	0.0	0.0	5.0	5.0
LnGrp LOS				D			A	A			A	A
Approach Vol, veh/h					242			866			728	
Approach Delay, s/veh					45.5			0.7			5.0	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	69.6			20.4			69.6					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	58.0			22.0			58.0					
Max Q Clear Time (g_c+I1), s	2.0			14.2			8.4					
Green Ext Time (p_c), s	0.8			0.6			0.7					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				8.3								
HCM 6th LOS				A								

HCM 6th TWSC
12: Sierra Nevada Street & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	9	195	12	17	17	0	0	33	11
Future Vol, veh/h	0	0	0	9	195	12	17	17	0	0	33	11
Conflicting Peds, #/hr	0	0	0	13	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	10	224	14	20	20	0	0	38	13
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				13	0	0	290	277	-	-	270	237
Stage 1				-	-	-	13	13	-	-	257	-
Stage 2				-	-	-	277	264	-	-	13	-
Critical Hdwy				4.12	-	-	7.12	6.52	-	-	6.52	6.22
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.52	-
Critical Hdwy Stg 2				-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy				2.218	-	-	3.518	4.018	-	-	4.018	3.318
Pot Cap-1 Maneuver				1606	-	-	662	631	0	0	636	802
Stage 1				-	-	-	-	-	0	0	695	-
Stage 2				-	-	-	729	690	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1586	-	-	610	615	-	-	620	797
Mov Cap-2 Maneuver				-	-	-	610	615	-	-	620	-
Stage 1				-	-	-	-	-	-	-	686	-
Stage 2				-	-	-	673	681	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.3		11.3		10.9				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	612	1586	-	-	656							
HCM Lane V/C Ratio	0.064	0.007	-	-	0.077							
HCM Control Delay (s/veh)	11.3	7.3	0	-	10.9							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.2	0	-	-	0.3							

HCM 6th Signalized Intersection Summary13: S Wilson Way & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	115	145	209	32	730	0	0	648	20
Future Volume (veh/h)	0	0	0	115	145	209	32	730	0	0	648	20
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				119	149	215	33	753	0	0	668	21
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				147	184	283	562	2516	0	0	2490	78
Arrive On Green				0.18	0.18	0.18	1.00	1.00	0.00	0.00	0.71	0.71
Sat Flow, veh/h				812	1017	1567	754	3647	0	0	3610	111
Grp Volume(v), veh/h				268	0	215	33	753	0	0	337	352
Grp Sat Flow(s),veh/h/ln				1830	0	1567	754	1777	0	0	1777	1850
Q Serve(g_s), s				12.7	0.0	11.7	0.4	0.0	0.0	0.0	6.2	6.2
Cycle Q Clear(g_c), s				12.7	0.0	11.7	6.6	0.0	0.0	0.0	6.2	6.2
Prop In Lane				0.44		1.00	1.00		0.00	0.00		0.06
Lane Grp Cap(c), veh/h				331	0	283	562	2516	0	0	1258	1310
V/C Ratio(X)				0.81	0.00	0.76	0.06	0.30	0.00	0.00	0.27	0.27
Avail Cap(c_a), veh/h				468	0	400	562	2516	0	0	1258	1310
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.91	0.91	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				35.4	0.0	35.0	0.3	0.0	0.0	0.0	4.7	4.7
Incr Delay (d2), s/veh				4.7	0.0	2.9	0.2	0.3	0.0	0.0	0.5	0.5
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.0	0.0	4.6	0.0	0.1	0.0	0.0	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				40.1	0.0	37.9	0.5	0.3	0.0	0.0	5.3	5.2
LnGrp LOS				D		D	A	A			A	A
Approach Vol, veh/h					483			786			689	
Approach Delay, s/veh					39.1			0.3			5.2	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	68.7			21.3			68.7					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	57.0			23.0			57.0					
Max Q Clear Time (g_c+I1), s	8.6			14.7			8.2					
Green Ext Time (p_c), s	2.5			1.0			1.7					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				11.6								
HCM 6th LOS				B								

HCM 6th TWSC
15: B Street/E Washington Street & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	247	18	16	429	2	23	0	30	0	0	9
Future Vol, veh/h	3	247	18	16	429	2	23	0	30	0	0	9
Conflicting Peds, #/hr	4	0	2	2	0	4	4	0	1	1	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	266	19	17	461	2	25	0	32	0	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	467	0	0	287	0	0	789	785	279	799	793	470
Stage 1	-	-	-	-	-	-	284	284	-	500	500	-
Stage 2	-	-	-	-	-	-	505	501	-	299	293	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1094	-	-	1275	-	-	308	325	760	304	321	594
Stage 1	-	-	-	-	-	-	723	676	-	553	543	-
Stage 2	-	-	-	-	-	-	549	543	-	710	670	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1090	-	-	1273	-	-	296	316	758	285	312	589
Mov Cap-2 Maneuver	-	-	-	-	-	-	296	316	-	285	312	-
Stage 1	-	-	-	-	-	-	719	673	-	549	531	-
Stage 2	-	-	-	-	-	-	528	531	-	677	667	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.3			14.1			11.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	452	1090	-	-	1273	-	-	589
HCM Lane V/C Ratio	0.126	0.003	-	-	0.014	-	-	0.016
HCM Control Delay (s/veh)	14.1	8.3	0	-	7.9	0	-	11.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.4	0	-	-	0	-	-	0.1

HCM 6th TWSC
16: E Lafayette Street & Main Street

Background Build Conditions
Timing Plan: AM Peak Hour

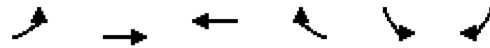
Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	232	4	18	393	0	13	10	17	0	4	42
Future Vol, veh/h	36	232	4	18	393	0	13	10	17	0	4	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	255	4	20	432	0	14	11	19	0	4	46
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	432	0	0	259	0	0	834	809	257	824	811	432
Stage 1	-	-	-	-	-	-	337	337	-	472	472	-
Stage 2	-	-	-	-	-	-	497	472	-	352	339	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1128	-	-	1306	-	-	288	314	782	292	313	624
Stage 1	-	-	-	-	-	-	677	641	-	573	559	-
Stage 2	-	-	-	-	-	-	555	559	-	665	640	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1128	-	-	1306	-	-	251	295	782	264	294	624
Mov Cap-2 Maneuver	-	-	-	-	-	-	251	295	-	264	294	-
Stage 1	-	-	-	-	-	-	649	615	-	550	548	-
Stage 2	-	-	-	-	-	-	500	548	-	611	614	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.1			0.3			16			11.9		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	372	1128	-	-	1306	-	-	569				
HCM Lane V/C Ratio	0.118	0.035	-	-	0.015	-	-	0.089				
HCM Control Delay (s/veh)	16	8.3	0	-	7.8	0	-	11.9				
HCM Lane LOS	C	A	A	-	A	A	-	B				
HCM 95th %tile Q (veh)	0.4	0.1	-	-	0	-	-	0.3				

HCM Signalized Intersection Capacity Analysis

17: Main Street & D Street

Background Build Conditions

Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		LT	LT		LT	
Traffic Volume (vph)	3	270	425	5	6	7
Future Volume (vph)	3	270	425	5	6	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0	
Lane Util. Factor		1.00	1.00		1.00	
Frt		1.00	0.99		0.92	
Flt Protected		0.99	1.00		0.97	
Satd. Flow (prot)		1862	1860		1689	
Flt Permitted		0.99	1.00		0.97	
Satd. Flow (perm)		1851	1860		1689	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	3	297	467	5	7	8
RTOR Reduction (vph)	0	0	0	0	8	0
Lane Group Flow (vph)	0	300	472	0	7	0
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		11.2	11.2		0.6	
Effective Green, g (s)		11.2	11.2		0.6	
Actuated g/C Ratio		0.51	0.51		0.03	
Clearance Time (s)		5.0	5.0		5.0	
Vehicle Extension (s)		6.0	6.0		2.0	
Lane Grp Cap (vph)		950	955		46	
v/s Ratio Prot		c0.25				
v/s Ratio Perm		0.16			c0.00	
v/c Ratio		0.31	0.49		0.15	
Uniform Delay, d1		3.0	3.4		10.3	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.5	1.1		0.5	
Delay (s)		3.6	4.5		10.9	
Level of Service		A	A		B	
Approach Delay (s/veh)		3.6	4.5		10.9	
Approach LOS		A	A		B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			4.3		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.48			
Actuated Cycle Length (s)			21.8		Sum of lost time (s)	10.0
Intersection Capacity Utilization			34.3%		ICU Level of Service	A
Analysis Period (min)			15			

c Critical Lane Group

HCM 6th TWSC
18: Marsh Street/E Street & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	239	1	12	395	42	0	0	10	28	3	10
Future Vol, veh/h	16	239	1	12	395	42	0	0	10	28	3	10
Conflicting Peds, #/hr	2	0	1	1	0	2	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	285	1	14	470	50	0	0	12	33	4	12
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	522	0	0	287	0	0	857	875	287	855	850	498
Stage 1	-	-	-	-	-	-	325	325	-	525	525	-
Stage 2	-	-	-	-	-	-	532	550	-	330	325	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1044	-	-	1275	-	-	277	288	752	278	298	572
Stage 1	-	-	-	-	-	-	687	649	-	536	529	-
Stage 2	-	-	-	-	-	-	531	516	-	683	649	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1042	-	-	1274	-	-	260	276	751	265	286	570
Mov Cap-2 Maneuver	-	-	-	-	-	-	260	276	-	265	286	-
Stage 1	-	-	-	-	-	-	671	634	-	523	519	-
Stage 2	-	-	-	-	-	-	508	507	-	657	634	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.5			0.2			9.9			18.9		
HCM LOS							A			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	751	1042	-	-	1274	-	-	307				
HCM Lane V/C Ratio	0.016	0.018	-	-	0.011	-	-	0.159				
HCM Control Delay (s/veh)	9.9	8.5	0	-	7.9	0	-	18.9				
HCM Lane LOS	A	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0	0.1	-	-	0	-	-	0.6				

HCM 6th TWSC
19: Alma Street/F Street & Main Street

Background Build Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	270	0	18	409	10	0	2	13	5	4	3
Future Vol, veh/h	13	270	0	18	409	10	0	2	13	5	4	3
Conflicting Peds, #/hr	4	0	5	5	0	4	0	0	5	5	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	293	0	20	445	11	0	2	14	5	4	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	460	0	0	298	0	0	822	826	303	829	821	457
Stage 1	-	-	-	-	-	-	326	326	-	495	495	-
Stage 2	-	-	-	-	-	-	496	500	-	334	326	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1101	-	-	1263	-	-	293	307	737	290	309	604
Stage 1	-	-	-	-	-	-	687	648	-	556	546	-
Stage 2	-	-	-	-	-	-	556	543	-	680	648	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1097	-	-	1257	-	-	278	293	730	273	295	601
Mov Cap-2 Maneuver	-	-	-	-	-	-	278	293	-	273	295	-
Stage 1	-	-	-	-	-	-	673	635	-	545	532	-
Stage 2	-	-	-	-	-	-	536	529	-	651	635	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.4			0.3			11.1			16.5		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	609	1097	-	-	1257	-	-	326
HCM Lane V/C Ratio	0.027	0.013	-	-	0.016	-	-	0.04
HCM Control Delay (s/veh)	11.1	8.3	0	-	7.9	0	-	16.5
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1

HCM 6th TWSC
21: Burkett Avenue & Main Street

Background Build Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	428	14	13	604	12	9	2	6	5	2	13
Future Vol, veh/h	19	428	14	13	604	12	9	2	6	5	2	13
Conflicting Peds, #/hr	7	0	0	0	0	7	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	451	15	14	636	13	9	2	6	5	2	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	656	0	0	466	0	0	1180	1183	460	1182	1184	652
Stage 1	-	-	-	-	-	-	499	499	-	678	678	-
Stage 2	-	-	-	-	-	-	681	684	-	504	506	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	931	-	-	1095	-	-	167	189	601	167	189	468
Stage 1	-	-	-	-	-	-	554	544	-	442	452	-
Stage 2	-	-	-	-	-	-	440	449	-	550	540	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	925	-	-	1095	-	-	154	179	600	156	179	464
Mov Cap-2 Maneuver	-	-	-	-	-	-	154	179	-	156	179	-
Stage 1	-	-	-	-	-	-	538	528	-	427	440	-
Stage 2	-	-	-	-	-	-	416	437	-	526	524	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.4			0.2			23.4			18.8		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	214	925	-	-	1095	-	-	281
HCM Lane V/C Ratio	0.084	0.022	-	-	0.012	-	-	0.075
HCM Control Delay (s/veh)	23.4	9	0	-	8.3	0	-	18.8
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.3	0.1	-	-	0	-	-	0.2

HCM 6th TWSC
22: Shasta Avenue & Main Street

Background Build Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	434	5	4	620	5	9	1	5	2	0	2
Future Vol, veh/h	2	434	5	4	620	5	9	1	5	2	0	2
Conflicting Peds, #/hr	7	0	2	2	0	7	1	0	3	3	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	477	5	4	681	5	10	1	5	2	0	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	693	0	0	484	0	0	1180	1187	485	1189	1187	692
Stage 1	-	-	-	-	-	-	486	486	-	699	699	-
Stage 2	-	-	-	-	-	-	694	701	-	490	488	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	902	-	-	1079	-	-	167	188	582	165	188	444
Stage 1	-	-	-	-	-	-	563	551	-	430	442	-
Stage 2	-	-	-	-	-	-	433	441	-	560	550	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	896	-	-	1077	-	-	164	185	579	160	185	441
Mov Cap-2 Maneuver	-	-	-	-	-	-	164	185	-	160	185	-
Stage 1	-	-	-	-	-	-	560	548	-	426	436	-
Stage 2	-	-	-	-	-	-	428	435	-	550	547	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0.1			22.9			20.6		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	218	896	-	-	1077	-	-	235				
HCM Lane V/C Ratio	0.076	0.002	-	-	0.004	-	-	0.019				
HCM Control Delay (s/veh)	22.9	9	0	-	8.4	0	-	20.6				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1				

HCM 6th TWSC
23: David Avenue & Main Street

Background Build Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	440	6	3	610	5	10	1	4	3	0	9
Future Vol, veh/h	1	440	6	3	610	5	10	1	4	3	0	9
Conflicting Peds, #/hr	3	0	3	3	0	3	3	0	1	1	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	478	7	3	663	5	11	1	4	3	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	671	0	0	488	0	0	1167	1164	486	1162	1165	672
Stage 1	-	-	-	-	-	-	487	487	-	675	675	-
Stage 2	-	-	-	-	-	-	680	677	-	487	490	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	919	-	-	1075	-	-	171	194	581	172	194	456
Stage 1	-	-	-	-	-	-	562	550	-	444	453	-
Stage 2	-	-	-	-	-	-	441	452	-	562	549	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	916	-	-	1072	-	-	166	192	579	169	192	453
Mov Cap-2 Maneuver	-	-	-	-	-	-	166	192	-	169	192	-
Stage 1	-	-	-	-	-	-	560	548	-	442	450	-
Stage 2	-	-	-	-	-	-	429	449	-	556	547	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0			23.9			16.8		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	207	916	-	-	1072	-	-	319				
HCM Lane V/C Ratio	0.079	0.001	-	-	0.003	-	-	0.041				
HCM Control Delay (s/veh)	23.9	8.9	0	-	8.4	0	-	16.8				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0.1				

HCM 6th TWSC
24: Rendon Avenue & Main Street

Background Build Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	419	12	8	595	9	11	3	3	13	1	18
Future Vol, veh/h	11	419	12	8	595	9	11	3	3	13	1	18
Conflicting Peds, #/hr	5	0	1	1	0	5	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	455	13	9	647	10	12	3	3	14	1	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	662	0	0	469	0	0	1168	1167	463	1164	1168	657
Stage 1	-	-	-	-	-	-	487	487	-	675	675	-
Stage 2	-	-	-	-	-	-	681	680	-	489	493	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	927	-	-	1093	-	-	170	194	599	171	193	465
Stage 1	-	-	-	-	-	-	562	550	-	444	453	-
Stage 2	-	-	-	-	-	-	440	451	-	561	547	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	923	-	-	1092	-	-	158	187	598	163	186	463
Mov Cap-2 Maneuver	-	-	-	-	-	-	158	187	-	163	186	-
Stage 1	-	-	-	-	-	-	551	540	-	434	445	-
Stage 2	-	-	-	-	-	-	415	443	-	545	537	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.2			0.1			26.4			21.1		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	187	923	-	-	1092	-	-	258
HCM Lane V/C Ratio	0.099	0.013	-	-	0.008	-	-	0.135
HCM Control Delay (s/veh)	26.4	9	0	-	8.3	-	-	21.1
HCM Lane LOS	D	A	A	-	A	-	-	C
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0.5

HCM 6th Signalized Intersection Summary25: Golden Gate Avenue & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	345	92	87	514	5	74	17	44	12	32	7
Future Volume (veh/h)	3	345	92	87	514	5	74	17	44	12	32	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	363	97	92	541	5	78	18	46	13	34	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	623	166	118	927	9	236	41	69	140	180	32
Arrive On Green	0.00	0.44	0.44	0.07	0.50	0.50	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1781	1422	380	1781	1850	17	747	293	498	239	1302	229
Grp Volume(v), veh/h	3	0	460	92	0	546	142	0	0	54	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1801	1781	0	1867	1538	0	0	1770	0	0
Q Serve(g_s), s	0.1	0.0	8.1	2.1	0.0	8.7	2.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.0	8.1	2.1	0.0	8.7	3.6	0.0	0.0	1.1	0.0	0.0
Prop In Lane	1.00		0.21	1.00		0.01	0.55		0.32	0.24		0.13
Lane Grp Cap(c), veh/h	6	0	789	118	0	935	346	0	0	352	0	0
V/C Ratio(X)	0.51	0.00	0.58	0.78	0.00	0.58	0.41	0.00	0.00	0.15	0.00	0.00
Avail Cap(c_a), veh/h	848	0	2059	848	0	2134	1550	0	0	1313	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.9	0.0	8.9	19.3	0.0	7.4	17.1	0.0	0.0	16.1	0.0	0.0
Incr Delay (d2), s/veh	23.6	0.0	2.5	4.2	0.0	2.1	0.3	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.7	0.9	0.0	2.6	1.2	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.5	0.0	11.4	23.5	0.0	9.5	17.3	0.0	0.0	16.1	0.0	0.0
LnGrp LOS	D		B	C		A	B			B		
Approach Vol, veh/h		463			638			142			54	
Approach Delay, s/veh		11.6			11.5			17.3			16.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	23.4		10.8	5.1	26.0		10.8				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	48.0		40.0	20.0	48.0		30.0				
Max Q Clear Time (g_c+I1), s	4.1	10.1		5.6	2.1	10.7		3.1				
Green Ext Time (p_c), s	0.1	8.4		0.6	0.0	10.3		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			12.4									
HCM 6th LOS			B									

HCM 6th TWSC
26: Windsor Avenue & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	376	15	13	597	3	8	1	5	6	3	13
Future Vol, veh/h	2	376	15	13	597	3	8	1	5	6	3	13
Conflicting Peds, #/hr	9	0	3	3	0	9	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	396	16	14	628	3	8	1	5	6	3	14
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	640	0	0	415	0	0	1077	1079	407	1078	1086	639
Stage 1	-	-	-	-	-	-	411	411	-	667	667	-
Stage 2	-	-	-	-	-	-	666	668	-	411	419	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	944	-	-	1144	-	-	197	218	644	196	216	476
Stage 1	-	-	-	-	-	-	618	595	-	448	457	-
Stage 2	-	-	-	-	-	-	449	456	-	618	590	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	936	-	-	1141	-	-	185	211	642	189	209	472
Mov Cap-2 Maneuver	-	-	-	-	-	-	185	211	-	189	209	-
Stage 1	-	-	-	-	-	-	614	591	-	443	444	-
Stage 2	-	-	-	-	-	-	425	443	-	610	586	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0.2			20.2			18		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	251	936	-	-	1141	-	-	299				
HCM Lane V/C Ratio	0.059	0.002	-	-	0.012	-	-	0.077				
HCM Control Delay (s/veh)	20.2	8.9	0	-	8.2	0	-	18				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.3				

HCM Signalized Intersection Capacity Analysis

27: Netherton Avenue & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	358	4	29	548	3	11	7	52	19	18	61
Future Volume (vph)	4	358	4	29	548	3	11	7	52	19	18	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Frt	1.00	0.99		1.00	0.99			0.90			0.91	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	1860		1770	1861			1641			1667	
Flt Permitted	0.95	1.00		0.95	1.00			0.93			0.91	
Satd. Flow (perm)	1770	1860		1770	1861			1549			1536	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	4	393	4	32	602	3	12	8	57	21	20	67
RTOR Reduction (vph)	0	0	0	0	0	0	0	49	0	0	57	0
Lane Group Flow (vph)	4	397	0	32	605	0	0	28	0	0	51	0
Confl. Peds. (#/hr)			2			10	1		11	11		1
Confl. Bikes (#/hr)						2						
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		
Actuated Green, G (s)	0.5	24.6		2.1	26.2			6.9			6.9	
Effective Green, g (s)	0.5	24.6		2.1	26.2			6.9			6.9	
Actuated g/C Ratio	0.01	0.51		0.04	0.54			0.14			0.14	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0			2.0			2.0	
Lane Grp Cap (vph)	18	941		76	1003			219			218	
v/s Ratio Prot	0.00	0.21		c0.02	c0.33							
v/s Ratio Perm								0.02			c0.03	
v/c Ratio	0.22	0.42		0.42	0.60			0.12			0.23	
Uniform Delay, d1	23.8	7.5		22.6	7.6			18.2			18.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	2.2	0.8		1.3	1.8			0.0			0.1	
Delay (s)	26.1	8.3		24.0	9.4			18.3			18.6	
Level of Service	C	A		C	A			B			B	
Approach Delay (s/veh)		8.5			10.2			18.3			18.6	
Approach LOS		A			B			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			10.9			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.54									
Actuated Cycle Length (s)			48.6			Sum of lost time (s)			15.0			
Intersection Capacity Utilization			48.5%			ICU Level of Service			A			
Analysis Period (min)			15									

c Critical Lane Group

HCM 6th TWSC
28: Broadway Avenue & Main Street

Background Build Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	105	313	5	12	514	51	3	3	6	24	5	49
Future Vol, veh/h	105	313	5	12	514	51	3	3	6	24	5	49
Conflicting Peds, #/hr	13	0	4	4	0	13	0	0	13	13	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	50	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	119	356	6	14	584	58	3	3	7	27	6	56

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	655	0	0	366	0	0	1273	1284	376	1240	1229	597
Stage 1	-	-	-	-	-	-	601	601	-	625	625	-
Stage 2	-	-	-	-	-	-	672	683	-	615	604	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	932	-	-	1193	-	-	144	165	670	152	178	503
Stage 1	-	-	-	-	-	-	487	489	-	473	477	-
Stage 2	-	-	-	-	-	-	445	449	-	479	488	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	920	-	-	1188	-	-	111	140	659	129	151	497
Mov Cap-2 Maneuver	-	-	-	-	-	-	111	140	-	129	151	-
Stage 1	-	-	-	-	-	-	422	424	-	407	466	-
Stage 2	-	-	-	-	-	-	386	438	-	404	424	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	2.4			0.2			23.5			27.8		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	208	920	-	-	1188	-	-	245
HCM Lane V/C Ratio	0.066	0.13	-	-	0.011	-	-	0.362
HCM Control Delay (s/veh)	23.5	9.5	-	-	8.1	-	-	27.8
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q (veh)	0.2	0.4	-	-	0	-	-	1.6

HCM Signalized Intersection Capacity Analysis

29: S Center Street & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											  	
Traffic Volume (vph)	0	63	44	0	0	0	0	0	0	166	1169	0
Future Volume (vph)	0	63	44	0	0	0	0	0	0	166	1169	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		1.00									0.91	
Frpb, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.99	
Frt		0.94									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		1750									5048	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		1750									5048	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	71	49	0	0	0	0	0	0	187	1313	0
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	0	0	22	0
Lane Group Flow (vph)	0	91	0	0	0	0	0	0	0	0	1478	0
Confl. Peds. (#/hr)			2								6	
Turn Type		NA								Perm	NA	
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		23.0									52.0	
Effective Green, g (s)		23.0									52.0	
Actuated g/C Ratio		0.27									0.61	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		473									3088	
v/s Ratio Prot		0.05										
v/s Ratio Perm											0.29	
v/c Ratio		0.19									0.47	
Uniform Delay, d1		23.8									9.0	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.9									0.5	
Delay (s)		24.7									9.5	
Level of Service		C									A	
Approach Delay (s/veh)		24.7			0.0			0.0			9.5	
Approach LOS		C			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			10.7									
HCM 2000 Volume to Capacity ratio			0.39									
Actuated Cycle Length (s)			85.0							10.0		
Intersection Capacity Utilization			53.5%								A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

30: S El Dorado Street & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  				
Traffic Volume (vph)	96	115	0	0	0	0	0	1598	100	0	0	0
Future Volume (vph)	96	115	0	0	0	0	0	1598	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0				
Lane Util. Factor		1.00						0.91				
Frpb, ped/bikes		1.00						0.99				
Flpb, ped/bikes		0.99						1.00				
Frt		1.00						0.99				
Flt Protected		0.97						1.00				
Satd. Flow (prot)		1813						5028				
Flt Permitted		0.97						1.00				
Satd. Flow (perm)		1813						5028				
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	112	134	0	0	0	0	0	1858	116	0	0	0
RTOR Reduction (vph)	0	19	0	0	0	0	0	8	0	0	0	0
Lane Group Flow (vph)	0	227	0	0	0	0	0	1966	0	0	0	0
Confl. Peds. (#/hr)	9								11			
Turn Type	Perm	NA						NA				
Protected Phases		2						1				
Permitted Phases	2											
Actuated Green, G (s)		22.0						53.0				
Effective Green, g (s)		22.0						53.0				
Actuated g/C Ratio		0.26						0.62				
Clearance Time (s)		5.0						5.0				
Vehicle Extension (s)		0.2						0.2				
Lane Grp Cap (vph)		469						3135				
v/s Ratio Prot								c0.39				
v/s Ratio Perm		0.13										
v/c Ratio		0.48						0.62				
Uniform Delay, d1		26.6						9.8				
Progression Factor		1.02						1.00				
Incremental Delay, d2		3.2						0.9				
Delay (s)		30.5						10.8				
Level of Service		C						B				
Approach Delay (s/veh)		30.5			0.0			10.8			0.0	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		13.0						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.58										
Actuated Cycle Length (s)		85.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		52.9%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th AWSC
31: S Hunter Street & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

Intersection

Intersection Delay, s/veh 9.3

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	141	66	0	0	0	0	0	29	62	84	0
Future Vol, veh/h	0	141	66	0	0	0	0	0	29	62	84	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	193	90	0	0	0	0	0	40	85	115	0
Number of Lanes	0	1	0	0	0	0	0	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	9.6	7.6	9.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%
Vol Thru, %	0%	68%	0%	100%
Vol Right, %	100%	32%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	207	62	84
LT Vol	0	0	62	0
Through Vol	0	141	0	84
RT Vol	29	66	0	0
Lane Flow Rate	40	284	85	115
Geometry Grp	4a	2	5	5
Degree of Util (X)	0.048	0.342	0.135	0.167
Departure Headway (Hd)	4.339	4.345	5.719	5.216
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	822	828	627	687
Service Time	2.38	2.365	3.454	2.95
HCM Lane V/C Ratio	0.049	0.343	0.136	0.167
HCM Control Delay, s/veh	7.6	9.6	9.3	9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	1.5	0.5	0.6

HCM Signalized Intersection Capacity Analysis

32: S San Joaquin Street & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	122	36	0	0	0	0	170	39	25	99	0
Future Volume (vph)	66	122	36	0	0	0	0	170	39	25	99	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						0.95			0.95	
Frpb, ped/bikes		0.98						0.95			1.00	
Flpb, ped/bikes		0.99						1.00			0.97	
Frt		0.97						0.97			1.00	
Flt Protected		0.98						1.00			0.99	
Satd. Flow (prot)		1767						3291			3399	
Flt Permitted		0.98						1.00			0.87	
Satd. Flow (perm)		1767						3291			3004	
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	82	152	45	0	0	0	0	212	49	31	124	0
RTOR Reduction (vph)	0	10	0	0	0	0	0	24	0	0	0	0
Lane Group Flow (vph)	0	271	0	0	0	0	0	238	0	0	155	0
Confl. Peds. (#/hr)	23		61						111	111		
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						1			1	
Permitted Phases	2									1		
Actuated Green, G (s)		24.0						36.0			36.0	
Effective Green, g (s)		24.0						36.0			36.0	
Actuated g/C Ratio		0.34						0.51			0.51	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		605						1692			1544	
v/s Ratio Prot								c0.07				
v/s Ratio Perm		0.15									0.05	
v/c Ratio		0.44						0.14			0.10	
Uniform Delay, d1		17.8						8.9			8.7	
Progression Factor		1.00						1.00			0.41	
Incremental Delay, d2		2.3						0.1			0.1	
Delay (s)		20.2						9.0			3.7	
Level of Service		C						A			A	
Approach Delay (s/veh)		20.2			0.0			9.0			3.7	
Approach LOS		C			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		12.4										
HCM 2000 Volume to Capacity ratio		0.26										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		49.3%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

33: S Sutter Street & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔						↑	↗		↖↑	
Traffic Volume (vph)	22	89	80	0	0	0	0	102	16	4	95	0
Future Volume (vph)	22	89	80	0	0	0	0	102	16	4	95	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0		5.0	
Lane Util. Factor		1.00						1.00	1.00		0.95	
Frpb, ped/bikes		0.92						1.00	0.82		1.00	
Flpb, ped/bikes		0.99						1.00	1.00		0.99	
Frt		0.94						1.00	0.85		1.00	
Flt Protected		0.99						1.00	1.00		0.99	
Satd. Flow (prot)		1608						1863	1312		3516	
Flt Permitted		0.99						1.00	1.00		0.94	
Satd. Flow (perm)		1608						1863	1312		3340	
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	29	119	107	0	0	0	0	136	21	5	127	0
RTOR Reduction (vph)	0	37	0	0	0	0	0	0	12	0	0	0
Lane Group Flow (vph)	0	218	0	0	0	0	0	136	9	0	132	0
Confl. Peds. (#/hr)	24		154						70	70		
Confl. Bikes (#/hr)			1						2			
Turn Type	Perm	NA						NA	Perm	Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)		30.0						30.0	30.0		30.0	
Effective Green, g (s)		30.0						30.0	30.0		30.0	
Actuated g/C Ratio		0.43						0.43	0.43		0.43	
Clearance Time (s)		5.0						5.0	5.0		5.0	
Vehicle Extension (s)		0.2						0.2	0.2		0.2	
Lane Grp Cap (vph)		689						798	562		1431	
v/s Ratio Prot								c0.07				
v/s Ratio Perm		0.14							0.01		0.04	
v/c Ratio		0.31						0.17	0.01		0.09	
Uniform Delay, d1		13.2						12.3	11.5		11.8	
Progression Factor		1.66						1.00	1.00		0.27	
Incremental Delay, d2		1.1						0.4	0.0		0.1	
Delay (s)		23.1						12.7	11.5		3.4	
Level of Service		C						B	B		A	
Approach Delay (s/veh)		23.1			0.0			12.6			3.4	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		15.3										
HCM 2000 Volume to Capacity ratio		0.24										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		45.0%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary34: California Street & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	78	14	0	0	0	0	268	74	34	214	0
Future Volume (veh/h)	16	78	14	0	0	0	0	268	74	34	214	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	21	103	18				0	353	97	45	282	0
Peak Hour Factor	0.76	0.76	0.76				0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	73	357	62				0	826	227	153	908	0
Arrive On Green	0.09	0.09	0.09				0.00	0.59	0.59	1.00	1.00	0.00
Sat Flow, veh/h	268	1314	230				0	1411	388	161	1551	0
Grp Volume(v), veh/h	142	0	0				0	0	450	327	0	0
Grp Sat Flow(s), veh/h/ln	1811	0	0				0	0	1798	1711	0	0
Q Serve(g_s), s	5.1	0.0	0.0				0.0	0.0	9.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.1	0.0	0.0				0.0	0.0	9.7	0.0	0.0	0.0
Prop In Lane	0.15		0.13				0.00		0.22	0.14		0.00
Lane Grp Cap(c), veh/h	492	0	0				0	0	1053	1061	0	0
V/C Ratio(X)	0.29	0.00	0.00				0.00	0.00	0.43	0.31	0.00	0.00
Avail Cap(c_a), veh/h	492	0	0				0	0	1053	1061	0	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.95	0.00	0.00				0.00	0.00	1.00	0.85	0.00	0.00
Uniform Delay (d), s/veh	25.6	0.0	0.0				0.0	0.0	8.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	0.0				0.0	0.0	1.3	0.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.0				0.0	0.0	3.5	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.0	0.0	0.0				0.0	0.0	9.3	0.6	0.0	0.0
LnGrp LOS	C								A	A		
Approach Vol, veh/h		142						450			327	
Approach Delay, s/veh		27.0						9.3			0.6	
Approach LOS		C						A			A	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		46.0		24.0		46.0						
Change Period (Y+Rc), s		5.0		5.0		5.0						
Max Green Setting (Gmax), s		41.0		19.0		41.0						
Max Q Clear Time (g_c+l1), s		11.7		7.1		2.0						
Green Ext Time (p_c), s		0.5		0.1		0.4						
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			8.9									
HCM 6th LOS			A									

HCM Signalized Intersection Capacity Analysis

35: S American Street & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	149	0	0	0	0	0	0	0	108	0	0
Future Volume (vph)	30	149	0	0	0	0	0	0	0	108	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		1.00									1.00	
Frpb, ped/bikes		1.00									1.00	
Flpb, ped/bikes		0.99									0.99	
Frt		1.00									1.00	
Flt Protected		0.99									0.95	
Satd. Flow (prot)		1841									1762	
Flt Permitted		0.99									0.75	
Satd. Flow (perm)		1841									1404	
Peak-hour factor, PHF	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Adj. Flow (vph)	56	276	0	0	0	0	0	0	0	200	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	332	0	0	0	0	0	0	0	0	200	0
Confl. Peds. (#/hr)	10		2							2	2	
Confl. Bikes (#/hr)			1									
Turn Type	Perm	NA								Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		40.0									20.0	
Effective Green, g (s)		40.0									20.0	
Actuated g/C Ratio		0.57									0.29	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		1052									401	
v/s Ratio Prot												
v/s Ratio Perm		0.18									c0.14	
v/c Ratio		0.31									0.49	
Uniform Delay, d1		7.8									20.8	
Progression Factor		0.99									0.70	
Incremental Delay, d2		0.7									2.8	
Delay (s)		8.5									17.5	
Level of Service		A									B	
Approach Delay (s/veh)		8.5			0.0			0.0			17.5	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		12.0										
HCM 2000 Volume to Capacity ratio		0.38										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		36.7%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis36: S Stanislaus Street & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	102	108	0	0	0	0	512	52	9	215	0
Future Volume (vph)	51	102	108	0	0	0	0	512	52	9	215	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						0.95			0.95	
Frpb, ped/bikes		0.99						0.99			1.00	
Flpb, ped/bikes		0.99						1.00			0.99	
Frt		0.94						0.98			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		1724						3483			3532	
Flt Permitted		0.99						1.00			0.92	
Satd. Flow (perm)		1724						3483			3256	
Peak-hour factor, PHF	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	71	142	150	0	0	0	0	711	72	12	299	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	11	0	0	0	0
Lane Group Flow (vph)	0	363	0	0	0	0	0	772	0	0	312	0
Confl. Peds. (#/hr)	13		4						2	2		
Confl. Bikes (#/hr)			1									
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		25.0						35.0			35.0	
Effective Green, g (s)		25.0						35.0			35.0	
Actuated g/C Ratio		0.36						0.50			0.50	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		615						1741			1628	
v/s Ratio Prot								c0.22				
v/s Ratio Perm		0.21									0.10	
v/c Ratio		0.59						0.44			0.19	
Uniform Delay, d1		18.3						11.2			9.6	
Progression Factor		0.82						1.00			0.69	
Incremental Delay, d2		3.8						0.8			0.2	
Delay (s)		19.0						12.0			6.9	
Level of Service		B						B			A	
Approach Delay (s/veh)		19.0			0.0			12.0			6.9	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		12.7						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.50										
Actuated Cycle Length (s)		70.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		39.2%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th TWSC
37: S Grant Street & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	52	110	0	0	0	0	0	8	0	9	5	0
Future Vol, veh/h	52	110	0	0	0	0	0	8	0	9	5	0
Conflicting Peds, #/hr	10	0	0	0	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	157	0	0	0	0	0	11	0	13	7	0
Major/Minor	Major1			Minor1			Minor2					
Conflicting Flow All	10	0	0				-	315	161	325	315	-
Stage 1	-	-	-				-	305	-	10	10	-
Stage 2	-	-	-				-	10	-	315	305	-
Critical Hdwy	4.12	-	-				-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-				-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-				-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1610	-	-				0	601	884	628	601	0
Stage 1	-	-	-				0	662	-	-	-	0
Stage 2	-	-	-				0	-	-	696	662	0
Platoon blocked, %		-	-									
Mov Cap-1 Maneuver	1595	-	-				-	565	884	588	565	-
Mov Cap-2 Maneuver	-	-	-				-	565	-	588	565	-
Stage 1	-	-	-				-	628	-	-	-	-
Stage 2	-	-	-				-	-	-	648	628	-
Approach	EB			NB			SB					
HCM Control Delay, s/v	2.4			11.5			11.4					
HCM LOS				B			B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1							
Capacity (veh/h)	565	1595	-	-	580							
HCM Lane V/C Ratio	0.02	0.047	-	-	0.034							
HCM Control Delay (s/veh)	11.5	7.4	0	-	11.4							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.1	0.1	-	-	0.1							

HCM 6th TWSC

Background Build Conditions

38: S Aurora Street & Market Street

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	6.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	9	96	15	0	0	0	0	102	9	4	36	0
Future Vol, veh/h	9	96	15	0	0	0	0	102	9	4	36	0
Conflicting Peds, #/hr	2	0	1	0	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	123	19	0	0	0	0	131	12	5	46	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	2	0	0	-	160	136	232	169	-
Stage 1	-	-	-	-	158	-	2	2	-
Stage 2	-	-	-	-	2	-	230	167	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1620	-	-	0	732	913	723	724	0
Stage 1	-	-	-	0	767	-	-	-	0
Stage 2	-	-	-	0	-	-	773	760	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1617	-	-	-	724	912	610	716	-
Mov Cap-2 Maneuver	-	-	-	-	724	-	610	716	-
Stage 1	-	-	-	-	760	-	-	-	-
Stage 2	-	-	-	-	-	-	627	753	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.5	11.1	10.5
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	736	1617	-	-	704
HCM Lane V/C Ratio	0.193	0.007	-	-	0.073
HCM Control Delay (s/veh)	11.1	7.2	0	-	10.5
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.7	0	-	-	0.2

HCM 6th TWSC
39: Union Street & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	88	5	0	0	0	0	90	8	15	39	0
Future Vol, veh/h	8	88	5	0	0	0	0	90	8	15	39	0
Conflicting Peds, #/hr	1	0	1	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	97	5	0	0	0	0	99	9	16	43	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	1	0	0	-	120	102	174	122	-
Stage 1	-	-	-	-	119	-	1	1	-
Stage 2	-	-	-	-	1	-	173	121	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1622	-	-	0	770	953	789	768	0
Stage 1	-	-	-	0	797	-	-	-	0
Stage 2	-	-	-	0	-	-	829	796	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1620	-	-	-	764	952	701	762	-
Mov Cap-2 Maneuver	-	-	-	-	764	-	701	762	-
Stage 1	-	-	-	-	791	-	-	-	-
Stage 2	-	-	-	-	-	-	714	790	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.6	10.4	10.3
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	777	1620	-	-	744
HCM Lane V/C Ratio	0.139	0.005	-	-	0.08
HCM Control Delay (s/veh)	10.4	7.2	0	-	10.3
HCM Lane LOS	B	A	A	-	B
HCM 95th %tile Q (veh)	0.5	0	-	-	0.3

HCM 6th TWSC
40: Pilgrim Street & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	6	108	2	0	0	0	0	8	9	13	4	0
Future Vol, veh/h	6	108	2	0	0	0	0	8	9	13	4	0
Conflicting Peds, #/hr	3	0	1	0	0	0	0	0	9	9	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	161	3	0	0	0	0	12	13	19	6	0
Major/Minor	Major1			Minor1			Minor2					
Conflicting Flow All	3	0	0				-	185	173	205	186	-
Stage 1	-	-	-				-	182	-	3	3	-
Stage 2	-	-	-				-	3	-	202	183	-
Critical Hdwy	4.12	-	-				-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-				-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-				-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1619	-	-				0	709	871	753	708	0
Stage 1	-	-	-				0	749	-	-	-	0
Stage 2	-	-	-				0	-	-	800	748	0
Platoon blocked, %		-	-									
Mov Cap-1 Maneuver	1614	-	-				-	702	870	727	701	-
Mov Cap-2 Maneuver	-	-	-				-	702	-	727	701	-
Stage 1	-	-	-				-	744	-	-	-	-
Stage 2	-	-	-				-	-	-	770	743	-
Approach	EB			NB			SB					
HCM Control Delay, s/v	0.4			9.8			10.2					
HCM LOS				A			B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1							
Capacity (veh/h)	782	1614	-	-	721							
HCM Lane V/C Ratio	0.032	0.006	-	-	0.035							
HCM Control Delay (s/veh)	9.8	7.2	0	-	10.2							
HCM Lane LOS	A	A	A	-	B							
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1							

HCM 6th Signalized Intersection Summary

41: Airport Way & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	84	19	0	0	0	0	815	39	77	591	0
Future Volume (veh/h)	26	84	19	0	0	0	0	815	39	77	591	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	29	93	21				0	906	43	86	657	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	41	131	29				0	2683	127	268	1990	0
Arrive On Green	0.11	0.11	0.11				0.00	0.78	0.78	1.00	1.00	0.00
Sat Flow, veh/h	364	1166	263				0	3547	164	280	2646	0
Grp Volume(v), veh/h	143	0	0				0	466	483	329	414	0
Grp Sat Flow(s), veh/h/ln	1794	0	0				0	1777	1840	1224	1617	0
Q Serve(g_s), s	6.9	0.0	0.0				0.0	7.1	7.1	0.8	0.0	0.0
Cycle Q Clear(g_c), s	6.9	0.0	0.0				0.0	7.1	7.1	8.0	0.0	0.0
Prop In Lane	0.20		0.15				0.00		0.09	0.26		0.00
Lane Grp Cap(c), veh/h	201	0	0				0	1380	1430	1002	1256	0
V/C Ratio(X)	0.71	0.00	0.00				0.00	0.34	0.34	0.33	0.33	0.00
Avail Cap(c_a), veh/h	438	0	0				0	1380	1430	1002	1256	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.96	0.96	0.00
Uniform Delay (d), s/veh	38.6	0.0	0.0				0.0	3.0	3.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.7	0.0	0.0				0.0	0.7	0.6	0.8	0.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0				0.0	1.8	1.9	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.3	0.0	0.0				0.0	3.7	3.7	0.9	0.7	0.0
LnGrp LOS	D							A	A	A	A	
Approach Vol, veh/h		143						949			743	
Approach Delay, s/veh		40.3						3.7			0.8	
Approach LOS		D						A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		74.9				74.9		15.1				
Change Period (Y+Rc), s		5.0				5.0		5.0				
Max Green Setting (Gmax), s		58.0				58.0		22.0				
Max Q Clear Time (g_c+I1), s		10.0				9.1		8.9				
Green Ext Time (p_c), s		1.0				0.9		0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			5.4									
HCM 6th LOS			A									

HCM 6th TWSC
42: Sierra Nevada Street & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	14	186	2	0	0	0	0	15	15	24	7	0
Future Vol, veh/h	14	186	2	0	0	0	0	15	15	24	7	0
Conflicting Peds, #/hr	2	0	2	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	209	2	0	0	0	0	17	17	27	8	0
Major/Minor	Major1			Minor1			Minor2					
Conflicting Flow All	2	0	0				-	246	212	261	247	-
Stage 1	-	-	-				-	244	-	2	2	-
Stage 2	-	-	-				-	2	-	259	245	-
Critical Hdwy	4.12	-	-				-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-				-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-				-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1620	-	-				0	656	828	692	655	0
Stage 1	-	-	-				0	704	-	-	-	0
Stage 2	-	-	-				0	-	-	746	703	0
Platoon blocked, %		-	-									
Mov Cap-1 Maneuver	1617	-	-				-	646	826	657	645	-
Mov Cap-2 Maneuver	-	-	-				-	646	-	657	645	-
Stage 1	-	-	-				-	695	-	-	-	-
Stage 2	-	-	-				-	-	-	705	694	-
Approach	EB			NB			SB					
HCM Control Delay, s/v	0.5			10.2			10.8					
HCM LOS				B			B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1							
Capacity (veh/h)	725	1617	-	-	654							
HCM Lane V/C Ratio	0.046	0.01	-	-	0.053							
HCM Control Delay (s/veh)	10.2	7.2	0	-	10.8							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.1	0	-	-	0.2							

HCM 6th Signalized Intersection Summary

43: S Wilson Way & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	148	50	0	0	0	0	686	63	118	623	0
Future Volume (veh/h)	15	148	50	0	0	0	0	686	63	118	623	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	16	157	53				0	730	67	126	663	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	20	192	65				0	1943	178	157	2609	0
Arrive On Green	0.05	0.05	0.05				0.00	0.59	0.59	0.12	0.98	0.00
Sat Flow, veh/h	126	1241	419				0	3384	302	1781	3647	0
Grp Volume(v), veh/h	226	0	0				0	394	403	126	663	0
Grp Sat Flow(s), veh/h/ln	1787	0	0				0	1777	1815	1781	1777	0
Q Serve(g_s), s	11.3	0.0	0.0				0.0	10.5	10.5	6.2	0.5	0.0
Cycle Q Clear(g_c), s	11.3	0.0	0.0				0.0	10.5	10.5	6.2	0.5	0.0
Prop In Lane	0.07		0.23				0.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	277	0	0				0	1049	1072	157	2609	0
V/C Ratio(X)	0.82	0.00	0.00				0.00	0.38	0.38	0.80	0.25	0.00
Avail Cap(c_a), veh/h	417	0	0				0	1049	1072	257	2609	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	41.4	0.0	0.0				0.0	9.7	9.7	39.0	0.3	0.0
Incr Delay (d2), s/veh	4.4	0.0	0.0				0.0	1.0	1.0	3.5	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	0.0				0.0	4.1	4.2	2.8	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.8	0.0	0.0				0.0	10.7	10.7	42.5	0.5	0.0
LnGrp LOS	D							B	B	D	A	
Approach Vol, veh/h		226						797			789	
Approach Delay, s/veh		45.8						10.7			7.2	
Approach LOS		D						B			A	
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	12.9	58.2				71.1		18.9				
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0				
Max Green Setting (Gmax), s	13.0	41.0				59.0		21.0				
Max Q Clear Time (g_c+I1), s	8.2	12.5				2.5		13.3				
Green Ext Time (p_c), s	0.1	13.6				15.0		0.5				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			13.6									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
44: S Eugenia Street & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	312	16	0	0	0	37
Future Vol, veh/h	312	16	0	0	0	37
Conflicting Peds, #/hr	0	2	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	339	17	0	0	0	40
Major/Minor	Major1		Minor1			
Conflicting Flow All	0	0			-	351
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Critical Hdwy	-	-			-	6.22
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	-			-	3.318
Pot Cap-1 Maneuver	-	-			0	692
Stage 1	-	-			0	-
Stage 2	-	-			0	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-			-	691
Mov Cap-2 Maneuver	-	-			-	-
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Approach	EB		NB			
HCM Control Delay, s/v	0				10.5	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR			
Capacity (veh/h)	691	-	-			
HCM Lane V/C Ratio	0.058	-	-			
HCM Control Delay (s/veh)	10.5	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q (veh)	0.2	-	-			

HCM 6th TWSC
45: Della Street & Market Street

Background Build Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↔			↕	
Traffic Vol, veh/h	54	264	12	0	0	0	0	3	2	5	54	0
Future Vol, veh/h	54	264	12	0	0	0	0	3	2	5	54	0
Conflicting Peds, #/hr	0	0	4	0	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	297	13	0	0	0	0	3	2	6	61	0
Major/Minor	Major1						Minor1			Minor2		
Conflicting Flow All	0	0	0				-	430	310	430	436	-
Stage 1	-	-	-				-	430	-	0	0	-
Stage 2	-	-	-				-	0	-	430	436	-
Critical Hdwy	4.12	-	-				-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-				-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-				-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	-	-	-				0	518	730	535	514	0
Stage 1	-	-	-				0	583	-	-	-	0
Stage 2	-	-	-				0	-	-	603	580	0
Platoon blocked, %		-	-									
Mov Cap-1 Maneuver	-	-	-				-	516	727	531	512	-
Mov Cap-2 Maneuver	-	-	-				-	516	-	531	512	-
Stage 1	-	-	-				-	581	-	-	-	-
Stage 2	-	-	-				-	-	-	598	578	-
Approach	EB						NB			SB		
HCM Control Delay, s/v							11.2			13		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1							
Capacity (veh/h)	584	-	-	-	514							
HCM Lane V/C Ratio	0.01	-	-	-	0.129							
HCM Control Delay (s/veh)	11.2	-	-	-	13							
HCM Lane LOS	B	-	-	-	B							
HCM 95th %tile Q (veh)	0	-	-	-	0.4							

HCM Signalized Intersection Capacity Analysis

Background Build Conditions

2: S San Joaquin Street/N San Joaquin Street & Main Street

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Volume (vph)	0	0	0	23	28	38	7	121	0	0	128	18
Future Volume (vph)	0	0	0	23	28	38	7	121	0	0	128	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			0.95			0.95	
Frpb, ped/bikes					0.98			1.00			0.99	
Flpb, ped/bikes					0.98			0.99			1.00	
Frt					0.94			1.00			0.98	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					1680			3524			3451	
Flt Permitted					0.98			0.94			1.00	
Satd. Flow (perm)					1680			3328			3451	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	0	0	26	32	43	8	138	0	0	145	20
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	101	0	0	146	0	0	165	0
Confl. Peds. (#/hr)				16		10	28					28
Confl. Bikes (#/hr)						1						1
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					7.0			27.0			27.0	
Effective Green, g (s)					7.0			27.0			27.0	
Actuated g/C Ratio					0.10			0.39			0.39	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					168			1283			1331	
v/s Ratio Prot											c0.05	
v/s Ratio Perm					0.06			0.04				
v/c Ratio					0.60			0.11			0.12	
Uniform Delay, d1					30.1			13.8			13.8	
Progression Factor					1.11			0.73			1.00	
Incremental Delay, d2					4.0			0.1			0.1	
Delay (s)					37.5			10.3			14.0	
Level of Service					D			B			B	
Approach Delay (s/veh)		0.0			37.5			10.3			14.0	
Approach LOS		A			D			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			18.5									
HCM 2000 Volume to Capacity ratio			0.13									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			22.4%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 3: S Sutter Street/N Sutter Street & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	23	43	12	13	134	0	0	85	23
Future Volume (vph)	0	0	0	23	43	12	13	134	0	0	85	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			1.00			0.95	
Frpb, ped/bikes					0.99			1.00			0.97	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.97			1.00			0.96	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					1766			1842			3344	
Flt Permitted					0.98			0.97			1.00	
Satd. Flow (perm)					1766			1795			3344	
Peak-hour factor, PHF	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	0	0	0	29	54	15	16	170	0	0	108	29
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	98	0	0	186	0	0	137	0
Confl. Peds. (#/hr)				24		14	52					52
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					2			4			4	
Permitted Phases				2			4					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					378			487			907	
v/s Ratio Prot											0.04	
v/s Ratio Perm					0.06			c0.10				
v/c Ratio					0.25			0.38			0.15	
Uniform Delay, d1					22.8			20.7			19.3	
Progression Factor					0.67			0.68			1.00	
Incremental Delay, d2					1.5			2.2			0.3	
Delay (s)					16.9			16.3			19.7	
Level of Service					B			B			B	
Approach Delay (s/veh)		0.0			16.9			16.3			19.7	
Approach LOS		A			B			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.6									
HCM 2000 Volume to Capacity ratio			0.20									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			27.3%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

Background Build Conditions

4: California Street & Main Street

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	27	57	24	9	216	0	0	249	8
Future Volume (vph)	0	0	0	27	57	24	9	216	0	0	249	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.99			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.96			1.00			0.99	
Flt Protected					0.98			0.99			1.00	
Satd. Flow (prot)					1766			1858			1853	
Flt Permitted					0.98			0.98			1.00	
Satd. Flow (perm)					1766			1830			1853	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	0	0	0	31	66	28	10	248	0	0	286	9
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	125	0	0	258	0	0	295	0
Confl. Peds. (#/hr)				2		9	9					9
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2					
Actuated Green, G (s)					15.0			19.0			19.0	
Effective Green, g (s)					15.0			19.0			19.0	
Actuated g/C Ratio					0.21			0.27			0.27	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					378			496			502	
v/s Ratio Prot											c0.16	
v/s Ratio Perm					0.07			0.14				
v/c Ratio					0.33			0.52			0.58	
Uniform Delay, d1					23.2			21.6			22.1	
Progression Factor					1.72			0.81			1.00	
Incremental Delay, d2					2.1			3.8			4.9	
Delay (s)					42.2			21.4			27.0	
Level of Service					D			C			C	
Approach Delay (s/veh)		0.0			42.2			21.4			27.0	
Approach LOS		A			D			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			27.7									
HCM 2000 Volume to Capacity ratio			0.28									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			33.2%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: S American Street/N American Street & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	22	88	19	3	24	0	0	12	15
Future Volume (vph)	0	0	0	22	88	19	3	24	0	0	12	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	5.0
Lane Util. Factor					1.00			1.00			1.00	1.00
Frpb, ped/bikes					0.99			1.00			1.00	0.97
Flpb, ped/bikes					0.99			0.99			1.00	1.00
Frt					0.98			1.00			1.00	0.85
Flt Protected					0.99			0.99			1.00	1.00
Satd. Flow (prot)					1787			1850			1863	1547
Flt Permitted					0.99			0.98			1.00	1.00
Satd. Flow (perm)					1787			1829			1863	1547
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	26	104	22	4	28	0	0	14	18
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	152	0	0	32	0	0	14	18
Confl. Peds. (#/hr)				15		5	2					2
Turn Type				Perm	NA		Perm	NA			NA	Perm
Protected Phases					2			4			4	
Permitted Phases				2			4					4
Actuated Green, G (s)					11.0			23.0			23.0	23.0
Effective Green, g (s)					11.0			23.0			23.0	23.0
Actuated g/C Ratio					0.16			0.33			0.33	0.33
Clearance Time (s)					5.0			5.0			5.0	5.0
Vehicle Extension (s)					0.2			0.2			0.2	0.2
Lane Grp Cap (vph)					280			600			612	508
v/s Ratio Prot											0.01	
v/s Ratio Perm					0.09			c0.02				0.01
v/c Ratio					0.54			0.05			0.02	0.03
Uniform Delay, d1					27.1			16.0			15.8	15.9
Progression Factor					0.86			0.95			1.00	1.00
Incremental Delay, d2					7.3			0.1			0.0	0.1
Delay (s)					30.8			15.5			15.9	16.0
Level of Service					C			B			B	B
Approach Delay (s/veh)		0.0			30.8			15.5			16.0	
Approach LOS		A			C			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			26.4									
HCM 2000 Volume to Capacity ratio			0.13									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			26.2%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis6: S Stanislaus Street/N Stanislaus Street & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	66	68	12	39	249	0	0	295	8
Future Volume (vph)	0	0	0	66	68	12	39	249	0	0	295	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			0.95			0.95	
Frpb, ped/bikes					1.00			1.00			0.99	
Flpb, ped/bikes					0.99			0.99			1.00	
Frt					0.98			1.00			0.99	
Flt Protected					0.97			0.99			1.00	
Satd. Flow (prot)					1798			3512			3522	
Flt Permitted					0.97			0.87			1.00	
Satd. Flow (perm)					1798			3103			3522	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	72	74	13	42	271	0	0	321	9
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	0	159	0	0	313	0	0	327	0
Confl. Peds. (#/hr)				4			5					5
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					1			2			2	
Permitted Phases				1			2					
Actuated Green, G (s)					25.0			35.0			35.0	
Effective Green, g (s)					25.0			35.0			35.0	
Actuated g/C Ratio					0.36			0.50			0.50	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					0.2			0.2			0.2	
Lane Grp Cap (vph)					642			1551			1761	
v/s Ratio Prot											0.09	
v/s Ratio Perm					0.09			c0.10				
v/c Ratio					0.24			0.20			0.18	
Uniform Delay, d1					15.8			9.7			9.6	
Progression Factor					1.00			0.78			1.00	
Incremental Delay, d2					0.9			0.2			0.2	
Delay (s)					16.7			7.9			9.8	
Level of Service					B			A			A	
Approach Delay (s/veh)		0.0			16.7			7.9			9.8	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			10.5									
HCM 2000 Volume to Capacity ratio			0.22									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			41.8%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC

Background Build Conditions

7: S Grant Street/N Grant Street & Main Street

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	7	124	11	10	21	0	0	31	25
Future Vol, veh/h	0	0	0	7	124	11	10	21	0	0	31	25
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	10	177	16	14	30	0	0	44	36
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				1	0	0	246	215	-	-	207	186
Stage 1				-	-	-	1	1	-	-	206	-
Stage 2				-	-	-	245	214	-	-	1	-
Critical Hdwy				4.12	-	-	7.12	6.52	-	-	6.52	6.22
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.52	-
Critical Hdwy Stg 2				-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy				2.218	-	-	3.518	4.018	-	-	4.018	3.318
Pot Cap-1 Maneuver				1622	-	-	708	683	0	0	690	856
Stage 1				-	-	-	-	-	0	0	731	-
Stage 2				-	-	-	759	725	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1620	-	-	641	677	-	-	684	855
Mov Cap-2 Maneuver				-	-	-	641	677	-	-	684	-
Stage 1				-	-	-	-	-	-	-	725	-
Stage 2				-	-	-	678	719	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				0.4		10.8		10.4				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	665	1620	-	-	751							
HCM Lane V/C Ratio	0.067	0.006	-	-	0.107							
HCM Control Delay (s/veh)	10.8	7.2	0	-	10.4							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.2	0	-	-	0.4							

HCM 6th TWSC
8: S Aurora Street/N Aurora Street & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	7.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	15	75	1	12	96	0	0	38	5
Future Vol, veh/h	0	0	0	15	75	1	12	96	0	0	38	5
Conflicting Peds, #/hr	0	0	0	8	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	18	90	1	14	116	0	0	46	6
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				8	0	0	162	136	-	-	136	93
Stage 1				-	-	-	8	8	-	-	128	-
Stage 2				-	-	-	154	128	-	-	8	-
Critical Hdwy				4.12	-	-	7.12	6.52	-	-	6.52	6.22
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.52	-
Critical Hdwy Stg 2				-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy				2.218	-	-	3.518	4.018	-	-	4.018	3.318
Pot Cap-1 Maneuver				1612	-	-	803	755	0	0	755	964
Stage 1				-	-	-	-	-	0	0	790	-
Stage 2				-	-	-	848	790	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1600	-	-	748	739	-	-	739	963
Mov Cap-2 Maneuver				-	-	-	748	739	-	-	739	-
Stage 1				-	-	-	-	-	-	-	780	-
Stage 2				-	-	-	784	780	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				1.2		10.9		10.1				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	740	1600	-	-	760							
HCM Lane V/C Ratio	0.176	0.011	-	-	0.068							
HCM Control Delay (s/veh)	10.9	7.3	0	-	10.1							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.6	0	-	-	0.2							

HCM 6th AWSC
9: Union Street & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection												
Intersection Delay, s/veh	8											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	13	78	15	13	108	0	0	76	7
Future Vol, veh/h	0	0	0	13	78	15	13	108	0	0	76	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	14	82	16	14	114	0	0	80	7
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB			NB			SB		
Opposing Approach				SB			NB		
Opposing Lanes	0			1			1		
Conflicting Approach Left	NB						WB		
Conflicting Lanes Left	1			0			1		
Conflicting Approach Right	SB			WB					
Conflicting Lanes Right	1			1			0		
HCM Control Delay, s/veh	8			8.1			7.8		
HCM LOS	A			A			A		

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	11%	12%	0%
Vol Thru, %	89%	74%	92%
Vol Right, %	0%	14%	8%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	121	106	83
LT Vol	13	13	0
Through Vol	108	78	76
RT Vol	0	15	7
Lane Flow Rate	127	112	87
Geometry Grp	1	1	1
Degree of Util (X)	0.149	0.135	0.104
Departure Headway (Hd)	4.219	4.352	4.282
Convergence, Y/N	Yes	Yes	Yes
Cap	837	828	842
Service Time	2.314	2.357	2.282
HCM Lane V/C Ratio	0.152	0.135	0.103
HCM Control Delay, s/veh	8.1	8	7.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.5	0.3

HCM 6th TWSC
10: Pilgrim Street & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	18	97	15	8	16	0	0	20	5
Future Vol, veh/h	0	0	0	18	97	15	8	16	0	0	20	5
Conflicting Peds, #/hr	0	0	0	4	0	1	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	23	123	19	10	20	0	0	25	6
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				4	0	0	201	193	-	-	184	137
Stage 1				-	-	-	4	4	-	-	180	-
Stage 2				-	-	-	197	189	-	-	4	-
Critical Hdwy				4.12	-	-	7.12	6.52	-	-	6.52	6.22
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.52	-
Critical Hdwy Stg 2				-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy				2.218	-	-	3.518	4.018	-	-	4.018	3.318
Pot Cap-1 Maneuver				1618	-	-	757	702	0	0	710	911
Stage 1				-	-	-	-	-	0	0	750	-
Stage 2				-	-	-	805	744	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				1612	-	-	719	687	-	-	695	910
Mov Cap-2 Maneuver				-	-	-	719	687	-	-	695	-
Stage 1				-	-	-	-	-	-	-	737	-
Stage 2				-	-	-	760	731	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				1		10.4		10.2				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	697	1612	-	-	729							
HCM Lane V/C Ratio	0.044	0.014	-	-	0.043							
HCM Control Delay (s/veh)	10.4	7.3	0	-	10.2							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.1	0	-	-	0.1							

HCM 6th Signalized Intersection Summary

11: Airport Way & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	41	93	61	10	869	0	0	749	17
Future Volume (veh/h)	0	0	0	41	93	61	10	869	0	0	749	17
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				43	98	64	11	915	0	0	788	18
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				56	128	84	50	2533	0	0	2606	60
Arrive On Green				0.05	0.05	0.05	1.00	1.00	0.00	0.00	0.73	0.73
Sat Flow, veh/h				364	829	541	13	3536	0	0	3644	81
Grp Volume(v), veh/h				205	0	0	494	432	0	0	394	412
Grp Sat Flow(s),veh/h/ln				1734	0	0	1847	1617	0	0	1777	1855
Q Serve(g_s), s				10.5	0.0	0.0	0.0	0.0	0.0	0.0	6.8	6.8
Cycle Q Clear(g_c), s				10.5	0.0	0.0	0.0	0.0	0.0	0.0	6.8	6.8
Prop In Lane				0.21		0.31	0.02		0.00	0.00		0.04
Lane Grp Cap(c), veh/h				269	0	0	1397	1187	0	0	1304	1361
V/C Ratio(X)				0.76	0.00	0.00	0.35	0.36	0.00	0.00	0.30	0.30
Avail Cap(c_a), veh/h				424	0	0	1397	1187	0	0	1304	1361
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.93	0.93	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				41.1	0.0	0.0	0.0	0.0	0.0	0.0	4.1	4.1
Incr Delay (d2), s/veh				1.7	0.0	0.0	0.7	0.8	0.0	0.0	0.6	0.6
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.0	0.0	0.0	0.3	0.3	0.0	0.0	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				42.8	0.0	0.0	0.7	0.8	0.0	0.0	4.7	4.7
LnGrp LOS				D			A	A			A	A
Approach Vol, veh/h					205			926			806	
Approach Delay, s/veh					42.8			0.7			4.7	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	71.1			18.9			71.1					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	58.0			22.0			58.0					
Max Q Clear Time (g_c+I1), s	2.0			12.5			8.8					
Green Ext Time (p_c), s	0.9			0.5			0.7					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				6.8								
HCM 6th LOS				A								

HCM 6th TWSC
12: Sierra Nevada Street & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					EB			E			B	
Traffic Vol, veh/h	0	0	0	30	154	40	9	37	0	0	49	32
Future Vol, veh/h	0	0	0	30	154	40	9	37	0	0	49	32
Conflicting Peds, #/hr	0	0	0	6	0	3	9	0	0	0	0	9
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	32	164	43	10	39	0	0	52	34
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				6	0	0	187	280	-	-	259	116
Stage 1				-	-	-	6	6	-	-	253	-
Stage 2				-	-	-	181	274	-	-	6	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				1613	-	-	756	627	0	0	644	914
Stage 1				-	-	-	-	-	0	0	696	-
Stage 2				-	-	-	803	682	0	0	-	-
Platoon blocked, %				-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver				1604	-	-	665	607	-	-	623	911
Mov Cap-2 Maneuver				-	-	-	665	607	-	-	623	-
Stage 1				-	-	-	-	-	-	-	678	-
Stage 2				-	-	-	697	664	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				1		11.3		10.8				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	618	1604	-	-	712							
HCM Lane V/C Ratio	0.079	0.02	-	-	0.121							
HCM Control Delay (s/veh)	11.3	7.3	0.1	-	10.8							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.3	0.1	-	-	0.4							

HCM 6th Signalized Intersection Summary13: S Wilson Way & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	107	126	183	27	936	0	0	933	29
Future Volume (veh/h)	0	0	0	107	126	183	27	936	0	0	933	29
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				110	130	189	28	965	0	0	962	30
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				135	159	254	435	2588	0	0	2562	80
Arrive On Green				0.16	0.16	0.16	1.00	1.00	0.00	0.00	0.73	0.73
Sat Flow, veh/h				838	990	1582	567	3647	0	0	3611	110
Grp Volume(v), veh/h				240	0	189	28	965	0	0	486	506
Grp Sat Flow(s),veh/h/ln				1828	0	1582	567	1777	0	0	1777	1850
Q Serve(g_s), s				11.4	0.0	10.3	0.7	0.0	0.0	0.0	9.2	9.2
Cycle Q Clear(g_c), s				11.4	0.0	10.3	9.9	0.0	0.0	0.0	9.2	9.2
Prop In Lane				0.46		1.00	1.00		0.00	0.00		0.06
Lane Grp Cap(c), veh/h				294	0	254	435	2588	0	0	1294	1347
V/C Ratio(X)				0.82	0.00	0.74	0.06	0.37	0.00	0.00	0.38	0.38
Avail Cap(c_a), veh/h				467	0	404	435	2588	0	0	1294	1347
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.75	0.75	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				36.5	0.0	36.0	0.7	0.0	0.0	0.0	4.6	4.6
Incr Delay (d2), s/veh				2.8	0.0	1.6	0.2	0.3	0.0	0.0	0.8	0.8
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.2	0.0	4.0	0.0	0.1	0.0	0.0	3.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				39.3	0.0	37.6	0.9	0.3	0.0	0.0	5.4	5.4
LnGrp LOS				D		D	A	A			A	A
Approach Vol, veh/h					429			993			992	
Approach Delay, s/veh					38.6			0.3			5.4	
Approach LOS					D			A			A	
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	70.6			19.4			70.6					
Change Period (Y+Rc), s	5.0			5.0			5.0					
Max Green Setting (Gmax), s	57.0			23.0			57.0					
Max Q Clear Time (g_c+I1), s	11.9			13.4			11.2					
Green Ext Time (p_c), s	3.4			0.9			2.6					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	9.2											
HCM 6th LOS	A											

HCM 6th TWSC
15: B Street/E Washington Street & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	416	32	15	326	1	28	2	38	1	2	14
Future Vol, veh/h	5	416	32	15	326	1	28	2	38	1	2	14
Conflicting Peds, #/hr	1	0	1	1	0	1	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	443	34	16	347	1	30	2	40	1	2	15
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	349	0	0	478	0	0	862	852	461	872	869	352
Stage 1	-	-	-	-	-	-	471	471	-	381	381	-
Stage 2	-	-	-	-	-	-	391	381	-	491	488	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1210	-	-	1084	-	-	275	297	600	271	290	692
Stage 1	-	-	-	-	-	-	573	560	-	641	613	-
Stage 2	-	-	-	-	-	-	633	613	-	559	550	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1209	-	-	1083	-	-	262	289	599	247	282	689
Mov Cap-2 Maneuver	-	-	-	-	-	-	262	289	-	247	282	-
Stage 1	-	-	-	-	-	-	569	556	-	637	601	-
Stage 2	-	-	-	-	-	-	604	601	-	516	546	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.4			16.5			11.9		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	384	1209	-	-	1083	-	-	540				
HCM Lane V/C Ratio	0.188	0.004	-	-	0.015	-	-	0.033				
HCM Control Delay (s/veh)	16.5	8	0	-	8.4	0	-	11.9				
HCM Lane LOS	C	A	A	-	A	A	-	B				
HCM 95th %tile Q (veh)	0.7	0	-	-	0	-	-	0.1				

HCM 6th TWSC
16: E Lafayette Street & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	394	9	25	333	12	11	4	31	0	3	15
Future Vol, veh/h	40	394	9	25	333	12	11	4	31	0	3	15
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	402	9	26	340	12	11	4	32	0	3	15
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	353	0	0	411	0	0	896	894	407	906	892	347
Stage 1	-	-	-	-	-	-	489	489	-	399	399	-
Stage 2	-	-	-	-	-	-	407	405	-	507	493	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1206	-	-	1148	-	-	261	280	644	257	281	696
Stage 1	-	-	-	-	-	-	561	549	-	627	602	-
Stage 2	-	-	-	-	-	-	621	598	-	548	547	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1205	-	-	1148	-	-	239	260	644	228	261	695
Mov Cap-2 Maneuver	-	-	-	-	-	-	239	260	-	228	261	-
Stage 1	-	-	-	-	-	-	536	525	-	599	585	-
Stage 2	-	-	-	-	-	-	587	581	-	494	523	-
Approach	EB			WB			NE			SW		
HCM Control Delay, s/v	0.7			0.6			12			11.8		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NELn1	EBL	EBT	EBR	WBL	WBT	WBRSWLn1					
Capacity (veh/h)	551	1205	-	-	1148	-	-	-	544			
HCM Lane V/C Ratio	0.065	0.034	-	-	0.022	-	-	-	0.034			
HCM Control Delay (s/veh)	12	8.1	0	-	8.2	0	-	-	11.8			
HCM Lane LOS	B	A	A	-	A	A	-	-	B			
HCM 95th %tile Q (veh)	0.2	0.1	-	-	0.1	-	-	-	0.1			

HCM Signalized Intersection Capacity Analysis

17: Main Street & D Street

Background Build Conditions

Timing Plan: PM Peak Hour

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	9	450	370	15	8	8
Future Volume (vph)	9	450	370	15	8	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0	
Lane Util. Factor		1.00	1.00		1.00	
Frpb, ped/bikes		1.00	0.99		1.00	
Flpb, ped/bikes		0.99	1.00		1.00	
Frt		1.00	0.99		0.93	
Flt Protected		0.99	1.00		0.97	
Satd. Flow (prot)		1861	1851		1695	
Flt Permitted		0.98	1.00		0.97	
Satd. Flow (perm)		1839	1851		1695	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	10	479	394	16	9	9
RTOR Reduction (vph)	0	0	0	0	9	0
Lane Group Flow (vph)	0	489	410	0	9	0
Confl. Peds. (#/hr)	1			1		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		11.4	11.4		0.6	
Effective Green, g (s)		11.4	11.4		0.6	
Actuated g/C Ratio		0.52	0.52		0.03	
Clearance Time (s)		5.0	5.0		5.0	
Vehicle Extension (s)		6.0	6.0		2.0	
Lane Grp Cap (vph)		952	959		46	
v/s Ratio Prot			0.22			
v/s Ratio Perm		c0.27			c0.01	
v/c Ratio		0.51	0.42		0.20	
Uniform Delay, d1		3.4	3.2		10.4	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		1.2	0.8		0.7	
Delay (s)		4.7	4.1		11.2	
Level of Service		A	A		B	
Approach Delay (s/veh)		4.7	4.1		11.2	
Approach LOS		A	A		B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			4.6		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.50			
Actuated Cycle Length (s)			22.0		Sum of lost time (s)	10.0
Intersection Capacity Utilization			42.6%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th TWSC
18: Marsh Street & Main Street & E Street

Background Build Conditions
Timing Plan: PM Peak Hour

Intersection											
Int Delay, s/veh	1.9										
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL	NER	
Lane Configurations											
Traffic Vol, veh/h	6	428	0	18	332	37	51	25	0	0	
Future Vol, veh/h	6	428	0	18	332	37	51	25	0	0	
Conflicting Peds, #/hr	1	0	5	5	0	1	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	
RT Channelized	-	-	None	-	-	None	-	-	-	None	
Storage Length	-	-	-	-	-	-	0	-	0	-	
Veh in Median Storage, #	-	0	-	-	0	-	0	-	0	-	
Grade, %	-	0	-	-	0	-	0	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	7	465	0	20	361	40	55	27	0	0	
Major/Minor	Major1			Major2			Minor2		Minor1		
Conflicting Flow All	402	0	0	470	0	0	901	382	919	470	
Stage 1	-	-	-	-	-	-	422	-	484	-	
Stage 2	-	-	-	-	-	-	479	-	435	-	
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.22	7.12	6.22	
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	6.12	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	6.12	-	
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	3.318	3.518	3.318	
Pot Cap-1 Maneuver	1157	-	-	1092	-	-	259	665	252	594	
Stage 1	-	-	-	-	-	-	609	-	564	-	
Stage 2	-	-	-	-	-	-	568	-	600	-	
Platoon blocked, %		-	-		-	-					
Mov Cap-1 Maneuver	1156	-	-	1087	-	-	253	664	235	591	
Mov Cap-2 Maneuver	-	-	-	-	-	-	253	-	235	-	
Stage 1	-	-	-	-	-	-	604	-	557	-	
Stage 2	-	-	-	-	-	-	563	-	562	-	
Approach	EB			WB			SB		NE		
HCM Control Delay, s/v	0.1			0.4			20.2		0		
HCM LOS							C		A		
Minor Lane/Major Mvmt	NELn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	-	1156	-	-	1087	-	-	318			
HCM Lane V/C Ratio	-	0.006	-	-	0.018	-	-	0.26			
HCM Control Delay (s/veh)	0	8.1	0	-	8.4	0	-	20.2			
HCM Lane LOS	A	A	A	-	A	A	-	C			
HCM 95th %tile Q (veh)	-	0	-	-	0.1	-	-	1			

HCM 6th TWSC
19: Alma Street & Main Street & F Street

Background Build Conditions
Timing Plan: PM Peak Hour

Intersection											
Int Delay, s/veh	0.9										
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL	NER	
Lane Configurations											
Traffic Vol, veh/h	13	458	1	31	331	12	17	3	0	0	
Future Vol, veh/h	13	458	1	31	331	12	17	3	0	0	
Conflicting Peds, #/hr	0	0	5	5	0	0	1	0	0	1	
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	
RT Channelized	-	-	None	-	-	None	-	-	-	None	
Storage Length	-	-	-	-	-	-	0	-	0	-	
Veh in Median Storage, #	-	0	-	-	0	-	0	-	0	-	
Grade, %	-	0	-	-	0	-	0	-	0	-	
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	14	503	1	34	364	13	19	3	0	0	
Major/Minor	Major1			Major2			Minor2		Minor1		
Conflicting Flow All	377	0	0	509	0	0	972	371	977	510	
Stage 1	-	-	-	-	-	-	439	-	537	-	
Stage 2	-	-	-	-	-	-	533	-	440	-	
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.22	7.12	6.22	
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	6.12	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	6.12	-	
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	3.318	3.518	3.318	
Pot Cap-1 Maneuver	1181	-	-	1056	-	-	232	675	230	563	
Stage 1	-	-	-	-	-	-	597	-	528	-	
Stage 2	-	-	-	-	-	-	531	-	596	-	
Platoon blocked, %		-	-		-	-					
Mov Cap-1 Maneuver	1181	-	-	1051	-	-	222	675	218	560	
Mov Cap-2 Maneuver	-	-	-	-	-	-	222	-	218	-	
Stage 1	-	-	-	-	-	-	587	-	517	-	
Stage 2	-	-	-	-	-	-	522	-	569	-	
Approach	EB			WB			SB		NE		
HCM Control Delay, s/v	0.2			0.7			21		0		
HCM LOS							C		A		
Minor Lane/Major Mvmt	NELn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	-	1181	-	-	1051	-	-	247			
HCM Lane V/C Ratio	-	0.012	-	-	0.032	-	-	0.089			
HCM Control Delay (s/veh)	0	8.1	0	-	8.5	0	-	21			
HCM Lane LOS	A	A	A	-	A	A	-	C			
HCM 95th %tile Q (veh)	-	0	-	-	0.1	-	-	0.3			

HCM 6th TWSC
21: Burkett Avenue & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	723	30	11	543	11	8	2	16	5	0	7
Future Vol, veh/h	17	723	30	11	543	11	8	2	16	5	0	7
Conflicting Peds, #/hr	3	0	3	3	0	3	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	777	32	12	584	12	9	2	17	5	0	8
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	599	0	0	812	0	0	1450	1455	796	1456	1465	593
Stage 1	-	-	-	-	-	-	832	832	-	617	617	-
Stage 2	-	-	-	-	-	-	618	623	-	839	848	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	978	-	-	814	-	-	109	130	387	108	128	506
Stage 1	-	-	-	-	-	-	363	384	-	477	481	-
Stage 2	-	-	-	-	-	-	477	478	-	360	378	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	975	-	-	812	-	-	103	122	386	97	120	505
Mov Cap-2 Maneuver	-	-	-	-	-	-	103	122	-	97	120	-
Stage 1	-	-	-	-	-	-	350	370	-	459	469	-
Stage 2	-	-	-	-	-	-	460	466	-	330	364	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.2			0.2			26.9			26.2		
HCM LOS							D			D		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	192	975	-	-	812	-	-	183				
HCM Lane V/C Ratio	0.146	0.019	-	-	0.015	-	-	0.071				
HCM Control Delay (s/veh)	26.9	8.8	0	-	9.5	0	-	26.2				
HCM Lane LOS	D	A	A	-	A	A	-	D				
HCM 95th %tile Q (veh)	0.5	0.1	-	-	0	-	-	0.2				

HCM 6th TWSC
22: Shasta Avenue & Main Street

Background Build Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	720	15	5	556	10	5	0	12	3	1	5
Future Vol, veh/h	8	720	15	5	556	10	5	0	12	3	1	5
Conflicting Peds, #/hr	3	0	4	4	0	3	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	783	16	5	604	11	5	0	13	3	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	618	0	0	803	0	0	1437	1441	795	1439	1444	614
Stage 1	-	-	-	-	-	-	813	813	-	623	623	-
Stage 2	-	-	-	-	-	-	624	628	-	816	821	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	962	-	-	821	-	-	111	133	388	111	132	492
Stage 1	-	-	-	-	-	-	372	392	-	474	478	-
Stage 2	-	-	-	-	-	-	473	476	-	371	389	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	959	-	-	818	-	-	106	129	387	105	128	490
Mov Cap-2 Maneuver	-	-	-	-	-	-	106	129	-	105	128	-
Stage 1	-	-	-	-	-	-	364	384	-	465	472	-
Stage 2	-	-	-	-	-	-	462	470	-	352	381	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.1			23.1			24.6		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	217	959	-	-	818	-	-	193
HCM Lane V/C Ratio	0.085	0.009	-	-	0.007	-	-	0.051
HCM Control Delay (s/veh)	23.1	8.8	0	-	9.4	0	-	24.6
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0.2

HCM 6th TWSC
23: David Avenue & Main Street

Background Build Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	715	10	4	556	8	11	1	1	2	1	5
Future Vol, veh/h	8	715	10	4	556	8	11	1	1	2	1	5
Conflicting Peds, #/hr	1	0	4	4	0	1	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	777	11	4	604	9	12	1	1	2	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	614	0	0	792	0	0	1425	1427	789	1422	1428	610
Stage 1	-	-	-	-	-	-	805	805	-	618	618	-
Stage 2	-	-	-	-	-	-	620	622	-	804	810	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	965	-	-	829	-	-	113	135	391	114	135	494
Stage 1	-	-	-	-	-	-	376	395	-	477	481	-
Stage 2	-	-	-	-	-	-	476	479	-	377	393	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	964	-	-	826	-	-	109	131	389	111	131	494
Mov Cap-2 Maneuver	-	-	-	-	-	-	109	131	-	111	131	-
Stage 1	-	-	-	-	-	-	368	387	-	468	477	-
Stage 2	-	-	-	-	-	-	466	475	-	368	385	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.1			40			21.7		
HCM LOS							E			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	117	964	-	-	826	-	-	224
HCM Lane V/C Ratio	0.121	0.009	-	-	0.005	-	-	0.039
HCM Control Delay (s/veh)	40	8.8	0	-	9.4	0	-	21.7
HCM Lane LOS	E	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.4	0	-	-	0	-	-	0.1

HCM 6th TWSC
24: Rendon Avenue & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	679	34	18	533	12	16	4	11	6	3	12
Future Vol, veh/h	10	679	34	18	533	12	16	4	11	6	3	12
Conflicting Peds, #/hr	4	0	7	7	0	4	0	0	3	3	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	730	37	19	573	13	17	4	12	6	3	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	590	0	0	774	0	0	1404	1406	759	1404	1418	584
Stage 1	-	-	-	-	-	-	778	778	-	622	622	-
Stage 2	-	-	-	-	-	-	626	628	-	782	796	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	985	-	-	842	-	-	117	139	406	117	137	512
Stage 1	-	-	-	-	-	-	389	407	-	474	479	-
Stage 2	-	-	-	-	-	-	472	476	-	387	399	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	981	-	-	836	-	-	107	130	402	106	128	510
Mov Cap-2 Maneuver	-	-	-	-	-	-	107	130	-	106	128	-
Stage 1	-	-	-	-	-	-	378	396	-	463	461	-
Stage 2	-	-	-	-	-	-	441	458	-	363	388	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.3			36			24.9		
HCM LOS							E			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	149	981	-	-	836	-	-	203
HCM Lane V/C Ratio	0.224	0.011	-	-	0.023	-	-	0.111
HCM Control Delay (s/veh)	36	8.7	0	-	9.4	0	-	24.9
HCM Lane LOS	E	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.8	0	-	-	0.1	-	-	0.4

HCM 6th Signalized Intersection Summary

25: Golden Gate Avenue & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	510	190	62	414	9	128	23	81	13	30	8
Future Volume (veh/h)	8	510	190	62	414	9	128	23	81	13	30	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	543	202	66	440	10	136	24	86	14	32	9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	16	686	255	85	1040	24	239	45	111	122	246	60
Arrive On Green	0.01	0.53	0.53	0.05	0.57	0.57	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	1290	480	1781	1821	41	764	212	525	281	1167	283
Grp Volume(v), veh/h	9	0	745	66	0	450	246	0	0	55	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1770	1781	0	1863	1501	0	0	1731	0	0
Q Serve(g_s), s	0.4	0.0	24.4	2.6	0.0	9.8	9.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	24.4	2.6	0.0	9.8	11.0	0.0	0.0	1.8	0.0	0.0
Prop In Lane	1.00		0.27	1.00		0.02	0.55		0.35	0.25		0.16
Lane Grp Cap(c), veh/h	16	0	942	85	0	1063	394	0	0	428	0	0
V/C Ratio(X)	0.55	0.00	0.79	0.78	0.00	0.42	0.62	0.00	0.00	0.13	0.00	0.00
Avail Cap(c_a), veh/h	497	0	1186	497	0	1248	903	0	0	766	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	35.4	0.0	13.5	33.7	0.0	8.7	26.5	0.0	0.0	23.0	0.0	0.0
Incr Delay (d2), s/veh	10.4	0.0	5.7	5.6	0.0	1.0	0.6	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	9.5	1.2	0.0	3.5	3.9	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.7	0.0	19.3	39.3	0.0	9.7	27.1	0.0	0.0	23.1	0.0	0.0
LnGrp LOS	D		B	D		A	C			C		
Approach Vol, veh/h		754			516			246			55	
Approach Delay, s/veh		19.6			13.5			27.1			23.1	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	43.1		20.1	5.7	45.9		20.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	48.0		40.0	20.0	48.0		30.0				
Max Q Clear Time (g_c+I1), s	4.6	26.4		13.0	2.4	11.8		3.8				
Green Ext Time (p_c), s	0.1	11.8		1.1	0.0	7.9		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			18.9									
HCM 6th LOS			B									

HCM 6th TWSC
26: Windsor Avenue & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	581	26	4	471	4	11	0	5	4	2	7
Future Vol, veh/h	7	581	26	4	471	4	11	0	5	4	2	7
Conflicting Peds, #/hr	6	0	6	6	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	599	27	4	486	4	11	0	5	4	2	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	496	0	0	632	0	0	1134	1137	619	1131	1148	494
Stage 1	-	-	-	-	-	-	633	633	-	502	502	-
Stage 2	-	-	-	-	-	-	501	504	-	629	646	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1068	-	-	951	-	-	180	202	489	181	199	575
Stage 1	-	-	-	-	-	-	468	473	-	552	542	-
Stage 2	-	-	-	-	-	-	552	541	-	470	467	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1062	-	-	946	-	-	173	196	486	176	193	572
Mov Cap-2 Maneuver	-	-	-	-	-	-	173	196	-	176	193	-
Stage 1	-	-	-	-	-	-	461	465	-	543	535	-
Stage 2	-	-	-	-	-	-	540	535	-	460	460	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.1			23			18.2		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	217	1062	-	-	946	-	-	287
HCM Lane V/C Ratio	0.076	0.007	-	-	0.004	-	-	0.047
HCM Control Delay (s/veh)	23	8.4	0	-	8.8	0	-	18.2
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1

HCM Signalized Intersection Capacity Analysis

27: Netherton Avenue & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	529	27	38	441	5	21	6	67	27	12	48
Future Volume (vph)	11	529	27	38	441	5	21	6	67	27	12	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Frt	1.00	0.99		1.00	0.99			0.90			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.98	
Satd. Flow (prot)	1770	1847		1770	1859			1646			1676	
Flt Permitted	0.95	1.00		0.95	1.00			0.89			0.86	
Satd. Flow (perm)	1770	1847		1770	1859			1496			1465	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	11	534	27	38	445	5	21	6	68	27	12	48
RTOR Reduction (vph)	0	0	0	0	0	0	0	57	0	0	41	0
Lane Group Flow (vph)	11	561	0	38	450	0	0	38	0	0	46	0
Confl. Peds. (#/hr)			4			1	2		6	6		2
Confl. Bikes (#/hr)			1									
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		
Actuated Green, G (s)	0.6	19.4		2.1	20.9			6.7			6.7	
Effective Green, g (s)	0.6	19.4		2.1	20.9			6.7			6.7	
Actuated g/C Ratio	0.01	0.45		0.05	0.48			0.16			0.16	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0			2.0			2.0	
Lane Grp Cap (vph)	24	829		86	899			232			227	
v/s Ratio Prot	0.01	c0.30		c0.02	0.24							
v/s Ratio Perm								0.03			c0.03	
v/c Ratio	0.45	0.67		0.44	0.50			0.16			0.20	
Uniform Delay, d1	21.1	9.4		19.9	7.5			15.8			15.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	4.9	3.3		1.3	1.2			0.1			0.1	
Delay (s)	26.1	12.8		21.2	8.8			15.9			16.0	
Level of Service	C	B		C	A			B			B	
Approach Delay (s/veh)		13.0			9.8			15.9			16.0	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			12.2			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.55									
Actuated Cycle Length (s)			43.2			Sum of lost time (s)				15.0		
Intersection Capacity Utilization			49.9%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC
28: Broadway Avenue & Main Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	559	6	10	446	16	12	2	11	13	5	14
Future Vol, veh/h	26	559	6	10	446	16	12	2	11	13	5	14
Conflicting Peds, #/hr	8	0	14	14	0	8	0	0	3	3	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	50	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	576	6	10	460	16	12	2	11	13	5	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	484	0	0	596	0	0	1145	1151	596	1131	1138	468
Stage 1	-	-	-	-	-	-	647	647	-	488	488	-
Stage 2	-	-	-	-	-	-	498	504	-	643	650	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1079	-	-	980	-	-	177	198	504	181	201	595
Stage 1	-	-	-	-	-	-	460	467	-	561	550	-
Stage 2	-	-	-	-	-	-	554	541	-	462	465	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1071	-	-	967	-	-	162	187	496	169	190	590
Mov Cap-2 Maneuver	-	-	-	-	-	-	162	187	-	169	190	-
Stage 1	-	-	-	-	-	-	443	449	-	542	540	-
Stage 2	-	-	-	-	-	-	530	531	-	437	447	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.4			0.2			22.3			21.4		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	234	1071	-	-	967	-	-	252
HCM Lane V/C Ratio	0.11	0.025	-	-	0.011	-	-	0.131
HCM Control Delay (s/veh)	22.3	8.4	-	-	8.8	-	-	21.4
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q (veh)	0.4	0.1	-	-	0	-	-	0.4

HCM Signalized Intersection Capacity Analysis29: S Center Street & Market Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											  	
Traffic Volume (vph)	0	63	58	0	0	0	0	0	0	56	1771	0
Future Volume (vph)	0	63	58	0	0	0	0	0	0	56	1771	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		1.00									0.91	
Frpb, ped/bikes		0.98									1.00	
Flpb, ped/bikes		1.00									0.99	
Frt		0.93									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		1722									5075	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		1722									5075	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	69	64	0	0	0	0	0	0	62	1946	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	10	0
Lane Group Flow (vph)	0	124	0	0	0	0	0	0	0	0	1998	0
Confl. Peds. (#/hr)	5		11							11		
Turn Type		NA								Perm	NA	
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		24.0									51.0	
Effective Green, g (s)		24.0									51.0	
Actuated g/C Ratio		0.28									0.60	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		486									3045	
v/s Ratio Prot		0.07										
v/s Ratio Perm											0.39	
v/c Ratio		0.25									0.65	
Uniform Delay, d1		23.5									11.2	
Progression Factor		1.00									1.00	
Incremental Delay, d2		1.2									1.1	
Delay (s)		24.8									12.3	
Level of Service		C									B	
Approach Delay (s/veh)		24.8			0.0			0.0			12.3	
Approach LOS		C			A			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			13.1									
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			85.0							10.0		
Intersection Capacity Utilization			62.9%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis30: S El Dorado Street & Market Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰						↱↱↱				
Traffic Volume (vph)	67	81	0	0	0	0	0	1446	39	0	0	0
Future Volume (vph)	67	81	0	0	0	0	0	1446	39	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0				
Lane Util. Factor		1.00						0.91				
Frpb, ped/bikes		1.00						0.99				
Flpb, ped/bikes		0.99						1.00				
Frt		1.00						0.99				
Flt Protected		0.97						1.00				
Satd. Flow (prot)		1818						5060				
Flt Permitted		0.97						1.00				
Satd. Flow (perm)		1818						5060				
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	70	84	0	0	0	0	0	1506	41	0	0	0
RTOR Reduction (vph)	0	24	0	0	0	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	130	0	0	0	0	0	1544	0	0	0	0
Confl. Peds. (#/hr)	3								10			
Confl. Bikes (#/hr)			2						3			
Turn Type	Perm	NA						NA				
Protected Phases		2						1				
Permitted Phases	2											
Actuated Green, G (s)		25.0						50.0				
Effective Green, g (s)		25.0						50.0				
Actuated g/C Ratio		0.29						0.59				
Clearance Time (s)		5.0						5.0				
Vehicle Extension (s)		0.2						0.2				
Lane Grp Cap (vph)		534						2976				
v/s Ratio Prot								c0.31				
v/s Ratio Perm		0.07										
v/c Ratio		0.24						0.51				
Uniform Delay, d1		22.8						10.3				
Progression Factor		0.78						1.00				
Incremental Delay, d2		1.0						0.6				
Delay (s)		18.9						11.0				
Level of Service		B						B				
Approach Delay (s/veh)		18.9			0.0			11.0			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		11.7						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.43										
Actuated Cycle Length (s)		85.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		45.1%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th AWSC
31: S Hunter Street & Market Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection

Intersection Delay, s/veh 7.9

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	106	13	0	0	0	0	0	24	32	36	0
Future Vol, veh/h	0	106	13	0	0	0	0	0	24	32	36	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	125	15	0	0	0	0	0	28	38	42	0
Number of Lanes	0	1	0	0	0	0	0	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.9	7	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%
Vol Thru, %	0%	89%	0%	100%
Vol Right, %	100%	11%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	119	32	36
LT Vol	0	0	32	0
Through Vol	0	106	0	36
RT Vol	24	13	0	0
Lane Flow Rate	28	140	38	42
Geometry Grp	4a	2	5	5
Degree of Util (X)	0.03	0.158	0.055	0.056
Departure Headway (Hd)	3.842	4.05	5.297	4.796
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	937	874	671	740
Service Time	1.842	2.132	3.069	2.567
HCM Lane V/C Ratio	0.03	0.16	0.057	0.057
HCM Control Delay, s/veh	7	7.9	8.4	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.6	0.2	0.2

HCM Signalized Intersection Capacity Analysis

32: S San Joaquin Street & Market Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	105	36	0	0	0	0	118	48	15	129	0
Future Volume (vph)	21	105	36	0	0	0	0	118	48	15	129	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						0.95			0.95	
Frpb, ped/bikes		0.98						0.95			1.00	
Flpb, ped/bikes		0.99						1.00			0.98	
Frt		0.96						0.95			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		1770						3216			3478	
Flt Permitted		0.99						1.00			0.92	
Satd. Flow (perm)		1770						3216			3232	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	24	119	41	0	0	0	0	134	55	17	147	0
RTOR Reduction (vph)	0	14	0	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	0	170	0	0	0	0	0	162	0	0	164	0
Confl. Peds. (#/hr)	19		49						78	78		
Confl. Bikes (#/hr)									4			
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						1			1	
Permitted Phases	2									1		
Actuated Green, G (s)		24.0						36.0			36.0	
Effective Green, g (s)		24.0						36.0			36.0	
Actuated g/C Ratio		0.34						0.51			0.51	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		606						1653			1662	
v/s Ratio Prot								0.05				
v/s Ratio Perm		0.10									c0.05	
v/c Ratio		0.27						0.09			0.09	
Uniform Delay, d1		16.7						8.6			8.6	
Progression Factor		1.00						1.00			0.35	
Incremental Delay, d2		1.1						0.1			0.1	
Delay (s)		17.8						8.8			3.1	
Level of Service		B						A			A	
Approach Delay (s/veh)		17.8			0.0			8.8			3.1	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		10.2						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.17										
Actuated Cycle Length (s)		70.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		43.6%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis33: S Sutter Street & Market Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	121	30	0	0	0	0	112	41	18	124	0
Future Volume (vph)	18	121	30	0	0	0	0	112	41	18	124	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0		5.0	
Lane Util. Factor		1.00						1.00	1.00		0.95	
Frpb, ped/bikes		0.97						1.00	0.80		1.00	
Flpb, ped/bikes		0.99						1.00	1.00		0.98	
Frt		0.97						1.00	0.85		1.00	
Flt Protected		0.99						1.00	1.00		0.99	
Satd. Flow (prot)		1750						1863	1276		3451	
Flt Permitted		0.99						1.00	1.00		0.91	
Satd. Flow (perm)		1750						1863	1276		3180	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	24	159	39	0	0	0	0	147	54	24	163	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	31	0	0	0
Lane Group Flow (vph)	0	211	0	0	0	0	0	147	23	0	187	0
Confl. Peds. (#/hr)	35		123						81	81		
Confl. Bikes (#/hr)									1			
Turn Type	Perm	NA						NA	Perm	Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)		30.0						30.0	30.0		30.0	
Effective Green, g (s)		30.0						30.0	30.0		30.0	
Actuated g/C Ratio		0.43						0.43	0.43		0.43	
Clearance Time (s)		5.0						5.0	5.0		5.0	
Vehicle Extension (s)		0.2						0.2	0.2		0.2	
Lane Grp Cap (vph)		750						798	546		1362	
v/s Ratio Prot								c0.08				
v/s Ratio Perm		0.12							0.02		0.06	
v/c Ratio		0.28						0.18	0.04		0.13	
Uniform Delay, d1		12.9						12.4	11.6		12.1	
Progression Factor		1.48						1.00	1.00		0.70	
Incremental Delay, d2		0.9						0.5	0.1		0.2	
Delay (s)		20.2						12.9	11.7		8.8	
Level of Service		C						B	B		A	
Approach Delay (s/veh)		20.2			0.0			12.6			8.8	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		14.2										
HCM 2000 Volume to Capacity ratio		0.23										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		45.6%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary34: California Street & Market Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	131	18	0	0	0	0	190	32	31	247	0
Future Volume (veh/h)	27	131	18	0	0	0	0	190	32	31	247	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	30	146	20				0	211	36	34	274	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	76	368	50				0	911	155	130	976	0
Arrive On Green	0.09	0.09	0.09				0.00	0.59	0.59	1.00	1.00	0.00
Sat Flow, veh/h	279	1357	186				0	1556	265	124	1666	0
Grp Volume(v), veh/h	196	0	0				0	0	247	308	0	0
Grp Sat Flow(s), veh/h/ln	1821	0	0				0	0	1821	1789	0	0
Q Serve(g_s), s	7.1	0.0	0.0				0.0	0.0	4.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.1	0.0	0.0				0.0	0.0	4.6	0.0	0.0	0.0
Prop In Lane	0.15		0.10				0.00		0.15	0.11		0.00
Lane Grp Cap(c), veh/h	494	0	0				0	0	1067	1105	0	0
V/C Ratio(X)	0.40	0.00	0.00				0.00	0.00	0.23	0.28	0.00	0.00
Avail Cap(c_a), veh/h	494	0	0				0	0	1067	1105	0	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.98	0.00	0.00				0.00	0.00	1.00	0.78	0.00	0.00
Uniform Delay (d), s/veh	26.5	0.0	0.0				0.0	0.0	6.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	0.0				0.0	0.0	0.5	0.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	0.0				0.0	0.0	1.6	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.8	0.0	0.0				0.0	0.0	7.5	0.5	0.0	0.0
LnGrp LOS	C								A	A		
Approach Vol, veh/h		196						247			308	
Approach Delay, s/veh		28.8						7.5			0.5	
Approach LOS		C						A			A	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		46.0		24.0		46.0						
Change Period (Y+Rc), s		5.0		5.0		5.0						
Max Green Setting (Gmax), s		41.0		19.0		41.0						
Max Q Clear Time (g_c+I1), s		6.6		9.1		2.0						
Green Ext Time (p_c), s		0.3		0.2		0.3						
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			10.2									
HCM 6th LOS			B									

HCM Signalized Intersection Capacity Analysis

35: S American Street & Market Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	178	0	0	0	0	0	0	0	38	1	0
Future Volume (vph)	25	178	0	0	0	0	0	0	0	38	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0									5.0	
Lane Util. Factor		1.00									1.00	
Frpb, ped/bikes		1.00									1.00	
Flpb, ped/bikes		0.99									0.98	
Frt		1.00									1.00	
Flt Protected		0.99									0.95	
Satd. Flow (prot)		1849									1753	
Flt Permitted		0.99									0.77	
Satd. Flow (perm)		1849									1423	
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Adj. Flow (vph)	36	254	0	0	0	0	0	0	0	54	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	290	0	0	0	0	0	0	0	0	55	0
Confl. Peds. (#/hr)	5		1							6	6	
Turn Type	Perm	NA								Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		40.0									20.0	
Effective Green, g (s)		40.0									20.0	
Actuated g/C Ratio		0.57									0.29	
Clearance Time (s)		5.0									5.0	
Vehicle Extension (s)		0.2									0.2	
Lane Grp Cap (vph)		1056									406	
v/s Ratio Prot												
v/s Ratio Perm		0.16									c0.04	
v/c Ratio		0.27									0.13	
Uniform Delay, d1		7.6									18.5	
Progression Factor		0.52									0.74	
Incremental Delay, d2		0.6									0.6	
Delay (s)		4.6									14.5	
Level of Service		A									B	
Approach Delay (s/veh)		4.6			0.0			0.0			14.5	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		6.2										
HCM 2000 Volume to Capacity ratio		0.23										
Actuated Cycle Length (s)		70.0								10.0		
Intersection Capacity Utilization		36.7%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

36: S Stanislaus Street & Market Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	135	64	0	0	0	0	263	32	6	365	0
Future Volume (vph)	17	135	64	0	0	0	0	263	32	6	365	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						0.95			0.95	
Frpb, ped/bikes		0.99						0.99			1.00	
Flpb, ped/bikes		0.99						1.00			0.99	
Frt		0.96						0.98			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		1771						3470			3536	
Flt Permitted		0.99						1.00			0.94	
Satd. Flow (perm)		1771						3470			3361	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	21	165	78	0	0	0	0	321	39	7	445	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	264	0	0	0	0	0	347	0	0	452	0
Confl. Peds. (#/hr)	4		5						5	5		
Confl. Bikes (#/hr)			1						1			
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		1						2			2	
Permitted Phases	1									2		
Actuated Green, G (s)		25.0						35.0			35.0	
Effective Green, g (s)		25.0						35.0			35.0	
Actuated g/C Ratio		0.36						0.50			0.50	
Clearance Time (s)		5.0						5.0			5.0	
Vehicle Extension (s)		0.2						0.2			0.2	
Lane Grp Cap (vph)		632						1735			1680	
v/s Ratio Prot								0.10				
v/s Ratio Perm		0.15									c0.13	
v/c Ratio		0.41						0.19			0.26	
Uniform Delay, d1		17.0						9.7			10.1	
Progression Factor		0.50						1.00			0.75	
Incremental Delay, d2		1.9						0.2			0.3	
Delay (s)		10.6						9.9			8.0	
Level of Service		B						A			A	
Approach Delay (s/veh)		10.6			0.0			9.9			8.0	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		9.3										
HCM 2000 Volume to Capacity ratio		0.33										
Actuated Cycle Length (s)		70.0										
Intersection Capacity Utilization		37.7%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th TWSC
37: S Grant Street & Market Street

Background Build Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	24	149	2	0	0	0	0	2	5	26	10	0
Future Vol, veh/h	24	149	2	0	0	0	0	2	5	26	10	0
Conflicting Peds, #/hr	2	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	177	2	0	0	0	0	2	6	31	12	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	2	0	0	-	239	179	242	240	-
Stage 1	-	-	-	-	237	-	2	2	-
Stage 2	-	-	-	-	2	-	240	238	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1620	-	-	0	662	864	712	661	0
Stage 1	-	-	-	0	709	-	-	-	0
Stage 2	-	-	-	0	-	-	763	708	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1617	-	-	-	647	863	693	646	-
Mov Cap-2 Maneuver	-	-	-	-	647	-	693	646	-
Stage 1	-	-	-	-	694	-	-	-	-
Stage 2	-	-	-	-	-	-	740	693	-

Approach	EB	NB	SB
HCM Control Delay, s/v	1	9.6	10.7
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	788	1617	-	-	679
HCM Lane V/C Ratio	0.011	0.018	-	-	0.063
HCM Control Delay (s/veh)	9.6	7.3	0	-	10.7
HCM Lane LOS	A	A	A	-	B
HCM 95th %tile Q (veh)	0	0.1	-	-	0.2

HCM 6th TWSC

Background Build Conditions

38: S Aurora Street & Market Street

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	6.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	128	21	0	0	0	0	115	28	8	53	0
Future Vol, veh/h	26	128	21	0	0	0	0	115	28	8	53	0
Conflicting Peds, #/hr	1	0	1	0	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	138	23	0	0	0	0	124	30	9	57	0
Major/Minor	Major1			Minor1			Minor2					
Conflicting Flow All	1	0	0				-	208	153	286	219	-
Stage 1	-	-	-				-	207	-	1	1	-
Stage 2	-	-	-				-	1	-	285	218	-
Critical Hdwy	4.12	-	-				-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-				-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-				-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1622	-	-				0	689	893	666	679	0
Stage 1	-	-	-				0	731	-	-	-	0
Stage 2	-	-	-				0	-	-	722	723	0
Platoon blocked, %		-	-									
Mov Cap-1 Maneuver	1620	-	-				-	675	892	545	665	-
Mov Cap-2 Maneuver	-	-	-				-	675	-	545	665	-
Stage 1	-	-	-				-	716	-	-	-	-
Stage 2	-	-	-				-	-	-	566	709	-
Approach	EB			NB			SB					
HCM Control Delay, s/v	1.1			11.5			11.2					
HCM LOS				B			B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1							
Capacity (veh/h)	709	1620	-	-	646							
HCM Lane V/C Ratio	0.217	0.017	-	-	0.102							
HCM Control Delay (s/veh)	11.5	7.3	0	-	11.2							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.8	0.1	-	-	0.3							

HCM 6th TWSC
39: Union Street & Market Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	17	166	7	0	0	0	0	87	27	16	91	0
Future Vol, veh/h	17	166	7	0	0	0	0	87	27	16	91	0
Conflicting Peds, #/hr	0	0	3	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	178	8	0	0	0	0	94	29	17	98	0
Major/Minor	Major1			Minor1			Minor2					
Conflicting Flow All	0	0	0	-	221	186	281	225	-	-	-	-
Stage 1	-	-	-	-	221	-	0	0	-	-	-	-
Stage 2	-	-	-	-	0	-	281	225	-	-	-	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-	-	-	-
Pot Cap-1 Maneuver	-	-	-	0	678	856	671	674	0	-	-	-
Stage 1	-	-	-	0	720	-	-	-	0	-	-	-
Stage 2	-	-	-	0	-	-	726	718	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	676	854	579	672	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	676	-	579	672	-	-	-	-
Stage 1	-	-	-	-	718	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	610	716	-	-	-	-
Approach	EB			NB			SB					
HCM Control Delay, s/v				11.1			11.7					
HCM LOS				B			B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1							
Capacity (veh/h)	711	-	-	-	656							
HCM Lane V/C Ratio	0.172	-	-	-	0.175							
HCM Control Delay (s/veh)	11.1	-	-	-	11.7							
HCM Lane LOS	B	-	-	-	B							
HCM 95th %tile Q (veh)	0.6	-	-	-	0.6							

HCM 6th TWSC
40: Pilgrim Street & Market Street

Background Build Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	196	3	0	0	0	0	11	10	15	8	0
Future Vol, veh/h	11	196	3	0	0	0	0	11	10	15	8	0
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	8	8	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	211	3	0	0	0	0	12	11	16	9	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	238	222	256	239	-
Stage 1	-	-	-	-	238	-	0	0	-
Stage 2	-	-	-	-	0	-	256	239	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	-	-	-	0	663	818	697	662	0
Stage 1	-	-	-	0	708	-	-	-	0
Stage 2	-	-	-	0	-	-	749	708	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	662	817	678	661	-
Mov Cap-2 Maneuver	-	-	-	-	662	-	678	661	-
Stage 1	-	-	-	-	707	-	-	-	-
Stage 2	-	-	-	-	-	-	727	707	-

Approach	EB	NB	SB
HCM Control Delay, s/v		10.1	10.6
HCM LOS		B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	728	-	-	-	672
HCM Lane V/C Ratio	0.031	-	-	-	0.037
HCM Control Delay (s/veh)	10.1	-	-	-	10.6
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q (veh)	0.1	-	-	-	0.1

HCM 6th Signalized Intersection Summary41: Airport Way & Market Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	160	22	0	0	0	0	845	53	97	688	0
Future Volume (veh/h)	23	160	22	0	0	0	0	845	53	97	688	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	25	176	24				0	929	58	107	756	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	30	214	29				0	2506	156	261	1808	0
Arrive On Green	0.15	0.15	0.15				0.00	0.74	0.74	1.00	1.00	0.00
Sat Flow, veh/h	203	1426	194				0	3484	212	283	2531	0
Grp Volume(v), veh/h	225	0	0				0	487	500	368	495	0
Grp Sat Flow(s), veh/h/ln	1823	0	0				0	1777	1826	1113	1617	0
Q Serve(g_s), s	10.8	0.0	0.0				0.0	8.9	8.9	3.2	0.0	0.0
Cycle Q Clear(g_c), s	10.8	0.0	0.0				0.0	8.9	8.9	12.0	0.0	0.0
Prop In Lane	0.11		0.11				0.00		0.12	0.29		0.00
Lane Grp Cap(c), veh/h	273	0	0				0	1313	1349	874	1195	0
V/C Ratio(X)	0.82	0.00	0.00				0.00	0.37	0.37	0.42	0.41	0.00
Avail Cap(c_a), veh/h	446	0	0				0	1313	1349	874	1195	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.94	0.94	0.00
Uniform Delay (d), s/veh	37.1	0.0	0.0				0.0	4.2	4.2	0.2	0.0	0.0
Incr Delay (d2), s/veh	2.7	0.0	0.0				0.0	0.8	0.8	1.4	1.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	0.0				0.0	2.6	2.6	0.3	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.8	0.0	0.0				0.0	5.0	5.0	1.6	1.0	0.0
LnGrp LOS	D						A	A	A	A		
Approach Vol, veh/h		225						987			863	
Approach Delay, s/veh		39.8						5.0			1.3	
Approach LOS		D						A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		71.5				71.5		18.5				
Change Period (Y+Rc), s		5.0				5.0		5.0				
Max Green Setting (Gmax), s		58.0				58.0		22.0				
Max Q Clear Time (g_c+I1), s		14.0				10.9		12.8				
Green Ext Time (p_c), s		1.3				0.9		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			7.2									
HCM 6th LOS			A									

HCM 6th TWSC
42: Sierra Nevada Street & Market Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	284	5	0	0	0	0	20	15	70	26	0
Future Vol, veh/h	23	284	5	0	0	0	0	20	15	70	26	0
Conflicting Peds, #/hr	1	0	3	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	302	5	0	0	0	0	21	16	74	28	0
Major/Minor	Major1			Minor1			Minor2					
Conflicting Flow All	1	0	0				-	357	308	372	359	-
Stage 1	-	-	-				-	356	-	1	1	-
Stage 2	-	-	-				-	1	-	371	358	-
Critical Hdwy	4.12	-	-				-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-				-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-				-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1622	-	-				0	569	732	585	568	0
Stage 1	-	-	-				0	629	-	-	-	0
Stage 2	-	-	-				0	-	-	649	628	0
Platoon blocked, %		-	-									
Mov Cap-1 Maneuver	1620	-	-				-	556	730	548	556	-
Mov Cap-2 Maneuver	-	-	-				-	556	-	548	556	-
Stage 1	-	-	-				-	616	-	-	-	-
Stage 2	-	-	-				-	-	-	602	615	-
Approach	EB			NB			SB					
HCM Control Delay, s/v	0.5			11.2			13					
HCM LOS				B			B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1							
Capacity (veh/h)	619	1620	-	-	550							
HCM Lane V/C Ratio	0.06	0.015	-	-	0.186							
HCM Control Delay (s/veh)	11.2	7.3	0	-	13							
HCM Lane LOS	B	A	A	-	B							
HCM 95th %tile Q (veh)	0.2	0	-	-	0.7							

HCM 6th Signalized Intersection Summary43: S Wilson Way & Market Street

Background Build Conditions

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	262	75	0	0	0	0	850	112	188	814	0
Future Volume (veh/h)	38	262	75	0	0	0	0	850	112	188	814	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	40	276	79				0	895	118	198	857	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	42	292	84				0	1484	196	231	2330	0
Arrive On Green	0.08	0.08	0.08				0.00	0.47	0.47	0.17	0.87	0.00
Sat Flow, veh/h	181	1251	358				0	3249	416	1781	3647	0
Grp Volume(v), veh/h	395	0	0				0	504	509	198	857	0
Grp Sat Flow(s), veh/h/ln	1790	0	0				0	1777	1795	1781	1777	0
Q Serve(g_s), s	19.8	0.0	0.0				0.0	18.9	18.9	9.7	4.1	0.0
Cycle Q Clear(g_c), s	19.8	0.0	0.0				0.0	18.9	18.9	9.7	4.1	0.0
Prop In Lane	0.10		0.20				0.00		0.23	1.00		0.00
Lane Grp Cap(c), veh/h	418	0	0				0	836	844	231	2330	0
V/C Ratio(X)	0.95	0.00	0.00				0.00	0.60	0.60	0.86	0.37	0.00
Avail Cap(c_a), veh/h	418	0	0				0	836	844	257	2330	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.92	0.92	0.00
Uniform Delay (d), s/veh	41.0	0.0	0.0				0.0	17.6	17.6	36.4	2.2	0.0
Incr Delay (d2), s/veh	30.2	0.0	0.0				0.0	3.2	3.2	19.1	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.0	0.0	0.0				0.0	8.2	8.3	5.2	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	71.2	0.0	0.0				0.0	20.8	20.8	55.5	2.7	0.0
LnGrp LOS	E							C	C	E	A	
Approach Vol, veh/h		395						1013			1055	
Approach Delay, s/veh		71.2						20.8			12.6	
Approach LOS		E						C			B	
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	16.7	47.3				64.0		26.0				
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0				
Max Green Setting (Gmax), s	13.0	41.0				59.0		21.0				
Max Q Clear Time (g_c+I1), s	11.7	20.9				6.1		21.8				
Green Ext Time (p_c), s	0.0	13.6				20.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			25.4									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
44: S Eugenia Street & Market Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	574	12	0	0	0	42
Future Vol, veh/h	574	12	0	0	0	42
Conflicting Peds, #/hr	0	6	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	624	13	0	0	0	46
Major/Minor	Major1		Minor1			
Conflicting Flow All	0	0			-	637
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Critical Hdwy	-	-			-	6.22
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	-			-	3.318
Pot Cap-1 Maneuver	-	-			0	477
Stage 1	-	-			0	-
Stage 2	-	-			0	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-			-	474
Mov Cap-2 Maneuver	-	-			-	-
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Approach	EB		NB			
HCM Control Delay, s/v	0				13.4	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR			
Capacity (veh/h)	474	-	-			
HCM Lane V/C Ratio	0.096	-	-			
HCM Control Delay (s/veh)	13.4	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q (veh)	0.3	-	-			

HCM 6th TWSC
45: Della Street & Market Street

Background Build Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	55	535	18	0	0	0	0	1	1	34	44	0
Future Vol, veh/h	55	535	18	0	0	0	0	1	1	34	44	0
Conflicting Peds, #/hr	2	0	1	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	601	20	0	0	0	0	1	1	38	49	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	2	0	0	-	738	613	739	748	-
Stage 1	-	-	-	-	736	-	2	2	-
Stage 2	-	-	-	-	2	-	737	746	-
Critical Hdwy	4.12	-	-	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1620	-	-	0	346	492	333	341	0
Stage 1	-	-	-	0	425	-	-	-	0
Stage 2	-	-	-	0	-	-	410	421	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1617	-	-	-	325	492	316	320	-
Mov Cap-2 Maneuver	-	-	-	-	325	-	316	320	-
Stage 1	-	-	-	-	400	-	-	-	-
Stage 2	-	-	-	-	-	-	384	396	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0.7	14.3	20.6
HCM LOS		B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	391	1617	-	-	318
HCM Lane V/C Ratio	0.006	0.038	-	-	0.276
HCM Control Delay (s/veh)	14.3	7.3	0	-	20.6
HCM Lane LOS	B	A	A	-	C
HCM 95th %tile Q (veh)	0	0.1	-	-	1.1

Queues

Background Build Conditions

2: S San Joaquin Street/N San Joaquin Street & Main Street

Timing Plan: AM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	96	250	256
v/c Ratio	0.57	0.22	0.20
Control Delay (s/veh)	46.3	13.0	15.5
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	46.3	13.0	15.5
Queue Length 50th (ft)	41	28	37
Queue Length 95th (ft)	79	44	67
Internal Link Dist (ft)	301	264	331
Turn Bay Length (ft)			
Base Capacity (vph)	269	1129	1223
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.36	0.22	0.21
Intersection Summary			

Queues

Background Build Conditions

3: S Sutter Street/N Sutter Street & Main Street

Timing Plan: AM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	83	102	144
v/c Ratio	0.21	0.22	0.15
Control Delay (s/veh)	13.8	15.0	20.0
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	13.8	15.0	20.0
Queue Length 50th (ft)	28	20	24
Queue Length 95th (ft)	m56	36	41
Internal Link Dist (ft)	298	256	344
Turn Bay Length (ft)			
Base Capacity (vph)	387	451	904
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.21	0.23	0.16

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Background Build Conditions

4: California Street & Main Street

Timing Plan: AM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	170	307	255
v/c Ratio	0.45	0.62	0.50
Control Delay (s/veh)	41.3	21.8	25.8
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	41.3	21.8	25.8
Queue Length 50th (ft)	77	118	93
Queue Length 95th (ft)	m86	181	150
Internal Link Dist (ft)	307	257	324
Turn Bay Length (ft)			
Base Capacity (vph)	373	494	501
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.46	0.62	0.51

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Background Build Conditions

5: S American Street/N American Street & Main Street

Timing Plan: AM Peak Hour



Lane Group	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	366	58	53	34
v/c Ratio	1.04	0.13	0.10	0.08
Control Delay (s/veh)	89.3	20.4	19.9	19.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	89.3	20.4	19.9	19.8
Queue Length 50th (ft)	~169	14	17	11
Queue Length 95th (ft)	156	20	27	20
Internal Link Dist (ft)	303	260	330	
Turn Bay Length (ft)				
Base Capacity (vph)	351	439	505	412
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.04	0.13	0.10	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

Queues

Background Build Conditions

6: S Stanislaus Street/N Stanislaus Street & Main Street

Timing Plan: AM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	211	712	311
v/c Ratio	0.32	0.48	0.17
Control Delay (s/veh)	18.1	9.6	9.4
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	18.1	9.7	9.4
Queue Length 50th (ft)	65	61	34
Queue Length 95th (ft)	88	67	42
Internal Link Dist (ft)	300	272	338
Turn Bay Length (ft)			
Base Capacity (vph)	651	1454	1755
Starvation Cap Reductn	0	47	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.32	0.51	0.18
Intersection Summary			

Queues

Background Build Conditions

11: Airport Way & Main Street

Timing Plan: AM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	242	866	728
v/c Ratio	0.56	0.40	0.32
Control Delay (s/veh)	22.9	5.2	7.5
Queue Delay	0.0	0.1	0.0
Total Delay (s/veh)	22.9	5.4	7.5
Queue Length 50th (ft)	82	120	86
Queue Length 95th (ft)	169	11	115
Internal Link Dist (ft)	310	254	262
Turn Bay Length (ft)			
Base Capacity (vph)	432	2125	2274
Starvation Cap Reductn	0	409	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.56	0.50	0.32
Intersection Summary			

Queues

Background Build Conditions

13: S Wilson Way & Main Street

Timing Plan: AM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	268	215	33	753	689
v/c Ratio	0.76	0.44	0.06	0.30	0.28
Control Delay (s/veh)	48.5	7.3	11.6	10.3	5.9
Queue Delay	0.0	0.0	0.0	0.5	0.0
Total Delay (s/veh)	48.5	7.3	11.6	10.8	5.9
Queue Length 50th (ft)	145	0	5	73	66
Queue Length 95th (ft)	213	53	m33	213	112
Internal Link Dist (ft)	710			271	283
Turn Bay Length (ft)		300	70		
Base Capacity (vph)	463	564	489	2462	2450
Starvation Cap Reductn	0	0	0	1183	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.38	0.07	0.59	0.28

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Background Build Conditions

17: Main Street & D Street

Timing Plan: AM Peak Hour



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	300	472	15
v/c Ratio	0.19	0.27	0.03
Control Delay (s/veh)	2.0	2.1	8.4
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	2.0	2.1	8.4
Queue Length 50th (ft)	0	0	1
Queue Length 95th (ft)	48	80	11
Internal Link Dist (ft)	615	624	178
Turn Bay Length (ft)			
Base Capacity (vph)	1784	1793	1477
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.17	0.26	0.01
Intersection Summary			

Queues

Background Build Conditions

25: Golden Gate Avenue & Main Street

Timing Plan: AM Peak Hour

						
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	3	460	92	546	142	54
v/c Ratio	0.01	0.60	0.35	0.50	0.46	0.15
Control Delay (s/veh)	36.6	19.8	32.9	11.0	26.1	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	36.6	19.8	32.9	11.0	26.1	21.8
Queue Length 50th (ft)	1	117	28	77	36	14
Queue Length 95th (ft)	11	324	101	331	112	51
Internal Link Dist (ft)		249		250	364	346
Turn Bay Length (ft)	95		95			
Base Capacity (vph)	685	1463	685	1520	1012	1189
Starvation Cap Reductn	0	0	0	17	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.31	0.13	0.36	0.14	0.05
Intersection Summary						

Queues

Background Build Conditions

27: Netherton Avenue & Main Street

Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	4	397	32	605	77	108
v/c Ratio	0.01	0.37	0.12	0.51	0.22	0.30
Control Delay (s/veh)	28.0	11.9	26.1	11.0	10.0	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.0	11.9	26.1	11.0	10.0	11.5
Queue Length 50th (ft)	1	35	6	62	4	8
Queue Length 95th (ft)	12	236	44	385	39	53
Internal Link Dist (ft)		247		244	354	364
Turn Bay Length (ft)	90		90			
Base Capacity (vph)	1135	1548	1330	1649	1171	1168
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.26	0.02	0.37	0.07	0.09
Intersection Summary						

Queues

Background Build Conditions

29: S Center Street & Market Street

Timing Plan: AM Peak Hour



Lane Group	EBT	SBT
Lane Group Flow (vph)	120	1500
v/c Ratio	0.23	0.48
Control Delay (s/veh)	17.8	9.3
Queue Delay	0.0	0.0
Total Delay (s/veh)	17.8	9.3
Queue Length 50th (ft)	33	140
Queue Length 95th (ft)	74	169
Internal Link Dist (ft)	316	666
Turn Bay Length (ft)		
Base Capacity (vph)	502	3110
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.24	0.48
Intersection Summary		

Queues

Background Build Conditions

30: S El Dorado Street & Market Street

Timing Plan: AM Peak Hour



Lane Group	EBT	NBT
Lane Group Flow (vph)	246	1974
v/c Ratio	0.50	0.62
Control Delay (s/veh)	28.3	10.8
Queue Delay	0.0	0.0
Total Delay (s/veh)	28.3	10.8
Queue Length 50th (ft)	109	212
Queue Length 95th (ft)	174	236
Internal Link Dist (ft)	266	322
Turn Bay Length (ft)		
Base Capacity (vph)	488	3142
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.50	0.63
Intersection Summary		

Queues

Background Build Conditions

32: S San Joaquin Street & Market Street

Timing Plan: AM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	281	262	155
v/c Ratio	0.45	0.15	0.10
Control Delay (s/veh)	19.8	7.4	3.8
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	19.8	7.4	3.8
Queue Length 50th (ft)	87	23	5
Queue Length 95th (ft)	130	35	8
Internal Link Dist (ft)	297	287	264
Turn Bay Length (ft)			
Base Capacity (vph)	615	1716	1544
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.46	0.15	0.10
Intersection Summary			

Queues

Background Build Conditions

33: S Sutter Street & Market Street

Timing Plan: AM Peak Hour

	→	↑	↗	↓
Lane Group	EBT	NBT	NBR	SBT
Lane Group Flow (vph)	255	136	21	132
v/c Ratio	0.35	0.17	0.03	0.09
Control Delay (s/veh)	18.1	13.0	3.7	3.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.1	13.0	3.7	3.4
Queue Length 50th (ft)	78	35	0	3
Queue Length 95th (ft)	92	55	6	5
Internal Link Dist (ft)	296	293		256
Turn Bay Length (ft)				
Base Capacity (vph)	725	798	580	1431
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.35	0.17	0.04	0.09
Intersection Summary				

Queues

Background Build Conditions

34: California Street & Market Street

Timing Plan: AM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	142	450	327
v/c Ratio	0.28	0.42	0.33
Control Delay (s/veh)	9.9	8.7	1.1
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	9.9	8.7	1.1
Queue Length 50th (ft)	17	87	2
Queue Length 95th (ft)	28	111	2
Internal Link Dist (ft)	309	298	257
Turn Bay Length (ft)			
Base Capacity (vph)	498	1066	987
Starvation Cap Reductn	0	0	15
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.29	0.42	0.34
Intersection Summary			

Queues

Background Build Conditions

35: S American Street & Market Street

Timing Plan: AM Peak Hour



Lane Group	EBT	SBT
Lane Group Flow (vph)	332	200
v/c Ratio	0.31	0.49
Control Delay (s/veh)	8.7	18.1
Queue Delay	0.0	0.0
Total Delay (s/veh)	8.7	18.1
Queue Length 50th (ft)	66	77
Queue Length 95th (ft)	59	m73
Internal Link Dist (ft)	303	260
Turn Bay Length (ft)		
Base Capacity (vph)	1052	401
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.32	0.50

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Background Build Conditions

36: S Stanislaus Street & Market Street

Timing Plan: AM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	363	783	312
v/c Ratio	0.59	0.44	0.19
Control Delay (s/veh)	19.6	11.9	7.0
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	19.6	11.9	7.0
Queue Length 50th (ft)	138	103	15
Queue Length 95th (ft)	140	106	18
Internal Link Dist (ft)	304	325	272
Turn Bay Length (ft)			
Base Capacity (vph)	615	1752	1628
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.59	0.45	0.19
Intersection Summary			

Queues

Background Build Conditions

41: Airport Way & Market Street

Timing Plan: AM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	143	949	743
v/c Ratio	0.63	0.35	0.37
Control Delay (s/veh)	48.3	4.5	3.8
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	48.3	4.5	3.8
Queue Length 50th (ft)	80	64	35
Queue Length 95th (ft)	119	159	54
Internal Link Dist (ft)	289	285	254
Turn Bay Length (ft)			
Base Capacity (vph)	440	2680	1990
Starvation Cap Reductn	0	0	179
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.33	0.35	0.41
Intersection Summary			

Queues

Background Build Conditions

43: S Wilson Way & Market Street

Timing Plan: AM Peak Hour

	→	↑	↘	↓
Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	226	797	126	663
v/c Ratio	0.73	0.41	0.62	0.26
Control Delay (s/veh)	55.5	13.7	45.1	6.5
Queue Delay	0.0	0.0	0.0	0.2
Total Delay (s/veh)	55.5	13.7	45.1	6.7
Queue Length 50th (ft)	131	131	70	94
Queue Length 95th (ft)	171	211	m126	154
Internal Link Dist (ft)	296	296		271
Turn Bay Length (ft)			90	
Base Capacity (vph)	417	1911	255	2535
Starvation Cap Reductn	0	0	0	1076
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.54	0.42	0.49	0.45
Intersection Summary				
m Volume for 95th percentile queue is metered by upstream signal.				

Queues

Background Build Conditions

2: S San Joaquin Street/N San Joaquin Street & Main Street

Timing Plan: PM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	101	146	165
v/c Ratio	0.59	0.11	0.12
Control Delay (s/veh)	47.0	11.1	15.0
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	47.0	11.1	15.0
Queue Length 50th (ft)	43	13	23
Queue Length 95th (ft)	83	22	45
Internal Link Dist (ft)	301	264	331
Turn Bay Length (ft)			
Base Capacity (vph)	266	1282	1329
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.38	0.11	0.12
Intersection Summary			

Queues

Background Build Conditions

3: S Sutter Street/N Sutter Street & Main Street

Timing Plan: PM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	98	186	137
v/c Ratio	0.25	0.38	0.15
Control Delay (s/veh)	17.3	16.7	19.9
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	17.3	16.7	19.9
Queue Length 50th (ft)	38	38	23
Queue Length 95th (ft)	m67	56	38
Internal Link Dist (ft)	298	256	344
Turn Bay Length (ft)			
Base Capacity (vph)	378	487	907
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.26	0.38	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Background Build Conditions

4: California Street & Main Street

Timing Plan: PM Peak Hour

	←	↑	↓
Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	125	258	295
v/c Ratio	0.33	0.52	0.58
Control Delay (s/veh)	43.2	21.9	27.7
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	43.2	21.9	27.7
Queue Length 50th (ft)	58	98	110
Queue Length 95th (ft)	105	160	177
Internal Link Dist (ft)	307	257	324
Turn Bay Length (ft)			
Base Capacity (vph)	378	496	502
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.33	0.52	0.59
Intersection Summary			

Queues

Background Build Conditions

5: S American Street/N American Street & Main Street

Timing Plan: PM Peak Hour



Lane Group	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	152	32	14	18
v/c Ratio	0.54	0.05	0.02	0.03
Control Delay (s/veh)	31.4	15.8	16.1	16.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	31.4	15.8	16.1	16.3
Queue Length 50th (ft)	61	5	4	5
Queue Length 95th (ft)	110	18	14	17
Internal Link Dist (ft)	303	260	330	
Turn Bay Length (ft)				
Base Capacity (vph)	280	600	612	508
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.54	0.05	0.02	0.04
Intersection Summary				

Queues

Background Build Conditions

6: S Stanislaus Street/N Stanislaus Street & Main Street

Timing Plan: PM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	159	313	330
v/c Ratio	0.24	0.20	0.18
Control Delay (s/veh)	17.1	8.0	9.8
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	17.1	8.0	9.8
Queue Length 50th (ft)	47	26	37
Queue Length 95th (ft)	89	38	59
Internal Link Dist (ft)	300	272	338
Turn Bay Length (ft)			
Base Capacity (vph)	642	1552	1764
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.25	0.20	0.19
Intersection Summary			

Queues

Background Build Conditions

11: Airport Way & Main Street

Timing Plan: PM Peak Hour



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	205	926	806
v/c Ratio	0.48	0.43	0.35
Control Delay (s/veh)	23.7	4.3	7.8
Queue Delay	0.0	0.1	0.0
Total Delay (s/veh)	23.7	4.4	7.8
Queue Length 50th (ft)	69	130	98
Queue Length 95th (ft)	150	11	130
Internal Link Dist (ft)	310	254	262
Turn Bay Length (ft)			
Base Capacity (vph)	427	2153	2273
Starvation Cap Reductn	0	325	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.48	0.51	0.35
Intersection Summary			

Queues

Background Build Conditions

13: S Wilson Way & Main Street

Timing Plan: PM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	240	189	28	965	992
v/c Ratio	0.72	0.46	0.08	0.38	0.39
Control Delay (s/veh)	47.0	12.5	14.7	15.2	6.4
Queue Delay	0.0	0.0	0.0	1.8	0.0
Total Delay (s/veh)	47.0	12.5	14.7	17.1	6.4
Queue Length 50th (ft)	130	20	10	210	101
Queue Length 95th (ft)	191	72	m20	m282	176
Internal Link Dist (ft)	710			271	283
Turn Bay Length (ft)		300	70		
Base Capacity (vph)	465	508	346	2504	2492
Starvation Cap Reductn	0	0	0	1321	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.52	0.37	0.08	0.82	0.40

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Background Build Conditions

17: Main Street & D Street

Timing Plan: PM Peak Hour



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	489	410	18
v/c Ratio	0.29	0.24	0.03
Control Delay (s/veh)	2.1	1.9	8.6
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	2.1	1.9	8.6
Queue Length 50th (ft)	0	0	1
Queue Length 95th (ft)	87	69	13
Internal Link Dist (ft)	615	624	178
Turn Bay Length (ft)			
Base Capacity (vph)	1763	1776	1470
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.28	0.23	0.01
Intersection Summary			

Queues

Background Build Conditions

25: Golden Gate Avenue & Main Street

Timing Plan: PM Peak Hour

						
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	9	745	66	450	246	55
v/c Ratio	0.08	0.75	0.42	0.37	0.78	0.15
Control Delay (s/veh)	45.8	24.6	49.0	10.0	48.2	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	45.8	24.6	49.0	10.0	48.2	26.4
Queue Length 50th (ft)	5	316	36	93	120	22
Queue Length 95th (ft)	22	#687	84	264	212	54
Internal Link Dist (ft)		249		250	364	346
Turn Bay Length (ft)	95		95			
Base Capacity (vph)	410	986	410	1212	670	768
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.76	0.16	0.37	0.37	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

Background Build Conditions

27: Netherton Avenue & Main Street

Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	11	561	38	450	95	87
v/c Ratio	0.03	0.57	0.12	0.40	0.24	0.23
Control Delay (s/veh)	25.0	18.8	23.2	10.4	9.1	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.0	18.8	23.2	10.4	9.1	10.8
Queue Length 50th (ft)	2	54	5	40	4	5
Queue Length 95th (ft)	21	#414	47	268	42	46
Internal Link Dist (ft)		247		244	354	364
Turn Bay Length (ft)	90		90			
Base Capacity (vph)	1248	1592	1457	1668	1239	1213
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.35	0.03	0.27	0.08	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

Background Build Conditions

29: S Center Street & Market Street

Timing Plan: PM Peak Hour



Lane Group	EBT	SBT
Lane Group Flow (vph)	133	2008
v/c Ratio	0.26	0.65
Control Delay (s/veh)	23.0	12.3
Queue Delay	0.0	0.0
Total Delay (s/veh)	23.0	12.3
Queue Length 50th (ft)	49	232
Queue Length 95th (ft)	95	281
Internal Link Dist (ft)	316	666
Turn Bay Length (ft)		
Base Capacity (vph)	495	3053
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.27	0.66
Intersection Summary		

Queues

Background Build Conditions

30: S El Dorado Street & Market Street

Timing Plan: PM Peak Hour



Lane Group	EBT	NBT
Lane Group Flow (vph)	154	1547
v/c Ratio	0.27	0.51
Control Delay (s/veh)	15.4	11.0
Queue Delay	0.0	0.0
Total Delay (s/veh)	15.4	11.0
Queue Length 50th (ft)	34	163
Queue Length 95th (ft)	m64	200
Internal Link Dist (ft)	266	322
Turn Bay Length (ft)		
Base Capacity (vph)	559	2979
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.28	0.52

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Background Build Conditions

32: S San Joaquin Street & Market Street

Timing Plan: PM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	184	189	164
v/c Ratio	0.29	0.11	0.09
Control Delay (s/veh)	16.3	6.3	3.2
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	16.3	6.3	3.2
Queue Length 50th (ft)	50	14	4
Queue Length 95th (ft)	93	28	7
Internal Link Dist (ft)	297	287	264
Turn Bay Length (ft)			
Base Capacity (vph)	621	1680	1661
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.30	0.11	0.10
Intersection Summary			

Queues

Background Build Conditions

33: S Sutter Street & Market Street

Timing Plan: PM Peak Hour

	→	↑	↗	↓
Lane Group	EBT	NBT	NBR	SBT
Lane Group Flow (vph)	222	147	54	187
v/c Ratio	0.29	0.18	0.09	0.13
Control Delay (s/veh)	19.1	13.2	4.3	8.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.1	13.2	4.3	8.9
Queue Length 50th (ft)	75	38	0	13
Queue Length 95th (ft)	108	59	13	20
Internal Link Dist (ft)	296	293		256
Turn Bay Length (ft)				
Base Capacity (vph)	761	798	577	1363
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.29	0.18	0.09	0.14
Intersection Summary				

Queues

Background Build Conditions

34: California Street & Market Street

Timing Plan: PM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	196	247	308
v/c Ratio	0.39	0.23	0.29
Control Delay (s/veh)	14.3	6.9	0.6
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	14.3	6.9	0.6
Queue Length 50th (ft)	29	41	0
Queue Length 95th (ft)	56	74	0
Internal Link Dist (ft)	309	298	257
Turn Bay Length (ft)			
Base Capacity (vph)	498	1072	1037
Starvation Cap Reductn	0	0	52
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.39	0.23	0.31
Intersection Summary			

Queues

Background Build Conditions

35: S American Street & Market Street

Timing Plan: PM Peak Hour



Lane Group	EBT	SBT
Lane Group Flow (vph)	290	55
v/c Ratio	0.27	0.13
Control Delay (s/veh)	4.7	14.9
Queue Delay	0.0	0.0
Total Delay (s/veh)	4.7	14.9
Queue Length 50th (ft)	34	12
Queue Length 95th (ft)	40	24
Internal Link Dist (ft)	303	260
Turn Bay Length (ft)		
Base Capacity (vph)	1056	406
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.27	0.14
Intersection Summary		

Queues

Background Build Conditions

36: S Stanislaus Street & Market Street

Timing Plan: PM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	264	360	452
v/c Ratio	0.41	0.20	0.26
Control Delay (s/veh)	10.8	9.3	8.1
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	10.8	9.3	8.1
Queue Length 50th (ft)	36	38	25
Queue Length 95th (ft)	48	55	32
Internal Link Dist (ft)	304	325	272
Turn Bay Length (ft)			
Base Capacity (vph)	632	1749	1681
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.42	0.21	0.27
Intersection Summary			

Queues

Background Build Conditions

41: Airport Way & Market Street

Timing Plan: PM Peak Hour

	→	↑	↓
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	225	987	863
v/c Ratio	0.77	0.38	0.47
Control Delay (s/veh)	53.8	5.6	5.2
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	53.8	5.6	5.2
Queue Length 50th (ft)	125	88	47
Queue Length 95th (ft)	182	167	68
Internal Link Dist (ft)	289	285	254
Turn Bay Length (ft)			
Base Capacity (vph)	445	2557	1810
Starvation Cap Reductn	0	0	3
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.51	0.39	0.48
Intersection Summary			

Queues

Background Build Conditions

43: S Wilson Way & Market Street

Timing Plan: PM Peak Hour

	→	↑	↘	↓
Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	395	1013	198	857
v/c Ratio	0.95	0.62	0.82	0.36
Control Delay (s/veh)	69.3	19.9	58.7	9.2
Queue Delay	44.9	0.0	0.0	0.3
Total Delay (s/veh)	114.3	20.0	58.7	9.6
Queue Length 50th (ft)	188	219	112	148
Queue Length 95th (ft)	#383	286	#220	206
Internal Link Dist (ft)	296	296		271
Turn Bay Length (ft)			90	
Base Capacity (vph)	418	1629	255	2329
Starvation Cap Reductn	0	0	0	843
Spillback Cap Reductn	97	68	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.23	0.65	0.78	0.58

Intersection Summary

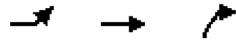
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

Background Build Conditions

205: Locust Street & Market Street

Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	NBR2
Lane Group Flow (vph)	17	526	4
v/c Ratio	0.02	0.31	0.00
Control Delay (s/veh)	0.0	3.8	0.0
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	0.0	3.8	0.0
Queue Length 50th (ft)	0	0	0
Queue Length 95th (ft)	0	189	0
Internal Link Dist (ft)		239	
Turn Bay Length (ft)	100		
Base Capacity (vph)	1696	1780	1043
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.01	0.30	0.00
Intersection Summary			

DETAILED OUTPUT

 Site: 101 [Main St._Market St._AM]

New Site
Site Category: (None)
Roundabout

OUTPUT TABLE LINKS

-  Roundabouts
 - Roundabout Basic Parameters
 - Roundabout Circulating / Exiting Stream Parameters
 - Roundabout Gap Acceptance Parameters
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Roundabouts

Roundabout Basic Parameters
Site: Main St._Market St._AM

Site ID: 101											
Roundabout											
Central Island Diam	Circ Width	Insc Diam.	Entry Radius	Entry Angle	Circ Lanes	Entry Lanes	Av.Entry Lane Width	App Dist	Prop Upstr	Queued Signal	Extra Bunching
ft	ft	ft	ft	deg			ft	ft			%

South: Locust Street											
40.0	25.0	120.0U	100.0	30.0	1	1	13.00	200		NA	0.0N

East: Main Street											
40.0	15.0	120.0U	100.0	30.0	1	1	13.00	400		NA	0.0N

NorthEast: Market Street											
40.0	15.0	120.0U	100.0	30.0	1	1	13.00	350		NA	0.0N

SouthWest: Market Street											
40.0	15.0	120.0U	100.0	30.0	1	1	13.00	300		NA	0.0N

Roundabout Capacity Model: SIDRA Standard											
U Inscribed diameter value was specified by the user.											
NA Not Applicable (single Site analysis or unconnected Site in Network analysis).											
N Program option resulted in zero value (single Site analysis or unconnected Site in Network analysis).											

Detailed Output

[Go to Table Links \(Top\)](#)

Roundabout Circulating / Exiting Stream Parameters

Site: Main St._Market St._AM

Site ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	Opng Flow veh/h	HVE pcu/ veh	Adj. Flow pcu/h	%Near Lane Only	%Exit Flow Incl.	Cap. Const. Effect	O-D Factor	Aver Speed mph	In-Bunch Headway sec	Prop. Bunched
South: Locust Street													
W	L2	1	Dominant	326	1.02	333	0.0	0.0	N	0.997	22.0	2.00	0.333
E	R2	1	Dominant	326	1.02	333	0.0	0.0	N	0.997	22.0	2.00	0.333
East: Main Street													
S	L2	1	Dominant	18	1.02	19	0.0	0.0	N	1.000	14.6	2.00	0.023
W	T1	1	Dominant	18	1.02	19	0.0	0.0	N	1.000	14.6	2.00	0.023
NorthEast: Market Street													
E	L3	1	Dominant	523	1.02	533	0.0	0.0	N	0.981	23.6	2.00	0.481
S	L1	1	Dominant	523	1.02	533	0.0	0.0	N	0.981	23.6	2.00	0.481
W	R1	1	Dominant	523	1.02	533	0.0	0.0	N	0.981	23.6	2.00	0.481
SouthWest: Market Street													
W	L3	1	Dominant	3	1.02	3	0.0	0.0	N	1.000	13.9	2.00	0.004
E	R1	1	Dominant	3	1.02	3	0.0	0.0	N	1.000	13.9	2.00	0.004
S	R3	1	Dominant	3	1.02	3	0.0	0.0	N	1.000	13.9	2.00	0.004
Roundabout Capacity Model: SIDRA Standard													

[Go to Table Links \(Top\)](#)

Roundabout Gap Acceptance Parameters

Site: Main St._Market St._AM

Site ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	In-Bunch Headway sec	Prop. Bunched	Priority Sharing	HVE for Entry	Critical Gap		Follow-up Headway sec
								Headway sec	Dist ft	
South: Locust Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
W	L2	1	Dominant	2.00	0.333	N	1.02	4.77	154.2	2.57
E	R2	1	Dominant	2.00	0.333	N	1.02	4.77	154.2	2.57
East: Main Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
S	L2	1	Dominant	2.00	0.023	N	1.02	5.28	113.5	2.69
W	T1	1	Dominant	2.00	0.023	N	1.02	5.28	113.5	2.69
NorthEast: Market Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
E	L3	1	Dominant	2.00	0.481	Y	1.02	4.48	154.9	2.49
S	L1	1	Dominant	2.00	0.481	Y	1.02	4.48	154.9	2.49
W	R1	1	Dominant	2.00	0.481	Y	1.02	4.48	154.9	2.49
SouthWest: Market Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
W	L3	1	Dominant	2.00	0.004	N	1.02	5.31	108.5	2.69
E	R1	1	Dominant	2.00	0.004	N	1.02	5.31	108.5	2.69
S	R3	1	Dominant	2.00	0.004	N	1.02	5.31	108.5	2.69

Roundabout Capacity Model: SIDRA Standard

Priority sharing means Follow-up Headway plus Intra-bunch Headway is larger than the Critical Gap.

Dist (Distance): Spacing, i.e. distance between the front ends of two successive vehicles across all lanes in the circulating

or exiting stream

[Go to Table Links \(Top\)](#)

Roundabout Flow Rates
Site: Main St._Market St._AM

Site ID: 101
Roundabout

CIRCULATING LANE FLOW RATES

Lane No.	Circulating Flow Rate		
	veh/h	pcu/h	Percent
South: Locust Street			
1	326	333	100.0%
Total	326	333	
East: Main Street			
1	18	19	100.0%
Total	18	19	
NorthEast: Market Street			
1	523	533	100.0%
Total	523	533	
SouthWest: Market Street			
1	3	3	100.0%
Total	3	3	

The SIDRA Standard roundabout capacity model option is in use.
This model takes into account the total circulating flow as well as the effect of flow distribution in circulating lanes on the entry capacity results.

APPROACH LANE FLOW RATES

Lane No.	Approach Flows (veh/h)		
	Out	To Downst	Total
South: Locust Street			
1	2	1	3
Total	2	1	3
East: Main Street			
1	0	504	504
Total	0	504	504
NorthEast: Market Street			
1	37	2	39
Total	37	2	39
SouthWest: Market Street			
1	2	325	327
Total	2	325	327

[Go to Table Links \(Top\)](#)

Roundabout Pedestrian Effects
Site: Main St._Market St._AM

Site ID: 101
Roundabout

ROUNDBOUT ENTRY

Lane	Turn	Pedestrian		Opposing Ped.Factor	Circulating Flow Rate veh/h	Circulating Flow Rate pcu/h	Adjustment Factor
		Flow Rate	Adj.Flow Rate				
		ped/h	ped/h				

South: Locust Street							
1	L2	1	1	1.00	326	333	1.000
1	R2	1	1	1.00	326	333	1.000

East: Main Street								
1	L2	1	1	1.00	18	19	1.000	
1	T1	1	1	1.00	18	19	1.000	

NorthEast: Market Street								
1	L3	1	1	1.00	523	533	1.000	
1	L1	1	1	1.00	523	533	1.000	
1	R1	1	1	1.00	523	533	1.000	

ROUNDABOUT EXIT								

Flow Rate	Pedestrian	Adj.Flow Rate	Opposing	Conflict	Critical	Follow-up	Exit Lane	Exit Flow
ped/h	ped/h	ped/h	Ped.Factor	Zone Length	Gap	Headway	Capacity	Total
				ft	sec	sec	veh/h	Average

South: Locust Street								
1		1	1.00	16.00	3.72	2.23	1611	4

East: Main Street								
1		1	1.00	16.00	3.72	2.23	1611	311

West: Main Street								
1		1	1.00	16.00	3.72	2.23	1611	559

[Go to Table Links \(Top\)](#)

Movements

Intersection Negotiation and Travel Data
Site: Main St._Market St._AM

Site ID: 101
Roundabout

TRAVEL SPEED, TRAVEL DISTANCE AND TRAVEL TIME

From	To		Running	Travel	Travel	Travel	Total	Travel	Tot.Trav.
Approach	Exit	Turn	Speed	Speed	Distance	Time	Dem Flows	Arv Flows	Time
			mph	mph	ft	s	veh-mi/h	veh-mi/h	veh-h/h

South: Locust Street									
	West	L2	19.8	19.8	595.1#	20.5#	0.1	0.1	0.0
	East	R2	22.4	22.4	695.1#	21.2#	0.3	0.3	0.0

East: Main Street									
	South	L2	24.2	24.2	716.0#	20.2#	0.1	0.1	0.0
	West	T1	29.8	29.8	816.0#	18.7#	77.8	77.8	2.6

NorthEast: Market Street									
	East	L3	27.6	27.5	841.4#	20.9#	0.2	0.2	0.0
	South	L1	21.1	21.0	641.4#	20.8#	0.1	0.1	0.0
	West	R1	25.5	25.3	741.4#	19.9#	5.2	5.2	0.2

SouthWest: Market Street									
	West	L3	23.0	23.0	693.3#	20.5#	2.3	2.3	0.1
	East	R1	28.7	28.7	793.3#	18.9#	46.2	46.2	1.6
	South	R3	25.0	25.0	593.3#	16.2#	0.2	0.2	0.0

ALL VEHICLES:			29.0	29.0	800.9#	18.8#	132.6	132.6	4.6

"Running Speed" is the average speed excluding stopped periods.

Travel Time values include cruise times and intersection delays including acceleration, deceleration and idling delays.

Travel Distance and Travel Time values include travel on the External Exit section based on the Exit Distance or user-specified Downstream Distance value as applicable.

INTERSECTION NEGOTIATION DATA

Detailed Output

From Approach	To Exit	Turn	Negn Radius ft	Negn Speed mph	Negn Dist ft	App Dist ft	Exit Dist ft	Downstr Dist ft
South: Locust Street								
	West	L2	49.0	14.6	192.4	200	91	NA
	East	R2	88.6	18.3	46.5	200	122	NA
East: Main Street								
	South	L2	44.5	14.1	174.8	400	61	NA
	West	T1	180.0	23.9	115.8	400	91	NA
NorthEast: Market Street								
	East	L3	43.0	13.9	202.6	350	122	NA
	South	L1	42.3	13.8	133.0	350	61	NA
	West	R1	180.0	23.9	86.9	350	91	NA
SouthWest: Market Street								
	West	L3	49.5	14.7	233.3	300	91	NA
	East	R1	153.0	22.5	85.8	300	122	NA
	South	R3	75.0	17.2	32.8	300	61	NA
Maximum Negotiation (Design) Speed = 30.0 mph								
NA Downstream Distance does not apply if:								
- Exit is an internal leg of a network								
- "Program" option was specified								
- Distance specified was less than the Exit Negotiation Distance								
- Distance specified was greater than the exit leg length								
MOVEMENT SPEEDS AND GEOMETRIC DELAY								
		App. Speeds		Exit Speeds		Queue	Geom	
Mov ID	Turn	Cruise mph	Negn mph	Negn Cruise mph		Move-up Speed mph	Delay sec	
South: Locust Street								
3	L2	30.0	14.6	14.6	30.0	25.7	7.0	
18	R2	30.0	18.3	18.3	30.0	25.7	2.4	
East: Main Street								
1	L2	30.0	14.1	14.1	30.0	38.4	7.0	
6	T1	30.0	23.9	23.9	30.0	38.4	1.6	
NorthEast: Market Street								
1bx	L3	30.0	13.9	13.9	30.0	22.1	7.9	
1ax	L1	30.0	13.8	13.8	30.0	22.1	6.1	
16ax	R1	30.0	23.9	23.9	30.0	22.1	1.5	
SouthWest: Market Street								
5bx	L3	30.0	14.7	14.7	30.0	35.4	8.0	
12ax	R1	30.0	22.5	22.5	30.0	35.4	1.9	
12bx	R3	30.0	17.2	17.2	30.0	35.4	2.6	

[Go to Table Links \(Top\)](#)

Movement Capacity and Performance Parameters

Site: Main St._Market St._AM

 Site ID: 101
 Roundabout

MOVEMENT CAPACITY PARAMETERS

Mov ID	Turn	Mov Cl.	Arv Flow veh/h	Opng Flow veh/h	Movement Adjust. pcu/h	Total Cap. veh/h	Prac. Deg. Satn xp	Prac. Spare Cap. %	Deg. Satn x
South: Locust Street									
3	L2	#	1	326	333	338	0.85	****	0.003
18	R2	#	2	326	333	676	0.85	****	0.003

Detailed Output

East: Main Street										
1	L2	#	1	18	19	3	0.85	121	0.385*	
6	T1	#	503	18	19	1309	0.85	121	0.385*	

NorthEast: Market Street										
1bx	L3	#	1	523	533	24	0.85	1794	0.045	
1ax	L1	#	1	523	533	24	0.85	1794	0.045	
16ax	R1	#	37	523	533	824	0.85	1794	0.045	

SouthWest: Market Street										
5bx	L3	#	17	3	3	71	0.85	246	0.246	
12ax	R1	#	308	3	3	1251	0.85	246	0.246	
12bx	R3	#	2	3	3	9	0.85	246	0.246	

* Maximum degree of saturation										
# Combined Movement Capacity parameters are shown for all Movement Classes.										

MOVEMENT PERFORMANCE

Mov ID	Turn	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Eff. Stop Rate	Total Stops	Perf. Index	Tot.Trav. Distance (veh-mi/h)	Tot.Trav. Time (veh-h/h)	Aver. Speed (mph)

South: Locust Street										
3	L2	0.00	0.00	8.5	0.48	0.5	0.02	0.1	0.0	19.8
18	R2	0.00	0.00	3.9	0.48	1.0	0.03	0.3	0.0	22.4

East: Main Street										
1	L2	0.00	0.00	7.2	0.23	0.2	2.11	0.1	0.0	24.2
6	T1	0.25	0.30	1.8	0.23	113.9	5.57	77.8	2.6	29.8

NorthEast: Market Street										
1bx	L3	0.00	0.00	10.8	0.51	0.6	0.20	0.2	0.0	27.5
1ax	L1	0.00	0.00	9.0	0.51	0.6	0.20	0.1	0.0	21.0
16ax	R1	0.04	0.05	4.3	0.51	19.0	0.51	5.2	0.2	25.3

SouthWest: Market Street										
5bx	L3	0.04	0.05	8.0	0.28	4.9	1.40	2.3	0.1	23.0
12ax	R1	0.16	0.19	1.9	0.28	87.3	3.44	46.2	1.6	28.7
12bx	R3	0.00	0.00	2.6	0.28	0.6	1.27	0.2	0.0	25.0

[Go to Table Links \(Top\)](#)

Fuel Consumption, Emissions and Cost

Site: Main St._Market St._AM

Site ID: 101
Roundabout

FUEL CONSUMPTION, EMISSIONS AND COST (TOTAL)

Mov ID	Turn	Cost Total \$/h	Fuel Total gal/h	CO2 Total kg/h	CO Total kg/h	HC Total kg/h	NOX Total kg/h

South: Locust Street							
3	L2	0.12	0.0	0.1	0.00	0.000	0.000
18	R2	0.24	0.0	0.2	0.00	0.000	0.000
		0.37	0.0	0.3	0.00	0.000	0.000

East: Main Street							
1	L2	0.09	0.0	0.1	0.00	0.000	0.000
6	T1	44.25	3.3	29.2	0.02	0.002	0.037
		44.34	3.3	29.3	0.02	0.002	0.038

NorthEast: Market Street							
1bx	L3	0.11	0.0	0.1	0.00	0.000	0.000
1ax	L1	0.11	0.0	0.1	0.00	0.000	0.000
16ax	R1	3.75	0.3	2.5	0.00	0.000	0.003
		3.97	0.3	2.7	0.00	0.000	0.004

Detailed Output

SouthWest: Market Street							
5bx	L3	1.37	0.1	1.0	0.00	0.000	0.001
12ax	R1	24.48	2.1	18.3	0.01	0.001	0.022
12bx	R3	0.17	0.0	0.1	0.00	0.000	0.000
		26.01	2.2	19.4	0.01	0.002	0.023
INTERSECTION:		74.69	5.8	51.6	0.04	0.004	0.064

FUEL CONSUMPTION, EMISSIONS AND COST (RATE)

Mov ID	Turn	Cost Rate \$/mi	Fuel Eff. mpg	CO2 Rate g/km	CO Rate g/km	HC Rate g/km	NOX Rate g/km
South: Locust Street							
3	L2	0.99	12.7	435.4	0.38	0.041	0.545
18	R2	0.85	14.1	394.3	0.34	0.036	0.484
		0.89	13.7	406.6	0.35	0.037	0.502
East: Main Street							
1	L2	0.64	22.7	245.0	0.18	0.019	0.324
6	T1	0.57	23.8	233.3	0.18	0.018	0.299
		0.57	23.8	233.3	0.18	0.018	0.299
NorthEast: Market Street							
1bx	L3	0.64	19.7	282.3	0.23	0.024	0.376
1ax	L1	0.83	17.1	323.7	0.27	0.029	0.456
16ax	R1	0.72	18.5	300.2	0.25	0.026	0.411
		0.72	18.5	300.2	0.25	0.026	0.411
SouthWest: Market Street							
5bx	L3	0.60	21.3	260.6	0.20	0.021	0.315
12ax	R1	0.53	22.5	246.6	0.19	0.020	0.290
12bx	R3	0.69	19.9	279.3	0.22	0.023	0.347
		0.53	22.5	247.4	0.19	0.020	0.292
INTERSECTION:		0.56	23.0	241.8	0.18	0.019	0.302

[Go to Table Links \(Top\)](#)

Lanes

Lane Performance and Capacity Information

Site: Main St._Market St._AM

Site ID: 101
Roundabout

LANE PERFORMANCE

						Q u e u e		
Lane	Flow	Cap	Deg.	Aver.	Eff.	95% Back		Lane
No.	veh/h	veh/h	Satn x	Delay sec	Stop Rate	----- veh	ft	Length ft
South: Locust Street								
1	3	1015	0.003	5.4	0.48	0.0	0.4	200.0
East: Main Street								
1	504	1311	0.385	1.8	0.23	2.6	66.3	400.0
NorthEast: Market Street								
1	39	872	0.045	4.6	0.51	0.2	5.9	350.0
SouthWest: Market Street								
1	327	1331	0.246	2.2	0.28	1.6	39.7	300.0

LANE FLOW AND CAPACITY INFORMATION

Lane No.	Total Arv Flow veh/h	Min Cap veh/h	Tot Cap veh/h	Deg. Satn x	Lane Util %
South: Locust Street					
1	3	3	1015	0.003	100
East: Main Street					
1	504	150	1311	0.385	100
NorthEast: Market Street					
1	39	39	872	0.045	100
SouthWest: Market Street					
1	327	150	1331	0.246	100

The capacity values of Continuous Lanes are obtained by adjusting the basic saturation flow for lane width, grade, movement class and turning vehicle effects. Saturation flow scale applies if specified.

[Go to Table Links \(Top\)](#)

Lane, Approach and Intersection Performance
Site: Main St._Market St._AM

Site ID: 101
Roundabout

Lane No.	Arrival Flow (veh/h)	%HV	Adj. Basic Satf.	Deg Sat x	Aver. Delay sec	Longest Queue ft	Lane Length ft
South: Locust Street							
1	3	2		0.003	5.4	0	200
	3	2		0.003	5.4	0	
East: Main Street							
1	504	2		0.385	1.8	66	400
	504	2		0.385	1.8	66	
NorthEast: Market Street							
1	39	2		0.045	4.6	6	350
	39	2		0.045	4.6	6	
SouthWest: Market Street							
1	327	2		0.246	2.2	40	300
	327	2		0.246	2.2	40	
=====							
ALL VEHICLES							
	Total Flow	% HV		Max X	Aver. Delay	Max Queue	
	874	2		0.385	2.1	66	

Peak flow period = 15 minutes.

Queue values in this table are 95% queue (feet)
Note: Basic Saturation Flows at roundabouts or sign-controlled intersections apply only to continuous lanes.

[Go to Table Links \(Top\)](#)

Driver Characteristics
Site: Main St._Market St._AM

Site ID: 101
Roundabout

Detailed Output

Lane No.	Satn Speed mph	Satn Flow veh/h	Satn Hdwy sec	Satn Spacing ft	Average Queue Space ft	Driver Response Time sec
South: Locust Street						
1	17.0	1401	2.57	64.23	25.40	1.55
East: Main Street						
1	23.9	1339	2.69	94.17	25.40	1.96
NorthEast: Market Street						
1	23.3	1445	2.49	85.33	25.40	1.75
SouthWest: Market Street						
1	22.0	1336	2.69	87.04	25.40	1.91

Saturation Flow and Saturation Headway are derived from follow-up headway.

[Go to Table Links \(Top\)](#)

Lane Delays

Site: Main St._Market St._AM

Site ID: 101
Roundabout

LANE DELAYS

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Delay (seconds/veh)								Geom dig	Control dic
				Min Del dm	Stop-line 1st d1	2nd d2	Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di		
South: Locust Street													
1	0.003	NA	NA	1.4	1.5	0.0	1.5	1.7	0.0	0.0	0.0	3.9	5.4
East: Main Street													
1	0.385	NA	NA	0.1	0.1	0.0	0.1	0.8	0.0	0.0	0.0	1.7	1.8
NorthEast: Market Street													
1	0.045	NA	NA	2.4	2.8	0.0	2.8	2.9	0.1	0.0	0.1	1.8	4.6
SouthWest: Market Street													
1	0.246	NA	NA	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	2.2	2.2

SIDRA Standard Delay Model is used. Control Delay is the sum of Stop-line Delay and Geometric Delay.

dm: Minimum delay for gap acceptance cases

dSL: Stop-line delay (=d1+d2)

dn: Average stop-start delay for all vehicles queued and unqueued

dq: Queuing delay (the part of the stop-line delay that includes stopped delay and queue move-up delay)

dqm: Queue move-up delay

di: Stopped delay (stopped (idling) time at near-zero speed)

dig: Geometric delay

dic: Control delay

Geometric delay is less than 2 seconds for some movements. The negotiation speed may be too high or the approach and exit speeds may be too low for given geometric design (e.g. for a large roundabout).

Check Detailed Output for geometric delay data including negotiation speeds.

If necessary, specify appropriate values of approach and exit speeds, negotiation radius or negotiation speed data in the Path Data dialog.

[Go to Table Links \(Top\)](#)

Lane Queues

Site: Main St._Market St._AM

Site ID: 101
Roundabout

BACK OF QUEUE (VEHICLES)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (veh)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
	x				Nb1	Nb2	Nb	95%	Av.	95%		
South: Locust Street												
1	0.003	NA	NA	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	NA
East: Main Street												
1	0.385	NA	NA	0.0	1.0	0.0	1.0	2.6	0.07	0.17	0.0	NA
NorthEast: Market Street												
1	0.045	NA	NA	0.0	0.1	0.0	0.1	0.2	0.01	0.02	0.0	NA
SouthWest: Market Street												
1	0.246	NA	NA	0.0	0.6	0.0	0.6	1.6	0.05	0.13	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

BACK OF QUEUE (DISTANCE)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (ft)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
	x				Nb1	Nb2	Nb	95%	Av.	95%		
South: Locust Street												
1	0.003	NA	NA	0.0	0.2	0.0	0.2	0.4	0.00	0.00	0.0	NA
East: Main Street												
1	0.385	NA	NA	0.0	26.7	0.0	26.7	66.3	0.07	0.17	0.0	NA
NorthEast: Market Street												
1	0.045	NA	NA	0.0	2.4	0.0	2.4	5.9	0.01	0.02	0.0	NA
SouthWest: Market Street												
1	0.246	NA	NA	0.0	16.0	0.0	16.0	39.7	0.05	0.13	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

OTHER QUEUE RESULTS (VEHICLES)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Queue	
	x				Nc	95%
South: Locust Street						
1	0.003	NA	NA	0.0	0.0	0.0
East: Main Street						
1	0.385	NA	NA	0.0	0.0	0.0
NorthEast: Market Street						
1	0.045	NA	NA	0.0	0.0	0.1
SouthWest: Market Street						
1	0.246	NA	NA	0.0	0.0	0.0

OTHER QUEUE RESULTS (DISTANCE)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Queue	
	x				Nc	95%
South: Locust Street						
1	0.003	NA	NA	0.0	0.0	0.1
East: Main Street						
1	0.385	NA	NA	0.0	0.5	1.0
NorthEast: Market Street						
1	0.045	NA	NA	0.0	0.8	1.4

```

-----
SouthWest: Market Street
1      0.246      NA      NA      0.0      0.0      0.1
-----

```

[Go to Table Links \(Top\)](#)

Lane Queue Percentiles

Site: Main St._Market St._AM

Site ID: 101
Roundabout

LANE QUEUE PERCENTILES (VEHICLES)

Lane No.	Deg. Satn	Percentile Back of Queue (veh)						
	x	50%	70%	85%	90%	95%	98%	100%
South: Locust Street								
1	0.003	0.0	0.0	0.0	0.0	0.0	0.0	0.0
East: Main Street								
1	0.385	1.0	1.4	1.9	2.2	2.6	2.9	3.1
NorthEast: Market Street								
1	0.045	0.1	0.1	0.2	0.2	0.2	0.3	0.3
SouthWest: Market Street								
1	0.246	0.6	0.8	1.1	1.3	1.6	1.7	1.9

SIDRA Standard models are used for Back of Queue estimation since
HCM only gives Cycle-Average Queues for unsignalised intersections.

LANE QUEUE PERCENTILES (DISTANCE)

Lane No.	Deg. Satn	Percentile Back of Queue (feet)						
	x	50%	70%	85%	90%	95%	98%	100%
South: Locust Street								
1	0.003	0.2	0.2	0.3	0.3	0.4	0.4	0.5
East: Main Street								
1	0.385	26.6	34.5	48.7	56.3	66.3	73.5	79.1
NorthEast: Market Street								
1	0.045	2.4	3.1	4.3	5.0	5.9	6.5	7.0
SouthWest: Market Street								
1	0.246	16.0	20.7	29.1	33.7	39.7	44.0	47.3

SIDRA Standard models are used for Back of Queue estimation since
HCM only gives Cycle-Average Queues for unsignalised intersections.

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Lane Stops

Site: Main St._Market St._AM

Site ID: 101
Roundabout

Lane No.	Deg.	% Arv	Prog.	-- Effective		Stop	Rate --	Total Stops H	Queue	Total	Prop. Queued pq	Aver. Num. of Cycles to Depart
	Satn	During	Factor			Geom.	Overall		Move-up	Queue		
	x	Green		he1	he2	hig	h		Rate	Move-ups		
South: Locust Street												
1	0.003	NA	NA	0.21	0.00	0.27	0.48	1.6	0.00	0.0	0.43	0.43

East: Main Street												
1	0.385	NA	NA	0.04	0.00	0.19	0.23	114.1	0.00	0.0	0.13	0.13

NorthEast: Market Street												
1	0.045	NA	NA	0.41	0.00	0.11	0.51	20.1	0.00	0.0	0.57	0.57

SouthWest: Market Street												
1	0.246	NA	NA	0.01	0.00	0.28	0.28	92.9	0.00	0.0	0.05	0.05

hig is the average value for all movements in a shared lane												
hqm is average queue move-up rate for all vehicles queued and unqueued												

[Go to Table Links \(Top\)](#)

Flow Rates

Origin-Destination Flow Rates (Total)

Site: Main St._Market St._AM

Site ID: 101
Roundabout

TOTAL FLOW RATES for All Movement Classes (veh/h)

From SOUTH To:	W	E		
Turn:	L2	R2	TOT	
Flow Rate	1.1	2.2	3.3	
%HV (all designations)	2.0	2.0	2.0	

From EAST To:	S	W		
Turn:	L2	T1	TOT	
Flow Rate	1.1	503.3	504.3	
%HV (all designations)	2.0	2.0	2.0	

From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT
Flow Rate	1.1	1.1	37.0	39.1
%HV (all designations)	2.0	2.0	2.0	2.0

From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT
Flow Rate	17.4	307.6	2.2	327.2
%HV (all designations)	2.0	2.0	2.0	2.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Origin-Destination Flow Rates by Movement Class

Site: Main St._Market St._AM

Site ID: 101
Roundabout

FLOW RATES for Light Vehicles (veh/h)

From SOUTH To:	W	E	
Turn:	L2	R2	TOT

Flow Rate	1.1	2.1	3.2
Mov Class %	98.0	98.0	98.0
Flow Scale	1.00	1.00	-
Peak Flow Factor	0.92	0.92	-
Residual Demand	0.0	0.0	0.0

From EAST To:	S	W	
Turn:	L2	T1	TOT

Flow Rate	1.1	493.2	494.3	
Mov Class %	98.0	98.0	98.0	
Flow Scale	1.00	1.00	-	
Peak Flow Factor	0.92	0.92	-	
Residual Demand	0.0	0.0	0.0	

From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT

Flow Rate	1.1	1.1	36.2	38.3
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT

Flow Rate	17.0	301.5	2.1	320.6
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

FLOW RATES for Heavy Vehicles (veh/h)

From SOUTH To:	W	E		
Turn:	L2	R2	TOT	

Flow Rate	0.0	0.0	0.1	
Mov Class %	2.0	2.0	2.0	
Flow Scale	1.00	1.00	-	
Peak Flow Factor	0.92	0.92	-	
Residual Demand	0.0	0.0	0.0	

From EAST To:	S	W		
Turn:	L2	T1	TOT	

Flow Rate	0.0	10.1	10.1	
Mov Class %	2.0	2.0	2.0	
Flow Scale	1.00	1.00	-	
Peak Flow Factor	0.92	0.92	-	
Residual Demand	0.0	0.0	0.0	

From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT

Flow Rate	0.0	0.0	0.7	0.8
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT

Flow Rate	0.3	6.2	0.0	6.5
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

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Lane Flow Rates

Site: Main St._Market St._AM

Site ID: 101
Roundabout

LANE FLOW RATES AT STOP LINE (veh/h)

From SOUTH To:	W	E		
Turn:	L2	R2	TOT	
Lane 1				
LV	1.1	2.1	3.2	
HV	0.0	0.0	0.1	
Total	1.1	2.2	3.3	
Approach	1.1	2.2	3.3	
From EAST To:	S	W		
Turn:	L2	T1	TOT	
Lane 1				
LV	1.1	493.2	494.3	
HV	0.0	10.1	10.1	
Total	1.1	503.3	504.3	
Approach	1.1	503.3	504.3	
From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT
Lane 1				
LV	1.1	1.1	36.2	38.3
HV	0.0	0.0	0.7	0.8
Total	1.1	1.1	37.0	39.1
Approach	1.1	1.1	37.0	39.1
From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT
Lane 1				
LV	17.0	301.5	2.1	320.6
HV	0.3	6.2	0.0	6.5
Total	17.4	307.6	2.2	327.2
Approach	17.4	307.6	2.2	327.2

EXIT LANE FLOW RATES

Movement Class:	LV	HV	TOT
Exit: SOUTH			
Lane: 1	4.3	0.1	4.3
Total	4.3	0.1	4.3
Exit: EAST			
Lane: 1	304.7	6.2	310.9
Total	304.7	6.2	310.9
Exit: WEST			
Lane: 1	547.5	11.2	558.7
Total	547.5	11.2	558.7

DOWNSTREAM LANE FLOW RATES FOR EXIT ROADS

Movement Class:	LV	HV	TOT
Exit: SOUTH			
Lane: 1	4.3	0.1	4.3
Total	4.3	0.1	4.3
Exit: EAST			
Lane: 1	304.7	6.2	310.9
Total	304.7	6.2	310.9
Exit: WEST			
Lane: 1	547.5	11.2	558.7
Total	547.5	11.2	558.7

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Other

Parameter Settings Summary
Site: Main St._Market St._AM

Site ID: 101
Roundabout

* Basic Parameters:
Intersection Type: Roundabout
Driving on the right-hand side of the road
Input data specified in US units
Model Defaults: US HCM (Customary)
Peak Flow Period (for performance): 15 minutes
Unit time (for volumes): 60 minutes.
SIDRA Standard Delay model used
HCM Queue Model option used
Level of Service based on: Delay and v/c (HCM 6)
Queue percentile: 95%

[Go to Table Links \(Top\)](#)

Diagnostics
Site: Main St._Market St._AM

Site ID: 101
Roundabout

Lane Flow-Capacity Iterations:

Site Model Variability Index (Iterations 3 to N): 1.0%
Number of Iterations: 3 (Maximum: 10)

Other Diagnostic Messages (if any):

Geometric delay is less than 2 seconds for some movements. The negotiation speed may be too high or the approach and exit speeds may be too low for given geometric design (e.g. for a large roundabout).
Check Detailed Output for geometric delay data including negotiation speeds.
If necessary, specify appropriate values of approach and exit speeds, negotiation radius or negotiation speed data in the Path Data dialog.

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MOVEMENT SUMMARY

 **Site: 101 [Main St._Market St._AM]**

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Locust Street												
3	L2	1	2.0	0.003	8.5	LOS A	0.0	0.4	0.43	0.48	0.43	19.8
18	R2	2	2.0	0.003	3.9	LOS A	0.0	0.4	0.43	0.48	0.43	22.4
Approach		3	2.0	0.003	5.4	LOS A	0.0	0.4	0.43	0.48	0.43	21.5
East: Main Street												
1	L2	1	2.0	0.385	7.2	LOS A	2.6	66.3	0.13	0.23	0.13	24.2
6	T1	503	2.0	0.385	1.8	LOS A	2.6	66.3	0.13	0.23	0.13	29.8
Approach		504	2.0	0.385	1.8	LOS A	2.6	66.3	0.13	0.23	0.13	29.8
NorthEast: Market Street												
1bx	L3	1	2.0	0.045	10.8	LOS B	0.2	5.9	0.57	0.51	0.57	27.5
1ax	L1	1	2.0	0.045	9.0	LOS A	0.2	5.9	0.57	0.51	0.57	21.0
16ax	R1	37	2.0	0.045	4.3	LOS A	0.2	5.9	0.57	0.51	0.57	25.3
Approach		39	2.0	0.045	4.6	LOS A	0.2	5.9	0.57	0.51	0.57	25.3
SouthWest: Market Street												
5bx	L3	17	2.0	0.246	8.0	LOS A	1.6	39.7	0.05	0.28	0.05	23.0
12ax	R1	308	2.0	0.246	1.9	LOS A	1.6	39.7	0.05	0.28	0.05	28.7
12bx	R3	2	2.0	0.246	2.6	LOS A	1.6	39.7	0.05	0.28	0.05	25.0
Approach		327	2.0	0.246	2.2	LOS A	1.6	39.7	0.05	0.28	0.05	28.3
All Vehicles		874	2.0	0.385	2.1	LOS A	2.6	66.3	0.12	0.26	0.12	29.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

DETAILED OUTPUT

 Site: 101 [Main St._Market St._PM]

New Site
Site Category: (None)
Roundabout

OUTPUT TABLE LINKS

-  Roundabouts
 - Roundabout Basic Parameters
 - Roundabout Circulating / Exiting Stream Parameters
 - Roundabout Gap Acceptance Parameters
 - Roundabout Flow Rates
 - Roundabout Pedestrian Effects
-  Movements
 - Intersection Negotiation and Travel Data
 - Movement Capacity and Performance Parameters
 - Fuel Consumption, Emissions and Cost
-  Lanes
 - Lane Performance and Capacity Information
 - Lane, Approach and Intersection Performance
 - Driver Characteristics
 - Lane Delays
 - Lane Queues
 - Lane Queue Percentiles
 - Lane Stops
-  Flow Rates
 - Origin-Destination Flow Rates (Total)
 - Origin-Destination Flow Rates by Movement Class
 - Lane Flow Rates
-  Other
 - Parameter Settings Summary
 - Diagnostics

Roundabouts

Roundabout Basic Parameters
Site: Main St._Market St._PM

Site ID: 101											
Roundabout											
Central Island Diam ft	Circ Width ft	Insc Diam. ft	Entry Radius ft	Entry Angle deg	Circ Lanes	Entry Lanes	Av.Entry Lane Width ft	App Dist ft	Prop Upstr	Queued Signal	Extra Bunching %

South: Locust Street											
40.0	25.0	120.0U	100.0	30.0	1	1	13.00	200		NA	0.0N

East: Main Street											
40.0	15.0	120.0U	100.0	30.0	1	1	13.00	400		NA	0.0N

NorthEast: Market Street											
40.0	15.0	120.0U	100.0	30.0	1	1	13.00	350		NA	0.0N

SouthWest: Market Street											
40.0	15.0	120.0U	100.0	30.0	1	1	13.00	300		NA	0.0N

Roundabout Capacity Model: SIDRA Standard											
U Inscribed diameter value was specified by the user.											
NA Not Applicable (single Site analysis or unconnected Site in Network analysis).											
N Program option resulted in zero value (single Site analysis or unconnected Site in Network analysis).											

Detailed Output

[Go to Table Links \(Top\)](#)

Roundabout Circulating / Exiting Stream Parameters

Site: Main St._Market St._PM

Site ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	Opng Flow veh/h	HVE pcu/ veh	Adj. Flow pcu/h	%Near Lane Only	%Exit Flow Incl.	Cap. Const. Effect	O-D Factor	Aver Speed mph	In-Bunch Headway sec	Prop. Bunched
South: Locust Street													
W	L2	1	Dominant	541	1.02	552	0.0	0.0	N	0.992	22.2	2.00	0.493
E	R2	1	Dominant	541	1.02	552	0.0	0.0	N	0.992	22.2	2.00	0.493
East: Main Street													
S	L2	1	Dominant	18	1.02	19	0.0	0.0	N	1.000	14.6	2.00	0.023
W	T1	1	Dominant	18	1.02	19	0.0	0.0	N	1.000	14.6	2.00	0.023
NorthEast: Market Street													
E	L3	1	Dominant	432	1.02	440	0.0	0.0	N	0.987	23.5	2.00	0.416
S	L1	1	Dominant	432	1.02	440	0.0	0.0	N	0.987	23.5	2.00	0.416
W	R1	1	Dominant	432	1.02	440	0.0	0.0	N	0.987	23.5	2.00	0.416
SouthWest: Market Street													
W	L3	1	Dominant	3	1.02	3	0.0	0.0	N	1.000	13.9	2.00	0.004
E	R1	1	Dominant	3	1.02	3	0.0	0.0	N	1.000	13.9	2.00	0.004
S	R3	1	Dominant	3	1.02	3	0.0	0.0	N	1.000	13.9	2.00	0.004
Roundabout Capacity Model: SIDRA Standard													

[Go to Table Links \(Top\)](#)

Roundabout Gap Acceptance Parameters

Site: Main St._Market St._PM

Site ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	In-Bunch Headway sec	Prop. Bunched	Priority Sharing	HVE for Entry	Critical Gap		Follow-up Headway sec
								Headway sec	Dist ft	
South: Locust Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
W	L2	1	Dominant	2.00	0.493	Y	1.02	4.46	145.2	2.48
E	R2	1	Dominant	2.00	0.493	Y	1.02	4.46	145.2	2.48
East: Main Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
S	L2	1	Dominant	2.00	0.023	N	1.02	5.28	113.5	2.69
W	T1	1	Dominant	2.00	0.023	N	1.02	5.28	113.5	2.69
NorthEast: Market Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
E	L3	1	Dominant	2.00	0.416	N	1.02	4.61	158.9	2.53
S	L1	1	Dominant	2.00	0.416	N	1.02	4.61	158.9	2.53
W	R1	1	Dominant	2.00	0.416	N	1.02	4.61	158.9	2.53
SouthWest: Market Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
W	L3	1	Dominant	2.00	0.004	N	1.02	5.31	108.5	2.69
E	R1	1	Dominant	2.00	0.004	N	1.02	5.31	108.5	2.69
S	R3	1	Dominant	2.00	0.004	N	1.02	5.31	108.5	2.69

Roundabout Capacity Model: SIDRA Standard
Priority sharing means Follow-up Headway plus Intra-bunch Headway is larger than the Critical Gap.

Dist (Distance): Spacing, i.e. distance between the front ends of two successive vehicles across all lanes in the circulating

or exiting stream

[Go to Table Links \(Top\)](#)

Roundabout Flow Rates
Site: Main St._Market St._PM

Site ID: 101
Roundabout

CIRCULATING LANE FLOW RATES

Lane No.	Circulating Flow Rate		
	veh/h	pcu/h	Percent
South: Locust Street			
1	541	552	100.0%
Total	541	552	
East: Main Street			
1	18	19	100.0%
Total	18	19	
NorthEast: Market Street			
1	432	440	100.0%
Total	432	440	
SouthWest: Market Street			
1	3	3	100.0%
Total	3	3	

The SIDRA Standard roundabout capacity model option is in use.
This model takes into account the total circulating flow as well as the effect of flow distribution in circulating lanes on the entry capacity results.

APPROACH LANE FLOW RATES

Lane No.	Approach Flows (veh/h)		
	Out	To Downst	Total
South: Locust Street			
1	4	1	5
Total	4	1	5
East: Main Street			
1	0	413	413
Total	0	413	413
NorthEast: Market Street			
1	29	3	32
Total	29	3	32
SouthWest: Market Street			
1	3	540	543
Total	3	540	543

[Go to Table Links \(Top\)](#)

Roundabout Pedestrian Effects
Site: Main St._Market St._PM

Site ID: 101
Roundabout

ROUNDBOUT ENTRY

Lane	Turn	Pedestrian		Opposing Ped.Factor	Circulating Flow Rate veh/h	Circulating Flow Rate pcu/h	Adjustment Factor
		Flow Rate ped/h	Adj.Flow Rate ped/h				
South: Locust Street							
1	L2	2	2	1.00	541	552	1.000
1	R2	2	2	1.00	541	552	1.000

East: Main Street								
1	L2	1	1	1.00	18	19	1.000	
1	T1	1	1	1.00	18	19	1.000	

NorthEast: Market Street								
1	L3	5	5	1.00	432	440	0.999	
1	L1	5	5	1.00	432	440	0.999	
1	R1	5	5	1.00	432	440	0.999	

ROUNDABOUT EXIT								

Flow Rate	Pedestrian	Adj.Flow Rate	Opposing	Conflict	Critical	Follow-up	Exit Lane	Exit Flow
ped/h	ped/h	ped/h	Ped.Factor	Zone Length	Gap	Headway	Capacity	Total
				ft	sec	sec	veh/h	Average

South: Locust Street								
1		1	1.00	16.00	3.72	2.23	1611	5

East: Main Street								
1		1	1.00	16.00	3.72	2.23	1611	528

West: Main Street								
1		1	1.00	16.00	3.72	2.23	1611	460

[Go to Table Links \(Top\)](#)

Movements

Intersection Negotiation and Travel Data
Site: Main St._Market St._PM

Site ID: 101
Roundabout

TRAVEL SPEED, TRAVEL DISTANCE AND TRAVEL TIME

From	To		Running	Travel	Travel	Travel	Total	Travel	Distance
Approach	Exit	Turn	Speed	Speed	Distance	Time	Dem Flows	Arv Flows	Tot.Trav.
			mph	mph	ft	s	veh-mi/h	veh-mi/h	Time
									veh-h/h

South: Locust Street									
	West	L2	19.7	19.1	575.6#	20.5#	0.1	0.1	0.0
	East	R2	22.3	21.7	675.6#	21.3#	0.6	0.6	0.0

East: Main Street									
	South	L2	24.3	24.3	716.0#	20.1#	0.1	0.1	0.0
	West	T1	29.9	29.9	816.0#	18.6#	63.7	63.7	2.1

NorthEast: Market Street									
	East	L3	27.9	27.8	842.5#	20.7#	0.2	0.2	0.0
	South	L1	21.3	21.3	642.5#	20.6#	0.1	0.1	0.0
	West	R1	25.8	25.7	742.5#	19.7#	4.1	4.1	0.2

SouthWest: Market Street									
	West	L3	23.1	23.1	690.2#	20.4#	2.3	2.3	0.1
	East	R1	28.8	28.8	790.2#	18.7#	78.2	78.2	2.7
	South	R3	25.1	25.1	590.2#	16.0#	0.4	0.4	0.0

ALL VEHICLES:			29.0	29.0	796.1#	18.7#	149.8	149.8	5.2

"Running Speed" is the average speed excluding stopped periods.

Travel Time values include cruise times and intersection delays including acceleration, deceleration and idling delays.

Travel Distance and Travel Time values include travel on the External Exit section based on the Exit Distance or user-specified Downstream Distance value as applicable.

INTERSECTION NEGOTIATION DATA

Detailed Output

From Approach	To Exit	Turn	Negn Radius ft	Negn Speed mph	Negn Dist ft	App Dist ft	Exit Dist ft	Downstr Dist ft
South: Locust Street								
	West	L2	49.0	14.6	192.4	200	91	NA
	East	R2	88.6	18.3	46.5	200	122	NA
East: Main Street								
	South	L2	44.5	14.1	174.8	400	61	NA
	West	T1	180.0	23.9	115.8	400	91	NA
NorthEast: Market Street								
	East	L3	43.0	13.9	202.6	350	122	NA
	South	L1	42.3	13.8	133.0	350	61	NA
	West	R1	180.0	23.9	86.9	350	91	NA
SouthWest: Market Street								
	West	L3	49.5	14.7	233.3	300	91	NA
	East	R1	153.0	22.5	85.8	300	122	NA
	South	R3	75.0	17.2	32.8	300	61	NA
Maximum Negotiation (Design) Speed = 30.0 mph								
NA Downstream Distance does not apply if:								
- Exit is an internal leg of a network								
- "Program" option was specified								
- Distance specified was less than the Exit Negotiation Distance								
- Distance specified was greater than the exit leg length								
MOVEMENT SPEEDS AND GEOMETRIC DELAY								
		App. Speeds		Exit Speeds		Queue		
		-----		-----		Move-up		
Mov ID	Turn	Cruise mph	Negn mph	Negn Cruise mph		Speed mph	Geom Delay sec	
South: Locust Street								
3	L2	30.0	14.6	14.6	30.0	21.8	7.0	
18	R2	30.0	18.3	18.3	30.0	21.8	2.4	
East: Main Street								
1	L2	30.0	14.1	14.1	30.0	38.4	7.0	
6	T1	30.0	23.9	23.9	30.0	38.4	1.6	
NorthEast: Market Street								
1bx	L3	30.0	13.9	13.9	30.0	23.4	7.9	
1ax	L1	30.0	13.8	13.8	30.0	23.4	6.1	
16ax	R1	30.0	23.9	23.9	30.0	23.4	1.5	
SouthWest: Market Street								
5bx	L3	30.0	14.7	14.7	30.0	35.7	8.0	
12ax	R1	30.0	22.5	22.5	30.0	35.7	1.9	
12bx	R3	30.0	17.2	17.2	30.0	35.7	2.6	

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Movement Capacity and Performance Parameters

Site: Main St._Market St._PM

 Site ID: 101
 Roundabout

MOVEMENT CAPACITY PARAMETERS

Mov ID	Turn	Mov Cl.	Arv Flow veh/h	Opng Flow veh/h	Movement Adjust. pcu/h	Total Cap. veh/h	Prac. Deg. Satn xp	Prac. Spare Cap. %	Deg. Satn x
South: Locust Street									
3	L2	#	1	541	552	173	0.85	****	0.006
18	R2	#	4	541	552	692	0.85	****	0.006

Detailed Output

East: Main Street										
1	L2	#	1	18	19	3	0.85	170	0.315	
6	T1	#	412	18	19	1308	0.85	170	0.315	

NorthEast: Market Street										
1bx	L3	#	1	432	440	32	0.85	2418	0.034	
1ax	L1	#	1	432	440	32	0.85	2418	0.034	
16ax	R1	#	29	432	440	870	0.85	2418	0.034	

SouthWest: Market Street										
5bx	L3	#	17	3	3	43	0.85	108	0.408*	
12ax	R1	#	523	3	3	1280	0.85	108	0.408*	
12bx	R3	#	3	3	3	8	0.85	108	0.408*	

* Maximum degree of saturation										
# Combined Movement Capacity parameters are shown for all Movement Classes.										

MOVEMENT PERFORMANCE

Mov ID	Turn	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Eff. Stop Rate	Total Stops	Perf. Index	Tot.Trav. Distance (veh-mi/h)	Tot.Trav. Time (veh-h/h)	Aver. Speed (mph)

South: Locust Street										
3	L2	0.00	0.00	9.7	0.52	0.6	0.04	0.1	0.0	19.1
18	R2	0.01	0.01	5.2	0.52	2.3	0.06	0.6	0.0	21.7

East: Main Street										
1	L2	0.00	0.00	7.2	0.23	0.2	1.58	0.1	0.0	24.3
6	T1	0.20	0.24	1.8	0.23	92.7	4.41	63.7	2.1	29.9

NorthEast: Market Street										
1bx	L3	0.00	0.00	10.1	0.46	0.5	0.15	0.2	0.0	27.8
1ax	L1	0.00	0.00	8.3	0.46	0.5	0.15	0.1	0.0	21.3
16ax	R1	0.03	0.04	3.7	0.46	13.6	0.38	4.1	0.2	25.7

SouthWest: Market Street										
5bx	L3	0.04	0.05	8.0	0.27	4.7	2.70	2.3	0.1	23.1
12ax	R1	0.27	0.33	1.9	0.27	142.1	6.23	78.2	2.7	28.8
12bx	R3	0.00	0.00	2.6	0.27	0.9	2.58	0.4	0.0	25.1

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Fuel Consumption, Emissions and Cost

Site: Main St._Market St._PM

Site ID: 101
Roundabout

FUEL CONSUMPTION, EMISSIONS AND COST (TOTAL)

Mov ID	Turn	Cost Total \$/h	Fuel Total gal/h	CO2 Total kg/h	CO Total kg/h	HC Total kg/h	NOX Total kg/h

South: Locust Street							
3	L2	0.12	0.0	0.1	0.00	0.000	0.000
18	R2	0.47	0.0	0.3	0.00	0.000	0.000
		0.59	0.0	0.4	0.00	0.000	0.001

East: Main Street							
1	L2	0.09	0.0	0.1	0.00	0.000	0.000
6	T1	36.04	2.7	23.8	0.02	0.002	0.030
		36.14	2.7	23.8	0.02	0.002	0.031

NorthEast: Market Street							
1bx	L3	0.11	0.0	0.1	0.00	0.000	0.000
1ax	L1	0.11	0.0	0.1	0.00	0.000	0.000
16ax	R1	2.93	0.2	2.0	0.00	0.000	0.003
		3.14	0.2	2.1	0.00	0.000	0.003

Detailed Output

SouthWest: Market Street							
5bx	L3	1.34	0.1	0.9	0.00	0.000	0.001
12ax	R1	40.92	3.4	30.7	0.02	0.002	0.036
12bx	R3	0.25	0.0	0.2	0.00	0.000	0.000
		42.51	3.6	31.8	0.02	0.003	0.038
INTERSECTION:							
		82.38	6.5	58.2	0.04	0.005	0.072

FUEL CONSUMPTION, EMISSIONS AND COST (RATE)

Mov ID	Turn	Cost Rate \$/mi	Fuel Eff. mpg	CO2 Rate g/km	CO Rate g/km	HC Rate g/km	NOX Rate g/km
South: Locust Street							
3	L2	0.99	12.9	428.7	0.37	0.040	0.556
18	R2	0.85	14.3	387.4	0.33	0.035	0.492
		0.88	14.1	394.7	0.34	0.036	0.503
East: Main Street							
1	L2	0.64	22.8	243.7	0.18	0.019	0.322
6	T1	0.57	23.9	232.2	0.17	0.018	0.297
		0.57	23.9	232.2	0.17	0.018	0.297
NorthEast: Market Street							
1bx	L3	0.63	20.0	277.3	0.22	0.023	0.366
1ax	L1	0.81	17.5	317.1	0.26	0.028	0.442
16ax	R1	0.71	18.8	294.5	0.24	0.025	0.399
		0.71	18.8	294.5	0.24	0.025	0.399
SouthWest: Market Street							
5bx	L3	0.59	21.6	257.7	0.20	0.021	0.314
12ax	R1	0.52	22.8	244.0	0.19	0.019	0.290
12bx	R3	0.68	20.1	276.0	0.22	0.023	0.346
		0.53	22.7	244.5	0.19	0.019	0.291
INTERSECTION:							
		0.55	23.0	241.4	0.18	0.019	0.298

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Lanes

Lane Performance and Capacity Information

Site: Main St._Market St._PM

 Site ID: 101
 Roundabout

LANE PERFORMANCE

Lane No.	Flow	Cap	Deg.	Aver.	Eff.	Q u e u e		Lane Length
	veh/h	veh/h	Satn x	Delay sec	Stop Rate	95% Back		

						veh	ft	ft
South: Locust Street								
1	5	865	0.006	6.1	0.52	0.0	0.8	200.0
East: Main Street								
1	413	1311	0.315	1.8	0.23	2.0	49.6	400.0
NorthEast: Market Street								
1	32	934	0.034	4.1	0.46	0.2	4.3	350.0
SouthWest: Market Street								
1	543	1331	0.408	2.1	0.27	3.2	80.8	300.0

LANE FLOW AND CAPACITY INFORMATION

Lane No.	Total Arv Flow veh/h	Min Cap veh/h	Tot Cap veh/h	Deg. Satn x	Lane Util %
South: Locust Street					
1	5	5	865	0.006	100
East: Main Street					
1	413	150	1311	0.315	100
NorthEast: Market Street					
1	32	32	934	0.034	100
SouthWest: Market Street					
1	543	150	1331	0.408	100

The capacity values of Continuous Lanes are obtained by adjusting the basic saturation flow for lane width, grade, movement class and turning vehicle effects. Saturation flow scale applies if specified.

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Lane, Approach and Intersection Performance
Site: Main St._Market St._PM

Site ID: 101
Roundabout

Lane No.	Arrival Flow (veh/h)	%HV	Adj. Basic Satf.	Deg Sat x	Aver. Delay sec	Longest Queue ft	Lane Length ft
South: Locust Street							
1	5	2		0.006	6.1	1	200
	5	2		0.006	6.1	1	
East: Main Street							
1	413	2		0.315	1.8	50	400
	413	2		0.315	1.8	50	
NorthEast: Market Street							
1	32	2		0.034	4.1	4	350
	32	2		0.034	4.1	4	
SouthWest: Market Street							
1	543	2		0.408	2.1	81	300
	543	2		0.408	2.1	81	
ALL VEHICLES							
	Total Flow	% HV		Max X	Aver. Delay	Max Queue	
	993	2		0.408	2.0	81	

Peak flow period = 15 minutes.

Queue values in this table are 95% queue (feet)
Note: Basic Saturation Flows at roundabouts or sign-controlled intersections apply only to continuous lanes.

[Go to Table Links \(Top\)](#)

Driver Characteristics
Site: Main St._Market St._PM

Site ID: 101
Roundabout

Detailed Output

Lane No.	Satn Speed mph	Satn Flow veh/h	Satn Hdwy sec	Satn Spacing ft	Average Queue Space ft	Driver Response Time sec
South: Locust Street						
1	17.5	1449	2.48	63.92	25.40	1.50
East: Main Street						
1	23.9	1339	2.69	94.15	25.40	1.96
NorthEast: Market Street						
1	23.2	1424	2.53	86.05	25.40	1.78
SouthWest: Market Street						
1	22.2	1336	2.69	87.71	25.40	1.91

Saturation Flow and Saturation Headway are derived from follow-up headway.

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Lane Delays

Site: Main St._Market St._PM

Site ID: 101
Roundabout

LANE DELAYS

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Delay (seconds/veh)									
				Min Del dm	Stop-line 1st d1	2nd d2	Delay Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
South: Locust Street													
1	0.006	NA	NA	2.5	2.8	0.0	2.8	2.2	0.6	0.0	0.6	3.3	6.1
East: Main Street													
1	0.315	NA	NA	0.1	0.1	0.0	0.1	0.7	0.0	0.0	0.0	1.7	1.8
NorthEast: Market Street													
1	0.034	NA	NA	1.9	2.2	0.0	2.2	2.6	0.1	0.0	0.1	1.9	4.1
SouthWest: Market Street													
1	0.408	NA	NA	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	2.1	2.1

SIDRA Standard Delay Model is used. Control Delay is the sum of Stop-line Delay and Geometric Delay.

dm: Minimum delay for gap acceptance cases

dSL: Stop-line delay (=d1+d2)

dn: Average stop-start delay for all vehicles queued and unqueued

dq: Queuing delay (the part of the stop-line delay that includes stopped delay and queue move-up delay)

dqm: Queue move-up delay

di: Stopped delay (stopped (idling) time at near-zero speed)

dig: Geometric delay

dic: Control delay

Geometric delay is less than 2 seconds for some movements. The negotiation speed may be too high or the approach and exit speeds may be too low for given geometric design (e.g. for a large roundabout).

Check Detailed Output for geometric delay data including negotiation speeds.

If necessary, specify appropriate values of approach and exit speeds, negotiation radius or negotiation speed data in the Path Data dialog.

[Go to Table Links \(Top\)](#)

Lane Queues

Site: Main St._Market St._PM

Site ID: 101
Roundabout

BACK OF QUEUE (VEHICLES)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (veh)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
	x				Nb1	Nb2	Nb	95%	Av.	95%		
South: Locust Street												
1	0.006	NA	NA	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	NA
East: Main Street												
1	0.315	NA	NA	0.0	0.8	0.0	0.8	2.0	0.05	0.12	0.0	NA
NorthEast: Market Street												
1	0.034	NA	NA	0.0	0.1	0.0	0.1	0.2	0.00	0.01	0.0	NA
SouthWest: Market Street												
1	0.408	NA	NA	0.0	1.3	0.0	1.3	3.2	0.11	0.27	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

BACK OF QUEUE (DISTANCE)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (ft)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
	x				Nb1	Nb2	Nb	95%	Av.	95%		
South: Locust Street												
1	0.006	NA	NA	0.0	0.3	0.0	0.3	0.8	0.00	0.00	0.0	NA
East: Main Street												
1	0.315	NA	NA	0.0	20.0	0.0	20.0	49.6	0.05	0.12	0.0	NA
NorthEast: Market Street												
1	0.034	NA	NA	0.0	1.7	0.0	1.7	4.3	0.00	0.01	0.0	NA
SouthWest: Market Street												
1	0.408	NA	NA	0.0	32.5	0.0	32.5	80.8	0.11	0.27	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

OTHER QUEUE RESULTS (VEHICLES)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Queue	
	x				Nc	95%
South: Locust Street						
1	0.006	NA	NA	0.0	0.0	0.0
East: Main Street						
1	0.315	NA	NA	0.0	0.0	0.0
NorthEast: Market Street						
1	0.034	NA	NA	0.0	0.0	0.0
SouthWest: Market Street						
1	0.408	NA	NA	0.0	0.0	0.0

OTHER QUEUE RESULTS (DISTANCE)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Queue	
	x				Nc	95%
South: Locust Street						
1	0.006	NA	NA	0.0	0.1	0.2
East: Main Street						
1	0.315	NA	NA	0.0	0.4	0.7
NorthEast: Market Street						
1	0.034	NA	NA	0.0	0.5	0.9

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SouthWest: Market Street
1      0.408      NA      NA      0.0      0.1      0.2
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[Go to Table Links \(Top\)](#)

Lane Queue Percentiles

Site: Main St._Market St._PM

Site ID: 101
Roundabout

LANE QUEUE PERCENTILES (VEHICLES)

Lane No.	Deg. Satn	Percentile Back of Queue (veh)						
	x	50%	70%	85%	90%	95%	98%	100%
South: Locust Street								
1	0.006	0.0	0.0	0.0	0.0	0.0	0.0	0.0
East: Main Street								
1	0.315	0.8	1.0	1.4	1.7	2.0	2.2	2.3
NorthEast: Market Street								
1	0.034	0.1	0.1	0.1	0.1	0.2	0.2	0.2
SouthWest: Market Street								
1	0.408	1.3	1.7	2.3	2.7	3.2	3.5	3.8

SIDRA Standard models are used for Back of Queue estimation since
HCM only gives Cycle-Average Queues for unsignalised intersections.

LANE QUEUE PERCENTILES (DISTANCE)

Lane No.	Deg. Satn	Percentile Back of Queue (feet)						
	x	50%	70%	85%	90%	95%	98%	100%
South: Locust Street								
1	0.006	0.3	0.4	0.6	0.7	0.8	0.9	0.9
East: Main Street								
1	0.315	20.0	25.9	36.4	42.2	49.6	55.1	59.2
NorthEast: Market Street								
1	0.034	1.7	2.2	3.1	3.6	4.3	4.8	5.1
SouthWest: Market Street								
1	0.408	32.5	42.1	59.3	68.7	80.8	89.7	96.4

SIDRA Standard models are used for Back of Queue estimation since
HCM only gives Cycle-Average Queues for unsignalised intersections.

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Lane Stops

Site: Main St._Market St._PM

Site ID: 101
Roundabout

Lane No.	Deg.	% Arv	Prog.	-- Effective Stop				Total Stops H	Queue	Total	Prop.	Aver.
	Satn	During	Factor	he1	he2	Geom.	Rate --		Move-up	Queue		
	x	Green				hig	Overall		Rate	Move-ups		
South: Locust Street												
1	0.006	NA	NA	0.33	0.00	0.19	0.52	2.8	0.00	0.0	0.56	0.56

East: Main Street												
1	0.315	NA	NA	0.03	0.00	0.19	0.23	93.0	0.00	0.0	0.12	0.12

NorthEast: Market Street												
1	0.034	NA	NA	0.34	0.00	0.13	0.46	14.6	0.00	0.0	0.51	0.51

SouthWest: Market Street												
1	0.408	NA	NA	0.01	0.00	0.26	0.27	147.7	0.00	0.0	0.05	0.05

hig is the average value for all movements in a shared lane												
hqm is average queue move-up rate for all vehicles queued and unqueued												

[Go to Table Links \(Top\)](#)

Flow Rates

Origin-Destination Flow Rates (Total)

Site: Main St._Market St._PM

Site ID: 101
Roundabout

TOTAL FLOW RATES for All Movement Classes (veh/h)

From SOUTH To:	W	E		
Turn:	L2	R2	TOT	
Flow Rate	1.1	4.3	5.4	
%HV (all designations)	2.0	2.0	2.0	

From EAST To:	S	W		
Turn:	L2	T1	TOT	
Flow Rate	1.1	412.0	413.0	
%HV (all designations)	2.0	2.0	2.0	

From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT
Flow Rate	1.1	1.1	29.3	31.5
%HV (all designations)	2.0	2.0	2.0	2.0

From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT
Flow Rate	17.4	522.8	3.3	543.5
%HV (all designations)	2.0	2.0	2.0	2.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Origin-Destination Flow Rates by Movement Class

Site: Main St._Market St._PM

Site ID: 101
Roundabout

FLOW RATES for Light Vehicles (veh/h)

From SOUTH To:	W	E	
Turn:	L2	R2	TOT

Flow Rate	1.1	4.3	5.3
Mov Class %	98.0	98.0	98.0
Flow Scale	1.00	1.00	-
Peak Flow Factor	0.92	0.92	-
Residual Demand	0.0	0.0	0.0

From EAST To:	S	W	
Turn:	L2	T1	TOT

Flow Rate	1.1	403.7	404.8	
Mov Class %	98.0	98.0	98.0	
Flow Scale	1.00	1.00	-	
Peak Flow Factor	0.92	0.92	-	
Residual Demand	0.0	0.0	0.0	

From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT

Flow Rate	1.1	1.1	28.8	30.9
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT

Flow Rate	17.0	512.4	3.2	532.6
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

FLOW RATES for Heavy Vehicles (veh/h)

From SOUTH To:	W	E		
Turn:	L2	R2	TOT	

Flow Rate	0.0	0.1	0.1	
Mov Class %	2.0	2.0	2.0	
Flow Scale	1.00	1.00	-	
Peak Flow Factor	0.92	0.92	-	
Residual Demand	0.0	0.0	0.0	

From EAST To:	S	W		
Turn:	L2	T1	TOT	

Flow Rate	0.0	8.2	8.3	
Mov Class %	2.0	2.0	2.0	
Flow Scale	1.00	1.00	-	
Peak Flow Factor	0.92	0.92	-	
Residual Demand	0.0	0.0	0.0	

From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT

Flow Rate	0.0	0.0	0.6	0.6
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT

Flow Rate	0.3	10.5	0.1	10.9
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Lane Flow Rates

Site: Main St._Market St._PM

Site ID: 101
Roundabout

LANE FLOW RATES AT STOP LINE (veh/h)

From SOUTH To:	W	E		
Turn:	L2	R2	TOT	
Lane 1				
LV	1.1	4.3	5.3	
HV	0.0	0.1	0.1	
Total	1.1	4.3	5.4	
Approach	1.1	4.3	5.4	
From EAST To:	S	W		
Turn:	L2	T1	TOT	
Lane 1				
LV	1.1	403.7	404.8	
HV	0.0	8.2	8.3	
Total	1.1	412.0	413.0	
Approach	1.1	412.0	413.0	
From NORTHEAST To:	E	S	W	
Turn:	L3	L1	R1	TOT
Lane 1				
LV	1.1	1.1	28.8	30.9
HV	0.0	0.0	0.6	0.6
Total	1.1	1.1	29.3	31.5
Approach	1.1	1.1	29.3	31.5
From SOUTHWEST To:	W	E	S	
Turn:	L3	R1	R3	TOT
Lane 1				
LV	17.0	512.4	3.2	532.6
HV	0.3	10.5	0.1	10.9
Total	17.4	522.8	3.3	543.5
Approach	17.4	522.8	3.3	543.5

EXIT LANE FLOW RATES

Movement Class:	LV	HV	TOT
Exit: SOUTH			
Lane: 1	5.3	0.1	5.4
Total	5.3	0.1	5.4
Exit: EAST			
Lane: 1	517.7	10.6	528.3
Total	517.7	10.6	528.3
Exit: WEST			
Lane: 1	450.6	9.2	459.8
Total	450.6	9.2	459.8

DOWNSTREAM LANE FLOW RATES FOR EXIT ROADS

Movement Class:	LV	HV	TOT
Exit: SOUTH			
Lane: 1	5.3	0.1	5.4
Total	5.3	0.1	5.4
Exit: EAST			
Lane: 1	517.7	10.6	528.3
Total	517.7	10.6	528.3
Exit: WEST			
Lane: 1	450.6	9.2	459.8
Total	450.6	9.2	459.8

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Other

Parameter Settings Summary
Site: Main St._Market St._PM

Site ID: 101
Roundabout

* Basic Parameters:
Intersection Type: Roundabout
Driving on the right-hand side of the road
Input data specified in US units
Model Defaults: US HCM (Customary)
Peak Flow Period (for performance): 15 minutes
Unit time (for volumes): 60 minutes.
SIDRA Standard Delay model used
HCM Queue Model option used
Level of Service based on: Delay and v/c (HCM 6)
Queue percentile: 95%

[Go to Table Links \(Top\)](#)

Diagnostics
Site: Main St._Market St._PM

Site ID: 101
Roundabout

Lane Flow-Capacity Iterations:

Site Model Variability Index (Iterations 3 to N): 0.7%
Number of Iterations: 3 (Maximum: 10)

Other Diagnostic Messages (if any):

Geometric delay is less than 2 seconds for some movements. The negotiation speed may be too high or the approach and exit speeds may be too low for given geometric design (e.g. for a large roundabout).
Check Detailed Output for geometric delay data including negotiation speeds.
If necessary, specify appropriate values of approach and exit speeds, negotiation radius or negotiation speed data in the Path Data dialog.

[Go to Table Links \(Top\)](#)

MOVEMENT SUMMARY

 **Site: 101 [Main St._Market St._PM]**

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Locust Street												
3	L2	1	2.0	0.006	9.7	LOS A	0.0	0.8	0.56	0.52	0.56	19.1
18	R2	4	2.0	0.006	5.2	LOS A	0.0	0.8	0.56	0.52	0.56	21.7
Approach		5	2.0	0.006	6.1	LOS A	0.0	0.8	0.56	0.52	0.56	21.2
East: Main Street												
1	L2	1	2.0	0.315	7.2	LOS A	2.0	49.6	0.12	0.23	0.12	24.3
6	T1	412	2.0	0.315	1.8	LOS A	2.0	49.6	0.12	0.23	0.12	29.9
Approach		413	2.0	0.315	1.8	LOS A	2.0	49.6	0.12	0.23	0.12	29.9
NorthEast: Market Street												
1bx	L3	1	2.0	0.034	10.1	LOS B	0.2	4.3	0.51	0.46	0.51	27.8
1ax	L1	1	2.0	0.034	8.3	LOS A	0.2	4.3	0.51	0.46	0.51	21.3
16ax	R1	29	2.0	0.034	3.7	LOS A	0.2	4.3	0.51	0.46	0.51	25.7
Approach		32	2.0	0.034	4.1	LOS A	0.2	4.3	0.51	0.46	0.51	25.6
SouthWest: Market Street												
5bx	L3	17	2.0	0.408	8.0	LOS A	3.2	80.8	0.05	0.27	0.05	23.1
12ax	R1	523	2.0	0.408	1.9	LOS A	3.2	80.8	0.05	0.27	0.05	28.8
12bx	R3	3	2.0	0.408	2.6	LOS A	3.2	80.8	0.05	0.27	0.05	25.1
Approach		543	2.0	0.408	2.1	LOS A	3.2	80.8	0.05	0.27	0.05	28.6
All Vehicles		993	2.0	0.408	2.0	LOS A	3.2	80.8	0.10	0.26	0.10	29.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: TJKM TRANSPORTATION CONSULTANTS | Processed: Thursday, November 21, 2024 3:53:49 PM

Project: J:\JURISDICTION\Stockton\011-101 Main St Complete Streets\Analysis\Sidra\Project_v2 Built +P Conditions.sip8

DETAILED OUTPUT

 Site: 101 [Main St._Filbert St._AM]

New Site
Site Category: (None)
Roundabout

OUTPUT TABLE LINKS

-  Roundabouts
 - Roundabout Basic Parameters
 - Roundabout Circulating / Exiting Stream Parameters
 - Roundabout Gap Acceptance Parameters
 - Roundabout Flow Rates
 - Roundabout Pedestrian Effects
-  Movements
 - Intersection Negotiation and Travel Data
 - Movement Capacity and Performance Parameters
 - Fuel Consumption, Emissions and Cost
-  Lanes
 - Lane Performance and Capacity Information
 - Lane, Approach and Intersection Performance
 - Driver Characteristics
 - Lane Delays
 - Lane Queues
 - Lane Queue Percentiles
 - Lane Stops
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 - Origin-Destination Flow Rates (Total)
 - Origin-Destination Flow Rates by Movement Class
 - Lane Flow Rates
-  Other
 - Parameter Settings Summary
 - Diagnostics

Roundabouts

Roundabout Basic Parameters
Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

Central Island Diam ft	Circ Width ft	Insc Diam. ft	Entry Radius ft	Entry Angle deg	Circ Lanes	Entry Lanes	Av.Entry Lane Width ft	App Dist ft	Prop Upstr	Queued Signal	Extra Bunching %
South: Filbert Street											
30.0	15.0	100.0U	100.0	30.0	1	1	13.00	450		NA	0.0N
East: Main Street											
30.0	15.0	100.0U	100.0	30.0	1	1	13.00	400		NA	0.0N
North: Filbert Street											
30.0	15.0	100.0U	100.0	30.0	2	1	13.00	60		NA	0.0N
West: Main Street											
30.0	15.0	100.0U	100.0	30.0	1	1	13.00	630		NA	0.0N
Roundabout Capacity Model: SIDRA Standard											
U Inscribed diameter value was specified by the user.											
NA Not Applicable (single Site analysis or unconnected Site in Network analysis).											
N Program option resulted in zero value (single Site analysis or unconnected Site in Network analysis).											

Detailed Output

[Go to Table Links \(Top\)](#)

Roundabout Circulating / Exiting Stream Parameters

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	Opng Flow veh/h	HVE pcu/veh	Adj. Flow pcu/h	%Near Lane Only	%Exit Flow Incl.	Cap. Const. Effect	O-D Factor	Aver Speed mph	In-Bunch Headway sec	Prop. Bunched
South: Filbert Street													
W	L2	1	Dominant	571	1.02	582	0.0	0.0	N	0.946	17.0	2.00	0.513
N	T1	1	Dominant	571	1.02	582	0.0	0.0	N	0.946	17.0	2.00	0.513
E	R2	1	Dominant	571	1.02	582	0.0	0.0	N	0.946	17.0	2.00	0.513
East: Main Street													
S	L2	1	Dominant	126	1.02	129	0.0	0.0	N	0.988	16.9	2.00	0.145
W	T1	1	Dominant	126	1.02	129	0.0	0.0	N	0.988	16.9	2.00	0.145
N	R2	1	Dominant	126	1.02	129	0.0	0.0	N	0.988	16.9	2.00	0.145
North: Filbert Street													
E	L2	1	Dominant	433	1.02	441	0.0	0.0	N	0.938	21.1	2.00	0.417
S	T1	1	Dominant	433	1.02	441	0.0	0.0	N	0.938	21.1	2.00	0.417
W	R2	1	Dominant	433	1.02	441	0.0	0.0	N	0.938	21.1	2.00	0.417
West: Main Street													
N	L2	1	Dominant	297	1.02	303	0.0	0.0	N	0.949	14.4	2.00	0.308
E	T1	1	Dominant	297	1.02	303	0.0	0.0	N	0.949	14.4	2.00	0.308
S	R2	1	Dominant	297	1.02	303	0.0	0.0	N	0.949	14.4	2.00	0.308
Roundabout Capacity Model: SIDRA Standard													

[Go to Table Links \(Top\)](#)

Roundabout Gap Acceptance Parameters

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	In-Bunch Headway sec	Prop. Bunched	Priority Sharing	HVE for Entry	Critical Gap		Follow-up Headway sec
								Headway sec	Dist ft	
South: Filbert Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
W	L2	1	Dominant	2.00	0.513	N	1.02	4.58	114.5	2.57
N	T1	1	Dominant	2.00	0.513	N	1.02	4.58	114.5	2.57
E	R2	1	Dominant	2.00	0.513	N	1.02	4.58	114.5	2.57
East: Main Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
S	L2	1	Dominant	2.00	0.145	N	1.02	5.27	131.1	2.74
W	T1	1	Dominant	2.00	0.145	N	1.02	5.27	131.1	2.74
N	R2	1	Dominant	2.00	0.145	N	1.02	5.27	131.1	2.74
North: Filbert Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
E	L2	1	Dominant	2.00	0.417	Y	1.02	4.62	143.0	2.99
S	T1	1	Dominant	2.00	0.417	Y	1.02	4.62	143.0	2.99
W	R2	1	Dominant	2.00	0.417	Y	1.02	4.62	143.0	2.99
West: Main Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
N	L2	1	Dominant	2.00	0.308	N	1.02	4.99	105.3	2.67
E	T1	1	Dominant	2.00	0.308	N	1.02	4.99	105.3	2.67
S	R2	1	Dominant	2.00	0.308	N	1.02	4.99	105.3	2.67
Roundabout Capacity Model: SIDRA Standard										
Priority sharing means Follow-up Headway plus Intra-bunch Headway										

Detailed Output

is larger than the Critical Gap.

Dist (Distance): Spacing, i.e. distance between the front ends of two successive vehicles across all lanes in the circulating or exiting stream

[Go to Table Links \(Top\)](#)

Roundabout Flow Rates

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

CIRCULATING LANE FLOW RATES

Lane No.	Circulating Flow Rate		
	veh/h	pcu/h	Percent
South: Filbert Street			
1	571	582	100.0%
Total	571	582	
East: Main Street			
1	126	129	100.0%
Total	126	129	
North: Filbert Street			
1	0	0	0.0%
2	433	441	100.0%
Total	433	441	
West: Main Street			
1	297	303	100.0%
Total	297	303	

The SIDRA Standard roundabout capacity model option is in use.
This model takes into account the total circulating flow as well as the effect of flow distribution in circulating lanes on the entry capacity results.

APPROACH LANE FLOW RATES

Lane No.	Approach Flows (veh/h)		
	Out	To Downst	Total
South: Filbert Street			
1	5	67	72
Total	5	67	72
East: Main Street			
1	272	419	691
Total	272	419	691
North: Filbert Street			
1	59	291	350
Total	59	291	350
West: Main Street			
1	4	308	312
Total	4	308	312

[Go to Table Links \(Top\)](#)

Roundabout Pedestrian Effects

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

ROUNDAABOUT ENTRY

Lane	Turn	Pedestrian Flow Rate	Pedestrian Adj.Flow Rate	Opposing Ped.Factor	Circulating Flow Rate	Circulating Flow Rate	Adjustment Factor

Detailed Output

ped/h		ped/h		veh/h		pcu/h			

South: Filbert Street									
1	L2	2	2	1.00	571	582	1.000		
1	T1	2	2	1.00	571	582	1.000		
1	R2	2	2	1.00	571	582	1.000		

East: Main Street									
1	L2	1	1	1.00	126	129	1.000		
1	T1	1	1	1.00	126	129	1.000		
1	R2	1	1	1.00	126	129	1.000		

North: Filbert Street									
1	L2	2	2	1.00	433	441	1.000		
1	T1	2	2	1.00	433	441	1.000		
1	R2	2	2	1.00	433	441	1.000		

West: Main Street									
1	L2	1	1	1.00	297	303	1.000		
1	T1	1	1	1.00	297	303	1.000		
1	R2	1	1	1.00	297	303	1.000		

ROUNDAABOUT EXIT									

Pedestrian		Opposing		Conflict	Critical	Follow-up	Exit Lane	Exit Flow	
Flow Rate	Adj.Flow Rate	Ped.Factor	Zone Length	Gap	Headway	Capacity	Total	Average	
ped/h	ped/h		ft	sec	sec	veh/h	veh/h	veh/h/lane	

South: Filbert Street									
2	2	1.00	16.00	3.72	2.23	1610	38	38	

East: Main Street									
1	1	1.00	16.00	3.72	2.23	1611	516	516	

North: Filbert Street									
3	3	1.00	16.00	3.72	2.23	1609	385	385	

West: Main Street									
1	1	1.00	16.00	3.72	2.23	1611	486	486	

[Go to Table Links \(Top\)](#)

Movements

Intersection Negotiation and Travel Data

Site: Main St._Filbert St._AM

 Site ID: 101
 Roundabout

TRAVEL SPEED, TRAVEL DISTANCE AND TRAVEL TIME

From Approach	To Exit	Turn	Running Speed mph	Travel Speed mph	Travel Distance ft	Travel Time s	Total Dem Flows veh-mi/h	Travel Distance Arv Flows veh-mi/h	Tot.Trav. Time veh-h/h
South: Filbert Street									
	West	L2	23.9	23.6	1183.3#	34.2#	2.9	2.9	0.1
	North	T1	15.2	15.0	613.3#	27.9#	6.2	6.2	0.4
	East	R2	21.4	21.1	953.3#	30.8#	1.0	1.0	0.0
East: Main Street									
	South	L2	27.1	27.1	923.8#	23.2#	1.0	1.0	0.0
	West	T1	28.0	28.0	1103.8#	26.9#	86.6	86.6	3.1
	North	R2	20.2	20.2	533.8#	18.0#	27.5	27.5	1.4
North: Filbert Street									
	East	L2	22.2	20.4	595.2#	19.9#	29.7	29.7	1.5
	South	T1	21.4	19.8	645.2#	22.2#	3.5	3.5	0.2
	West	R2	20.6	19.4	825.2#	29.0#	9.2	9.2	0.5
West: Main Street									

	North	L2	21.1	21.0	797.5#	25.9#	9.0	9.0	0.4
	East	T1	25.7	25.6	1137.5#	30.3#	53.4	53.4	2.1
	South	R2	24.4	24.4	1187.5#	33.2#	1.0	1.0	0.0

ALL VEHICLES:			23.8	23.7	855.1#	24.6#	230.8	230.8	9.7

"Running Speed" is the average speed excluding stopped periods.									
Travel Time values include cruise times and intersection delays including acceleration, deceleration and idling delays.									
# Travel Distance and Travel Time values include travel on the External Exit section based on the Exit Distance or user-specified Downstream Distance value as applicable.									
INTERSECTION NEGOTIATION DATA									

From	To		Negn	Negn	Negn	App	Exit	Downstr	
Approach	Exit	Turn	Radius	Speed	Dist	Dist	Dist	Dist	
			ft	mph	ft	ft	ft	ft	

South: Filbert Street									
	West	L2	41.0	13.6	161.0	450	192	NA	
	North	T1	135.4	21.5	95.8	450	18	NA	
	East	R2	81.7	17.7	38.6	450	122	NA	

East: Main Street									
	South	L2	41.0	13.6	161.0	400	137	NA	
	West	T1	135.4	21.5	95.8	400	192	NA	
	North	R2	81.7	17.7	38.6	400	18	NA	

North: Filbert Street									
	East	L2	41.0	13.6	161.0	60	122	NA	
	South	T1	135.4	21.5	95.8	60	137	NA	
	West	R2	81.7	17.7	38.6	60	192	NA	

West: Main Street									
	North	L2	41.0	13.6	161.0	630	18	NA	
	East	T1	135.4	21.5	95.8	630	122	NA	
	South	R2	81.7	17.7	38.6	630	137	NA	

Maximum Negotiation (Design) Speed = 30.0 mph									
NA Downstream Distance does not apply if:									
- Exit is an internal leg of a network									
- "Program" option was specified									
- Distance specified was less than the Exit Negotiation Distance									
- Distance specified was greater than the exit leg length									
MOVEMENT SPEEDS AND GEOMETRIC DELAY									

		App. Speeds		Exit Speeds		Queue			
		-----		-----		Move-up		Geom	
Mov	Turn	Cruise	Negn	Negn	Cruise	Speed		Delay	
ID		mph	mph	mph	mph	mph		sec	

South: Filbert Street									
3	L2	25.0	13.6	13.6	25.0	21.2		5.5	
8	T1	25.0	21.5	21.5	25.0	21.2		1.0	
18	R2	25.0	17.7	17.7	25.0	21.2		1.6	

East: Main Street									
1	L2	35.0	13.6	13.6	35.0	32.1		8.2	
6	T1	35.0	21.5	21.5	35.0	32.1		3.3	
16	R2	35.0	17.7	17.7	35.0	32.1		3.4	

North: Filbert Street									
7	L2	25.0	13.6	13.6	25.0	21.7		4.4	
4	T1	25.0	21.5	21.5	25.0	21.7		0.7	
14	R2	25.0	17.7	17.7	25.0	21.7		0.9	

West: Main Street									
5	L2	30.0	13.6	13.6	30.0	26.1		7.0	
2	T1	30.0	21.5	21.5	30.0	26.1		2.2	
12	R2	30.0	17.7	17.7	30.0	26.1		2.6	

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Movement Capacity and Performance Parameters

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

MOVEMENT CAPACITY PARAMETERS

Mov ID	Turn	Mov Cl.	Arv Flow veh/h	Opng Flow veh/h	Movement Adjust. Flow pcu/h	Total Cap. veh/h	Prac. Deg. Satn xp	Prac. Spare Cap. %	Deg. Satn x
South: Filbert Street									
3	L2	#	13	571	582	140	0.85	812	0.093
8	T1	#	53	571	582	572	0.85	812	0.093
18	R2	#	5	571	582	58	0.85	812	0.093
East: Main Street									
1	L2	#	5	126	129	9	0.85	39	0.610*
6	T1	#	414	126	129	679	0.85	39	0.610*
16	R2	#	272	126	129	445	0.85	39	0.610*
North: Filbert Street									
7	L2	#	263	433	441	576	0.85	86	0.456
4	T1	#	28	433	441	62	0.85	86	0.456
14	R2	#	59	433	441	129	0.85	86	0.456
West: Main Street									
5	L2	#	60	297	303	182	0.85	159	0.328
2	T1	#	248	297	303	755	0.85	159	0.328
12	R2	#	4	297	303	13	0.85	159	0.328

* Maximum degree of saturation

Combined Movement Capacity parameters are shown for all Movement Classes.

MOVEMENT PERFORMANCE

Mov ID	Turn	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Eff. Stop Rate	Total Stops	Perf. Index	Tot.Trav. Distance (veh-mi/h)	Tot.Trav. Time (veh-h/h)	Aver. Speed (mph)
South: Filbert Street										
3	L2	0.03	0.04	9.1	0.60	7.8	0.61	2.9	0.1	23.6
8	T1	0.07	0.08	4.5	0.60	31.9	0.90	6.2	0.4	15.0
18	R2	0.01	0.01	5.2	0.60	3.3	0.48	1.0	0.0	21.1
East: Main Street										
1	L2	0.01	0.02	9.6	0.52	2.8	4.67	1.0	0.0	27.1
6	T1	0.55	0.66	4.8	0.52	216.9	8.84	86.6	3.1	28.0
16	R2	0.37	0.44	4.9	0.52	142.4	6.56	27.5	1.4	20.2
North: Filbert Street										
7	L2	0.58	0.70	8.0	0.81	212.5	5.29	29.7	1.5	20.4
4	T1	0.03	0.04	4.3	0.81	22.8	2.64	3.5	0.2	19.8
14	R2	0.07	0.09	4.5	0.81	47.4	3.05	9.2	0.5	19.4
West: Main Street										
5	L2	0.15	0.18	9.1	0.59	35.5	2.41	9.0	0.4	21.0
2	T1	0.30	0.36	4.3	0.59	147.3	4.65	53.4	2.1	25.6
12	R2	0.01	0.01	4.7	0.59	2.6	1.81	1.0	0.0	24.4

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Fuel Consumption, Emissions and Cost

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

FUEL CONSUMPTION, EMISSIONS AND COST (TOTAL)

Detailed Output

Mov ID	Turn	Cost Total \$/h	Fuel Total gal/h	CO2 Total kg/h	CO Total kg/h	HC Total kg/h	NOX Total kg/h
South: Filbert Street							
3	L2	1.59	0.1	1.1	0.00	0.000	0.001
8	T1	6.10	0.3	2.9	0.00	0.000	0.003
18	R2	0.65	0.0	0.4	0.00	0.000	0.000
		8.33	0.5	4.4	0.00	0.000	0.005
East: Main Street							
1	L2	0.60	0.0	0.4	0.00	0.000	0.001
6	T1	46.13	4.0	36.1	0.03	0.003	0.045
16	R2	28.82	1.9	16.8	0.02	0.002	0.024
		75.55	6.0	53.4	0.05	0.005	0.070
North: Filbert Street							
7	L2	30.85	2.3	20.1	0.01	0.002	0.023
4	T1	3.33	0.2	2.2	0.00	0.000	0.003
14	R2	7.05	0.6	5.2	0.00	0.000	0.006
		41.24	3.1	27.5	0.02	0.002	0.032
West: Main Street							
5	L2	8.15	0.5	4.3	0.00	0.000	0.005
2	T1	34.67	2.4	21.5	0.02	0.002	0.026
12	R2	0.61	0.0	0.4	0.00	0.000	0.000
		43.42	2.9	26.1	0.02	0.002	0.032
INTERSECTION:		168.54	12.5	111.5	0.09	0.010	0.138
FUEL CONSUMPTION, EMISSIONS AND COST (RATE)							
Mov ID	Turn	Cost Rate \$/mi	Fuel Eff. mpg	CO2 Rate g/km	CO Rate g/km	HC Rate g/km	NOX Rate g/km
South: Filbert Street							
3	L2	0.54	24.2	230.1	0.14	0.018	0.233
8	T1	0.99	18.8	295.6	0.21	0.026	0.330
18	R2	0.66	22.5	247.1	0.16	0.020	0.258
		0.83	20.4	271.9	0.18	0.023	0.295
East: Main Street							
1	L2	0.63	19.7	281.5	0.27	0.025	0.365
6	T1	0.53	21.4	259.3	0.25	0.023	0.325
16	R2	1.05	14.6	380.8	0.35	0.037	0.544
		0.66	19.2	288.5	0.28	0.026	0.378
North: Filbert Street							
7	L2	1.04	13.2	422.0	0.30	0.038	0.489
4	T1	0.96	13.8	401.7	0.28	0.036	0.461
14	R2	0.77	15.9	348.9	0.23	0.030	0.389
		0.98	13.7	404.5	0.28	0.036	0.465
West: Main Street							
5	L2	0.90	18.9	293.0	0.24	0.026	0.376
2	T1	0.65	22.2	250.1	0.20	0.020	0.300
12	R2	0.62	22.6	245.9	0.19	0.020	0.292
		0.68	21.7	256.2	0.20	0.021	0.311
INTERSECTION:		0.73	18.5	300.2	0.25	0.027	0.372

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Lanes

Lane Performance and Capacity Information
Site: Main St._Filbert St._AMSite ID: 101
Roundabout

LANE PERFORMANCE

Lane No.	Flow	Cap	Deg.	Aver.	Eff.	Q u e u e		Lane Length ft
	veh/h	veh/h	Satn x	Delay sec	Stop Rate	95% Back veh	ft	
South: Filbert Street								
1	72	770	0.093	5.4	0.60	0.5	13.1	450.0
East: Main Street								
1	691	1133	0.610	4.8	0.52	5.7	145.7	400.0
North: Filbert Street								
1	350	767	0.456	7.1	0.81	2.9	73.9	60.0
West: Main Street								
1	312	951	0.328	5.3	0.59	2.2	55.4	630.0

LANE FLOW AND CAPACITY INFORMATION

Lane No.	Total Arv Flow veh/h	Min Cap veh/h	Tot Cap veh/h	Deg. Satn x	Lane Util %
South: Filbert Street					
1	72	72	770	0.093	100
East: Main Street					
1	691	150	1133	0.610	100
North: Filbert Street					
1	350	150	767	0.456	100
West: Main Street					
1	312	150	951	0.328	100

The capacity values of Continuous Lanes are obtained by adjusting the basic saturation flow for lane width, grade, movement class and turning vehicle effects. Saturation flow scale applies if specified.

[Go to Table Links \(Top\)](#)Lane, Approach and Intersection Performance
Site: Main St._Filbert St._AMSite ID: 101
Roundabout

Lane No.	Arrival Flow (veh/h)	%HV	Adj. Basic Satf.	Deg Sat x	Aver. Delay sec	Longest Queue ft	Lane Length ft
South: Filbert Street							
1	72	2		0.093	5.4	13	450
	72	2		0.093	5.4	13	
East: Main Street							
1	691	2		0.610	4.8	146	400
	691	2		0.610	4.8	146	
North: Filbert Street							
1	350	2		0.456	7.1	74	60

Detailed Output

	350	2	0.456	7.1	74	
West: Main Street	312	2	0.328	5.3	55	630
1	312	2	0.328	5.3	55	
=====						
ALL VEHICLES						
Total		%	Max	Aver.	Max	
Flow		HV	X	Delay	Queue	
1425		2	0.610	5.5	146	
=====						
Peak flow period = 15 minutes.						
Queue values in this table are 95% queue (feet)						
Note: Basic Saturation Flows at roundabouts or sign-controlled intersections apply only to continuous lanes.						

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Driver Characteristics

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

Lane No.	Satn Speed mph	Satn Flow veh/h	Satn Hdwy sec	Satn Spacing ft	Average Queue Space ft	Driver Response Time sec
South: Filbert Street						
1	19.8	1403	2.57	74.35	25.40	1.69
East: Main Street						
1	19.9	1314	2.74	80.07	25.40	1.87
North: Filbert Street						
1	15.0	1205	2.99	65.54	25.40	1.83
West: Main Street						
1	19.9	1347	2.67	78.04	25.40	1.80

Saturation Flow and Saturation Headway are derived from follow-up headway.

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Lane Delays

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

LANE DELAYS

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Delay (seconds/veh)							Stopd (Idle) di	Geom dig	Control dic
				Min Del dm	Stop-1st d1	line 2nd d2	Delay Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm			
South: Filbert Street													
1	0.093	NA	NA	2.9	3.5	0.0	3.5	3.1	0.4	0.0	0.4	1.9	5.4
East: Main Street													
1	0.610	NA	NA	0.5	1.5	0.0	1.5	2.7	0.0	0.0	0.0	3.4	4.8
North: Filbert Street													
1	0.456	NA	NA	1.9	3.3	0.3	3.6	1.8	1.8	0.2	1.6	3.5	7.1
West: Main Street													
1	0.328	NA	NA	1.3	2.1	0.0	2.1	2.9	0.1	0.0	0.1	3.2	5.3

SIDRA Standard Delay Model is used. Control Delay is the sum of Stop-line Delay and Geometric Delay.

dm: Minimum delay for gap acceptance cases
dSl: Stop-line delay (=d1+d2)
dn: Average stop-start delay for all vehicles queued and unqueued
dq: Queuing delay (the part of the stop-line delay that includes
stopped delay and queue move-up delay)
dqm: Queue move-up delay
di: Stopped delay (stopped (idling) time at near-zero speed)
dig: Geometric delay
dic: Control delay

Geometric delay is less than 2 seconds for some movements. The negotiation speed may be too high or the approach and exit speeds may be too low for given geometric design (e.g. for a large roundabout).
Check Detailed Output for geometric delay data including negotiation speeds.
If necessary, specify appropriate values of approach and exit speeds, negotiation radius or negotiation speed data in the Path Data dialog.

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Lane Queues
Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

BACK OF QUEUE (VEHICLES)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (veh)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
	x				Nb1	Nb2	Nb	95%	Av.	95%		
South: Filbert Street												
1	0.093	NA	NA	0.0	0.2	0.0	0.2	0.5	0.01	0.03	0.0	NA
East: Main Street												
1	0.610	NA	NA	0.0	2.3	0.0	2.3	5.7	0.15	0.36	0.0	NA
North: Filbert Street												
1	0.456	NA	NA	0.0	1.1	0.1	1.2	2.9	0.50	1.23	11.5	NA
West: Main Street												
1	0.328	NA	NA	0.0	0.9	0.0	0.9	2.2	0.04	0.09	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

BACK OF QUEUE (DISTANCE)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (ft)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
	x				Nb1	Nb2	Nb	95%	Av.	95%		
South: Filbert Street												
1	0.093	NA	NA	0.0	5.3	0.0	5.3	13.1	0.01	0.03	0.0	NA
East: Main Street												
1	0.610	NA	NA	0.0	58.6	0.0	58.6	145.7	0.15	0.36	0.0	NA
North: Filbert Street												
1	0.456	NA	NA	1.0	28.5	1.3	29.8	73.9	0.50	1.23	11.5	NA
West: Main Street												
1	0.328	NA	NA	0.0	22.3	0.0	22.3	55.4	0.04	0.09	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

OTHER QUEUE RESULTS (VEHICLES)

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Queue	
					Nc	95%

South: Filbert Street						
1	0.093	NA	NA	0.0	0.1	0.1

East: Main Street						
1	0.610	NA	NA	0.0	0.3	0.5

North: Filbert Street						
1	0.456	NA	NA	0.0	0.4	0.6

West: Main Street						
1	0.328	NA	NA	0.0	0.2	0.3

OTHER QUEUE RESULTS (DISTANCE)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Nc	Queue 95%
	x					

South: Filbert Street						
1	0.093	NA	NA	0.0	1.8	3.2

East: Main Street						
1	0.610	NA	NA	0.0	7.1	12.8

North: Filbert Street						
1	0.456	NA	NA	1.0	8.9	16.1

West: Main Street						
1	0.328	NA	NA	0.0	4.6	8.4

[Go to Table Links \(Top\)](#)

Lane Queue Percentiles
Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

LANE QUEUE PERCENTILES (VEHICLES)

Lane No.	Deg. Satn	Percentile Back of Queue (veh)						
	x	50%	70%	85%	90%	95%	98%	100%

South: Filbert Street								
1	0.093	0.2	0.3	0.4	0.4	0.5	0.6	0.6

East: Main Street								
1	0.610	2.3	3.0	4.2	4.9	5.7	6.4	6.8

North: Filbert Street								
1	0.456	1.2	1.5	2.1	2.5	2.9	3.2	3.5

West: Main Street								
1	0.328	0.9	1.1	1.6	1.9	2.2	2.4	2.6

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

LANE QUEUE PERCENTILES (DISTANCE)

Lane No.	Deg. Satn	Percentile Back of Queue (feet)						
	x	50%	70%	85%	90%	95%	98%	100%

South: Filbert Street								
1	0.093	5.2	6.8	9.6	11.1	13.1	14.5	15.6

East: Main Street								

1	0.610	58.6	75.9	107.0	123.9	145.7	161.7	173.8

North: Filbert Street								
1	0.456	29.7	38.5	54.3	62.9	73.9	82.1	88.2

West: Main Street								
1	0.328	22.3	28.9	40.7	47.1	55.4	61.5	66.1

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.								

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Lane Stops
Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	-- he1	Effective he2	Stop Geom. hig	Rate Overall h	Total Stops H	Queue Move-up Rate hqm	Total Queue Move-ups Hqm	Prop. Queued pq	Aver. Num. of Cycles to Depart

South: Filbert Street												
1	0.093	NA	NA	0.50	0.00	0.09	0.60	42.9	0.00	0.0	0.64	0.64

East: Main Street												
1	0.610	NA	NA	0.34	0.00	0.18	0.52	362.2	0.00	0.0	0.55	0.55

North: Filbert Street												
1	0.456	NA	NA	0.62	0.02	0.17	0.81	282.8	0.03	11.0	0.68	0.71

West: Main Street												
1	0.328	NA	NA	0.44	0.00	0.15	0.59	185.4	0.00	0.0	0.59	0.59

hig is the average value for all movements in a shared lane												
hqm is average queue move-up rate for all vehicles queued and unqueued												

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Flow Rates

Origin-Destination Flow Rates (Total)
Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

TOTAL FLOW RATES for All Movement Classes (veh/h)

From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT
Flow Rate	13.0	53.3	5.4	71.7
%HV (all designations)	2.0	2.0	2.0	2.0

From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
Flow Rate	5.4	414.1	271.7	691.3
%HV (all designations)	2.0	2.0	2.0	2.0

From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
Flow Rate	263.0	28.3	58.7	350.0
%HV (all designations)	2.0	2.0	2.0	2.0

From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT
Flow Rate	59.8	247.8	4.3	312.0
%HV (all designations)	2.0	2.0	2.0	2.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:

Unit Time for Volumes = 60 minutes
 Peak Flow Period = 15 minutes
 Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
 Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

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Origin-Destination Flow Rates by Movement Class Site: Main St._Filbert St._AM

Site ID: 101
 Roundabout

FLOW RATES for Light Vehicles (veh/h)

From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT
Flow Rate	12.8	52.2	5.3	70.3
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
Flow Rate	5.3	405.8	266.3	677.5
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
Flow Rate	257.8	27.7	57.5	343.0
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT
Flow Rate	58.6	242.9	4.3	305.7
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

FLOW RATES for Heavy Vehicles (veh/h)

From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT
Flow Rate	0.3	1.1	0.1	1.4
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
Flow Rate	0.1	8.3	5.4	13.8
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
Flow Rate	5.3	0.6	1.2	7.0

Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT

Flow Rate	1.2	5.0	0.1	6.2
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:

Unit Time for Volumes = 60 minutes

Peak Flow Period = 15 minutes

Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.

Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Lane Flow Rates

Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

LANE FLOW RATES AT STOP LINE (veh/h)

From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT

Lane 1				
LV	12.8	52.2	5.3	70.3
HV	0.3	1.1	0.1	1.4
Total	13.0	53.3	5.4	71.7

Approach	13.0	53.3	5.4	71.7

From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT

Lane 1				
LV	5.3	405.8	266.3	677.5
HV	0.1	8.3	5.4	13.8
Total	5.4	414.1	271.7	691.3

Approach	5.4	414.1	271.7	691.3

From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT

Lane 1				
LV	257.8	27.7	57.5	343.0
HV	5.3	0.6	1.2	7.0
Total	263.0	28.3	58.7	350.0

Approach	263.0	28.3	58.7	350.0

From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT

Lane 1				
LV	58.6	242.9	4.3	305.7
HV	1.2	5.0	0.1	6.2
Total	59.8	247.8	4.3	312.0

Approach	59.8	247.8	4.3	312.0

EXIT LANE FLOW RATES

Movement Class:	LV	HV	TOT

Exit: SOUTH			
Lane: 1	37.3	0.8	38.0
Total	37.3	0.8	38.0

Exit: EAST			
Lane: 1	506.0	10.3	516.3
Total	506.0	10.3	516.3

Exit: NORTH			
Lane: 1	377.1	7.7	384.8
Total	377.1	7.7	384.8

Exit: WEST			
Lane: 1	476.2	9.7	485.9
Total	476.2	9.7	485.9

DOWNSTREAM LANE FLOW RATES FOR EXIT ROADS

Movement Class:	LV	HV	TOT

Exit: SOUTH			
Lane: 1	37.3	0.8	38.0
Total	37.3	0.8	38.0

Exit: EAST			
Lane: 1	506.0	10.3	516.3
Total	506.0	10.3	516.3

Exit: NORTH			
Lane: 1	377.1	7.7	384.8
Total	377.1	7.7	384.8

Exit: WEST			
Lane: 1	476.2	9.7	485.9
Total	476.2	9.7	485.9

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Other

Parameter Settings Summary
Site: Main St._Filbert St._AM

Site ID: 101
Roundabout

* Basic Parameters:
Intersection Type: Roundabout
Driving on the right-hand side of the road
Input data specified in US units
Model Defaults: US HCM (Customary)
Peak Flow Period (for performance): 15 minutes
Unit time (for volumes): 60 minutes.
SIDRA Standard Delay model used
HCM Queue Model option used
Level of Service based on: Delay and v/c (HCM 6)
Queue percentile: 95%

[Go to Table Links \(Top\)](#)

Diagnostics
Site: Main St._Filbert St._AM

Site ID: 101

Roundabout

Lane Flow-Capacity Iterations:

Site Model Variability Index (Iterations 3 to N): 1.8%

Number of Iterations: 5 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations:
2.9% 1.7% 0.9%

Other Diagnostic Messages (if any):

Geometric delay is less than 2 seconds for some movements. The negotiation speed may be too high or the approach and exit speeds may be too low for given geometric design (e.g. for a large roundabout).
Check Detailed Output for geometric delay data including negotiation speeds. If necessary, specify appropriate values of approach and exit speeds, negotiation radius or negotiation speed data in the Path Data dialog.

[Go to Table Links \(Top\)](#)

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Organisation: TJKM TRANSPORTATION CONSULTANTS | Processed: Thursday, November 21, 2024 3:53:48 PM

Project: J:\JURISDICTION\S\Stockton\011-101 Main St Complete Streets\Analysis\Sidra\Project_v2 Built +P Conditions.sip8

MOVEMENT SUMMARY

 **Site: 101 [Main St._Filbert St._AM]**

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Filbert Street												
3	L2	13	2.0	0.093	9.1	LOS A	0.5	13.1	0.64	0.60	0.64	23.6
8	T1	53	2.0	0.093	4.5	LOS A	0.5	13.1	0.64	0.60	0.64	15.0
18	R2	5	2.0	0.093	5.2	LOS A	0.5	13.1	0.64	0.60	0.64	21.1
Approach		72	2.0	0.093	5.4	LOS A	0.5	13.1	0.64	0.60	0.64	17.3
East: Main Street												
1	L2	5	2.0	0.610	9.6	LOS A	5.7	145.7	0.55	0.52	0.55	27.1
6	T1	414	2.0	0.610	4.8	LOS A	5.7	145.7	0.55	0.52	0.55	28.0
16	R2	272	2.0	0.610	4.9	LOS A	5.7	145.7	0.55	0.52	0.55	20.2
Approach		691	2.0	0.610	4.8	LOS A	5.7	145.7	0.55	0.52	0.55	25.6
North: Filbert Street												
7	L2	263	2.0	0.456	8.0	LOS A	2.9	73.9	0.68	0.81	0.71	20.4
4	T1	28	2.0	0.456	4.3	LOS A	2.9	73.9	0.68	0.81	0.71	19.8
14	R2	59	2.0	0.456	4.5	LOS A	2.9	73.9	0.68	0.81	0.71	19.4
Approach		350	2.0	0.456	7.1	LOS A	2.9	73.9	0.68	0.81	0.71	20.1
West: Main Street												
5	L2	60	2.0	0.328	9.1	LOS A	2.2	55.4	0.59	0.59	0.59	21.0
2	T1	248	2.0	0.328	4.3	LOS A	2.2	55.4	0.59	0.59	0.59	25.6
12	R2	4	2.0	0.328	4.7	LOS A	2.2	55.4	0.59	0.59	0.59	24.4
Approach		312	2.0	0.328	5.3	LOS A	2.2	55.4	0.59	0.59	0.59	24.8
All Vehicles		1425	2.0	0.610	5.5	LOS A	5.7	145.7	0.60	0.61	0.60	23.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: TJKM TRANSPORTATION CONSULTANTS | Processed: Thursday, November 21, 2024 3:53:48 PM

Project: J:\JURISDICTION\Stockton\011-101 Main St Complete Streets\Analysis\Sidra\Project_v2 Built +P Conditions.sip8

DETAILED OUTPUT

 Site: 101 [Main St._Filbert St._PM]

New Site
Site Category: (None)
Roundabout

OUTPUT TABLE LINKS

-  Roundabouts
 - Roundabout Basic Parameters
 - Roundabout Circulating / Exiting Stream Parameters
 - Roundabout Gap Acceptance Parameters
 - Roundabout Flow Rates
 - Roundabout Pedestrian Effects
-  Movements
 - Intersection Negotiation and Travel Data
 - Movement Capacity and Performance Parameters
 - Fuel Consumption, Emissions and Cost
-  Lanes
 - Lane Performance and Capacity Information
 - Lane, Approach and Intersection Performance
 - Driver Characteristics
 - Lane Delays
 - Lane Queues
 - Lane Queue Percentiles
 - Lane Stops
-  Flow Rates
 - Origin-Destination Flow Rates (Total)
 - Origin-Destination Flow Rates by Movement Class
 - Lane Flow Rates
-  Other
 - Parameter Settings Summary
 - Diagnostics

Roundabouts

Roundabout Basic Parameters
Site: Main St._Filbert St._PM

Site ID: 101											
Roundabout											
Central Island Diam ft	Circ Width ft	Insc Diam. ft	Entry Radius ft	Entry Angle deg	Circ Lanes	Entry Lanes	Av.Entry Lane Width ft	App Dist ft	Prop Upstr	Queued Signal	Extra Bunching %

South: Filbert Street											
30.0	15.0	100.0U	100.0	30.0	1	1	13.00	450		NA	0.0N

East: Main Street											
30.0	15.0	100.0U	100.0	30.0	1	1	13.00	400		NA	0.0N

North: Filbert Street											
30.0	15.0	100.0U	100.0	30.0	2	1	13.00	60		NA	0.0N

West: Main Street											
30.0	15.0	100.0U	100.0	30.0	1	1	13.00	630		NA	0.0N

Roundabout Capacity Model: SIDRA Standard											
U Inscribed diameter value was specified by the user.											
NA Not Applicable (single Site analysis or unconnected Site in Network analysis).											
N Program option resulted in zero value (single Site analysis or unconnected Site in Network analysis).											

[Go to Table Links \(Top\)](#)

Roundabout Circulating / Exiting Stream Parameters

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	Opng Flow veh/h	HVE pcu/veh	Adj. Flow pcu/h	%Near Lane Only	%Exit Flow Incl.	Cap. Const. Effect	O-D Factor	Aver Speed mph	In-Bunch Headway sec	Prop. Bunched
South: Filbert Street													
W	L2	1	Dominant	915	1.02	934	0.0	0.0	N	0.834	17.3	2.00	0.703
N	T1	1	Dominant	915	1.02	934	0.0	0.0	N	0.834	17.3	2.00	0.703
E	R2	1	Dominant	915	1.02	934	0.0	0.0	N	0.834	17.3	2.00	0.703
East: Main Street													
S	L2	1	Dominant	132	1.02	134	0.0	0.0	N	0.982	16.8	2.00	0.151
W	T1	1	Dominant	132	1.02	134	0.0	0.0	N	0.982	16.8	2.00	0.151
N	R2	1	Dominant	132	1.02	134	0.0	0.0	N	0.982	16.8	2.00	0.151
North: Filbert Street													
E	L2	1	Dominant	367	1.02	375	0.0	0.0	N	0.953	21.0	2.00	0.366
S	T1	1	Dominant	367	1.02	375	0.0	0.0	N	0.953	21.0	2.00	0.366
W	R2	1	Dominant	367	1.02	375	0.0	0.0	N	0.953	21.0	2.00	0.366
West: Main Street													
N	L2	1	Dominant	464	1.02	473	0.0	0.0	N	0.902	14.3	2.00	0.440
E	T1	1	Dominant	464	1.02	473	0.0	0.0	N	0.902	14.3	2.00	0.440
S	R2	1	Dominant	464	1.02	473	0.0	0.0	N	0.902	14.3	2.00	0.440
Roundabout Capacity Model: SIDRA Standard													

[Go to Table Links \(Top\)](#)

Roundabout Gap Acceptance Parameters

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

Dest	Turn	Lane No.	Lane Type	In-Bunch Headway sec	Prop. Bunched	Priority Sharing	HVE for Entry	Critical Gap		Follow-up Headway sec
								Headway sec	Dist ft	
South: Filbert Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
W	L2	1	Dominant	2.00	0.703	Y	1.02	4.15	105.4	2.43
N	T1	1	Dominant	2.00	0.703	Y	1.02	4.15	105.4	2.43
E	R2	1	Dominant	2.00	0.703	Y	1.02	4.15	105.4	2.43
East: Main Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
S	L2	1	Dominant	2.00	0.151	N	1.02	5.26	129.8	2.74
W	T1	1	Dominant	2.00	0.151	N	1.02	5.26	129.8	2.74
N	R2	1	Dominant	2.00	0.151	N	1.02	5.26	129.8	2.74
North: Filbert Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
E	L2	1	Dominant	2.00	0.366	Y	1.02	4.71	145.4	3.01
S	T1	1	Dominant	2.00	0.366	Y	1.02	4.71	145.4	3.01
W	R2	1	Dominant	2.00	0.366	Y	1.02	4.71	145.4	3.01
West: Main Street										
Environment Factor: 1.05										
Entry/Circ. Flow Adjustment: None										
N	L2	1	Dominant	2.00	0.440	N	1.02	4.73	99.1	2.61
E	T1	1	Dominant	2.00	0.440	N	1.02	4.73	99.1	2.61
S	R2	1	Dominant	2.00	0.440	N	1.02	4.73	99.1	2.61
Roundabout Capacity Model: SIDRA Standard										
Priority sharing means Follow-up Headway plus Intra-bunch Headway										

Detailed Output

is larger than the Critical Gap.

Dist (Distance): Spacing, i.e. distance between the front ends of two successive vehicles across all lanes in the circulating or exiting stream

[Go to Table Links \(Top\)](#)

Roundabout Flow Rates

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

CIRCULATING LANE FLOW RATES

Lane No.	Circulating Flow Rate		
	veh/h	pcu/h	Percent
South: Filbert Street			
1	915	934	100.0%
Total	915	934	
East: Main Street			
1	132	134	100.0%
Total	132	134	
North: Filbert Street			
1	0	0	0.0%
2	367	375	100.0%
Total	367	375	
West: Main Street			
1	464	473	100.0%
Total	464	473	

The SIDRA Standard roundabout capacity model option is in use.
This model takes into account the total circulating flow as well as the effect of flow distribution in circulating lanes on the entry capacity results.

APPROACH LANE FLOW RATES

Lane No.	Approach Flows (veh/h)		
	Out	To Downst	Total
South: Filbert Street			
1	11	72	83
Total	11	72	83
East: Main Street			
1	258	349	607
Total	258	349	607
North: Filbert Street			
1	77	462	539
Total	77	462	539
West: Main Street			
1	17	492	509
Total	17	492	509

[Go to Table Links \(Top\)](#)

Roundabout Pedestrian Effects

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

ROUNDAABOUT ENTRY

Lane	Turn	Pedestrian Flow Rate	Pedestrian Adj.Flow Rate	Opposing Ped.Factor	Circulating Flow Rate	Circulating Flow Rate	Adjustment Factor

North	L2	19.1	18.6	791.5#	29.1#	9.0	9.0	0.5
East	T1	23.6	23.0	1131.5#	33.5#	92.5	92.5	4.0
South	R2	22.6	22.1	1181.5#	36.4#	3.9	3.9	0.2

ALL VEHICLES:		22.7	21.9	854.7#	26.6#	281.2	281.2	12.8

"Running Speed" is the average speed excluding stopped periods.								
Travel Time values include cruise times and intersection delays including acceleration, deceleration and idling delays.								
# Travel Distance and Travel Time values include travel on the External Exit section based on the Exit Distance or user-specified Downstream Distance value as applicable.								
INTERSECTION NEGOTIATION DATA								

From	To		Negn	Negn	Negn	App	Exit	Downstr
Approach	Exit	Turn	Radius	Speed	Dist	Dist	Dist	Dist
			ft	mph	ft	ft	ft	ft

South: Filbert Street								
	West	L2	41.0	13.6	161.0	450	192	NA
	North	T1	135.4	21.5	95.8	450	18	NA
	East	R2	81.7	17.7	38.6	450	122	NA

East: Main Street								
	South	L2	41.0	13.6	161.0	400	137	NA
	West	T1	135.4	21.5	95.8	400	192	NA
	North	R2	81.7	17.7	38.6	400	18	NA

North: Filbert Street								
	East	L2	41.0	13.6	161.0	60	122	NA
	South	T1	135.4	21.5	95.8	60	137	NA
	West	R2	81.7	17.7	38.6	60	192	NA

West: Main Street								
	North	L2	41.0	13.6	161.0	630	18	NA
	East	T1	135.4	21.5	95.8	630	122	NA
	South	R2	81.7	17.7	38.6	630	137	NA

Maximum Negotiation (Design) Speed = 30.0 mph								
NA Downstream Distance does not apply if:								
- Exit is an internal leg of a network								
- "Program" option was specified								
- Distance specified was less than the Exit Negotiation Distance								
- Distance specified was greater than the exit leg length								
MOVEMENT SPEEDS AND GEOMETRIC DELAY								

		App. Speeds		Exit Speeds		Queue		
		-----		-----		Move-up	Geom	
Mov	Turn	Cruise	Negn	Negn	Cruise	Speed	Delay	
ID		mph	mph	mph	mph	mph	sec	

South: Filbert Street								
3	L2	25.0	13.6	13.6	25.0	18.9	5.5	
8	T1	25.0	21.5	21.5	25.0	18.9	1.0	
18	R2	25.0	17.7	17.7	25.0	18.9	1.6	

East: Main Street								
1	L2	35.0	13.6	13.6	35.0	31.9	8.2	
6	T1	35.0	21.5	21.5	35.0	31.9	3.3	
16	R2	35.0	17.7	17.7	35.0	31.9	3.4	

North: Filbert Street								
7	L2	25.0	13.6	13.6	25.0	22.9	4.4	
4	T1	25.0	21.5	21.5	25.0	22.9	0.7	
14	R2	25.0	17.7	17.7	25.0	22.9	0.9	

West: Main Street								
5	L2	30.0	13.6	13.6	30.0	22.5	7.0	
2	T1	30.0	21.5	21.5	30.0	22.5	2.2	
12	R2	30.0	17.7	17.7	30.0	22.5	2.6	

[Go to Table Links \(Top\)](#)Movement Capacity and Performance Parameters
Site: Main St._Filbert St._PMSite ID: 101
Roundabout

MOVEMENT CAPACITY PARAMETERS

Mov ID	Turn	Mov Cl.	Arv Flow veh/h	Opng Flow veh/h	Movement Adjust. Flow pcu/h	Total Cap. veh/h	Prac. Deg. Satn xp	Prac. Spare Cap. %	Deg. Satn x
South: Filbert Street									
3	L2	#	18	915	934	113	0.85	422	0.163
8	T1	#	53	915	934	327	0.85	422	0.163
18	R2	#	11	915	934	67	0.85	422	0.163
East: Main Street									
1	L2	#	2	132	134	4	0.85	57	0.541
6	T1	#	347	132	134	640	0.85	57	0.541
16	R2	#	258	132	134	476	0.85	57	0.541
North: Filbert Street									
7	L2	#	424	367	375	637	0.85	28	0.665*
4	T1	#	38	367	375	57	0.85	28	0.665*
14	R2	#	77	367	375	116	0.85	28	0.665*
West: Main Street									
5	L2	#	60	464	473	93	0.85	32	0.642
2	T1	#	432	464	473	672	0.85	32	0.642
12	R2	#	17	464	473	27	0.85	32	0.642

* Maximum degree of saturation

Combined Movement Capacity parameters are shown for all Movement Classes.

MOVEMENT PERFORMANCE

Mov ID	Turn	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Eff. Stop Rate	Total Stops	Perf. Index	Tot.Trav. Distance (veh-mi/h)	Tot.Trav. Time (veh-h/h)	Aver. Speed (mph)
South: Filbert Street										
3	L2	0.07	0.08	13.1	0.82	15.1	1.16	4.1	0.2	20.9
8	T1	0.13	0.15	8.6	0.82	43.7	1.46	6.2	0.5	13.0
18	R2	0.03	0.03	9.2	0.82	8.9	1.00	2.0	0.1	18.5
East: Main Street										
1	L2	0.01	0.01	9.5	0.52	1.1	3.78	0.4	0.0	27.3
6	T1	0.45	0.54	4.6	0.52	179.8	7.27	72.4	2.6	28.2
16	R2	0.34	0.41	4.8	0.52	133.6	5.58	25.9	1.3	20.4
North: Filbert Street										
7	L2	1.16	1.40	9.9	0.93	392.9	10.28	48.1	2.6	18.6
4	T1	0.06	0.08	6.1	0.93	35.3	5.46	4.7	0.3	18.2
14	R2	0.14	0.16	6.4	0.93	71.5	6.03	12.1	0.7	18.2
West: Main Street										
5	L2	0.23	0.27	13.7	0.96	57.4	6.25	9.0	0.5	18.6
2	T1	1.08	1.29	9.0	0.96	414.1	11.86	92.5	4.0	23.0
12	R2	0.04	0.05	9.3	0.96	16.7	5.67	3.9	0.2	22.1

[Go to Table Links \(Top\)](#)Fuel Consumption, Emissions and Cost
Site: Main St._Filbert St._PMSite ID: 101
Roundabout

FUEL CONSUMPTION, EMISSIONS AND COST (TOTAL)

Detailed Output

Mov ID	Turn	Cost Total \$/h	Fuel Total gal/h	CO2 Total kg/h	CO Total kg/h	HC Total kg/h	NOX Total kg/h
South: Filbert Street							
3	L2	2.67	0.2	1.7	0.00	0.000	0.002
8	T1	7.31	0.4	3.3	0.00	0.000	0.004
18	R2	1.54	0.1	0.9	0.00	0.000	0.001
		11.51	0.7	5.9	0.00	0.001	0.006
East: Main Street							
1	L2	0.23	0.0	0.2	0.00	0.000	0.000
6	T1	37.79	3.3	29.6	0.03	0.003	0.037
16	R2	26.70	1.7	15.5	0.01	0.001	0.022
		64.72	5.1	45.2	0.04	0.004	0.059
North: Filbert Street							
7	L2	55.76	3.9	35.1	0.03	0.003	0.041
4	T1	5.03	0.4	3.2	0.00	0.000	0.004
14	R2	10.37	0.8	7.2	0.00	0.001	0.008
		71.16	5.1	45.6	0.03	0.004	0.053
West: Main Street							
5	L2	9.27	0.5	4.8	0.00	0.000	0.006
2	T1	68.44	4.6	41.5	0.03	0.004	0.051
12	R2	2.77	0.2	1.7	0.00	0.000	0.002
		80.47	5.4	48.0	0.04	0.004	0.059
INTERSECTION:		227.87	16.2	144.7	0.12	0.013	0.177
FUEL CONSUMPTION, EMISSIONS AND COST (RATE)							
Mov ID	Turn	Cost Rate \$/mi	Fuel Eff. mpg	CO2 Rate g/km	CO Rate g/km	HC Rate g/km	NOX Rate g/km
South: Filbert Street							
3	L2	0.64	22.1	251.3	0.16	0.021	0.255
8	T1	1.18	16.5	336.5	0.24	0.031	0.373
18	R2	0.78	20.3	273.4	0.18	0.024	0.286
		0.94	18.6	297.7	0.20	0.027	0.320
East: Main Street							
1	L2	0.61	20.2	275.4	0.26	0.025	0.353
6	T1	0.52	21.9	254.2	0.25	0.022	0.315
16	R2	1.03	15.0	370.7	0.34	0.036	0.525
		0.66	19.5	284.9	0.27	0.026	0.371
North: Filbert Street							
7	L2	1.16	12.2	453.3	0.33	0.042	0.526
4	T1	1.08	12.9	430.7	0.31	0.039	0.495
14	R2	0.86	14.9	371.8	0.25	0.033	0.416
		1.10	12.7	436.5	0.31	0.040	0.503
West: Main Street							
5	L2	1.03	16.6	334.5	0.28	0.031	0.436
2	T1	0.74	19.9	278.9	0.23	0.024	0.342
12	R2	0.71	20.3	273.4	0.22	0.023	0.332
		0.76	19.6	283.4	0.23	0.025	0.349
INTERSECTION:		0.81	17.4	319.9	0.26	0.029	0.391

[Go to Table Links \(Top\)](#)

Lanes

Lane Performance and Capacity Information
Site: Main St._Filbert St._PMSite ID: 101
Roundabout

LANE PERFORMANCE

Lane No.	Flow veh/h	Cap veh/h	Deg. Satn x	Aver. Delay sec	Eff. Stop Rate	Q u e u e		Lane Length ft
						95% Back veh	ft	
South: Filbert Street								
1	83	507	0.163	9.7	0.82	1.0	26.5	450.0
East: Main Street								
1	607	1120	0.541	4.7	0.52	4.7	118.5	400.0
North: Filbert Street								
1	539	810	0.665	9.1	0.93	6.2	158.2	60.0
West: Main Street								
1	509	792	0.642	9.5	0.96	6.7	170.6	630.0

LANE FLOW AND CAPACITY INFORMATION

Lane No.	Total Arv Flow veh/h	Min Cap veh/h	Tot Cap veh/h	Deg. Satn x	Lane Util %
South: Filbert Street					
1	83	83	507	0.163	100
East: Main Street					
1	607	150	1120	0.541	100
North: Filbert Street					
1	539	150	810	0.665	100
West: Main Street					
1	509	150	792	0.642	100

The capacity values of Continuous Lanes are obtained by adjusting the basic saturation flow for lane width, grade, movement class and turning vehicle effects. Saturation flow scale applies if specified.

[Go to Table Links \(Top\)](#)Lane, Approach and Intersection Performance
Site: Main St._Filbert St._PMSite ID: 101
Roundabout

Lane No.	Arrival Flow (veh/h)	%HV	Adj. Basic Satf.	Deg Sat x	Aver. Delay sec	Longest Queue ft	Lane Length ft
South: Filbert Street							
1	83	2		0.163	9.7	27	450
	83	2		0.163	9.7	27	
East: Main Street							
1	607	2		0.541	4.7	118	400
	607	2		0.541	4.7	118	
North: Filbert Street							
1	539	2		0.665	9.1	158	60

Detailed Output

	539	2	0.665	9.1	158	

West: Main Street						
1	509	2	0.642	9.5	171	630

	509	2	0.642	9.5	171	
=====						
ALL VEHICLES						
Total	%	Max	Aver.	Max		
Flow	HV	X	Delay	Queue		
1737	2	0.665	7.7	171		
=====						
Peak flow period = 15 minutes.						
Queue values in this table are 95% queue (feet)						
Note: Basic Saturation Flows at roundabouts or sign-controlled intersections apply only to continuous lanes.						

[Go to Table Links \(Top\)](#)

Driver Characteristics

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

Lane No.	Satn Speed mph	Satn Flow veh/h	Satn Hdwy sec	Satn Spacing ft	Average Queue Space ft	Driver Response Time sec

South: Filbert Street	19.2	1480	2.43	68.55	25.40	1.53
1	-----					
East: Main Street	19.8	1315	2.74	79.67	25.40	1.86
1	-----					
North: Filbert Street	14.8	1195	3.01	65.31	25.40	1.84
1	-----					
West: Main Street	20.4	1381	2.61	78.07	25.40	1.76
1	-----					

Saturation Flow and Saturation Headway are derived from follow-up headway.

[Go to Table Links \(Top\)](#)

Lane Delays

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

LANE DELAYS

				Delay (seconds/veh)									
Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Min Del dm	Stop-line 1st d1	2nd d2	Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic

South: Filbert Street	0.163	NA	NA	6.2	7.6	0.0	7.6	4.0	3.6	0.0	3.6	2.1	9.7
1	-----												
East: Main Street	0.541	NA	NA	0.6	1.3	0.0	1.3	2.5	0.0	0.0	0.0	3.4	4.7
1	-----												
North: Filbert Street	0.665	NA	NA	1.6	3.6	1.9	5.5	2.1	3.4	1.0	2.4	3.6	9.1
1	-----												
West: Main Street	0.642	NA	NA	2.2	4.4	2.4	6.7	4.6	2.2	1.3	0.8	2.8	9.5
1	-----												

SIDRA Standard Delay Model is used. Control Delay is the sum of Stop-line Delay and Geometric Delay.

dm: Minimum delay for gap acceptance cases
 dSl: Stop-line delay (=d1+d2)
 dn: Average stop-start delay for all vehicles queued and unqueued
 dq: Queuing delay (the part of the stop-line delay that includes
 stopped delay and queue move-up delay)
 dqm: Queue move-up delay
 di: Stopped delay (stopped (idling) time at near-zero speed)
 dig: Geometric delay
 dic: Control delay

[Go to Table Links \(Top\)](#)

Lane Queues

Site: Main St._Filbert St._PM

Site ID: 101
 Roundabout

BACK OF QUEUE (VEHICLES)

Lane No.	Deg. Satn	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (veh)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
	x				Nb1	Nb2	Nb	95%	Av.	95%		
South: Filbert Street												
1	0.163	NA	NA	0.0	0.4	0.0	0.4	1.0	0.02	0.06	0.0	NA
East: Main Street												
1	0.541	NA	NA	0.0	1.9	0.0	1.9	4.7	0.12	0.30	0.0	NA
North: Filbert Street												
1	0.665	NA	NA	0.3	2.0	0.5	2.5	6.2	1.06	2.64	58.2	NA
West: Main Street												
1	0.642	NA	NA	0.4	2.2	0.5	2.7	6.7	0.11	0.27	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

BACK OF QUEUE (DISTANCE)

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Back of Queue (ft)				Queue Stor. Ratio		Prob. Block %	Prob. SL Ov. %
					Nb1	Nb2	Nb	95%	Av.	95%		
South: Filbert Street												
1	0.163	NA	NA	0.0	10.7	0.0	10.7	26.5	0.02	0.06	0.0	NA
East: Main Street												
1	0.541	NA	NA	0.0	47.7	0.0	47.7	118.5	0.12	0.30	0.0	NA
North: Filbert Street												
1	0.665	NA	NA	8.7	50.5	13.1	63.6	158.2	1.06	2.64	58.2	NA
West: Main Street												
1	0.642	NA	NA	10.0	54.8	13.9	68.6	170.6	0.11	0.27	0.0	NA

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

OTHER QUEUE RESULTS (VEHICLES)

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Nc	Queue ----- 95%
South: Filbert Street						
1	0.163	NA	NA	0.0	0.2	0.3
East: Main Street						
1	0.541	NA	NA	0.0	0.2	0.4

North: Filbert Street

1	0.665	NA	NA	0.3	0.8	1.5

West: Main Street						
1	0.642	NA	NA	0.4	1.0	1.7

OTHER QUEUE RESULTS (DISTANCE)

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	Ovrfl. Queue No	Cyc-Av. Queue Nc	Queue 95%

South: Filbert Street						
1	0.163	NA	NA	0.0	4.4	8.0

East: Main Street						
1	0.541	NA	NA	0.0	5.7	10.3

North: Filbert Street						
1	0.665	NA	NA	8.7	20.9	37.9

West: Main Street						
1	0.642	NA	NA	10.0	24.2	43.8

[Go to Table Links \(Top\)](#)

Lane Queue Percentiles

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

LANE QUEUE PERCENTILES (VEHICLES)

Lane No.	Deg. Satn x	Percentile Back of Queue (veh)						
		50%	70%	85%	90%	95%	98%	100%

South: Filbert Street								
1	0.163	0.4	0.5	0.8	0.9	1.0	1.2	1.2

East: Main Street								
1	0.541	1.9	2.4	3.4	4.0	4.7	5.2	5.6

North: Filbert Street								
1	0.665	2.5	3.2	4.6	5.3	6.2	6.9	7.4

West: Main Street								
1	0.642	2.7	3.5	4.9	5.7	6.7	7.5	8.0

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

LANE QUEUE PERCENTILES (DISTANCE)

Lane No.	Deg. Satn x	Percentile Back of Queue (feet)						
		50%	70%	85%	90%	95%	98%	100%

South: Filbert Street								
1	0.163	10.7	13.8	19.5	22.5	26.5	29.4	31.6

East: Main Street								
1	0.541	47.6	61.7	87.0	100.7	118.5	131.5	141.3

North: Filbert Street								
1	0.665	63.6	82.4	116.2	134.5	158.2	175.6	188.7

West: Main Street								
1	0.642	68.6	88.9	125.3	145.0	170.6	189.3	203.5

SIDRA Standard models are used for Back of Queue estimation since HCM only gives Cycle-Average Queues for unsignalised intersections.

[Go to Table Links \(Top\)](#)

Lane Stops

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

Lane No.	Deg. Satn x	% Arv During Green	Prog. Factor	-- Effective Stop Rate --		Geom. Overall		Total Stops H	Queue Move-up Rate hqm	Total Queue Move-ups Hqm	Prop. Queued pq	Aver. Num. of Cycles to Depart
				he1	he2	hig	h					
South: Filbert Street												
1	0.163	NA	NA	0.78	0.00	0.04	0.82	67.7	0.00	0.0	0.85	0.85
East: Main Street												
1	0.541	NA	NA	0.32	0.00	0.20	0.52	314.6	0.00	0.0	0.52	0.52
North: Filbert Street												
1	0.665	NA	NA	0.71	0.10	0.12	0.93	499.7	0.16	88.0	0.78	0.94
West: Main Street												
1	0.642	NA	NA	0.81	0.11	0.04	0.96	488.2	0.20	102.5	0.89	1.09
hig is the average value for all movements in a shared lane												
hqm is average queue move-up rate for all vehicles queued and unqueued												

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Flow Rates

Origin-Destination Flow Rates (Total)

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

TOTAL FLOW RATES for All Movement Classes (veh/h)

From SOUTH To:				
Turn:	W	N	E	TOT
	L2	T1	R2	
Flow Rate	18.5	53.3	10.9	82.6
%HV (all designations)	2.0	2.0	2.0	2.0
From EAST To:				
Turn:	S	W	N	TOT
	L2	T1	R2	
Flow Rate	2.2	346.7	257.6	606.5
%HV (all designations)	2.0	2.0	2.0	2.0
From NORTH To:				
Turn:	E	S	W	TOT
	L2	T1	R2	
Flow Rate	423.9	38.0	77.2	539.1
%HV (all designations)	2.0	2.0	2.0	2.0
From WEST To:				
Turn:	N	E	S	TOT
	L2	T1	R2	
Flow Rate	59.8	431.5	17.4	508.7
%HV (all designations)	2.0	2.0	2.0	2.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Origin-Destination Flow Rates by Movement Class
Site: Main St._Filbert St._PMSite ID: 101
Roundabout

FLOW RATES for Light Vehicles (veh/h)

From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT
Flow Rate	18.1	52.2	10.7	81.0
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
Flow Rate	2.1	339.8	252.5	594.4
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
Flow Rate	415.4	37.3	75.6	528.3
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT
Flow Rate	58.6	422.9	17.0	498.5
Mov Class %	98.0	98.0	98.0	98.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

FLOW RATES for Heavy Vehicles (veh/h)

From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT
Flow Rate	0.4	1.1	0.2	1.7
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
Flow Rate	0.0	6.9	5.2	12.1
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
Flow Rate	8.5	0.8	1.5	10.8
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0
From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT

Flow Rate	1.2	8.6	0.3	10.2
Mov Class %	2.0	2.0	2.0	2.0
Flow Scale	1.00	1.00	1.00	-
Peak Flow Factor	0.92	0.92	0.92	-
Residual Demand	0.0	0.0	0.0	0.0

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

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Lane Flow Rates

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

LANE FLOW RATES AT STOP LINE (veh/h)

From SOUTH To:	W	N	E	
Turn:	L2	T1	R2	TOT
Lane 1				
LV	18.1	52.2	10.7	81.0
HV	0.4	1.1	0.2	1.7
Total	18.5	53.3	10.9	82.6
Approach	18.5	53.3	10.9	82.6
From EAST To:	S	W	N	
Turn:	L2	T1	R2	TOT
Lane 1				
LV	2.1	339.8	252.5	594.4
HV	0.0	6.9	5.2	12.1
Total	2.2	346.7	257.6	606.5
Approach	2.2	346.7	257.6	606.5
From NORTH To:	E	S	W	
Turn:	L2	T1	R2	TOT
Lane 1				
LV	415.4	37.3	75.6	528.3
HV	8.5	0.8	1.5	10.8
Total	423.9	38.0	77.2	539.1
Approach	423.9	38.0	77.2	539.1
From WEST To:	N	E	S	
Turn:	L2	T1	R2	TOT
Lane 1				
LV	58.6	422.9	17.0	498.5
HV	1.2	8.6	0.3	10.2
Total	59.8	431.5	17.4	508.7
Approach	59.8	431.5	17.4	508.7

EXIT LANE FLOW RATES

Movement Class:	LV	HV	TOT
Exit: SOUTH			
Lane: 1	56.5	1.2	57.6
Total	56.5	1.2	57.6
Exit: EAST			
Lane: 1	849.0	17.3	866.3

Total	849.0	17.3	866.3

Exit: NORTH			
Lane: 1	363.2	7.4	370.7
Total	363.2	7.4	370.7

Exit: WEST			
Lane: 1	433.5	8.8	442.4
Total	433.5	8.8	442.4

DOWNSTREAM LANE FLOW RATES FOR EXIT ROADS

Movement Class:	LV	HV	TOT

Exit: SOUTH			
Lane: 1	56.5	1.2	57.6
Total	56.5	1.2	57.6

Exit: EAST			
Lane: 1	849.0	17.3	866.3
Total	849.0	17.3	866.3

Exit: NORTH			
Lane: 1	363.2	7.4	370.7
Total	363.2	7.4	370.7

Exit: WEST			
Lane: 1	433.5	8.8	442.4
Total	433.5	8.8	442.4

Flow rates shown above are Arrival Flow Rates (veh/h) based on the following input specifications:
Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Effects of Volume Factors (Peak Flow Factor, Flow Scale, Growth Rate) are included.
Arrival Flow Rates may be less than Demand Flow Rates if capacity constraint applies in network analysis.

[Go to Table Links \(Top\)](#)

Other

Parameter Settings Summary

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

* Basic Parameters:
Intersection Type: Roundabout
Driving on the right-hand side of the road
Input data specified in US units
Model Defaults: US HCM (Customary)
Peak Flow Period (for performance): 15 minutes
Unit time (for volumes): 60 minutes.
SIDRA Standard Delay model used
HCM Queue Model option used
Level of Service based on: Delay and v/c (HCM 6)
Queue percentile: 95%

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Diagnostics

Site: Main St._Filbert St._PM

Site ID: 101
Roundabout

Lane Flow-Capacity Iterations:

Site Model Variability Index (Iterations 3 to N): 3.4%
Number of Iterations: 7 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations:
2.8% 1.4% 0.7%

Other Diagnostic Messages (if any):

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Organisation: TJKM TRANSPORTATION CONSULTANTS | Processed: Thursday, November 21, 2024 3:53:48 PM
Project: J:\JURISDICTION\Stockton\011-101 Main St Complete Streets\Analysis\Sidra\Project_v2 Built +P Conditions.sip8

MOVEMENT SUMMARY

 **Site: 101 [Main St._Filbert St._PM]**

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Filbert Street												
3	L2	18	2.0	0.163	13.1	LOS B	1.0	26.5	0.85	0.82	0.85	20.9
8	T1	53	2.0	0.163	8.6	LOS A	1.0	26.5	0.85	0.82	0.85	13.0
18	R2	11	2.0	0.163	9.2	LOS A	1.0	26.5	0.85	0.82	0.85	18.5
Approach		83	2.0	0.163	9.7	LOS A	1.0	26.5	0.85	0.82	0.85	15.7
East: Main Street												
1	L2	2	2.0	0.541	9.5	LOS A	4.7	118.5	0.52	0.52	0.52	27.3
6	T1	347	2.0	0.541	4.6	LOS A	4.7	118.5	0.52	0.52	0.52	28.2
16	R2	258	2.0	0.541	4.8	LOS A	4.7	118.5	0.52	0.52	0.52	20.4
Approach		607	2.0	0.541	4.7	LOS A	4.7	118.5	0.52	0.52	0.52	25.6
North: Filbert Street												
7	L2	424	2.0	0.665	9.9	LOS A	6.2	158.2	0.78	0.93	0.94	18.6
4	T1	38	2.0	0.665	6.1	LOS A	6.2	158.2	0.78	0.93	0.94	18.2
14	R2	77	2.0	0.665	6.4	LOS A	6.2	158.2	0.78	0.93	0.94	18.2
Approach		539	2.0	0.665	9.1	LOS A	6.2	158.2	0.78	0.93	0.94	18.5
West: Main Street												
5	L2	60	2.0	0.642	13.7	LOS B	6.7	170.6	0.89	0.96	1.09	18.6
2	T1	432	2.0	0.642	9.0	LOS A	6.7	170.6	0.89	0.96	1.09	23.0
12	R2	17	2.0	0.642	9.3	LOS A	6.7	170.6	0.89	0.96	1.09	22.1
Approach		509	2.0	0.642	9.5	LOS A	6.7	170.6	0.89	0.96	1.09	22.5
All Vehicles		1737	2.0	0.665	7.7	LOS A	6.7	170.6	0.72	0.79	0.83	21.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: J:\JURISDICTION\Stockton\011-101 Main St Complete Streets\Analysis\Sidra\Project_v2 Built +P Conditions.sip8

HCM Signalized Intersection Capacity Analysis

5: S American Street/N American Street & Main Street

Background Build Conditions_Mitigated

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	82	110	24	16	18	0	0	31	20
Future Volume (vph)	0	0	0	82	110	24	16	18	0	0	31	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	5.0
Lane Util. Factor					1.00			1.00			1.00	1.00
Frpb, ped/bikes					0.99			1.00			1.00	0.93
Flpb, ped/bikes					0.95			0.97			1.00	1.00
Frt					0.98			1.00			1.00	0.85
Flt Protected					0.98			0.97			1.00	1.00
Satd. Flow (prot)					1708			1782			1863	1477
Flt Permitted					0.98			0.82			1.00	1.00
Satd. Flow (perm)					1708			1505			1863	1477
Peak-hour factor, PHF	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
Adj. Flow (vph)	0	0	0	139	186	41	27	31	0	0	53	34
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	366	0	0	58	0	0	53	34
Confl. Peds. (#/hr)				96		2	11					11
Turn Type				Perm	NA		Perm	NA			NA	Perm
Protected Phases					2			4			4	
Permitted Phases				2			4					4
Actuated Green, G (s)					26.0			8.0			8.0	8.0
Effective Green, g (s)					26.0			8.0			8.0	8.0
Actuated g/C Ratio					0.37			0.11			0.11	0.11
Clearance Time (s)					5.0			5.0			5.0	5.0
Vehicle Extension (s)					0.2			0.2			0.2	0.2
Lane Grp Cap (vph)					634			172			212	168
v/s Ratio Prot											0.03	
v/s Ratio Perm					0.21			0.04				0.02
v/c Ratio					0.57			0.33			0.25	0.20
Uniform Delay, d1					17.6			28.5			28.2	28.1
Progression Factor					0.97			1.55			1.00	1.00
Incremental Delay, d2					3.6			5.0			2.8	2.6
Delay (s)					20.8			49.3			31.0	30.8
Level of Service					C			D			C	C
Approach Delay (s/veh)		0.0			20.8			49.3			30.9	
Approach LOS		A			C			D			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			25.8									
HCM 2000 Volume to Capacity ratio			0.31									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			31.0%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC
22: Shasta Avenue & Main Street

Background Build Conditions_Mitigated

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	434	5	4	620	5	9	1	5	2	0	2
Future Vol, veh/h	2	434	5	4	620	5	9	1	5	2	0	2
Conflicting Peds, #/hr	7	0	2	2	0	7	1	0	3	3	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	477	5	4	681	5	10	1	5	2	0	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	693	0	0	484	0	0	1180	1187	485	1186	1184	689
Stage 1	-	-	-	-	-	-	486	486	-	696	696	-
Stage 2	-	-	-	-	-	-	694	701	-	490	488	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	902	-	-	1079	-	-	167	188	582	166	189	446
Stage 1	-	-	-	-	-	-	563	551	-	432	443	-
Stage 2	-	-	-	-	-	-	433	441	-	560	550	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	896	-	-	1077	-	-	164	185	579	161	186	443
Mov Cap-2 Maneuver	-	-	-	-	-	-	164	185	-	161	186	-
Stage 1	-	-	-	-	-	-	560	548	-	428	437	-
Stage 2	-	-	-	-	-	-	428	435	-	550	547	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0.1			22.9			20.5		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	218	896	-	-	1077	-	-	236				
HCM Lane V/C Ratio	0.076	0.002	-	-	0.004	-	-	0.019				
HCM Control Delay (s/veh)	22.9	9	0	-	8.4	0	-	20.5				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1				

HCM 6th TWSC
23: David Avenue & Main Street

Background Build Conditions_Mitigated

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	440	6	3	610	5	10	1	4	3	0	9
Future Vol, veh/h	1	440	6	3	610	5	10	1	4	3	0	9
Conflicting Peds, #/hr	3	0	3	3	0	3	3	0	1	1	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	478	7	3	663	5	11	1	4	3	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	671	0	0	488	0	0	828	1164	247	918	1165	340
Stage 1	-	-	-	-	-	-	487	487	-	675	675	-
Stage 2	-	-	-	-	-	-	341	677	-	243	490	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	915	-	-	1071	-	-	263	193	753	227	193	656
Stage 1	-	-	-	-	-	-	531	549	-	410	451	-
Stage 2	-	-	-	-	-	-	647	450	-	739	547	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	912	-	-	1068	-	-	256	191	750	223	191	652
Mov Cap-2 Maneuver	-	-	-	-	-	-	256	191	-	223	191	-
Stage 1	-	-	-	-	-	-	528	546	-	408	448	-
Stage 2	-	-	-	-	-	-	633	447	-	731	544	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0			17.6			13.4		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	302	912	-	-	1068	-	-	440				
HCM Lane V/C Ratio	0.054	0.001	-	-	0.003	-	-	0.03				
HCM Control Delay (s/veh)	17.6	9	0	-	8.4	0	-	13.4				
HCM Lane LOS	C	A	A	-	A	A	-	B				
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1				

HCM 6th TWSC
24: Rendon Avenue & Main Street

Background Build Conditions_Mitigated

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	11	419	12	8	595	9	11	3	3	13	1	18
Future Vol, veh/h	11	419	12	8	595	9	11	3	3	13	1	18
Conflicting Peds, #/hr	5	0	1	1	0	5	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	455	13	9	647	10	12	3	3	14	1	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	662	0	0	469	0	0	829	1167	235	928	1168	334
Stage 1	-	-	-	-	-	-	487	487	-	675	675	-
Stage 2	-	-	-	-	-	-	342	680	-	253	493	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	922	-	-	1089	-	-	263	192	767	223	192	662
Stage 1	-	-	-	-	-	-	531	549	-	410	451	-
Stage 2	-	-	-	-	-	-	646	449	-	729	545	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	918	-	-	1088	-	-	248	185	766	213	185	659
Mov Cap-2 Maneuver	-	-	-	-	-	-	248	185	-	213	185	-
Stage 1	-	-	-	-	-	-	521	539	-	401	443	-
Stage 2	-	-	-	-	-	-	617	441	-	709	535	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.3			0.2			19.7			16.8		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	264	918	-	-	1088	-	-	341
HCM Lane V/C Ratio	0.07	0.013	-	-	0.008	-	-	0.102
HCM Control Delay (s/veh)	19.7	9	0.1	-	8.3	0.1	-	16.8
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.3

HCM 6th Signalized Intersection Summary

25: Golden Gate Avenue & Main Street

Background Build Conditions_Mitigated

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	345	92	87	514	5	74	17	44	12	32	7
Future Volume (veh/h)	3	345	92	87	514	5	74	17	44	12	32	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	363	97	92	541	5	78	18	46	13	34	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	623	166	118	927	9	236	41	69	140	180	32
Arrive On Green	0.00	0.44	0.44	0.07	0.50	0.50	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1781	1422	380	1781	1850	17	747	293	498	239	1302	229
Grp Volume(v), veh/h	3	0	460	92	0	546	142	0	0	54	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1801	1781	0	1867	1538	0	0	1770	0	0
Q Serve(g_s), s	0.1	0.0	8.1	2.1	0.0	8.7	2.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.0	8.1	2.1	0.0	8.7	3.6	0.0	0.0	1.1	0.0	0.0
Prop In Lane	1.00		0.21	1.00		0.01	0.55		0.32	0.24		0.13
Lane Grp Cap(c), veh/h	6	0	789	118	0	935	346	0	0	352	0	0
V/C Ratio(X)	0.51	0.00	0.58	0.78	0.00	0.58	0.41	0.00	0.00	0.15	0.00	0.00
Avail Cap(c_a), veh/h	848	0	2059	848	0	2134	1550	0	0	1313	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.9	0.0	8.9	19.3	0.0	7.4	17.1	0.0	0.0	16.1	0.0	0.0
Incr Delay (d2), s/veh	23.6	0.0	2.5	4.2	0.0	2.1	0.3	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.7	0.9	0.0	2.6	1.2	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.5	0.0	11.4	23.5	0.0	9.5	17.3	0.0	0.0	16.1	0.0	0.0
LnGrp LOS	D		B	C		A	B			B		
Approach Vol, veh/h		463			638			142			54	
Approach Delay, s/veh		11.6			11.5			17.3			16.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	23.4		10.8	5.1	26.0		10.8				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	48.0		40.0	20.0	48.0		30.0				
Max Q Clear Time (g_c+I1), s	4.1	10.1		5.6	2.1	10.7		3.1				
Green Ext Time (p_c), s	0.1	8.4		0.6	0.0	10.3		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			12.4									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary43: S Wilson Way & Market Street

Background Build Conditions_Mitigated

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	148	50	0	0	0	0	686	63	118	623	0
Future Volume (veh/h)	15	148	50	0	0	0	0	686	63	118	623	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	16	157	53				0	730	67	126	663	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	25	246	86				0	2124	195	157	2804	0
Arrive On Green	0.03	0.03	0.03				0.00	0.65	0.65	0.12	1.00	0.00
Sat Flow, veh/h	247	2463	857				0	3384	302	1781	3647	0
Grp Volume(v), veh/h	120	0	106				0	394	403	126	663	0
Grp Sat Flow(s),veh/h/ln	1858	0	1710				0	1777	1815	1781	1777	0
Q Serve(g_s), s	5.8	0.0	5.5				0.0	9.1	9.1	6.2	0.0	0.0
Cycle Q Clear(g_c), s	5.8	0.0	5.5				0.0	9.1	9.1	6.2	0.0	0.0
Prop In Lane	0.13		0.50				0.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	186	0	171				0	1147	1172	157	2804	0
V/C Ratio(X)	0.65	0.00	0.62				0.00	0.34	0.34	0.80	0.24	0.00
Avail Cap(c_a), veh/h	723	0	665				0	1147	1172	257	2804	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	42.0	0.0	41.8				0.0	7.3	7.3	39.0	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	1.4				0.0	0.8	0.8	3.5	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	2.5				0.0	3.4	3.5	2.8	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.4	0.0	43.2				0.0	8.1	8.1	42.5	0.2	0.0
LnGrp LOS	D		D					A	A	D	A	
Approach Vol, veh/h		226						797			789	
Approach Delay, s/veh		43.3						8.1			7.0	
Approach LOS		D						A			A	
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	12.9	63.1				76.0		14.0				
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0				
Max Green Setting (Gmax), s	13.0	27.0				45.0		35.0				
Max Q Clear Time (g_c+I1), s	8.2	11.1				2.0		7.8				
Green Ext Time (p_c), s	0.1	9.3				13.8		0.9				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			12.0									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
44: S Eugenia Street & Market Street

Background Build Conditions_Mitigated

Timing Plan: AM Peak Hour

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↑
Traffic Vol, veh/h	312	16	0	0	0	37
Future Vol, veh/h	312	16	0	0	0	37
Conflicting Peds, #/hr	0	2	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	339	17	0	0	0	40
Major/Minor	Major1		Minor1			
Conflicting Flow All	0	0			-	181
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Critical Hdwy	-	-			-	6.94
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	-			-	3.32
Pot Cap-1 Maneuver	-	-			0	831
Stage 1	-	-			0	-
Stage 2	-	-			0	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-			-	829
Mov Cap-2 Maneuver	-	-			-	-
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Approach	EB		NB			
HCM Control Delay, s/v	0		9.6			
HCM LOS			A			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR			
Capacity (veh/h)	829	-	-			
HCM Lane V/C Ratio	0.049	-	-			
HCM Control Delay (s/veh)	9.6	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q (veh)	0.2	-	-			

HCM Signalized Intersection Capacity Analysis5: S American Street/N American Street & Main Street

Background Build Conditions_Mitigated

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	22	88	19	3	24	0	0	12	15
Future Volume (vph)	0	0	0	22	88	19	3	24	0	0	12	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0			5.0			5.0	5.0
Lane Util. Factor					1.00			1.00			1.00	1.00
Frpb, ped/bikes					0.99			1.00			1.00	0.97
Flpb, ped/bikes					0.99			0.99			1.00	1.00
Frt					0.98			1.00			1.00	0.85
Flt Protected					0.99			0.99			1.00	1.00
Satd. Flow (prot)					1787			1850			1863	1547
Flt Permitted					0.99			0.98			1.00	1.00
Satd. Flow (perm)					1787			1829			1863	1547
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	26	104	22	4	28	0	0	14	18
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	152	0	0	32	0	0	14	18
Confl. Peds. (#/hr)				15		5	2					2
Turn Type				Perm	NA		Perm	NA			NA	Perm
Protected Phases					2			4			4	
Permitted Phases				2			4					4
Actuated Green, G (s)					11.0			23.0			23.0	23.0
Effective Green, g (s)					11.0			23.0			23.0	23.0
Actuated g/C Ratio					0.16			0.33			0.33	0.33
Clearance Time (s)					5.0			5.0			5.0	5.0
Vehicle Extension (s)					0.2			0.2			0.2	0.2
Lane Grp Cap (vph)					280			600			612	508
v/s Ratio Prot											0.01	
v/s Ratio Perm					0.09			c0.02				0.01
v/c Ratio					0.54			0.05			0.02	0.03
Uniform Delay, d1					27.1			16.0			15.8	15.9
Progression Factor					0.86			0.99			1.00	1.00
Incremental Delay, d2					7.3			0.1			0.0	0.1
Delay (s)					30.8			16.0			15.9	16.0
Level of Service					C			B			B	B
Approach Delay (s/veh)		0.0			30.8			16.0			16.0	
Approach LOS		A			C			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			26.4									
HCM 2000 Volume to Capacity ratio			0.13									
Actuated Cycle Length (s)			70.0									
Intersection Capacity Utilization			26.2%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC
22: Shasta Avenue & Main Street

Background Build Conditions_Mitigated

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	8	720	15	5	556	10	5	0	12	3	1	5
Future Vol, veh/h	8	720	15	5	556	10	5	0	12	3	1	5
Conflicting Peds, #/hr	3	0	4	4	0	3	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	783	16	5	604	11	5	0	13	3	1	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	618	0	0	803	0	0	1437	1441	795	1433	1438	608
Stage 1	-	-	-	-	-	-	813	813	-	617	617	-
Stage 2	-	-	-	-	-	-	624	628	-	816	821	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	962	-	-	821	-	-	111	133	388	112	133	496
Stage 1	-	-	-	-	-	-	372	392	-	477	481	-
Stage 2	-	-	-	-	-	-	473	476	-	371	389	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	959	-	-	818	-	-	106	129	387	106	129	494
Mov Cap-2 Maneuver	-	-	-	-	-	-	106	129	-	106	129	-
Stage 1	-	-	-	-	-	-	364	384	-	467	475	-
Stage 2	-	-	-	-	-	-	462	470	-	352	381	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.1			23.1			24.4		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	217	959	-	-	818	-	-	195				
HCM Lane V/C Ratio	0.085	0.009	-	-	0.007	-	-	0.05				
HCM Control Delay (s/veh)	23.1	8.8	0	-	9.4	0	-	24.4				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0.2				

HCM 6th TWSC
23: David Avenue & Main Street

Background Build Conditions_Mitigated

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	8	715	10	4	556	8	11	1	1	2	1	5
Future Vol, veh/h	8	715	10	4	556	8	11	1	1	2	1	5
Conflicting Peds, #/hr	1	0	4	4	0	1	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	777	11	4	604	9	12	1	1	2	1	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	614	0	0	792	0	0	1116	1427	400	1027	1428	308
Stage 1	-	-	-	-	-	-	805	805	-	618	618	-
Stage 2	-	-	-	-	-	-	311	622	-	409	810	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	961	-	-	824	-	-	162	134	600	189	134	688
Stage 1	-	-	-	-	-	-	342	393	-	443	479	-
Stage 2	-	-	-	-	-	-	674	477	-	590	391	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	960	-	-	821	-	-	156	130	597	184	130	687
Mov Cap-2 Maneuver	-	-	-	-	-	-	156	130	-	184	130	-
Stage 1	-	-	-	-	-	-	335	385	-	435	475	-
Stage 2	-	-	-	-	-	-	662	473	-	576	383	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.2			0.1			29.2			16.9		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	163	960	-	-	821	-	-	310				
HCM Lane V/C Ratio	0.087	0.009	-	-	0.005	-	-	0.028				
HCM Control Delay (s/veh)	29.2	8.8	0.1	-	9.4	0	-	16.9				
HCM Lane LOS	D	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0.1				

HCM 6th TWSC
24: Rendon Avenue & Main Street

Background Build Conditions_Mitigated

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	679	34	18	533	12	16	4	11	6	3	12
Future Vol, veh/h	10	679	34	18	533	12	16	4	11	6	3	12
Conflicting Peds, #/hr	4	0	7	7	0	4	0	0	3	3	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	730	37	19	573	13	17	4	12	6	3	13
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	590	0	0	774	0	0	1104	1406	394	1014	1418	297
Stage 1	-	-	-	-	-	-	778	778	-	622	622	-
Stage 2	-	-	-	-	-	-	326	628	-	392	796	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	982	-	-	837	-	-	166	138	605	193	136	699
Stage 1	-	-	-	-	-	-	355	405	-	441	477	-
Stage 2	-	-	-	-	-	-	661	474	-	604	397	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	978	-	-	831	-	-	152	129	599	176	127	696
Mov Cap-2 Maneuver	-	-	-	-	-	-	152	129	-	176	127	-
Stage 1	-	-	-	-	-	-	345	394	-	430	459	-
Stage 2	-	-	-	-	-	-	622	456	-	572	386	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.2			0.5			26.6			19		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	200	978	-	-	831	-	-	280				
HCM Lane V/C Ratio	0.167	0.011	-	-	0.023	-	-	0.081				
HCM Control Delay (s/veh)	26.6	8.7	0.1	-	9.4	0.2	-	19				
HCM Lane LOS	D	A	A	-	A	A	-	C				
HCM 95th %tile Q (veh)	0.6	0	-	-	0.1	-	-	0.3				

HCM 6th Signalized Intersection Summary25: Golden Gate Avenue & Main Street

Background Build Conditions_Mitigated

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	510	190	62	414	9	128	23	81	13	30	8
Future Volume (veh/h)	8	510	190	62	414	9	128	23	81	13	30	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	543	202	66	440	10	136	24	86	14	32	9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	16	686	255	85	1040	24	239	45	111	122	246	60
Arrive On Green	0.01	0.53	0.53	0.05	0.57	0.57	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	1290	480	1781	1821	41	764	212	525	281	1167	283
Grp Volume(v), veh/h	9	0	745	66	0	450	246	0	0	55	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1770	1781	0	1863	1501	0	0	1731	0	0
Q Serve(g_s), s	0.4	0.0	24.4	2.6	0.0	9.8	9.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	24.4	2.6	0.0	9.8	11.0	0.0	0.0	1.8	0.0	0.0
Prop In Lane	1.00		0.27	1.00		0.02	0.55		0.35	0.25		0.16
Lane Grp Cap(c), veh/h	16	0	942	85	0	1063	394	0	0	428	0	0
V/C Ratio(X)	0.55	0.00	0.79	0.78	0.00	0.42	0.62	0.00	0.00	0.13	0.00	0.00
Avail Cap(c_a), veh/h	497	0	1186	497	0	1248	903	0	0	766	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	35.4	0.0	13.5	33.7	0.0	8.7	26.5	0.0	0.0	23.0	0.0	0.0
Incr Delay (d2), s/veh	10.4	0.0	5.7	5.6	0.0	1.0	0.6	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	9.5	1.2	0.0	3.5	3.9	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.7	0.0	19.3	39.3	0.0	9.7	27.1	0.0	0.0	23.1	0.0	0.0
LnGrp LOS	D		B	D		A	C			C		
Approach Vol, veh/h		754			516			246			55	
Approach Delay, s/veh		19.6			13.5			27.1			23.1	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	43.1		20.1	5.7	45.9		20.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	48.0		40.0	20.0	48.0		30.0				
Max Q Clear Time (g_c+I1), s	4.6	26.4		13.0	2.4	11.8		3.8				
Green Ext Time (p_c), s	0.1	11.8		1.1	0.0	7.9		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			18.9									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary 43: S Wilson Way & Market Street

Background Build Conditions_Mitigated

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔↔						↔↔↔		↔	↔↔	
Traffic Volume (veh/h)	38	262	75	0	0	0	0	850	112	188	814	0
Future Volume (veh/h)	38	262	75	0	0	0	0	850	112	188	814	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	40	276	79				0	895	118	198	857	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	59	415	124				0	1697	224	229	2565	0
Arrive On Green	0.06	0.06	0.06				0.00	0.54	0.54	0.26	1.00	0.00
Sat Flow, veh/h	350	2480	740				0	3249	416	1781	3647	0
Grp Volume(v), veh/h	212	0	183				0	504	509	198	857	0
Grp Sat Flow(s), veh/h/ln	1853	0	1718				0	1777	1795	1781	1777	0
Q Serve(g_s), s	10.1	0.0	9.4				0.0	16.5	16.5	9.6	0.0	0.0
Cycle Q Clear(g_c), s	10.1	0.0	9.4				0.0	16.5	16.5	9.6	0.0	0.0
Prop In Lane	0.19		0.43				0.00		0.23	1.00		0.00
Lane Grp Cap(c), veh/h	310	0	287				0	955	965	229	2565	0
V/C Ratio(X)	0.68	0.00	0.64				0.00	0.53	0.53	0.86	0.33	0.00
Avail Cap(c_a), veh/h	721	0	668				0	955	965	297	2565	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.92	0.92	0.00
Uniform Delay (d), s/veh	40.2	0.0	39.9				0.0	13.4	13.4	32.7	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.9				0.0	2.1	2.1	14.5	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	4.4				0.0	6.8	6.9	4.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.2	0.0	40.7				0.0	15.5	15.5	47.1	0.3	0.0
LnGrp LOS	D		D					B	B	D	A	
Approach Vol, veh/h		395						1013			1055	
Approach Delay, s/veh		41.0						15.5			9.1	
Approach LOS		D						B			A	
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	16.6	53.4				70.0		20.0				
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0				
Max Green Setting (Gmax), s	15.0	25.0				45.0		35.0				
Max Q Clear Time (g_c+I1), s	11.6	18.5				2.0		12.1				
Green Ext Time (p_c), s	0.1	5.2				19.0		1.6				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			16.8									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th TWSC
44: S Eugenia Street & Market Street

Background Build Conditions_Mitigated

Timing Plan: PM Peak Hour

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↑
Traffic Vol, veh/h	574	12	0	0	0	42
Future Vol, veh/h	574	12	0	0	0	42
Conflicting Peds, #/hr	0	6	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	624	13	0	0	0	46
Major/Minor	Major1		Minor1			
Conflicting Flow All	0	0			-	325
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Critical Hdwy	-	-			-	6.94
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	-			-	3.32
Pot Cap-1 Maneuver	-	-			0	671
Stage 1	-	-			0	-
Stage 2	-	-			0	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-			-	667
Mov Cap-2 Maneuver	-	-			-	-
Stage 1	-	-			-	-
Stage 2	-	-			-	-
Approach	EB		NB			
HCM Control Delay, s/v	0				10.8	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR			
Capacity (veh/h)	667	-	-			
HCM Lane V/C Ratio	0.068	-	-			
HCM Control Delay (s/veh)	10.8	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q (veh)	0.2	-	-			

Queues

Background Build Conditions_Mitigated

5: S American Street/N American Street & Main Street

Timing Plan: AM Peak Hour



Lane Group	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	366	58	53	34
v/c Ratio	0.57	0.33	0.25	0.20
Control Delay (s/veh)	21.5	50.4	31.5	31.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.5	50.4	31.5	31.4
Queue Length 50th (ft)	141	24	21	14
Queue Length 95th (ft)	137	38	33	25
Internal Link Dist (ft)	303	260	330	
Turn Bay Length (ft)				
Base Capacity (vph)	634	172	212	168
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.58	0.34	0.25	0.20
Intersection Summary				

Queues

Background Build Conditions_Mitigated

25: Golden Gate Avenue & Main Street

Timing Plan: AM Peak Hour

						
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	3	460	92	546	142	54
v/c Ratio	0.01	0.60	0.35	0.50	0.46	0.15
Control Delay (s/veh)	36.6	19.8	32.9	11.0	26.1	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	36.6	19.8	32.9	11.0	26.1	21.8
Queue Length 50th (ft)	1	117	28	77	36	14
Queue Length 95th (ft)	11	324	101	331	112	51
Internal Link Dist (ft)		249		250	364	346
Turn Bay Length (ft)			95			
Base Capacity (vph)	685	1463	685	1520	1013	1190
Starvation Cap Reductn	0	0	0	17	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.31	0.13	0.36	0.14	0.05
Intersection Summary						

Queues

Background Build Conditions_Mitigated

43: S Wilson Way & Market Street

Timing Plan: AM Peak Hour

	→	↑	↘	↓
Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	226	797	126	663
v/c Ratio	0.48	0.39	0.60	0.24
Control Delay (s/veh)	42.9	12.6	46.6	2.5
Queue Delay	0.0	0.0	0.0	0.1
Total Delay (s/veh)	42.9	12.6	46.6	2.6
Queue Length 50th (ft)	68	112	63	30
Queue Length 95th (ft)	95	233	m80	42
Internal Link Dist (ft)	296	296		271
Turn Bay Length (ft)			90	
Base Capacity (vph)	1318	2019	264	2661
Starvation Cap Reductn	0	0	0	947
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.17	0.39	0.48	0.39
Intersection Summary				
m Volume for 95th percentile queue is metered by upstream signal.				

Queues

Background Build Conditions_Mitigated

5: S American Street/N American Street & Main Street

Timing Plan: PM Peak Hour



Lane Group	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	152	32	14	18
v/c Ratio	0.54	0.05	0.02	0.03
Control Delay (s/veh)	31.4	16.3	16.1	16.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	31.4	16.3	16.1	16.3
Queue Length 50th (ft)	61	5	4	5
Queue Length 95th (ft)	110	18	14	17
Internal Link Dist (ft)	303	260	330	
Turn Bay Length (ft)				
Base Capacity (vph)	280	600	612	508
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.54	0.05	0.02	0.04
Intersection Summary				

Queues

Background Build Conditions_Mitigated

25: Golden Gate Avenue & Main Street

Timing Plan: PM Peak Hour

						
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	9	745	66	450	246	55
v/c Ratio	0.08	0.75	0.42	0.37	0.78	0.15
Control Delay (s/veh)	45.8	24.6	49.0	10.0	48.1	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	45.8	24.6	49.0	10.0	48.1	26.4
Queue Length 50th (ft)	5	315	36	92	120	22
Queue Length 95th (ft)	22	#686	84	263	212	54
Internal Link Dist (ft)		249		250	364	346
Turn Bay Length (ft)			95			
Base Capacity (vph)	411	986	411	1213	672	770
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.76	0.16	0.37	0.37	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

Background Build Conditions_Mitigated

43: S Wilson Way & Market Street

Timing Plan: PM Peak Hour

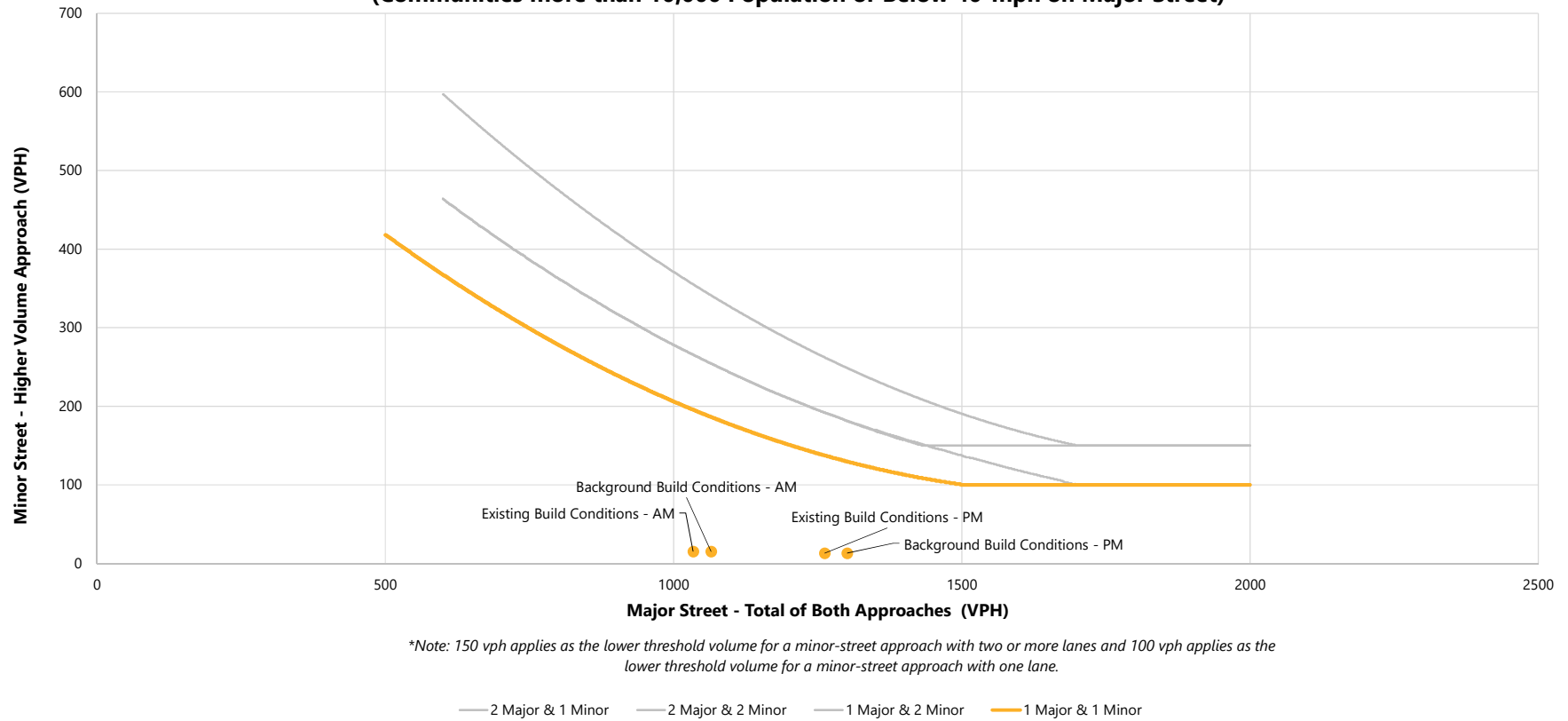
	→	↑	↘	↓
Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	395	1013	198	857
v/c Ratio	0.51	0.65	0.69	0.36
Control Delay (s/veh)	38.8	23.5	42.0	4.4
Queue Delay	0.0	0.0	0.0	0.1
Total Delay (s/veh)	38.8	23.5	42.0	4.6
Queue Length 50th (ft)	113	238	85	42
Queue Length 95th (ft)	159	346	111	51
Internal Link Dist (ft)	296	296		271
Turn Bay Length (ft)			90	
Base Capacity (vph)	1321	1553	321	2338
Starvation Cap Reductn	0	0	0	519
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.30	0.65	0.62	0.47
Intersection Summary				



APPENDIX D – WARRANT GUIDELINE AND ANALYSIS

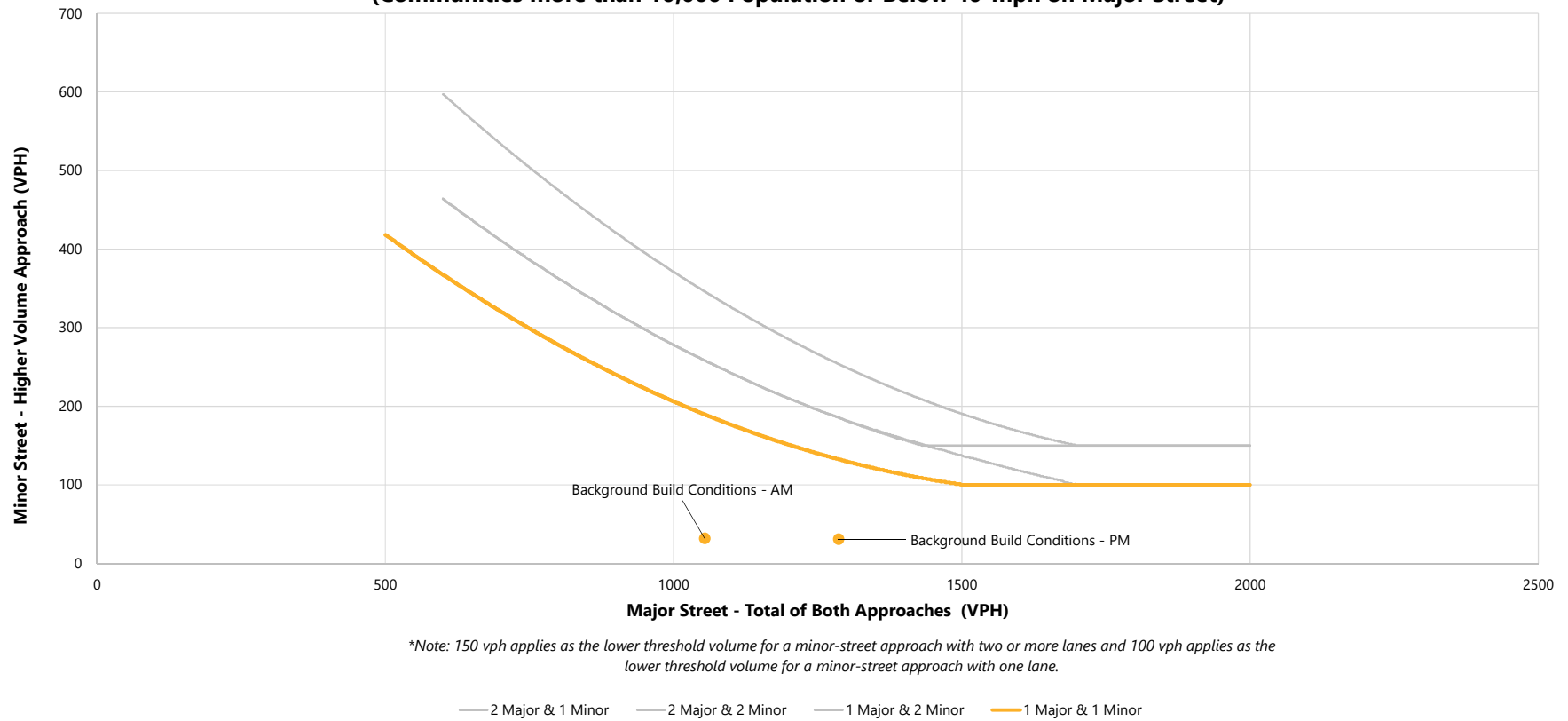
Main Street and David Avenue

**Figure 4C-3. Warrant 3, Peak Hour Vehicular Volume
(Communities more than 10,000 Population or Below 40-mph on Major Street)**



Main Street and Rendon Avenue

**Figure 4C-3. Warrant 3, Peak Hour Vehicular Volume
(Communities more than 10,000 Population or Below 40-mph on Major Street)**



CHAPTER 4F. PEDESTRIAN HYBRID BEACONS

Section 4F.01 Application of Pedestrian Hybrid Beacons

Support:

⁰¹ A pedestrian hybrid beacon is a special type of hybrid beacon used to warn and control traffic at an unsignalized location to assist pedestrians in crossing a street or highway at a marked crosswalk.

^{01a} A conventional traffic control signal operation with a standard signal face displaying green, yellow and red (steady and/or flashing red) indications, at a mid-block crosswalk is an alternative to the pedestrian hybrid beacon.

Option:

⁰² A pedestrian hybrid beacon may be considered for installation to facilitate pedestrian crossings at a location that does not meet traffic signal warrants (see Chapter 4C), or at a location that meets traffic signal warrants under Sections 4C.05 and/or 4C.06 but a decision is made to not install a traffic control signal.

Standard:

⁰³ **If used, pedestrian hybrid beacons shall be used in conjunction with signs and pavement markings to warn and control traffic at locations where pedestrians enter or cross a street or highway. A pedestrian hybrid beacon shall only be installed at a marked crosswalk.**

Guidance:

⁰⁴ *If one of the signal warrants of Chapter 4C is met and a traffic control signal is justified by an engineering study, and if a decision is made to install a traffic control signal, it should be installed based upon the provisions of Chapters 4D and 4E.*

⁰⁵ *If a traffic control signal is not justified under the signal warrants of Chapter 4C and if gaps in traffic are not adequate to permit pedestrians to cross, or if the speed for vehicles approaching on the major street is too high to permit pedestrians to cross, or if pedestrian delay is excessive, the need for a pedestrian hybrid beacon should be considered on the basis of an engineering study that considers major-street volumes, speeds, widths, and gaps in conjunction with pedestrian volumes, walking speeds, and delay.*

⁰⁶ *For a major street where the posted or statutory speed limit or the 85th-percentile speed is 35 mph or less, the need for a pedestrian hybrid beacon should be considered if the engineering study finds that the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding total of all pedestrians crossing the major street for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4F-1 for the length of the crosswalk.*

⁰⁷ *For a major street where the posted or statutory speed limit or the 85th-percentile speed exceeds 35 mph, the need for a pedestrian hybrid beacon should be considered if the engineering study finds that the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding total of all pedestrians crossing the major street for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4F-2 for the length of the crosswalk.*

⁰⁸ *For crosswalks that have lengths other than the four that are specifically shown in Figures 4F-1 and 4F-2, the values should be interpolated between the curves.*

Section 4F.02 Design of Pedestrian Hybrid Beacons

Standard:

⁰¹ **Except as otherwise provided in this Section, a pedestrian hybrid beacon shall meet the provisions of Chapters 4D and 4E.**

⁰² **A pedestrian hybrid beacon face shall consist of three signal sections, with a CIRCULAR YELLOW signal indication centered below two horizontally aligned CIRCULAR RED signal indications (see Figure 4F-3).**

⁰³ **When an engineering study finds that installation of a pedestrian hybrid beacon is justified, then:**

- A. At least two pedestrian hybrid beacon faces shall be installed for each approach of the major street,**
- B. A stop line shall be installed for each approach to the crosswalk,**
- C. A pedestrian signal head conforming to the provisions set forth in Chapter 4E shall be installed at each end of the marked crosswalk, and**
- D. The pedestrian hybrid beacon shall be pedestrian actuated.**

Guidance:

04 When an engineering study finds that installation of a pedestrian hybrid beacon is justified, then:

- A. The pedestrian hybrid beacon should be installed at an intersection, or at the junction of a roadway with a driveway, or at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs,*
- B. Parking and other sight obstructions should be prohibited for at least 100 feet in advance of and at least 20 feet beyond the marked crosswalk, or site accommodations should be made through curb extensions or other techniques to provide adequate sight distance,*
- C. The installation should include suitable standard signs and pavement markings, and*
- D. If installed within a signal system, the pedestrian hybrid beacon should be coordinated.*

05 On approaches having posted or statutory speed limits or 85th-percentile speeds in excess of 35 mph and on approaches having traffic or operating conditions that would tend to obscure visibility of roadside hybrid beacon face locations, both of the minimum of two pedestrian hybrid beacon faces should be installed over the roadway.

06 On multi-lane approaches having a posted or statutory speed limits or 85th-percentile speeds of 35 mph or less, either a pedestrian hybrid beacon face should be installed on each side of the approach (if a median of sufficient width exists) or at least one of the pedestrian hybrid beacon faces should be installed over the roadway.

07 A pedestrian hybrid beacon should comply with the signal face location provisions described in Sections 4D.11 through 4D.16.

Standard:

08 A CROSSWALK STOP ON RED (symbolic circular red) (R10-23) sign (see Section 2B.53) shall be mounted adjacent to a pedestrian hybrid beacon face on each major street approach. If an overhead pedestrian hybrid beacon face is provided, the sign shall be mounted adjacent to the overhead signal face.

Option:

09 A Pedestrian (W11-2) warning sign (see Section 2C.50) with an AHEAD (W16-9P) supplemental plaque may be placed in advance of a pedestrian hybrid beacon. A warning beacon may be installed to supplement the W11-2 sign.

Guidance:

10 If a warning beacon supplements a W11-2 sign in advance of a pedestrian hybrid beacon, it should be programmed to flash only when the pedestrian hybrid beacon is not in the dark mode.

Standard:

11 If a warning beacon is installed to supplement the W11-2 sign, the design and location of the warning beacon shall comply with the provisions of Sections 4L.01 and 4L.03.

Section 4F.03 Operation of Pedestrian Hybrid Beacons**Standard:**

01 Pedestrian hybrid beacon indications shall be dark (not illuminated) during periods between actuations.

02 Upon actuation by a pedestrian, a pedestrian hybrid beacon face shall display a flashing CIRCULAR yellow signal indication, followed by a steady CIRCULAR yellow signal indication, followed by both steady CIRCULAR RED signal indications during the pedestrian walk interval, followed by alternating flashing CIRCULAR RED signal indications during the pedestrian clearance change interval (see Figure 4F-3). Upon termination of the pedestrian clearance interval, the pedestrian hybrid beacon faces shall revert to a dark (not illuminated) condition.

03 Except as provided in Paragraph 4, the pedestrian signal heads shall continue to display a steady UPRaised HAND (symbolizing DONT WALK) signal indication when the pedestrian hybrid beacon faces are either dark or displaying flashing or steady CIRCULAR yellow signal indications. The pedestrian signal heads shall display a WALKING PERSON (symbolizing WALK) signal indication when the pedestrian hybrid beacon faces are displaying steady CIRCULAR RED signal indications. The pedestrian signal heads shall display a flashing UPRaised HAND (symbolizing DONT WALK) signal indication when the pedestrian hybrid beacon faces are displaying alternating flashing CIRCULAR RED signal indications. Upon termination of the pedestrian clearance interval, the pedestrian signal heads shall revert to a steady UPRaised HAND (symbolizing DONT WALK) signal indication.

Option:

⁰⁴ Where the pedestrian hybrid beacon is installed adjacent to a roundabout to facilitate crossings by pedestrians with visual disabilities and an engineering study determines that pedestrians without visual disabilities can be allowed to cross the roadway without actuating the pedestrian hybrid beacon, the pedestrian signal heads may be dark (not illuminated) when the pedestrian hybrid beacon faces are dark.

Guidance:

⁰⁵ *The duration of the flashing yellow interval should be determined by engineering judgment.*

Standard:

⁰⁶ **The duration of the steady yellow change interval shall be determined using engineering practices.**

Guidance:

⁰⁷ *The steady yellow interval should have a minimum duration of 3 seconds and a maximum duration of 6 seconds (see Section 4D.26). The longer intervals should be reserved for use on approaches with higher speeds.*

Figure 4F-1. Guidelines for the Installation of Pedestrian Hybrid Beacons on Low-Speed Roadways

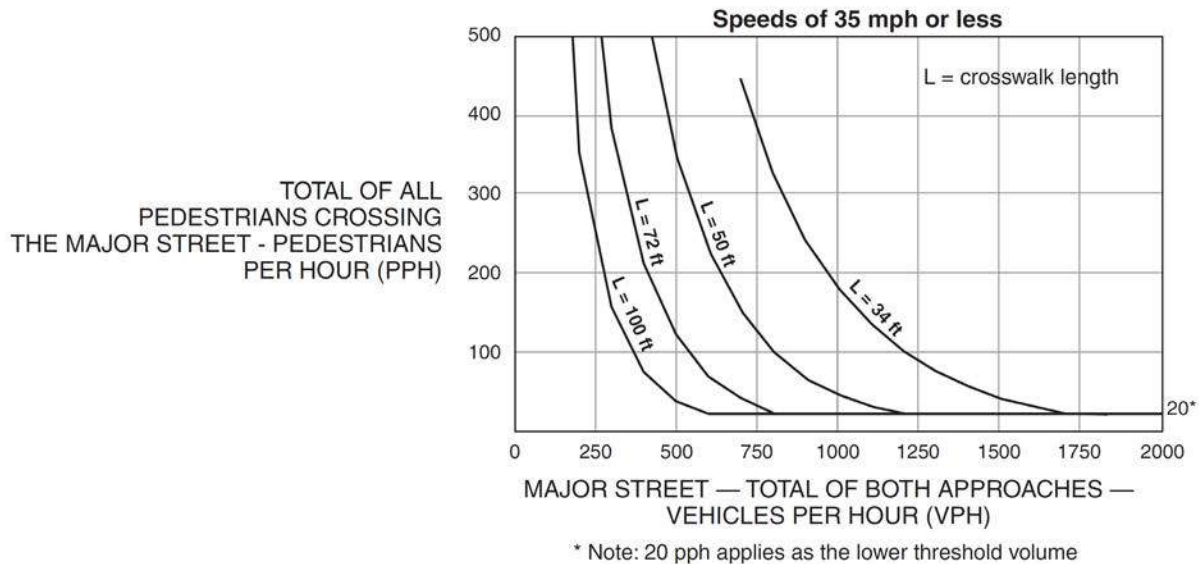


Figure 4F-2. Guidelines for the Installation of Pedestrian Hybrid Beacons on High-Speed Roadways

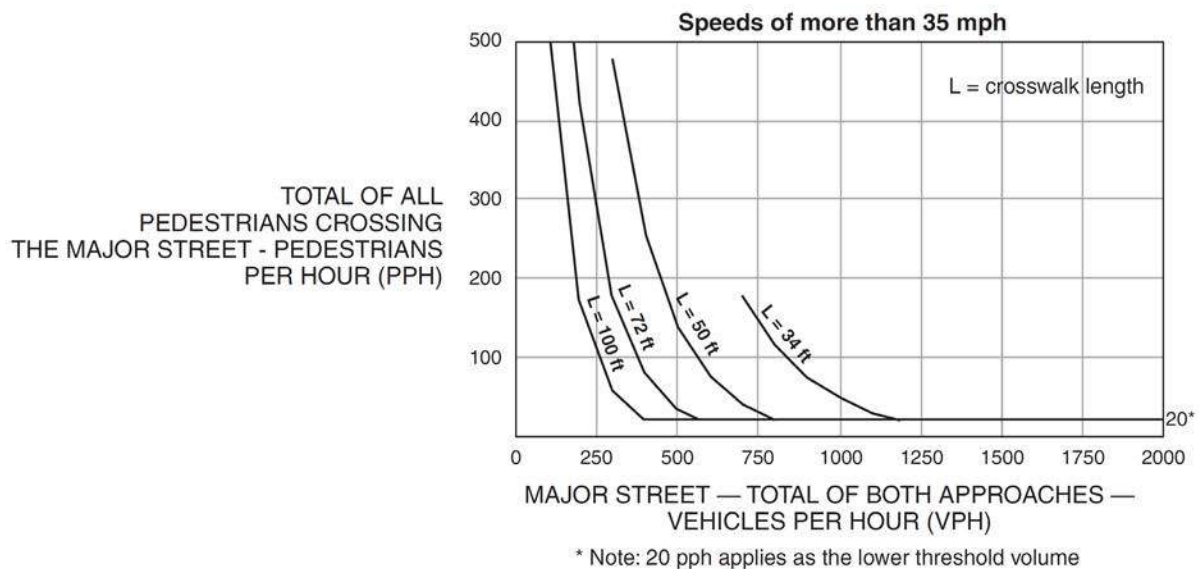
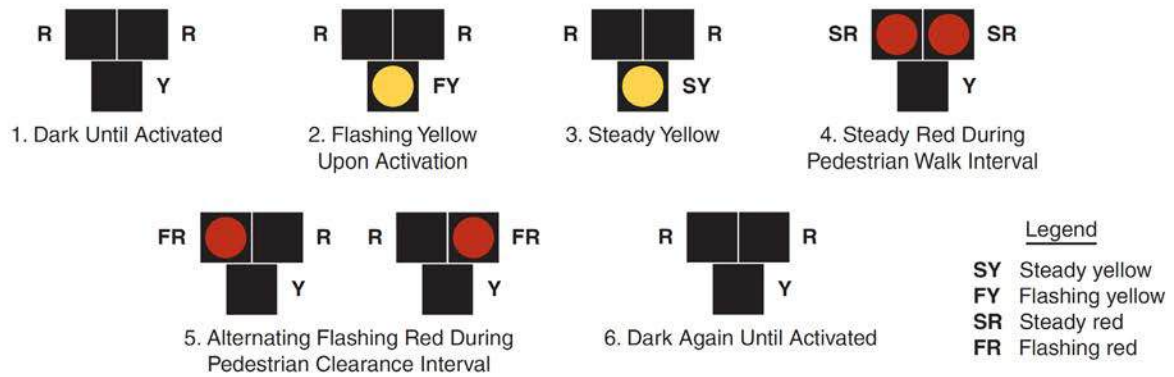
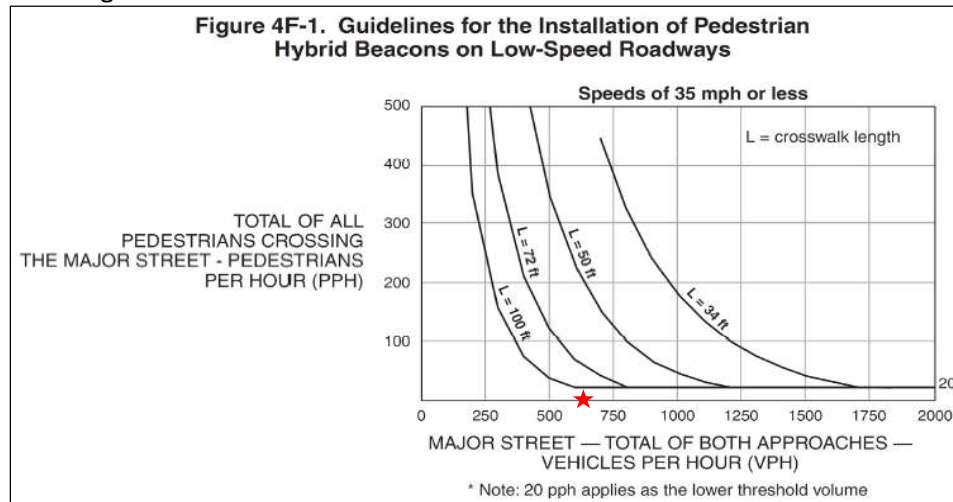


Figure 4F-3. Sequence for a Pedestrian Hybrid Beacon

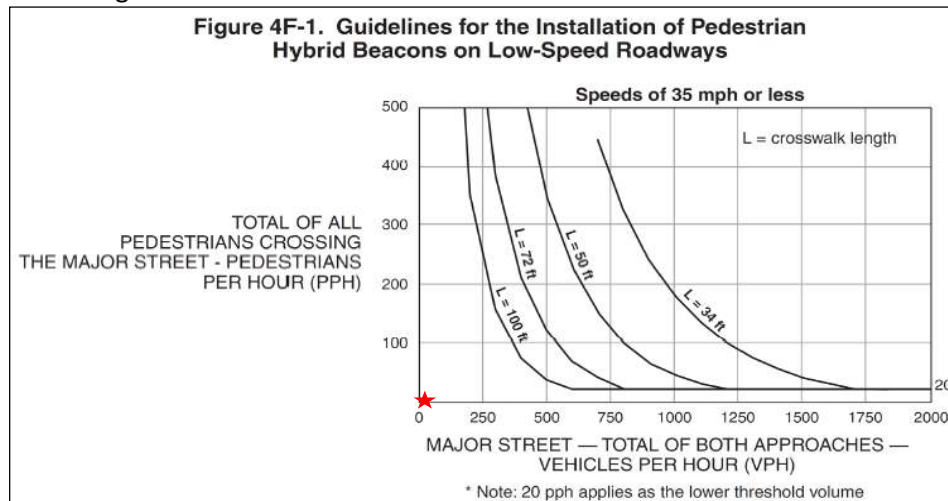
Pedestrian Hybrid Beacon Analysis

Main Street/D Street

East Leg



North Leg



CHAPTER 4N. IN-ROADWAY LIGHTS

Section 4N.01 Application of In-Roadway Lights

Support:

⁰¹ In-Roadway Lights are special types of highway traffic signals installed in the roadway surface to warn road users that they are approaching a condition on or adjacent to the roadway that might not be readily apparent and might require the road users to slow down and/or come to a stop. This includes situations warning of marked school crosswalks, marked midblock crosswalks, marked crosswalks on uncontrolled approaches, marked crosswalks in advance of roundabouts as described in Chapter 3C, and other roadway situations involving pedestrian crossings.

Standard:

⁰² **In-Roadway Lights shall not be used for any application that is not described in this Chapter.**

⁰³ **If used, In-Roadway Lights shall not exceed a height of 3/4 inch above the roadway surface.**

⁰⁴ **When used, In-Roadway Lights shall be flashed and shall not be steadily illuminated.**

Support:

⁰⁵ Steadily illuminated lights installed in the roadway surface are considered to be internally illuminated raised pavement markers (see Section 3B.11).

Option:

⁰⁶ In-Roadway Lights may be flashed in a manner that includes a continuous flash of varying intensity and time duration that is repeated to provide a flickering effect (see Section 4N.02).

Section 4N.02 In-Roadway Warning Lights at Crosswalks

Option:

⁰¹ In-roadway lights may be installed at certain marked crosswalks, based on an engineering study or engineering judgment, to provide additional warning to road users.

Standard:

⁰² **If used, In-Roadway Warning Lights at crosswalks shall be installed only at marked crosswalks with applicable warning signs. They shall not be used at crosswalks controlled by YIELD signs, STOP signs, or traffic control signals.**

⁰³ **If In-Roadway Warning Lights are used at a crosswalk, the following requirements shall apply:**

A. Except as provided in Paragraphs 7 and 8, they shall be installed along both sides of the crosswalk and shall span its entire length.

B. They shall initiate operation based on pedestrian actuation and shall cease operation at a predetermined time after the pedestrian actuation or, with passive detection, after the pedestrian clears the crosswalk.

C. They shall display a flashing yellow light when actuated. The flash rate shall be at least 50, but no more than 60, flash periods per minute. If they are flashed in a manner that includes a continuous flash of varying intensity and time duration that is repeated to provide a flickering effect, the flickers or pulses shall not repeat at a rate that is between 5 and 30 per second to avoid frequencies that might cause seizures.

D. They shall be installed in the area between the outside edge of the crosswalk line and 10 feet from the outside edge of the crosswalk.

E. They shall face away from the crosswalk if unidirectional, or shall face away from and across the crosswalk if bidirectional.

⁰⁴ **If used on one-lane, one-way roadways, a minimum of two In-Roadway Warning Lights shall be installed on the approach side of the crosswalk. If used on two-lane roadways, a minimum of three In-Roadway Warning Lights shall be installed along both sides of the crosswalk. If used on roadways with more than two lanes, a minimum of one In-Roadway Warning Light per lane shall be installed along both sides of the crosswalk.**

Guidance:

05 *If used, In-Roadway Warning Lights should be installed in the center of each travel lane, at the center line of the roadway, at each edge of the roadway or parking lanes, or at other suitable locations away from the normal tire track paths.*

06 *The location of the In-Roadway Warning Lights within the lanes should be based on engineering judgment.*

Option:

07 On one-way streets, In-Roadway Warning Lights may be omitted on the departure side of the crosswalk.

08 Based on engineering judgment, the In-Roadway Warning Lights on the departure side of the crosswalk on the left side of a median may be omitted.

09 Unidirectional In-Roadway Warning Lights installed at crosswalk locations may have an optional, additional yellow light indication in each unit that is visible to pedestrians in the crosswalk to indicate to pedestrians in the crosswalk that the In-Roadway Warning Lights are in fact flashing as they cross the street. These yellow lights may flash with and at the same flash rate as the light module in which each is installed.

Guidance:

10 *If used, the period of operation of the In-Roadway Warning Lights following each actuation should be sufficient to allow a pedestrian crossing in the crosswalk to leave the curb or shoulder and travel at a walking speed of 3.5 feet per second to at least the far side of the traveled way or to a median of sufficient width for pedestrians to wait. Where pedestrians who walk slower than 3.5 feet per second, or pedestrians who use wheelchairs, routinely use the crosswalk, a walking speed of less than 3.5 feet per second should be considered in determining the period of operation.*

Standard:

11 **If pedestrian pushbuttons are used to actuate the in-roadway lights, a Push Button To Turn On Warning Lights (with pushbutton symbol) (R10-25) sign (see Figure 2B-26) shall be mounted adjacent to immediately above or integral with each pedestrian pushbutton.**

12 **Where the period of operation is sufficient only for crossing from a curb or shoulder to a median of sufficient width for pedestrians to wait, median-mounted pedestrian actuators shall be provided.**

13 **In-Roadway Warning Lights (IRWLs) shall not be placed on or within the crosswalk markings. If the In-Roadway Warning Lights are activated by a push button, the PUSH BUTTON FOR PEDESTRIAN WARNING LIGHTS, CROSS WITH CAUTION (R62E(CA)) sign shall be used.**

14 **The following shall be considered when evaluating the need for In-Roadway Warning Lights:**

- A. **Whether the crossing is controlled or uncontrolled.**
- B. **An engineering traffic study to determine if In-Roadway Warning Lights are compatible with the safety and operation of nearby intersections, which may or may not be, controlled by traffic signals or STOP/YIELD signs.**
- C. **Standard traffic signs for crossings and crosswalk pavement markings are provided.**
- D. **At least 40 pedestrians regularly use the crossing during each of any two hours (not necessarily consecutive) during a 24-hour period.**
- E. **The vehicular volume through the crossing exceeds 200 vehicles per hour in urban areas or 140 vehicles per hour in rural areas during peak-hour pedestrian usage.**
- F. **The critical approach speed (85th percentile) is 45 mph or less.**
- G. **In-Roadway Warning Lights are visible to drivers at the minimum stopping sight distance for the posted speed limit.**
- H. **Public education on In-Roadway Warning Lights is conducted for new installations.**

Option:

15 Overhead or roadside Flashing Yellow Beacons may be installed in conjunction with In-Roadway Warning Lights. In-Roadway Warning Lights may be installed independently, but are not necessarily intended to be a substitute for standard flashing beacons. Engineering judgment should be exercised.

Guidance:

16 *Typical applications of In-Roadway Warning Lights are shown in Figure 4N-101(CA).*

Section 4N.101(CA) In-Roadway Warning Lights at Crosswalks Financing and Maintenance-State Highways Standard:

⁰¹ When In-Roadway Warning Lights are proposed by Caltrans on State highways, Caltrans shall pay the costs of installation and maintenance. When In-Roadway Warning Lights are proposed and installed by a local agency on State highways, the installation of In-Roadway Warning Lights shall be covered by an Encroachment Permit issued by the local Caltrans District Director. The local agency shall be responsible for installation and maintenance of the In-Roadway Warning Lights.



**APPENDIX E - TRIP ESTIMATES FROM EASTBROOK ESTATES, LINGURIAN VILLAGE,
AND LINGURIAN VILLAGE UNIT 2**

Table 5 Project Trip Generation Estimates

Land Use	ITE Land Use	Size	Daily Rate	Daily Trips	AM Peak Hour				PM Peak Hour			
					Rate	Total	In	Out	Rate	Total	In	Out
Single Family Detached ^a	210	70 d.u.	10.7	749	0.83	58	15	43	1.11	78	49	29

Notes:

d.u. = dwelling units

a = Trip Generation rate based on fitted curve equations and development size.

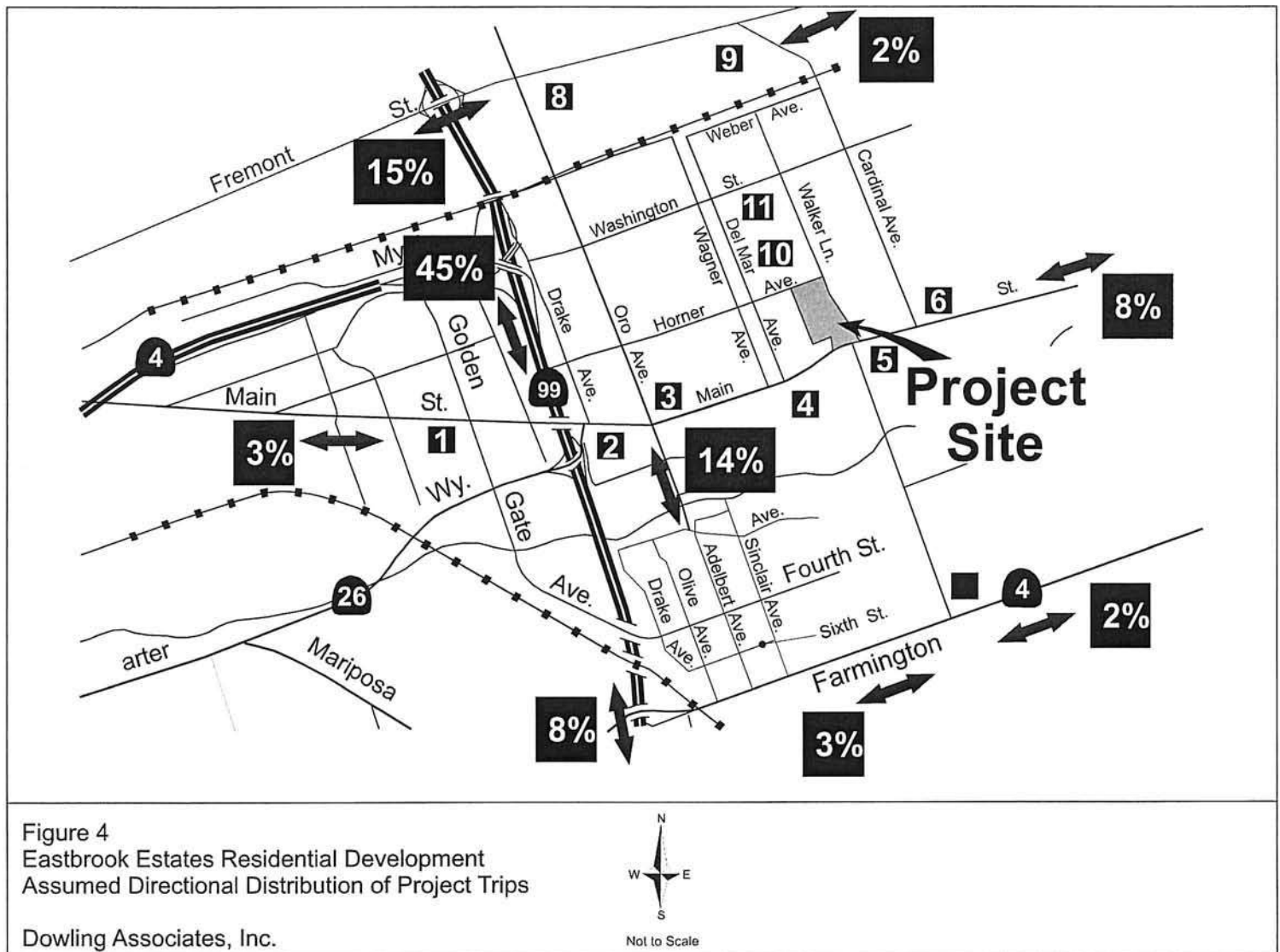
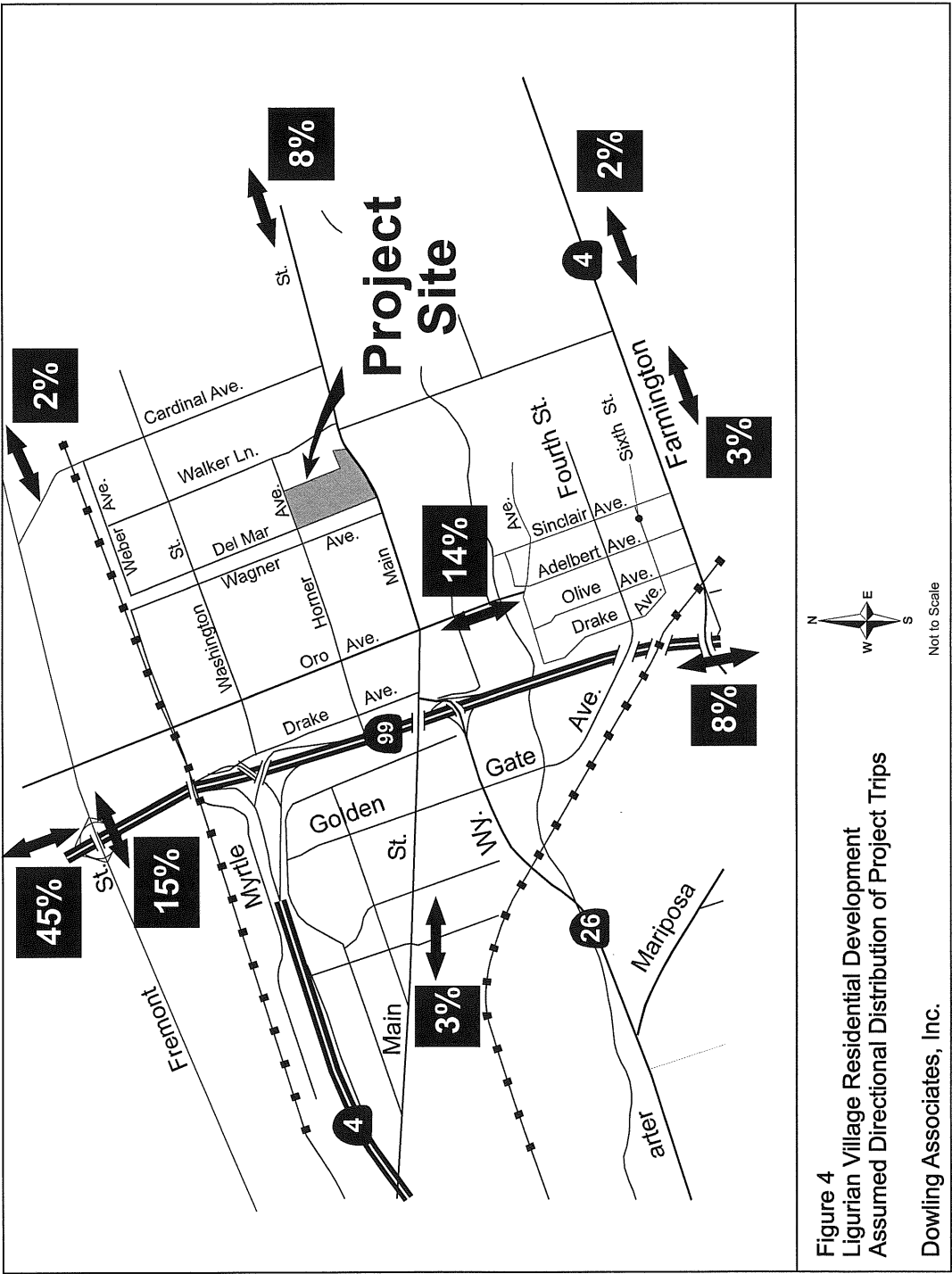


Table 5 Project Trip Generation Estimates

Land Use	ITE Land Use	Size	Daily Rate	Daily Trips	AM Peak Hour				PM Peak Hour			
					Rate	Total	In	Out	Rate	Total	In	Out
Single Family Detached ^a	210	117 du	10.26	1,201	0.78	91	23	68	1.05	123	77	46

Notes:
d.u. = dwelling units
a = Trip Generation rate based on fitted curve equations and development size.





Trip Generation

Trip generation by the proposed Ligurian Village Unit 2 single family residential development was estimated based on data published in *Trip Generation, 7th Edition*, by the Institute of Transportation Engineers (ITE) as presented in Table 5. It is projected that the project would generate 580 daily trips, including 47 trips in the AM peak hour and 61 trips in the PM peak hour as shown in Table 5 below.

Table 5 Project Trip Generation Estimates

Land Use	ITE Land Use	Size	Daily Rate	Daily Trips	AM Peak Hour					PM Peak Hour			
					Rate	Total	In	Out		Rate	Total	In	Out
Single Family Detached ^a	210	53 du	10.94	580	0.89	47	12	35		1.15	61	38	23

Notes:

d.u. = dwelling units

a = Trip Generation rate based on fitted curve equations and development size.

Trip Distribution

Trip distribution for the project was based on similar studies conducted in the project area. The trip distribution percentages used herein are depicted graphically in Figure 4. Traffic generated by the project that will be added to the study intersections is displayed in Figure 5 for the AM and PM peak hours.

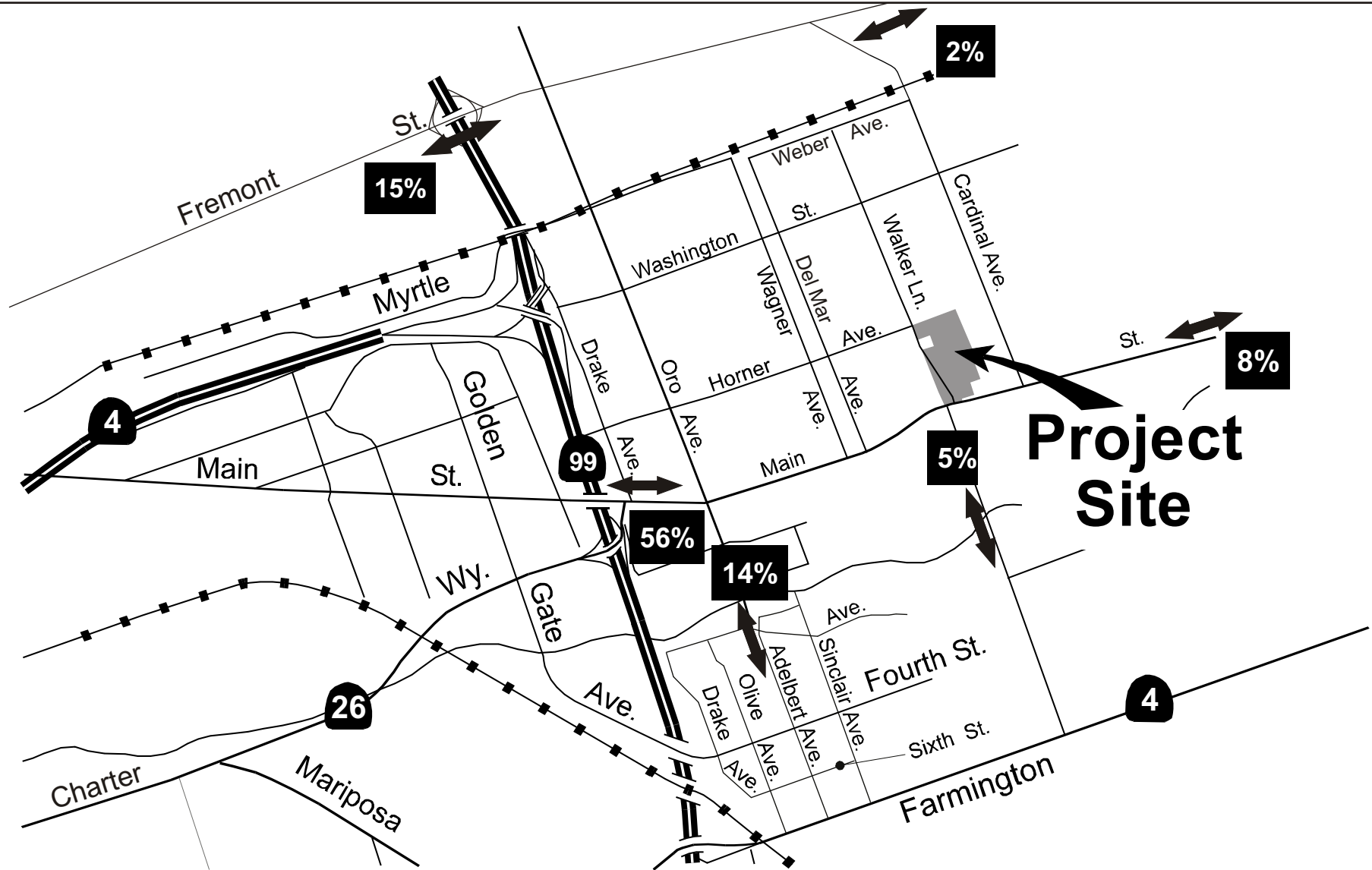


Figure 4
Ligurian Village Unit 2 Residential Development
Assumed Directional Distribution of Project Trips

Dowling Associates, Inc.



Not to Scale