HEXAGON TRANSPORTATION CONSULTANTS, INC.

130 Center Street Mixed-Use Development

Transportation Impact Analysis

Prepared for:

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Executive Summary

This report presents the results of the traffic impact analysis for the proposed mixed-use development at 130 Center Street in Santa Cruz, California. The project proposes to replace the existing buildings: a Hertz rental car facility and an auto body shop, with a six-story mixed-use development comprised of 2,618 square feet of retail use on the ground floor and 233 residential studio apartments on the second through sixth floor. Parking would be provided via an on-site garage.

The study includes an evaluation of vehicle miles traveled (VMT), intersection levels of service and also includes an evaluation of potential impacts to bicycle, pedestrian, and transit facilities, and a review of site access, on-site circulation, and parking demand.

Vehicle Miles Traveled (VMT) Analysis

According to the City of Santa Cruz Transportation Study Guidelines for Development, retail development less than 50,000 square feet can be considered local-serving retail. The policy states that local-serving retail development would have a less-than-significant impact on VMT. The project proposes 2,618 square feet of retail use on the ground floor, so it is considered local-serving and would not have a VMT impact.

For the residential portion of the project, the VMT impact is determined by comparing against the VMT thresholds of significance as established in the City of Santa Cruz Transportation Study Guidelines for Development. The Santa Cruz VMT sketch tool is used to estimate the project VMT. The threshold of significance for residential uses is used for the VMT analysis. The VMT threshold for residential development is 8.7 daily VMT per capita.

The project VMT estimated by the sketch tool is 4.2 per capita. The project VMT would not exceed the threshold of 8.7 VMT per capita. The project is also located within ½ mile of a major transit stop. Therefore, the project's VMT impact is considered less than significant.

Project Trip Estimates

Through empirical research, data have been collected that quantify the amount of traffic produced by many types of land uses. The research is compiled in the Institute of Transportation Engineers' (ITE) manual entitled *Trip Generation, 10th Edition* (2017). The rates published for Multifamily Housing – Mid-Rise (Land Use 221) and Shopping Center (Land Use 820) were used to estimate the trips generated by the proposed residential units and retail square footage, respectively. Based on these rates, the proposed project would generate 1,367 daily trips with 86 trips during the AM peak hour and 113 trips during the PM peak hour.

Trips generated by the existing uses on the site can be credited against the proposed mixed-use development. The existing businesses' trip generation estimates are based on peak-hour driveway counts conducted in August 2020. Based on the driveway counts, it is estimated that the existing businesses are generating 255 daily trips with 18 trips during the AM peak hour and 33 trips during the PM peak hour. The daily trips were estimated based on the average of both peak hour trips multiplied by a factor of 10.

After accounting for the trips generated by the existing businesses, the proposed mixed-use project is estimated to generate 1,112 new daily trips with a net increase of 68 trips in the AM peak hour and a net increase of 80 trips in the PM peak hour.

Intersection Levels of Service

Existing Plus Project Intersection Level of Service

The intersection level of service analysis results show that all study intersections would operate at acceptable levels of service during both AM and PM peak hours under existing plus project conditions. It should be noted that, at some study intersections, the average delay under project conditions is shown to be better than under no-project conditions. This occurs because the project would result in a reduction in traffic for several of the intersection movements.

Cumulative Intersection Levels of Service

The results of the level of service analysis under cumulative conditions show that the following intersections would operate under unacceptable level of service conditions during the PM peak hour, both with and without the project (see Table 6):

- Front Street & Laurel Street
- Pacific Avenue & Laurel Street
- Front Street & Soquel Avenue

The project would add traffic to these deficient intersections.

Planned Improvements

The Downtown Plan Amendments EIR has identified several roadway improvements for which the costs would be covered by anticipated future development projects. The 130 Front Street's fair share payment was calculated based on its cumulative traffic added to the study intersections.

Front Street and Laurel Street

Improvement: Intersection operations would be improved by converting the westbound right-turn lane into a shared through-right lane. The west leg would be widened to provide a receiving lane between Pacific Avenue and Front Street, relocating sidewalk, utilities, and landscaping. A right-turn overlap phase would be provided for the northbound and southbound approaches.

The cost for the construction of this improvement is estimated to be $599,000 based on the 508 Front Street TIA study. With this improvement, the intersection would operate at an acceptable LOS D during the PM peak hour.

Pacific Avenue and Laurel Street

Improvement: Intersection operations would be improved by the construction of a southbound left-turn lane and removing the existing landscaped median.

The engineering cost for the construction of this improvement is estimated to be approximately $313,000 based on the 508 Front Street TIA study. With this improvement, the intersection would operate at an acceptable LOS D during the PM peak hour.

Front Street and Soquel Avenue

Improvement: Intersection operations would be improved by adding a second westbound left-turn lane. The centerline median would be shifted south, and the east leg would be reduced to one through lane between Front Street and River Street. The westbound shared through-left lane would be converted into a through lane. The signal timing and phasing would be optimized.

The cost for the construction of this improvement is estimated to be $599,000 based on the 508 Front Street TIA study. With this improvement, the intersection would operate at an acceptable LOS D during the PM peak hour.

Front Street Improvements

The 130 Center Street project would add traffic to Front Street. Santa Cruz plans to improve the operation of Front Street by implementing a continuous two-way left-turn lane (TWLTL). The TWLTL would extend from Soquel Avenue to Laurel Street. With the implementation of this continuous two-way left-turn lane, on-street parking on both sides of the street would be eliminated. Continuous Class bike lanes and Class II buffered bike lanes would be provided with the restriping of Front Street.

The cost to construct these improvements is estimated to be $169,000 based on the 508 Front Street TIA study.

The project's fair share is estimated to be 21.44%. This is based on the 80 PM peak hour project trips divided by the Downtown Plan Amendments' 293 PM peak hour net new trips plus the project's PM peak hour net new trips (80/373 = 21.44%).

Other Transportation Issues

Hexagon identified the following recommendations resulting from the review of site access, circulation, and parking.

- Vehicles would not be able to turn sharply enough to access the at-grade parking from the driveway. Therefore, Hexagon recommends that the entrance to the parking garage be relocated or provide a second driveway that aligns with the at-grade parking area.
- The project would retain the existing driveway along Center Street. However, the site plan may require a second driveway that aligns with the entrance to the parking garage. Therefore, the project could have a detrimental impact on pedestrian circulation by having two driveways where currently there is only one driveway.
- Long-term bicycle parking should be relocated to the ground floor.

Table ES 1
Intersection Level of Service Summary

#	Intersection	Control	Peak Hour	Count Date	Existing Avg. Delay (sec)	Existing LOS	Existing plus Project Avg. Delay (sec)	Existing plus Project LOS	Existing plus Project Incr. in Avg. Delay	Cumulative no Project Conditions Avg. Delay (sec)	Cumulative no Project Conditions LOS	Cumulative Plus Project Conditions Avg. Delay (sec)	Cumulative Plus Project Conditions LOS	Cumulative Plus Project Conditions with Improvements Avg. Delay (sec)	Cumulative Plus Project Conditions with Improvements LOS
1	Center Street & Laurel Street	Signal	AM	11/20/19	17.1	B	17.0	B	-0.1	-	-	-	-	-	-
			PM	11/20/19	17.7	B	18.3	B	0.6	35.0	D	37.4	D	-	-
2	Chestnut Street & Laurel Street	Signal	AM	11/19/19	32.1	C	32.0	C	-0.1	-	-	-	-	-	-
			PM	11/19/19	36.4	D	37.7	D	1.3	49.3	D	50.5	D	-	-
3	California Street & Laurel Street	Signal	AM	11/19/19	16.8	B	16.8	B	0.0	-	-	-	-	-	-
			PM	11/19/19	18.9	B	19.1	B	0.2	39.7	D	40.9	D	-	-
4	Front Street & Laurel Street	Signal	AM	05/14/19	29.2	C	29.6	C	0.4	-	-	-	-	-	-
			PM	05/14/19	31.1	C	31.6	C	0.5	**63.0**	E	**63.7**	E	47.1	D
5	Center Street/West Cliff Drive & Pacific Avenue	Roundabout	AM	8/18/2020*	5.7	A	5.8	A	0.1	-	-	-	-	-	-
			PM	8/18/2020*	7.4	A	7.6	A	0.2	11.7	B	12.3	B	-	-
6	Pacific Avenue & Laurel Street	Signal	AM	11/19/19	16.6	B	16.7	B	0.1	-	-	-	-	-	-
			PM	11/19/19	19.4	B	19.5	B	0.1	**59.0**	E	**59.3**	E	45.1	D
7	Front Street & Soquel Avenue	Signal	AM	05/14/19	21.1	C	21.1	C	0.0	-	-	-	-	-	-
			PM	05/14/19	25.9	C	26.0	C	0.1	**57.0**	E	**58.7**	E	53.8	D

Notes:
Bold indicates substandard level of service.
* The 8/18/20 count at Center Street/West Cliff Drive/Pacific Avenue was factored to pre-COVID conditions.

1. Introduction

This report presents the results of the traffic impact analysis for the proposed mixed-use development at 130 Center Street in Santa Cruz, California (see Figure 1). The project proposes to replace the existing buildings, a Hertz rental car facility and an auto body shop, with a six-story mixed-use development comprised of 2,618 square feet of retail use on the ground floor and 233 residential studio apartments on the second through sixth floor. Parking would be provided via an on-site garage (see Figure 2).

Scope of Study

The purpose of the traffic analysis is to satisfy the requirements of the City of Santa Cruz. The traffic analysis includes an analysis of weekday AM and PM peak-hour traffic conditions and determines the adverse effects of the proposed mixed-use development on key intersections in the vicinity of the site. The key intersections are identified below.

1. Center Street and Laurel Street
2. Chestnut Street and Laurel Street
3. California Street and Laurel Street
4. Front Street and Laurel Street
5. Center Street/West Cliff Drive and Pacific Avenue
6. Pacific Avenue and Laurel Street
7. Front Street and Soquel Avenue

Traffic conditions at the study intersections were analyzed for the weekday AM and PM peak hours of traffic. Locally, the AM peak hour of traffic is between 7:00 and 9:00 AM, and the PM peak hour is between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on an average weekday.

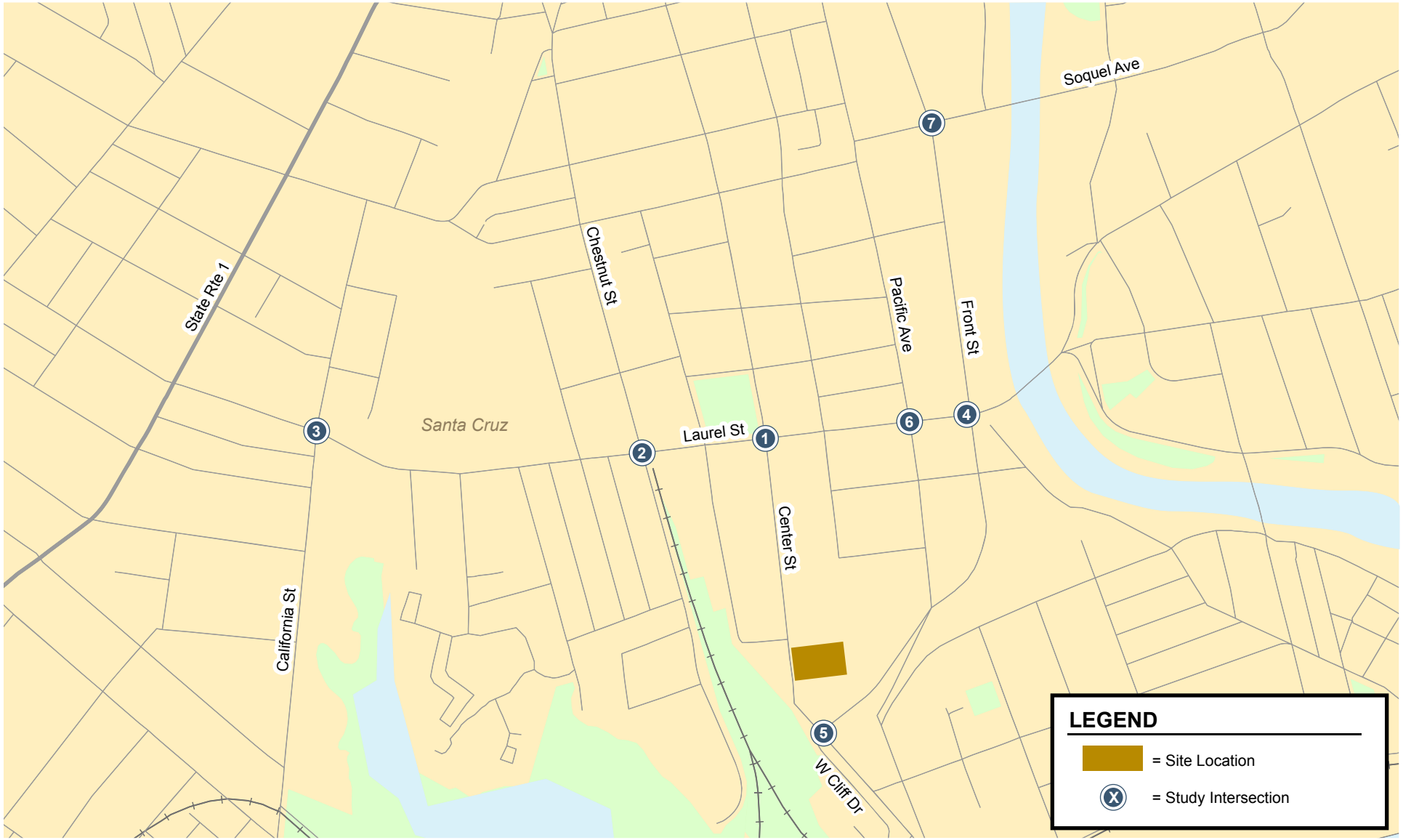
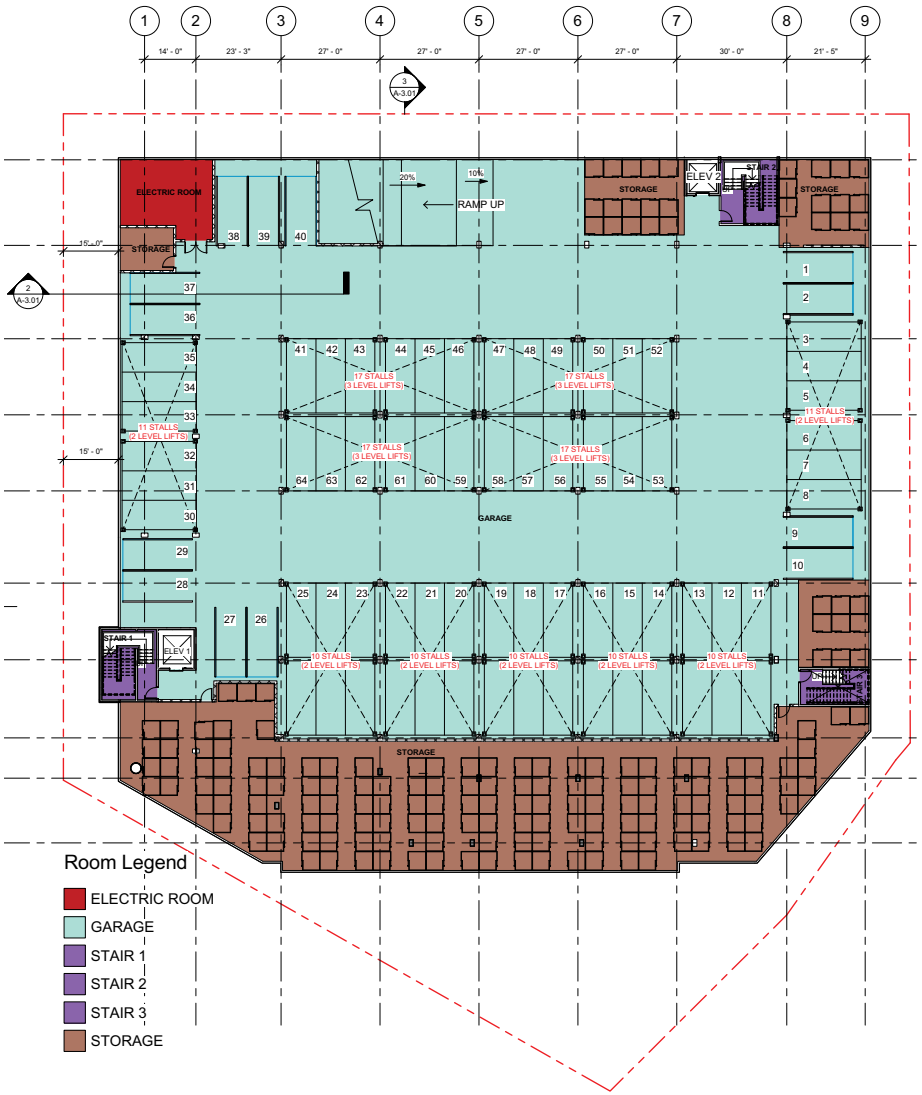


Figure 1
Site Location and Study Intersections



Basement Floor Plan

First Floor Plan

Figure 2
Site Plan

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Transportation Policies

Historically, transportation analysis has utilized delay and congestion on the roadway system as the primary metric for the identification of traffic impacts and potential roadway improvements to relieve traffic congestion that may result due to proposed/planned growth. However, the State of California has recognized the limitations of measuring and mitigating only vehicle delay at intersections and in 2013 passed Senate Bill (SB) 743, which requires jurisdictions to stop using congestion and delay metrics, such as Level of Service (LOS), as the measurement for CEQA transportation analysis. With the adoption of SB 743 legislation, public agencies will soon be required to base the determination of transportation impacts on Vehicle Miles Traveled (VMT) rather than level of service.

In adherence to SB 743, the City of Santa Cruz has adopted a new Transportation Analysis Policy, Resolution No. NS-29,676 on June 9, 2020. This resolution establishes the thresholds for transportation impacts under the CEQA based on vehicle miles traveled (VMT) instead of levels of service (LOS). The intent of this change is to shift the focus of transportation analysis under CEQA from vehicle delay and roadway auto capacity to a reduction in vehicle emissions, and the creation of robust multimodal networks that support integrated land uses. The new transportation policy aligns with the currently adopted General Plan, bringing together office, residential, and supporting service land uses to internalize trips and reduce VMT. All new development projects are required to analyze transportation impacts using the VMT metric and conform to Resolution No NS-29,676.

CEQA Transportation Analysis Scope

VMT Analysis

The City of Santa Cruz's Transportation Analysis Policy establishes procedures for determining project impacts on VMT based on project description, characteristics, and/or location. The City of Santa Cruz defines VMT as the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT is calculated for residential, office, and industrial projects using the Origin-Destination VMT method, which measures the full distance of personal motorized vehicle-trips with one end within the project. A project's VMT is compared to established thresholds of significance based on the project location and type of development. When assessing a residential project, the project's VMT is divided by the number of residents expected to occupy the project to determine the VMT per capita. When assessing an office or industrial project, the project's VMT is divided by the number of employees.

Typically, development projects that are farther from other, complementary land uses (such as a business park far from housing) and in areas without transit or active transportation infrastructure (bike lanes, sidewalks, etc.) generate more driving than development near complementary land uses with more robust transportation options. Therefore, developments located in a central business district with high density and diversity of complementary land uses and frequent transit services are expected to internalize trips and generate shorter and fewer vehicle trips than developments located in a suburban area with low density of residential developments and no transit serve in the project vicinity.

VMT Evaluation Tool

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has developed a VMT Evaluation Tool (VMT sketch tool) to streamline the analysis for development projects.

The VMT Evaluation tool identifies the existing average VMT per capita and VMT per employee for the project area. Based on the project location, type of development, project description, and proposed trip reduction measures, the VMT Evaluation tool calculates the project VMT. Projects located in areas where the existing VMT is above the established threshold are referred to as being in “high-VMT areas”. Projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the extent possible.

The thresholds of significance for development projects, as established in the Transportation Analysis Policy, are based on the existing countywide average VMT level for residential uses and the existing countywide average VMT level for employment uses.

The study also includes an evaluation of potential impacts to bicycle, pedestrian, and transit facilities, and a review of site access, on-site circulation, and parking demand.

Traffic conditions were evaluated for the following scenarios:

- ***Existing Conditions.*** Existing AM and PM peak-hour traffic volumes at study intersections were based on previous traffic counts collected between May 2019 and August 2020. Note that the traffic counts are pre-COVID counts or adjusted to pre-COVID counts. The Center Street/West Cliff Drive/Pacific Avenue intersection traffic counts are adjusted to pre-COVID counts.
- ***Existing Plus Project Conditions.*** Existing plus project traffic volumes were estimated by adding to existing traffic counts the additional traffic generated by the project.
- ***Cumulative Conditions (PM Only).*** Cumulative traffic volumes were based on the buildout of the City of Santa Cruz 2030 General Plan. A list of peak-hour traffic volumes in the vicinity was provided by the City of Santa Cruz. The City General Plan was only developed for the PM peak hour, which represents a worst-case analysis. The PM peak hour volumes are typically higher than the AM hour.
- ***Cumulative Plus Project Conditions (PM Only).*** Cumulative plus project traffic volumes were estimated by adding the project traffic to the volumes generated by buildout of the City of Santa Cruz 2030 General Plan.

Methodology

This section presents the methods used to determine the traffic conditions for each scenario described above and the traffic impacts of the project. It includes descriptions of the data requirements, the analysis methodologies, and the applicable level of service standards.

Data Requirements

The data required for the analysis were obtained from new traffic counts, field observations, and the City of Santa Cruz. The following data were collected from these sources:

- Intersection traffic volumes,
- Intersection lane configurations, and
- Intersection signal timing and phasing.

Analysis Methodologies

Signalized Intersection Level of Service

Traffic conditions at the study intersections were evaluated using level of service (LOS). Level of service is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays.

The City of Santa Cruz evaluates intersection levels of service using the Synchro software, which is based on the Highway Capacity Manual (HCM) 6th Edition method for signalized intersections. The *HCM 6th Edition* method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. This average delay can then be correlated to a level of service. The City of Santa Cruz level of service standard for signalized study intersections is LOS D or better. Table 1 presents the level of service definitions for signalized intersections.

Table 1
Signalized Intersection Level of Service Definitions Based on Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most Vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B+ B B-	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 12.0 12.1 to 18.0 18.1 to 20.0
C+ C C-	Higher delays may result for fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though may still pass through the intersection without stopping.	20.1 to 23.0 23.1 to 32.0 32.1 to 35.0
D+ D D-	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 39.0 39.1 to 51.0 51.1 to 55.0
E+ E E-	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 60.0 60.1 to 75.0 75.1 to 80.0
F	The level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels.	greater than 80.0

Source: Transportation Research Board, 2000 Highway Capacity Manual (Washington, D.C., 2000) p10-16.

Vehicle Queuing

The analysis of intersection levels of service was supplemented with a vehicle queuing analysis at intersections where the project would add a substantial number of trips to the left-turn movements. The intersection queuing analysis was conducted using SYNCHRO traffic analysis software in accordance with the *2010 Highway Capacity Manual* methodology. SYNCHRO provides total movement delay and 95th-percentile queues for each movement.

Transportation Effect Criteria

Transportation Effect criteria are used to establish what constitutes an adverse effect. For this analysis, the criteria used to determine adverse effects on studied intersections are based on City of Santa Cruz Level of Service standards. Impacts to pedestrian and bicycle facilities and transit services were evaluated based on the City of Santa Cruz Transportation Impact Study (TIS) Guidelines (July 2020) and professional judgment.

City of Santa Cruz Intersections

According to City of Santa Cruz level of service standard, a development is said to create an adverse effect on traffic conditions at a studied intersection if:

1. The level of service at the intersection drops below its respective level of service standard (LOS D or better) when project traffic is added and would be more than 3% over the existing total volume, or
2. The project traffic together with General Plan traffic would result in a drop below the level of service standard (LOS D). (This is defined as a cumulatively considerable effect).

An adverse effect at a studied intersection is said to be satisfactorily mitigated when measures are implemented that would adequately avoid or minimize an adverse effect to a less-than-significant level.

Report Organization

The remainder of this report is divided into six chapters. Chapter 2 describes the existing roadway network, transit services, and pedestrian facilities. Chapter 3 discusses vehicle mile traveled (VMT). Chapter 4 describes the methods used to estimate project traffic, intersection operations under existing plus project conditions, and the project's impacts on the existing transportation system. Chapter 5 presents the intersection operations under cumulative conditions. Chapter 6 presents the project's impacts on transit, bicycle and pedestrian facilities, site access and on-site circulation, Front Street improvements, and parking. Chapter 7 includes a summary of project impacts and recommended improvements.

2. Existing Conditions

This chapter describes the existing conditions for transportation facilities in the vicinity of the site, including the roadway network, transit service, and pedestrian and bicycle facilities.

Roadway Network

Local roadways in the vicinity of the site include Front Street, Soquel Avenue, Laurel Street, Pacific Avenue, Center Street, Chestnut Street, California Street, and West Cliff Drive. These roadways are described below.

Front Street is a two- to four-lane street that extends from Mission Street/Water Street in the north to Pacific Avenue to the south. Front Street is oriented in a north-south direction in the project vicinity. Front Street has bike lanes and continuous sidewalks present on both sides of the street. On-street parking is permitted on the east side of the street. The prima facie speed limit on Front Street is 25 mph.

Soquel Avenue is a two- to four-lane street that extends from Pacific Avenue in the west to Gross Road from to the east. Soquel Avenue is oriented in a west-east direction in the project vicinity. Soquel Avenue has bike lanes and continuous sidewalks present on both sides of the street. On-street parking is prohibited along most of the roadway within the project vicinity. Soquel Avenue has a posted speed limit of 25 mph.

Laurel Street is a mostly two-lane street that extends from Escalona Drive in the west to Broadway to the east. Laurel Street is oriented in the west-east direction in the project vicinity. Within the project vicinity, there are bike lanes from California Street to Broadway on both sides of the street. Laurel Street has sidewalks on both sides of the street from Cabrillo Highway to Broadway, but no sidewalks from Escalona Drive to Kings Street. On-street parking is prohibited within the project vicinity, and the posted speed limit of 25 mph.

Pacific Avenue is a two-lane street from Beach Street to Cathcart Street. North of Cathcart Street, Pacific Street becomes a one-way street. Within the project vicinity, there are bike lanes throughout the segment and sidewalks on both sides of the street. On-street parking is permitted on both sides of the street. The posted speed limit is 15 mph within the project vicinity.

Center Street is a two-lane street that extends from Mission Street in the north to Pacific Avenue to the south. Center Street is oriented in the north-south direction in the project vicinity. Within the project vicinity, Center Street has bike lanes from Laurel Street to Pacific Avenue. Center Street has sidewalks on both sides of the street. On-street parking is permitted on both sides of the street, and the prima facie speed limit is 25 mph.

Chestnut Street is a north-south two-lane street that extends from Mission Street in the north to its end near Chestnut Park in the south. Chestnut Street has bike lanes from Mission Street to Laurel Street. Within the vicinity of the project, Chestnut Street has sidewalks on both sides and has a posted speed limit of 25 mph. On-street parking is permitted on both sides of the street.

California Street is a north-south two-lane street that extends from Walnut Avenue in the north to Bay Street in the south. California Street has bike lanes from Laurel Street to Bay Street and is a designated bike route from Walnut Avenue to Laurel Street. Within the project vicinity, California Street has sidewalks on both sides of the street and has a posted speed limit of 25 mph. On-street parking is permitted on both sides of the street.

West Cliff Drive is a two-lane street that extends from Pacific Avenue in the north to its end near Natural Bridges State Beach. However, within the project vicinity, West Cliff Drive is a one-way street heading south. Within the vicinity of the project, West Cliff Drive is oriented in a north-south direction. West Cliff Drive has sidewalks on the east side of the street and bike lanes on both sides of the street. West Cliff Drive has a posted speed limit of 25 mph, and parking is prohibited along the one-way segment.

Pedestrian and Bicycle Facilities

Pedestrian facilities within the study area consist of sidewalks and signalized crossings. Sidewalks are found on both sides of the streets in the study area. Crosswalks with pedestrian signal heads and push buttons are located at all the study intersections.

Bicycle facilities in the study area include bike lanes and a bike route (see Figure 3). Bike lanes (Class II) are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes (Class III) are existing streets that accommodate bicycles but are not separate from the existing travel lanes. Within the vicinity of the project site, Class II bike lanes are present along the following roadway segments.

- Front Street, along the entire length of the street
- Soquel Avenue, between Pacific Avenue and Ocean Street
- Laurel Street, between California Street and Broadway
- Center Street, between Laurel Street and Pacific Avenue
- Pacific Avenue, between Front Street and Viaduct Lane
- West Cliff Drive, between Center Street and Bay Street
- Chestnut Street, between Mission Street and Laurel Street

Class III bike routes are present along California Street, between Walnut Avenue and Laurel Street

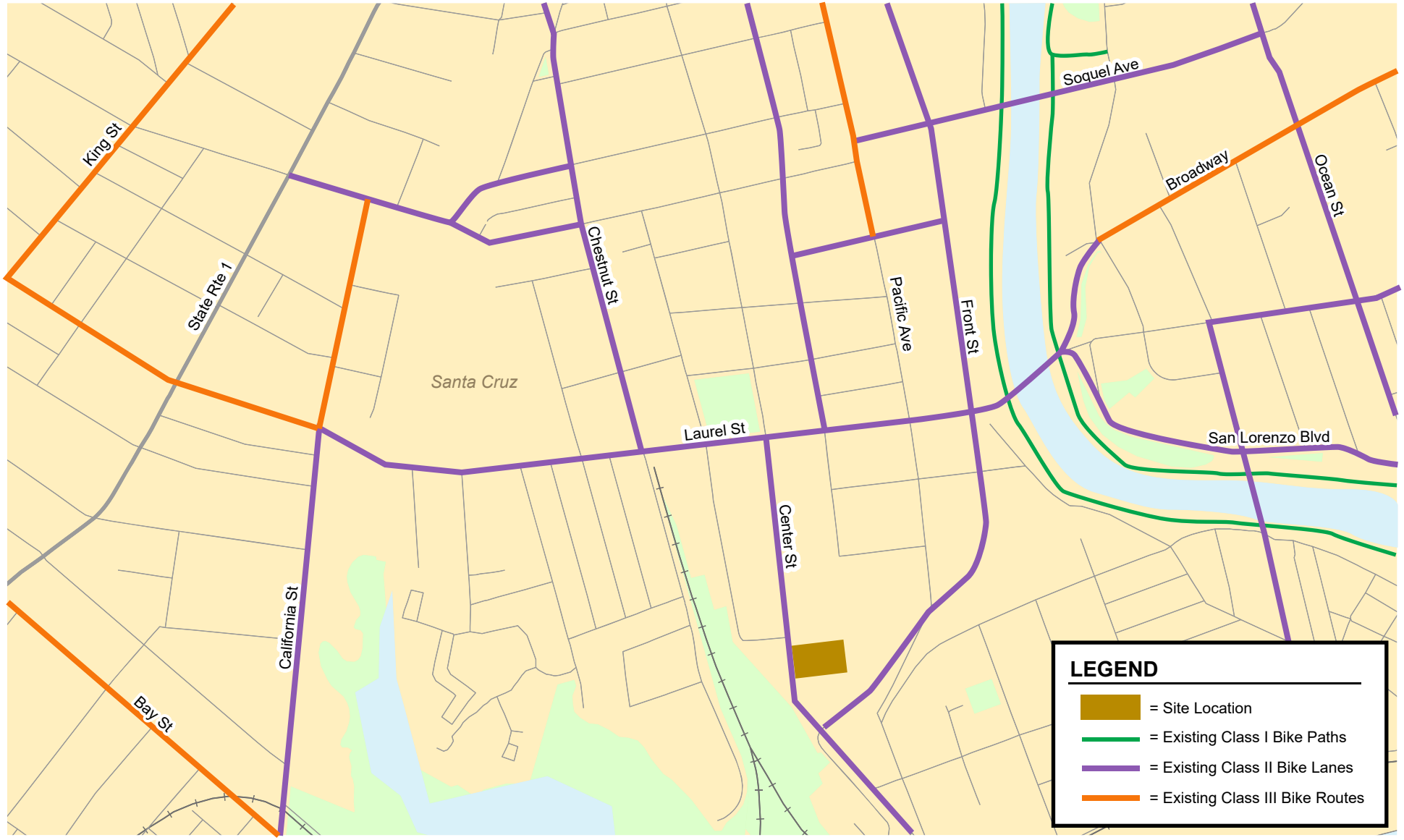

Figure 3
Existing Bicycle Facilities

NORTH
Not to Scale

Transit Services

Existing transit services near the project site are provided by the Santa Cruz Metro Transit District (See Figure 4). Bus routes that run through the study area are listed in Table 2, including their route description, weekday hours of operation, and commute hour headways. The nearest stop is located on Pacific Avenue, approximately 800 feet east of the site and provides access to Routes 3, 19, and 20. Additional bus stops for the other bus routes are located at the Center Street/Laurel Street intersection, approximately 1,200 feet north of the site and provide access to Routes 16 and 42.

Table 2
Existing Transit Services

Bus Route	Route Description	Closest Stop & Distance to Project Site	Weekday Hours of Operation[1]	Headway[1]
Local Bus 3	Mission/Seymour Center/Beach	Center Street/Pacific Avenue, 0.15 mi	9:50 am - 5:50 pm	120 min
Local 16	UCSC via Laurel East	Center Street/Laurel Street, 0.23 mi	8:10 am - 11:07 pm	60 min
Local 19	UCSC via Lower Bay	Center Street/Pacific Avenue, 0.15 mi	10:00 am - 7:00 pm	60 min
Local 20	UCSC via Westside	Center Street/Pacific Avenue, 0.15 mi	11:20 am - 8:20 pm	60 min
Local 42	Davenport/Bonny Doon	Center Street/Laurel Street, 0.23 mi	8:30 am & 4:30 pm	-

Notes:
1. Approximate weekday operation hours and headways during peak commute periods in the project area, as of August 2020.

Intersection Lane Configurations and Traffic Volumes

The existing lane configurations at the study intersections were obtained from field observations (see Figure 5).

Existing peak-hour traffic volumes were obtained from previous turning-movement counts conducted between May 2019 and August 2020 (see Figure 6). Note that the traffic counts collected are pre-COVID counts or adjusted to pre-COVID counts. The Center Street/West Cliff Drive/Pacific Avenue intersection traffic counts are adjusted to pre-COVID counts. The adjusted pre-COVID counts were obtained by determining a factor by comparing a nearby intersection's (Center Street/Laurel Street) pre-COVID and COVID counts. The factor was then applied to COVID counts at Center Street/West Cliff Drive/Pacific Avenue. New and previous intersection turning-movement counts conducted for this analysis are presented in Appendix A.

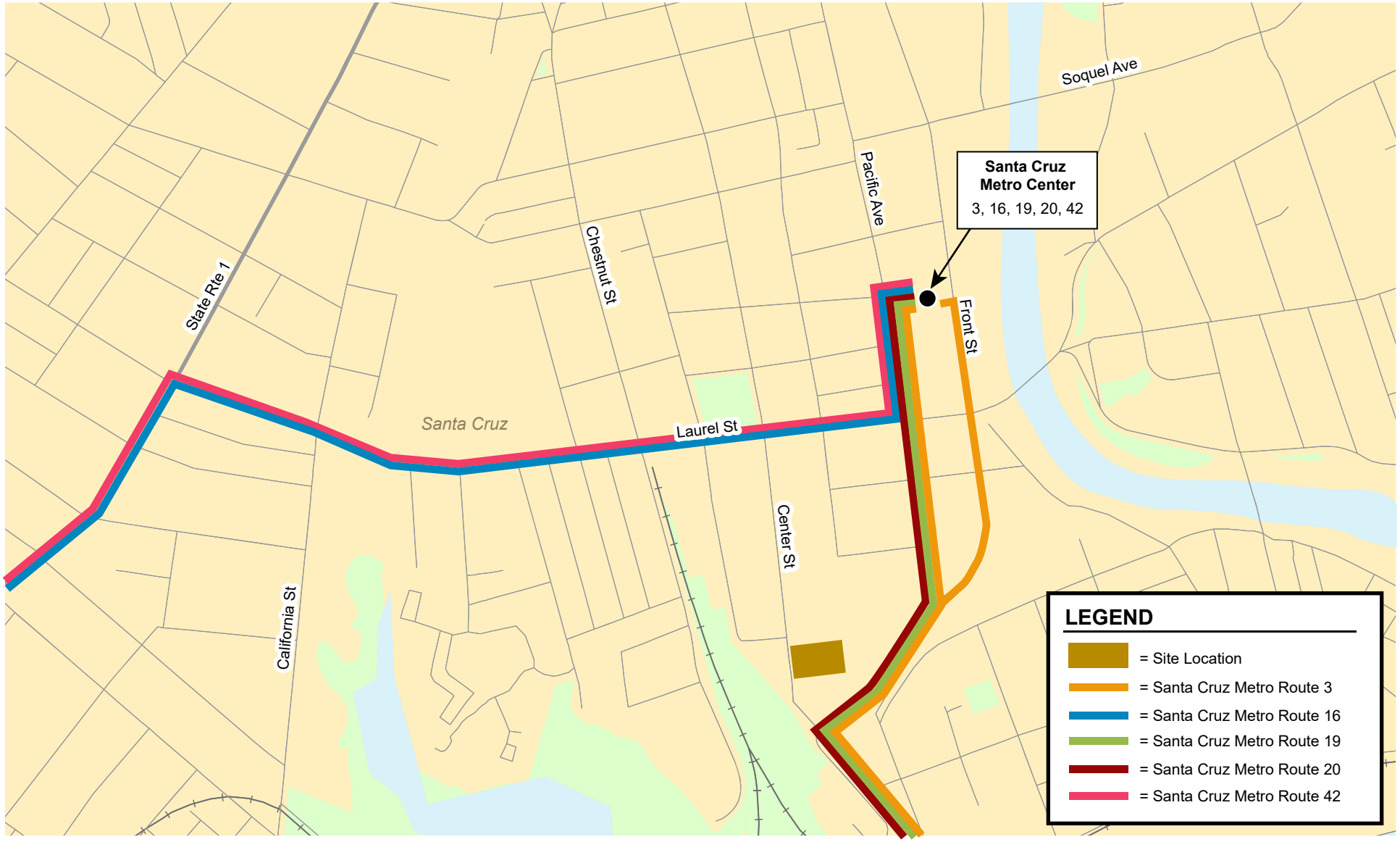

Figure 4
Existing Transit Services

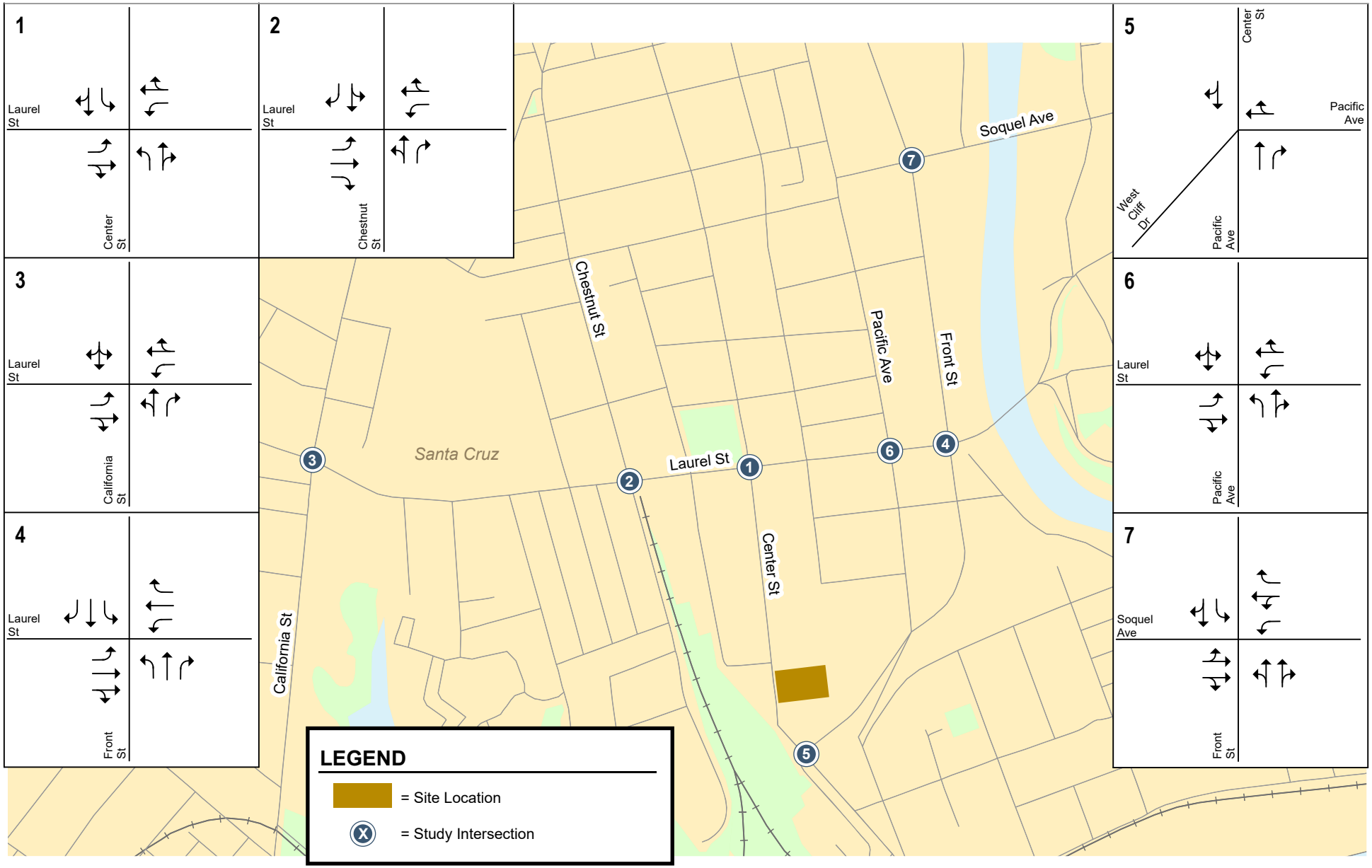

Figure 5
Existing Lane Configurations

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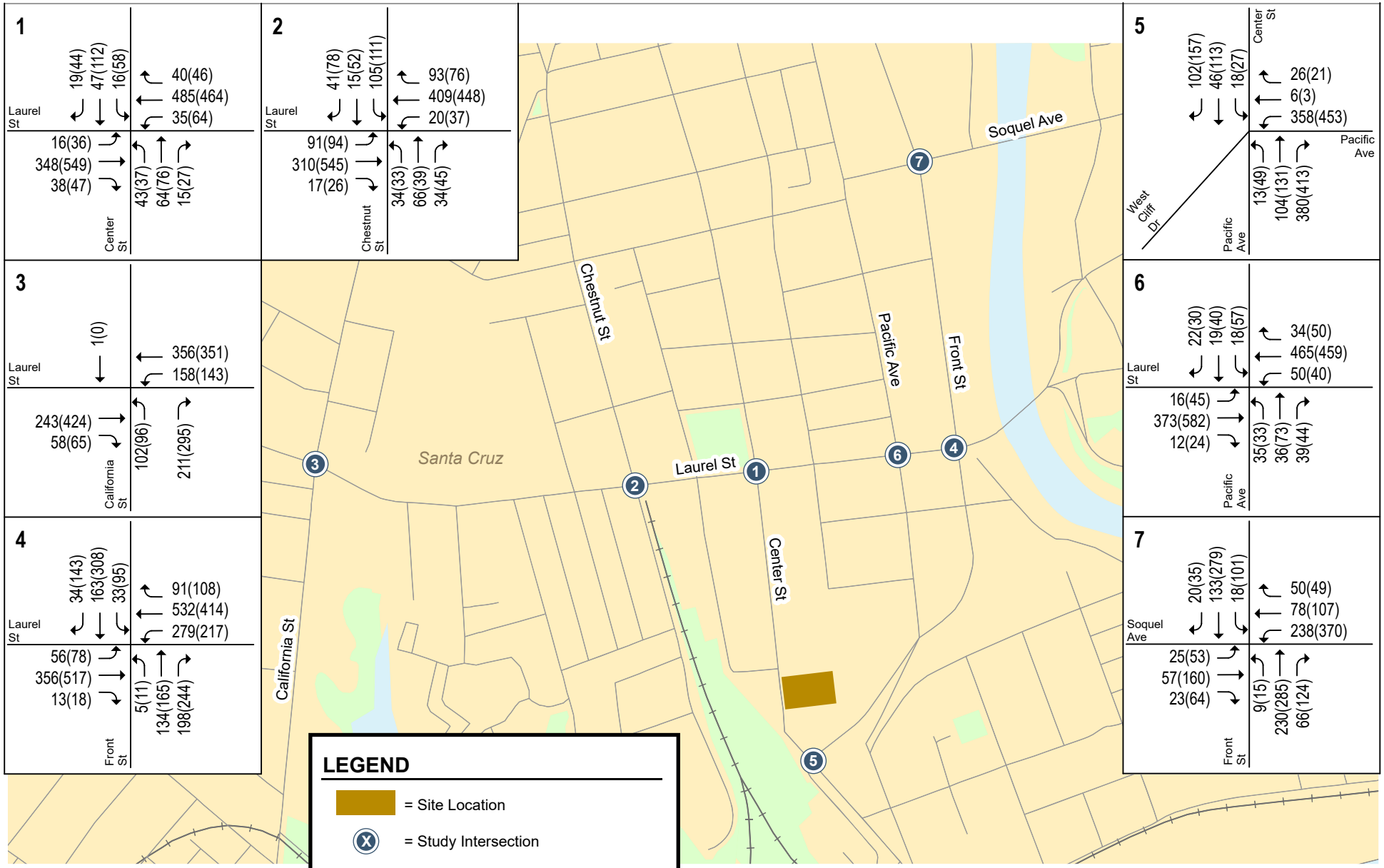

Figure 6
Existing Traffic Volumes

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Not to Scale

Existing Intersection Levels of Service

The intersection level of service analysis results show that all study intersections currently operate at acceptable levels of service during both AM and PM peak hours (see Table 3). The intersection level of service calculation sheets are included in Appendix B.

Table 3
Existing Intersection Levels of Service

#	Intersection	Control	Peak Hour	Count Date	Existing Avg. Delay (sec)	Existing LOS
1	Center Street & Laurel Street	Signal	AM	11/20/19	17.1	B
			PM	11/20/19	17.7	B
2	Chestnut Street & Laurel Street	Signal	AM	11/19/19	32.1	C
			PM	11/19/19	36.4	D
3	California Street & Laurel Street	Signal	AM	11/19/19	16.8	B
			PM	11/19/19	18.9	B
4	Front Street & Laurel Street	Signal	AM	05/14/19	29.2	C
			PM	05/14/19	31.1	C
5	Center Street/West Cliff Drive & Pacific Avenue	Roundabout	AM	8/18/2020*	5.7	A
			PM	8/18/2020*	7.4	A
6	Pacific Avenue & Laurel Street	Signal	AM	11/19/19	16.6	B
			PM	11/19/19	19.4	B
7	Front Street & Soquel Avenue	Signal	AM	05/14/19	21.1	C
			PM	05/14/19	25.9	C

Notes:

* The 8/18/20 count at Center Street/West Cliff Drive/Pacific Avenue was factored to pre-COVID conditions.

3.
Vehicle Miles Traveled Analysis

This chapter describes the CEQA transportation analysis, including the VMT analysis methodology and significance criteria, and potential project impacts on VMT.

Vehicles Miles Travelled (VMT) Analysis

In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package, including the Guidelines section implementing Senate Bill 743. The guidelines state that level of service will no longer be considered to be an environmental impact under CEQA and that vehicle miles traveled (VMT) is the most appropriate measure of transportation impact. Cities have until July 2020 to adopt the new procedures. In accordance with new CEQA guidelines, the City has transitioned from intersection LOS to vehicle miles traveled (VMT) for CEQA transportation analysis.

A project's VMT is compared to the appropriate thresholds of significance based on the project location and type of development. When assessing a residential project, the project's VMT is divided by the number of residents expected to occupy the project to determine the VMT per capita. When assessing a retail project, the project's total VMT, as opposed to a per-capita or per-employee VMT metric, is measured. The total VMT for the region with and without the project is calculated. The difference between the two scenarios is the net change in total VMT that is attributable to the project.

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has established thresholds for residential, office, and retail projects.

The established thresholds are as follows:

Residential projects

A project may indicate a significant transportation impact if the anticipated VMT exceeds 85% of existing County-wide average VMT per capita. The VMT threshold is 8.7 VMT per capita, which is a 15% reduction from the existing County-wide average VMT level.

Retail projects

A net increase in the total VMT rate for a specific use may indicate a significant transportation impact. It is assumed that local serving retail projects tend to shorten trips and therefore reduce VMT.

Screening for Non-Significant Transportaton Impact

The City of Santa Cruz Transportation Study Guidelines for Development includes screening criteria for projects that are expected to result in less-than-significant VMT impacts. Projects, or portions of the project, that meet the screening criteria do not require a CEQA transportation analysis.

Projects will have a non-significant CEQA transportation impact based on their project location and characteristics. These include:

- Small projects that generate fewer than 110 trips per day;
- Projects near high quality transit: within a ½ mile of a major transit stop or a high quality transit corridor with a combined service interval frequency of 15 minutes or less during the AM and PM peak hours;
- Local-serving retail;
- Local essential service;
- Map based screening; and
- Redevelopment projects that do not result in a net increase in VMT

Project-level VMT Analysis

According to the City of Santa Cruz Transportation Study Guidelines for Development, retail development less than 50,000 square feet can be considered local-serving retail. The policy states that local-serving retail development would have a less-than-significant impact on VMT. The project proposes 2,618 square feet of retail use on the ground floor, so it is considered local-serving and would not have a VMT impact.

For the residential portion of the project, the VMT impact is determined by comparing against the VMT thresholds of significance as established in the City of Santa Cruz Transportation Study Guidelines for Development. The Santa Cruz VMT sketch tool is used to estimate the project VMT. The threshold of significance for residential uses is used for the VMT analysis. The VMT threshold for residential development is 8.7 daily VMT per capita.

The project VMT estimated by the sketch tool is 4.2 per capita. The project VMT would not exceed the threshold of 8.7 VMT per capita. The project is also located within ½ mile of a major transit stop. Therefore, the project's VMT impact is considered less than significant. Appendix D presents the sketch tool summary report for the project.

4.
Existing Plus Project Conditions

This chapter describes existing traffic conditions with the addition of the traffic that would be generated by the proposed project.

Roadway Network

The roadway network under existing plus project conditions would be the same as the existing roadway network because the project would not alter the existing intersection lane configurations.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described below.

Trip Generation

Through empirical research, data have been collected that quantify the amount of traffic produced by many types of land uses. The research is compiled in the Institute of Transportation Engineers' (ITE) manual entitled *Trip Generation, 10th Edition* (2017). The rates published for Multifamily Housing – Mid-Rise (Land Use 221) and Shopping Center (Land Use 820) were used to estimate the trips generated by the proposed residential units and retail square footage, respectively. Multifamily Housing - Mid-Rise is defined as apartments, townhouses, condominiums with at least three other dwelling units that have between 3 and 10 floors. Shopping Center is defined as a group of commercial establishments that is planned, developed, owned, and managed as a unit. The proposed project has 233 units within the six-story building. Therefore, the Multifamily Housing – Mid-Rise rates were used. Shopping Center is typically used for retail development where the future tenants are not known. Shopping Center is a good general purpose category because shopping centers typically include a variety of store types, including restaurants. Based on these rates, the proposed project would generate 1,367 daily trips with 86 trips during the AM peak hour and 113 trips during the PM peak hour (see Table 4).

Trip Adjustments and Reductions

Trips generated by the existing uses on the site can be credited against the proposed mixed-use development. The existing businesses' trip generation estimates are based on peak-hour driveway

counts conducted in August 2020. Based on the driveway counts, it is estimated that the existing businesses are generating 255 daily trips with 18 trips during the AM peak hour and 33 trips during the PM peak hour. The daily trips were estimated based on the average of both peak hour trips multiplied by a factor of 10.

After accounting for the trips generated by the existing businesses, the proposed mixed-use project is estimated to generate 1,112 new daily trips with a net increase of 68 trips in the AM peak hour and a net increase of 80 trips in the PM peak hour.

Table 4
Project Trip Generation Estimates

Land Use	Size		Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	In	Out	Total	Rate	In	Out	Total
Proposed Uses												
Retail[1]	2.62	ksf	37.75	99	0.94	1	1	2	3.81	5	5	10
Multifamily Housing (Mid-Rise)[2]	233.0	DU	5.44	1,268	0.36	22	62	84	0.44	63	40	103
Subtotal				**1,367**		**23**	**63**	**86**		**68**	**45**	**113**
Existing Uses[3]				**255**		**11**	**7**	**18**		**14**	**19**	**33**
Net Project Trips				**1,112**		**12**	**56**	**68**		**54**	**26**	**80**

Note:
Trip rates for shopping center and multifamily housing are from the ITE Trip Generation Manual, 10th Edition, 2017.
1. Shopping Center (Land Use 820) average rates expressed in trips per 1,000 square feet (ksf) are used.
2. Multifamily Housing (Mid-Rise) (Land Use 221) average rates expressed in trips per dwelling units (DU) are used.
3. Existing use trips based on peak-hour driveway counts conducted 8/21/2020. Daily Traffic estimated based on peak hours.

Trip Distribution and Assignment

The trip distribution pattern for the proposed development was estimated based on existing travel patterns on the surrounding roadway system and the locations of complementary land uses (see Figure 7).

The peak-hour trips generated by the existing and proposed uses were assigned to the roadway system based on the directions of approach and departure, the roadway network connections, and the locations of project driveways (see Figure 8). The trips generated by the existing uses were subtracted from the roadway network prior to assigning project trips. It is assumed that all residential trips would enter and exit the project site via a driveway on Center Street.

Intersection Traffic Volumes

Project trips, as represented in the above project trip assignment, were added to existing traffic volumes to obtain existing plus project traffic volumes (see Figure 9).

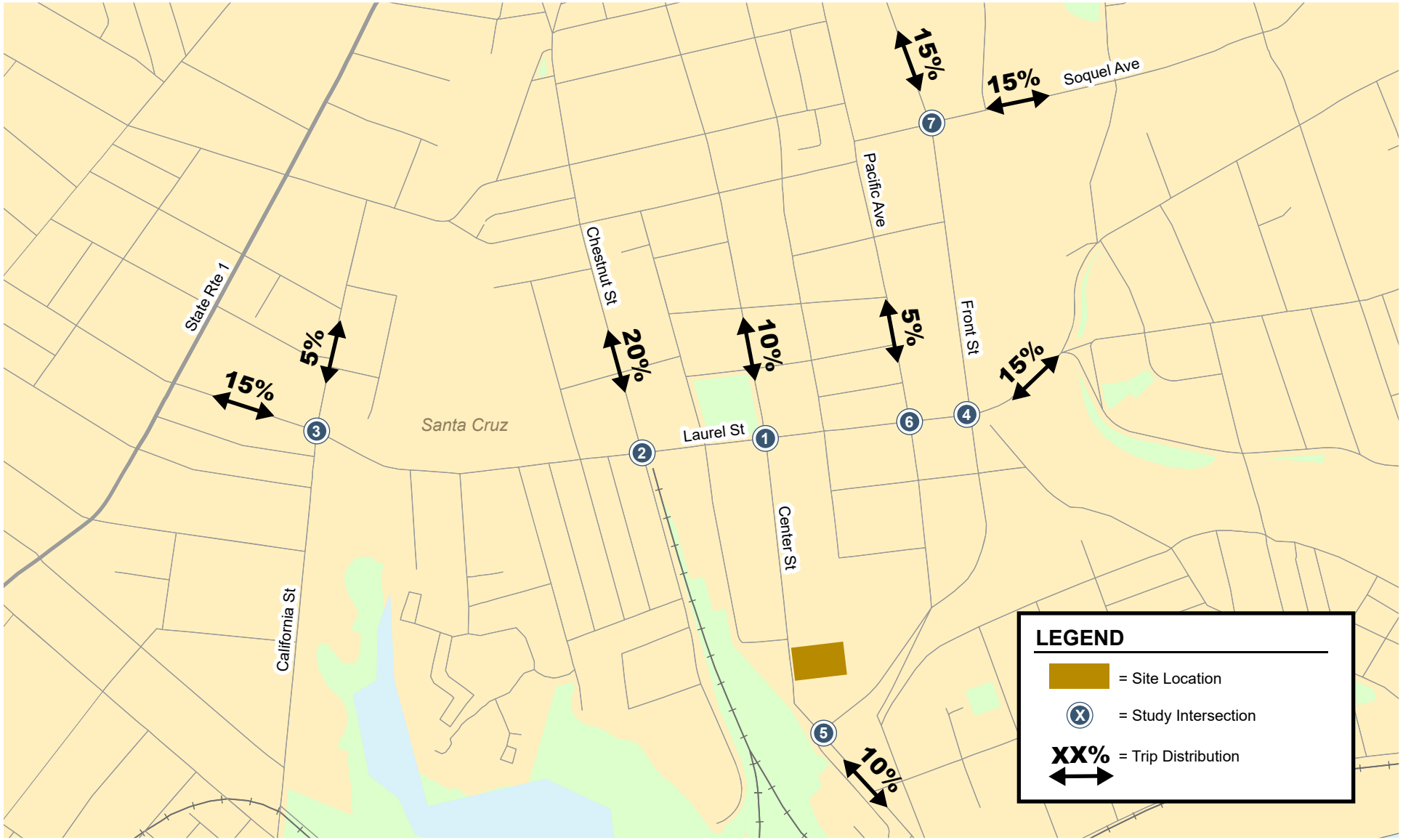


Figure 7
Project Trip Distribution

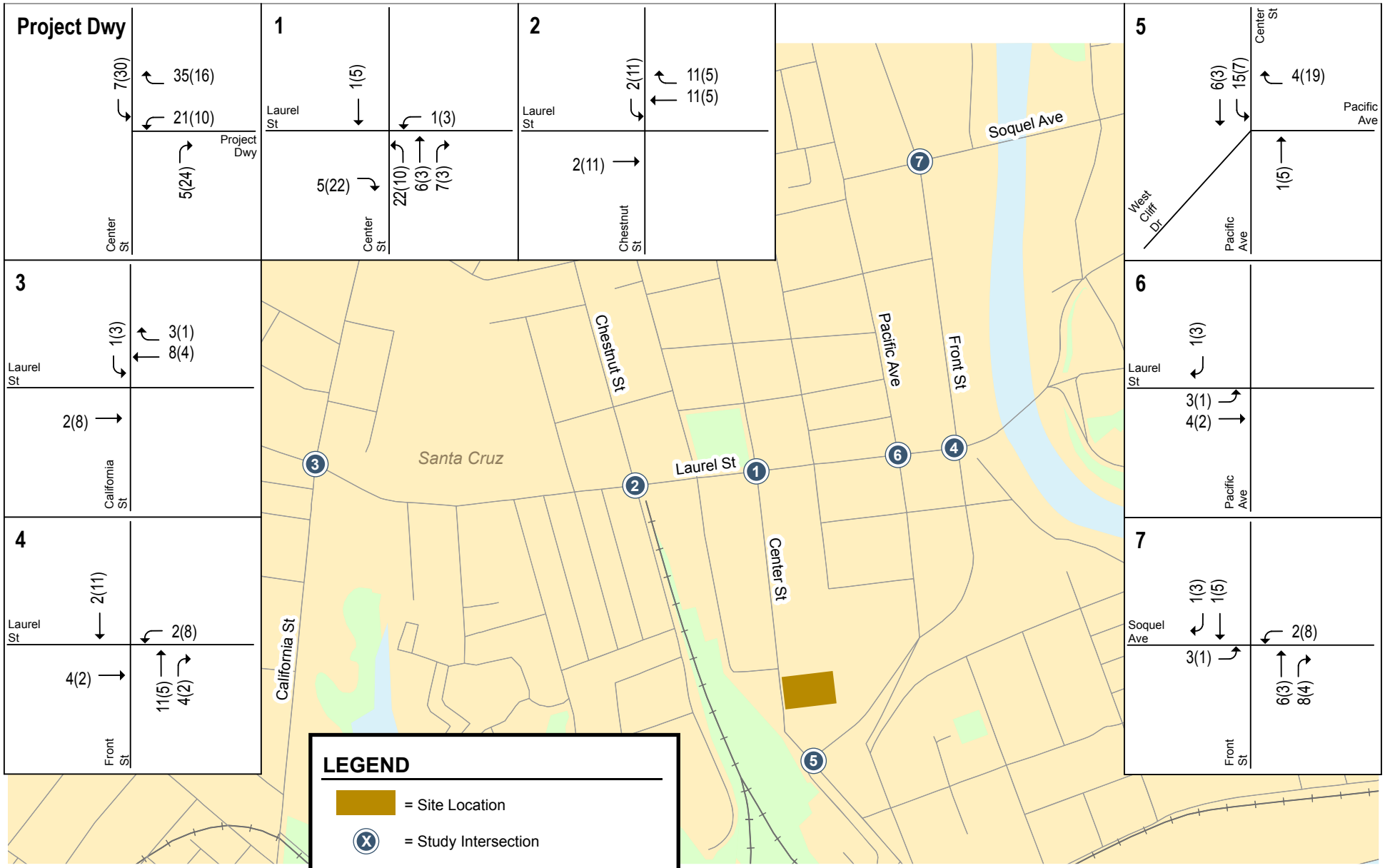


Figure 8
Net Project Trip Assignment

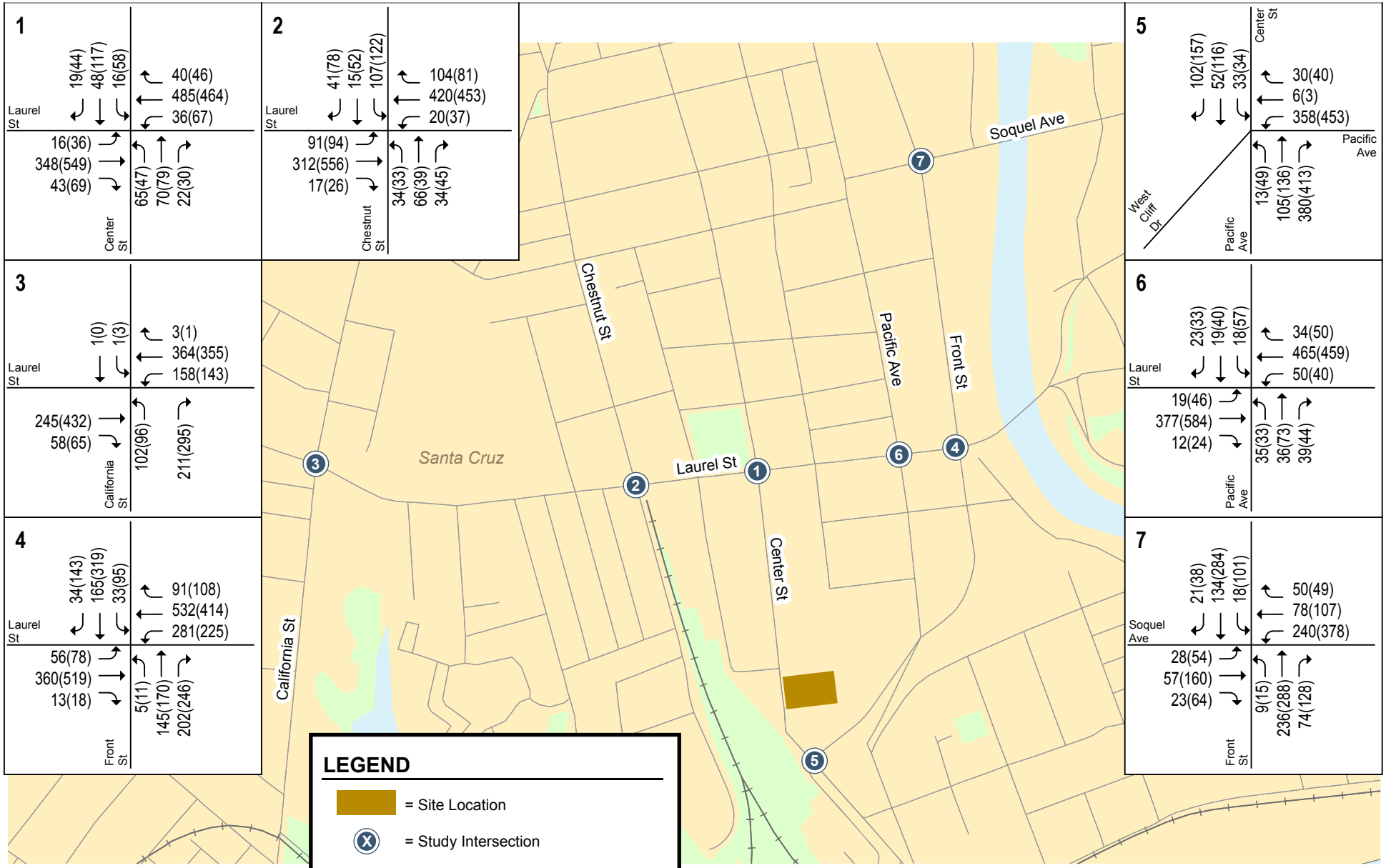


Figure 9
Existing Plus Project Traffic Volumes

NORTH
Not to Scale

Existing Plus Project Intersection Levels of Service

The intersection level of service analysis results show that all study intersections would operate at acceptable levels of service during both AM and PM peak hours under existing plus project conditions (see Table 5). It should be noted that, at some study intersections, the average delay under project conditions is shown to be better than under no-project conditions. This occurs because the project would result in a reduction in traffic for several of the intersection movements. The intersection level of service calculation sheets are included in Appendix B.

Table 5
Existing Plus Project Intersection Levels of Service

					Existing		Existing plus Project		
#	Intersection	Control	Peak Hour	Count Date	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. in Avg. Delay
1	Center Street & Laurel Street	Signal	AM	11/20/19	17.1	B	17.0	B	-0.1
			PM	11/20/19	17.7	B	18.3	B	0.6
2	Chestnut Street & Laurel Street	Signal	AM	11/19/19	32.1	C	32.0	C	-0.1
			PM	11/19/19	36.4	D	37.7	D	1.3
3	California Street & Laurel Street	Signal	AM	11/19/19	16.8	B	16.8	B	0.0
			PM	11/19/19	18.9	B	19.1	B	0.2
4	Front Street & Laurel Street	Signal	AM	05/14/19	29.2	C	29.6	C	0.4
			PM	05/14/19	31.1	C	31.6	C	0.5
5	Center Street/West Cliff Drive & Pacific Avenue	Roundabout	AM	8/18/2020*	5.7	A	5.8	A	0.1
			PM	8/18/2020*	7.4	A	7.6	A	0.2
6	Pacific Avenue & Laurel Street	Signal	AM	11/19/19	16.6	B	16.7	B	0.1
			PM	11/19/19	19.4	B	19.5	B	0.1
7	Front Street & Soquel Avenue	Signal	AM	05/14/19	21.1	C	21.1	C	0.0
			PM	05/14/19	25.9	C	26.0	C	0.1

Notes:
* The 8/18/20 count at Center Street/West Cliff Drive/Pacific Avenue was factored to pre-COVID conditions.

5. Cumulative Conditions

This chapter presents a summary of the traffic conditions that would occur under cumulative conditions. Peak hour traffic volumes for Cumulative conditions were obtained from the City of Santa Cruz 2030 General Plan (PM peak hour only).

Roadway Network Under Cumulative Conditions

The City has no plans to change the roadway network in the vicinity of the project site.

Cumulative Traffic Volumes

Traffic volumes under cumulative conditions were based on the total trips generated by buildout of the General Plan. The project is not included in the General Plan buildout. Therefore, to estimate the cumulative plus project volumes, the project trips were added to the General Plan buildout.

Figure 10 and Figure 11 shows the cumulative traffic volumes and cumulative with project traffic volumes, respectively.

Volumes under cumulative conditions are presented in Appendix C.

Cumulative Intersection Levels of Service

The results of the level of service analysis under cumulative conditions show that the following intersections would operate under unacceptable level of service conditions during the PM peak hour, both with and without the project (see Table 6):

- Front Street & Laurel Street
- Pacific Avenue & Laurel Street
- Front Street & Soquel Avenue

The project would add traffic to these deficient intersections.

The detailed level of service calculation sheets are included in Appendix B.

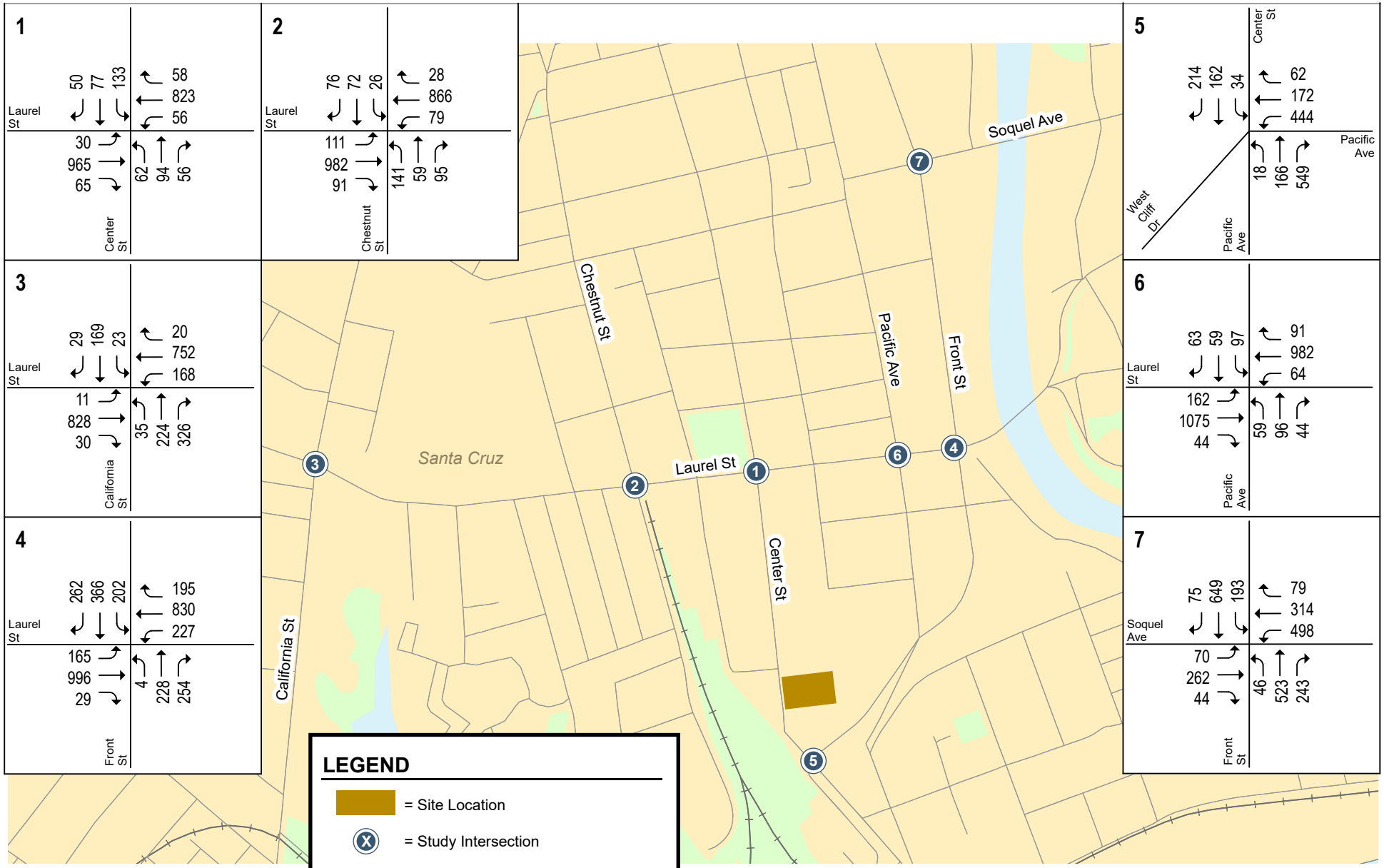


Figure 10
Cumulative Traffic Volumes

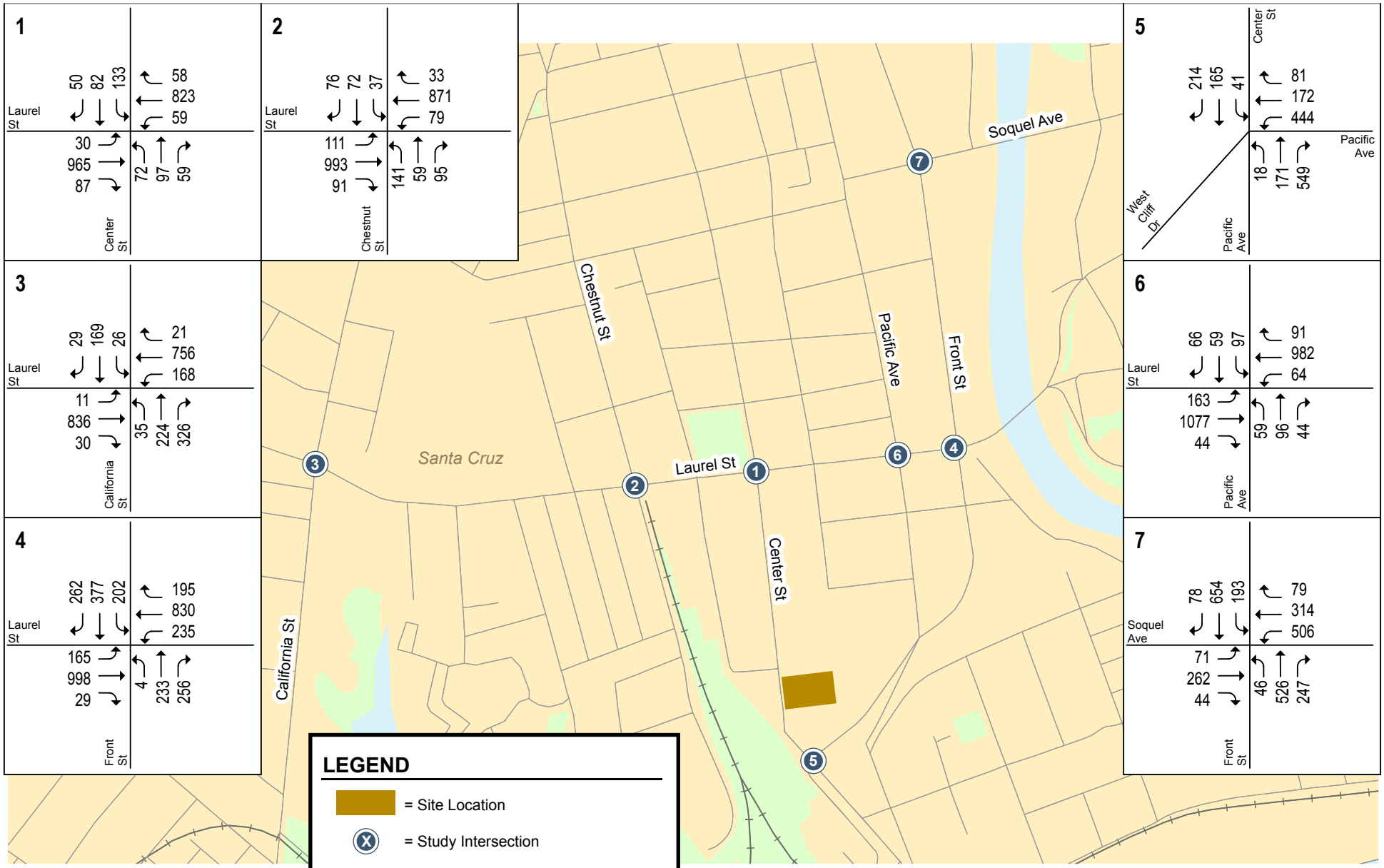


Figure 11
Cumulative Plus Project Traffic Volumes

NORTH
Not to Scale

Table 6
Cumulative Intersection Levels of Service

#	Intersection	Control	Peak Hour	Cumulative no Project Conditions Avg. Delay (sec)	Cumulative no Project Conditions LOS	Cumulative Plus Project Conditions Avg. Delay (sec)	Cumulative Plus Project Conditions LOS
1	Center Street & Laurel Street	Signal	AM	**-**	-	**-**	-
			PM	35.0	D	37.4	D
2	Chestnut Street & Laurel Street	Signal	AM	**-**	-	**-**	-
			PM	49.3	D	50.5	D
3	California Street & Laurel Street	Signal	AM	**-**	-	**-**	-
			PM	39.7	D	40.9	D
4	Front Street & Laurel Street	Signal	AM	**-**	-	**-**	-
			PM	**63.0**	E	**63.7**	E
5	Center Street/West Cliff Drive & Pacific Avenue	Roundabout	AM	**-**	-	**-**	-
			PM	11.7	B	12.3	B
6	Pacific Avenue & Laurel Street	Signal	AM	**-**	-	**-**	-
			PM	**59.0**	E	**59.3**	E
7	Front Street & Soquel Avenue	Signal	AM	**-**	-	**-**	-
			PM	**57.0**	E	**58.7**	E

Notes:
BOLD indicates a substandard level of service.

Planned Improvements

The Downtown Plan Amendments EIR identified several roadway improvements for which the costs would be covered by anticipated future development projects. The 130 Front Street's fair share payment was calculated based on its cumulative traffic added to the study intersections.

The recommended improvements under cumulative conditions are described below. The resulting cumulative plus project level of service analysis is shown in Table 7.

Table 7
Cumulative Intersection Levels of Service with Improvements

#	Intersection	Control	Peak Hour	Cumulative no Project Conditions Avg. Delay (sec)	Cumulative no Project Conditions LOS	Cumulative Plus Project Conditions Avg. Delay (sec)	Cumulative Plus Project Conditions LOS	Cumulative Plus Project Conditions with Improvements Avg. Delay (sec)	Cumulative Plus Project Conditions with Improvements LOS
1	Center Street & Laurel Street	Signal	AM	-	-	-	-	-	-
			PM	35.0	D	37.4	D	-	-
2	Chestnut Street & Laurel Street	Signal	AM	-	-	-	-	-	-
			PM	49.3	D	50.5	D	-	-
3	California Street & Laurel Street	Signal	AM	-	-	-	-	-	-
			PM	39.7	D	40.9	D	-	-
4	Front Street & Laurel Street	Signal	AM	-	-	-	-	-	-
			PM	**63.0**	E	**63.7**	E	47.1	D
5	Center Street/West Cliff Drive & Pacific Avenue	Roundabout	AM	-	-	-	-	-	-
			PM	11.7	B	12.3	B	-	-
6	Pacific Avenue & Laurel Street	Signal	AM	-	-	-	-	-	-
			PM	**59.0**	E	**59.3**	E	45.1	D
7	Front Street & Soquel Avenue	Signal	AM	-	-	-	-	-	-
			PM	**57.0**	E	**58.7**	E	53.8	D

Notes:
BOLD indicates a substandard level of service.

Front Street and Laurel Street

Improvement: Intersection operations would be improved by converting the westbound right-turn lane into a shared through-right lane. The west leg would be widened to provide a receiving lane between Pacific Avenue and Front Street, relocating sidewalk, utilities, and landscaping. A right-turn overlap phase would be provided for the northbound and southbound approaches.

The cost for the construction of this improvement is estimated to be $599,000 based on the 508 Front Street TIA study. With this improvement, the intersection would operate at an acceptable LOS D during the PM peak hour.

Pacific Avenue and Laurel Street

Improvement: Intersection operations would be improved by the construction of a southbound left-turn lane and removing the existing landscaped median.

The engineering cost for the construction of this improvement is estimated to be approximately $313,000 based on the 508 Front Street TIA study. With this improvement, the intersection would operate at an acceptable LOS D during the PM peak hour.

Front Street and Soquel Avenue

Improvement: Intersection operations would be improved by adding a second westbound left-turn lane. The centerline median would be shifted south, and the east leg would be reduced to one through lane between Front Street and River Street. The westbound shared through-left lane would be converted into a through lane. The signal timing and phasing would be optimized.

The cost for the construction of this improvement is estimated to be $599,000 based on the 508 Front Street TIA study. With this improvement, the intersection would operate at an acceptable LOS D during the PM peak hour.

Front Street Improvements

The 130 Center Street project would add traffic to Front Street. Santa Cruz plans to improve the operation of Front Street by implementing a continuous two-way left-turn lane (TWLTL). The TWLTL would extend from Soquel Avenue to Laurel Street. With the implementation of this continuous two-way left-turn lane, on-street parking on both sides of the street would be eliminated. Continuous Class bike lanes and Class II buffered bike lanes would be provided with the restriping of Front Street.

The cost to construct these improvements is estimated to be $169,000 based on the 508 Front Street TIA study.

The project's fair share is estimated to be 21.44%. This is based on the 80 PM peak hour project trips divided by the Downtown Plan Amendments' 293 PM peak hour net new trips plus the project's PM peak hour net new trips (80/373 = 21.44%).

6. Other Transportation Issues

This chapter presents other transportation issues associated with the project. These include an analysis of:

- Potential impacts to pedestrians, bicycles, and transit services
- Site access and on-site circulation
- Queuing Analysis
- Parking

Queuing Analysis

The analysis of intersection levels of service was supplemented with a vehicle queuing analysis for left-turn lanes at intersections where the project would add more than 10 left-turn movements (See Table 8). This analysis provides a basis for estimating future storage requirements at the intersections under existing plus project conditions. The intersection queuing analysis was conducted using SYNCHRO traffic analysis software. Along with providing overall control delay and level of service for the intersection, SYNCHRO provides total movement delay and 95th-percentile vehicle queues for each movement., described in Chapter 1. The following movements were selected for evaluation:

- Center Street and Laurel Street – Northbound left turn

Center Street and Laurel Street

The estimated 95th percentile queues for the northbound left-turn currently provides adequate storage capacity under existing plus project conditions. The existing left-turn lane provides 75 feet of queue storage. The project would increase the 95th percentile queue for the northbound left turn lane by 25 feet or 1 vehicle.

Table 8
Queuing Analysis

Intersection	Movement	Peak Period	Storage Length (ft)	Existing 95th Percentile Queue (feet)[1 2 3]	Existing Plus Project 95th Percentile Queue (feet)[1 2 3]	Existing Plus Project Estimated Increase in 95th Percentile Queue (feet)
Center Street and Laurel Street	NB LT	AM	75	50	75	25
		PM	75	50	50	0

Notes:
NB = northbound.
LT = left turn movement.
[1] Based on 95th percentile queue reported by Synchro software using the HCM methodology.
[2] Queue lengths rounded up to nearest 25 feet.
[3] 25 feet per vehicle queued.

Site Access and On-Site Circulation

A review of the project site plan was performed to determine whether adequate site access and onsite circulation would be provided, using commonly accepted transportation planning principles and traffic engineering standards. This review was based on the site plan prepared by Swenson dated February 5, 2021, shown on Figure 2.

Site Access

Vehicle site access was evaluated to determine the adequacy of the site driveway with regard to stopping sight distance and traffic volumes. The project generated traffic would access the site via a proposed full-access driveway on Center Street approximately 500 feet north of Pacific Avenue. According to the Santa Cruz Municipal Code, the full-access driveway shall be no less than twenty feet in width. According to the site plan, the full-access driveway would have a width of approximately 28 feet, which meets the City's standard.

Project Driveway Access

An analysis of the southbound left turn at the project driveway was conducted to determine if the project would cause any operational issues. The project driveway would be on Center Street approximately 500 feet north of Pacific Avenue. Center Street is a two-way north-south street with one lane in each direction at the project driveway. Center Street does not have a left turn lane for the southbound direction for vehicles turning left into the project site. Thus, vehicles turning left would have to stop in the southbound though lane and wait for a gap in the opposing traffic. As shown in Table 4, there would be 12 inbound and 56 outbound trips at the full-access driveway during the AM peak hour, and 53 inbound and 25 outbound trips during the PM peak hour. Of the inbound traffic in both peak hours, 7 vehicles would make left turns during the AM peak hour, and 30 vehicles would make left turns during the PM peak hour.

The time between arrivals was compared to the critical gap and follow-up times to determine the number of vehicles that could successfully complete the southbound left-turn movement during the AM and PM peak hours. According to the Highway Capacity Manual, the minimum gap time required for a vehicle to turn left from Center Street into the project driveway is 4.1 seconds. Subsequent vehicles attempting to make a left turn would require 2.2 seconds in follow-up time in addition to minimum gap of 4.1 seconds. Based on the analysis of southbound left turns, there are sufficient gaps to accommodate

up to 1446 and 1398 southbound left turns during the AM and PM peak hours, respectively. Thus, the modest project traffic volume would not face any delays in getting into and out of the garage. The driveway queuing analysis is included in Appendix A.

A vehicle queuing analysis for the southbound left-turn movement into the project driveway was also conducted. The estimated 95th percentile queue for the vehicles turning left from southbound Center Street into the project driveway was calculated to be no more than one vehicle in the AM and PM peak hours.

Sight Distance

The proposed project driveway should be free and clear of any obstructions to optimize sight distance. Providing the appropriate sight distance reduces the likelihood of a collision at the driveway and provides drivers with the ability to locate sufficient gaps in traffic and exit the site. Center Street is straight, and there are no landscaping features shown on the site plan that would affect sight distance. However, on-street parking is allowed on Center Street, which could block vision. It is recommended that 15 feet of red curb be painted on both sides of the driveway.

On-site Circulation

On-site circulation was reviewed in accordance with generally accepted traffic engineering standards. The project would have a full-access driveway on Center Street that leads into the parking garage. The entrance driveway would split with part leading into the at-grade parking area and part leading to the underground garage. However, vehicles would not be able to turn sharply enough to access the at-grade parking from the driveway. Therefore, Hexagon recommends that the entrance to the parking garage be relocated or provide a second driveway that aligns with the at-grade parking area.

The parking garage has an at-grade level and an underground level. Within the parking garage, there would be a drive aisle that leads to the parking spaces. The drive aisle width is shown to be approximately 24 feet. The width of the drive aisle would provide sufficient space for vehicles to back out of the parking stalls. The site plan shows no dead-end parking aisles.

Access to the underground parking garage would be provided via a ramp. According to the site plan, the ramp would have a 20% slope with a 10% transition slope. The slope of the parking garage ramp would provide access for motor vehicles entering and existing the underground garage. However, the garage ramp would be too steep for bicycles, and the use of stairwells for bicycles would be awkward. While the elevator is the preferred access path and is accessible at the front entrance, Hexagon recommends that all of the long-term bicycle parking be relocated to the ground floor.

There would be a bike café located within the garage at ground level. The bike café would be for tenants to store and work on their bicycles.

The project was checked relative to the City's loading space requirements. According to the Santa Cruz Municipal Code, off-street loading areas shall be provided for retail uses with 10,000 square feet or more. For retail uses with 10,000 to 24,999 square feet, 1 loading space shall be provided. The project proposes 2,618 square feet of retail use. Since the total commercial use would be less than 10,000 square feet, no loading space is required. For the residential units, loading spaces are not required. However, parking spaces are currently provided in front of the site. Residents could use the parking spaces in front of the site near the lobby/leasing area for unloading/loading.

Potential Impacts to Pedestrians, Bicycles, and Transit

The existing network of sidewalks and crosswalks in the immediate vicinity of the project site provides good connectivity and provides pedestrians with safe routes to various points of interest in the study area, including nearby bus stops along Pacific Avenue and Laurel Street. In the project vicinity,

sidewalks are provided along the project's frontage on Center Street. The project would retain the existing driveway along Center Street. However, the site plan may require a second driveway that aligns with the entrance to the parking garage. Therefore, the project could have a detrimental impact on pedestrian circulation by having two driveways where currently there is only one driveway.

The site has very good bicycle access. As described in Chapter 2, bike lanes are provided along all the study streets. Based on the site plan, the project would provide bicycle parking on the ground floor and the underground floor.

The project site is currently well-served by bus transit. There are five local bus lines (Route 3, 16, 19, 20 and 42) that serve the immediate project area. The bus stops closest to the project site are on Pacific Avenue. The bus routes run throughout the day with 60-minute headways. The bus services have ample capacity to accommodate the ridership that would be generated by the project.

Parking

Vehicle Parking

Parking provided on the site was evaluated based on the City of Santa Cruz parking standards. According to the Santa Cruz Municipal Code, the parking requirement for single-room occupancy units under 300 square feet is 0.75 parking space per unit and single-occupancy units over 300 square feet is 1 parking space per unit. However, according to the State Density Bonus Law and the Santa Cruz Municipal Code, if a development includes the maximum percentage of low-income or very low income units required for a 50% density bonus and is located within ½ mile of a major transit stop and there is unobstructed access to major transit stop, then the city shall not impose a vehicular parking ratio that exceeds 0.5 spaces per bedroom. A development has unobstructed access to a major transit stop if a resident is able to access the major transit stop without encountering natural or constructed impediments.

The proposed would provide 23 very-low income units and 8 moderate income units, which is 15 percent of the units that are permitted under the City's zoning. This is the percentage of very-low income units necessary to achieve a maximum density bonus. In addition, the development is located within on-half mile of a transit stop and has unobstructed access to the major stop. Thus, the density bonus law's reduced parking ratios apply to the project development.

The project proposes 233 single-room occupancy units. Therefore, under the density bonus, the project is required to provide a minimum of 117 on-site residential parking spaces.

The project also proposes retail uses on the site. The project proposes to construct 2,618 square feet of retail use. The vehicle requirement for retail uses is 1 parking space per 120 square feet of floor area. Since the floor area of the retail use is approximately 2,225 square feet, the project is required to provide a minimum of 19 parking spaces for retail uses. Thus, the total required parking is 136 spaces.

The project is proposing 209 spaces, which meets the requirement. The project proposes to install stacked parking systems, a three-level puzzle lift, in the basement level of the parking garage. It is assumed that the stacked parking systems would only be used for residential parking. The standard parking spaces would be used by the employees of the retail use and guests.

The City of Santa Cruz parking standards also require that electric vehicle parking be made available for residential and retail uses. The electric vehicle parking requirement for multifamily residential use is 12% of the total parking. The electric vehicle parking requirement for nonresidential uses is 1 parking space if 10-25 parking spaces are provided. Therefore, the project must provide 25 electric parking spaces for residential use and 1 electric parking space for retail use, which totals 26 electric parking spaces. The project proposes 139 electric vehicle parking spaces, which meets the standard.

Bicycle Parking

According to the Santa Cruz Municipal Code, bicycle parking facilities are required for new buildings, additions or enlargements of an existing building, or for any change in the occupancy, except when the project property is located within Parking District #1. Since the project is not located within Parking District #1, bicycle parking facilities are required. The bicycle parking requirement for a multifamily residential use is 1 space per unit with all of the bicycle spaces being long-term bicycle spaces. Thus, the bicycle parking requirement is 233 spaces. The bicycle parking requirement for a retail use is 2 spaces plus 15 percent of the automobile parking for that land use, which calculates to 5 bicycle parking spaces. Therefore, the project would need to provide 238 long-term bicycle spaces. According to the site plan, the project proposes to provide 177 long-term bicycle spaces in the basement level, 51 long-term bicycle spaces on the ground floor, and 72 long-term bicycle spaces in the bike café, which adds up to 300 bicycle parking spaces, which exceeds the bicycle parking requirement. The residents could also keep their bicycles in their units. The project would also provide four short-term bicycle parking racks in front of the project site. Each bicycle rack could hold up to four bicycles. Therefore, the project would provide up to 16 short-term bicycle parking spaces. The short-term bicycle spaces would be provided for visitors and customers.

7. Conclusions

The potential impacts of the project were evaluated in accordance with the standards set forth by the City of Santa Cruz. The traffic study analyzed AM and PM peak-hour traffic conditions for seven intersections. Project impacts on site access, on-site circulation, and other transportation facilities, such as bicycle facilities and transit service, were determined on the basis of engineering judgment.

Vehicle Miles Traveled (VMT) Analysis

According to the City of Santa Cruz Transportation Study Guidelines for Development, retail development less than 50,000 square feet can be considered local-serving retail. The policy states that local-serving retail development would have a less-than-significant impact on VMT. The project proposes 2,618 square feet of retail use on the ground floor, so it is considered local-serving and would not have a VMT impact.

For the residential portion of the project, the VMT impact is determined by comparing against the VMT thresholds of significance as established in the City of Santa Cruz Transportation Study Guidelines for Development. The Santa Cruz VMT sketch tool is used to estimate the project VMT. The threshold of significance for residential uses is used for the VMT analysis. The VMT threshold for residential development is 8.7 daily VMT per capita.

The project VMT estimated by the sketch tool is 4.2 per capita. The project VMT would not exceed the threshold of 8.7 VMT per capita. The project is also located within ½ mile of a major transit stop. Therefore, the project's VMT impact is considered less than significant.

Project Trip Estimates

Through empirical research, data have been collected that quantify the amount of traffic produced by many types of land uses. The research is compiled in the Institute of Transportation Engineers' (ITE) manual entitled *Trip Generation, 10th Edition* (2017). The rates published for Multifamily Housing – Mid-Rise (Land Use 221) and Shopping Center (Land Use 820) were used to estimate the trips generated by the proposed residential units and retail square footage, respectively. Based on these rates, the proposed project would generate 1,367 daily trips with 86 trips during the AM peak hour and 113 trips during the PM peak hour.

Trips generated by the existing uses on the site can be credited against the proposed mixed-use development. The existing businesses' trip generation estimates are based on peak-hour driveway counts conducted in August 2020. Based on the driveway counts, it is estimated that the existing businesses are generating 255 daily trips with 18 trips during the AM peak hour and 33 trips during the

PM peak hour. The daily trips were estimated based on the average of both peak hour trips multiplied by a factor of 10.

After accounting for the trips generated by the existing businesses, the proposed mixed-use project is estimated to generate 1,112 new daily trips with a net increase of 68 trips in the AM peak hour and a net increase of 80 trips in the PM peak hour.

Intersection Levels of Service

Existing Plus Project Intersection Level of Service

The intersection level of service analysis results show that all study intersections would operate at acceptable levels of service during both AM and PM peak hours under existing plus project conditions. It should be noted that, at some study intersections, the average delay under project conditions is shown to be better than under no-project conditions. This occurs because the project would result in a reduction in traffic for several of the intersection movements.

Cumulative Intersection Levels of Service

The results of the level of service analysis under cumulative conditions show that the following intersections would operate under unacceptable level of service conditions during the PM peak hour, both with and without the project (see Table 6):

- Front Street & Laurel Street
- Pacific Avenue & Laurel Street
- Front Street & Soquel Avenue

The project would add traffic to these deficient intersections.

Planned Improvements

The Downtown Plan Amendments EIR has identified several roadway improvements for which the costs would be covered by anticipated future development projects. The 130 Front Street's fair share payment was calculated based on its cumulative traffic added to the study intersections.

Front Street and Laurel Street

Improvement: Intersection operations would be improved by converting the westbound right-turn lane into a shared through-right lane. The west leg would be widened to provide a receiving lane between Pacific Avenue and Front Street, relocating sidewalk, utilities, and landscaping. A right-turn overlap phase would be provided for the northbound and southbound approaches.

The cost for the construction of this improvement is estimated to be $599,000 based on the 508 Front Street TIA study. With this improvement, the intersection would operate at an acceptable LOS D during the PM peak hour.

Pacific Avenue and Laurel Street

Improvement: Intersection operations would be improved by the construction of a southbound left-turn lane and removing the existing landscaped median.

The engineering cost for the construction of this improvement is estimated to be approximately $313,000 based on the 508 Front Street TIA study. With this

improvement, the intersection would operate at an acceptable LOS D during the PM peak hour.

Front Street and Soquel Avenue

Improvement: Intersection operations would be improved by adding a second westbound left-turn lane. The centerline median would be shifted south, and the east leg would be reduced to one through lane between Front Street and River Street. The westbound shared through-left lane would be converted into a through lane. The signal timing and phasing would be optimized.

The cost for the construction of this improvement is estimated to be $599,000 based on the 508 Front Street TIA study. With this improvement, the intersection would operate at an acceptable LOS D during the PM peak hour.

Front Street Improvements

The 130 Center Street project would add traffic to Front Street. Santa Cruz plans to improve the operation of Front Street by implementing a continuous two-way left-turn lane (TWLTL). The TWLTL would extend from Soquel Avenue to Laurel Street. With the implementation of this continuous two-way left-turn lane, on-street parking on both sides of the street would be eliminated. Continuous Class bike lanes and Class II buffered bike lanes would be provided with the restriping of Front Street.

The cost to construct these improvements is estimated to be $169,000 based on the 508 Front Street TIA study.

The project's fair share is estimated to be 21.44%. This is based on the 80 PM peak hour project trips divided by the Downtown Plan Amendments' 293 PM peak hour net new trips plus the project's PM peak hour net new trips (80/373 = 21.44%).

Other Transportation Issues

Hexagon identified the following recommendations resulting off the site access and circulation and parking.

- Vehicles would not be able to turn sharply enough to access the at-grade parking from the driveway. Therefore, Hexagon recommends that the entrance to the parking garage be relocated or provide a second driveway that aligns with the at-grade parking area.
- The project would retain the existing driveway along Center Street. However, the site plan may require a second driveway that aligns with the entrance to the parking garage. Therefore, the project could have a detrimental impact on pedestrian circulation by having two driveways where currently there is only one driveway.
- Long-term bicycle parking should be relocated to the ground floor.

130 Center Street
Traffic impact Analysis

Technical Appendices

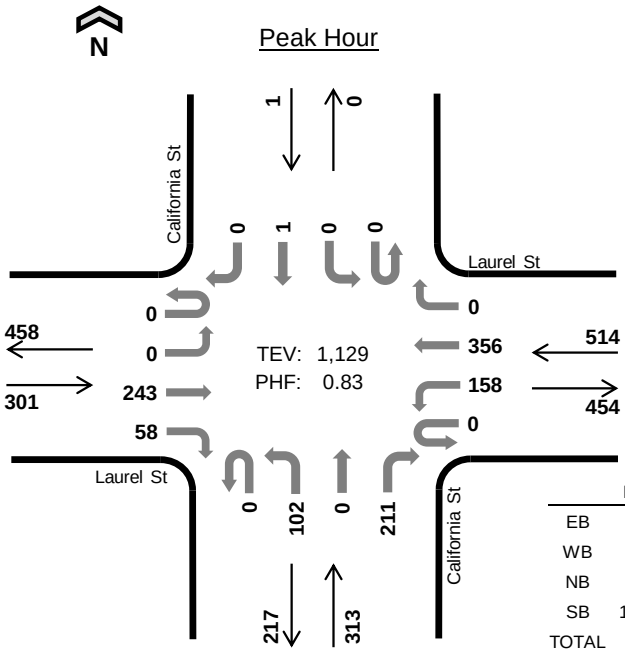
February 9, 2021

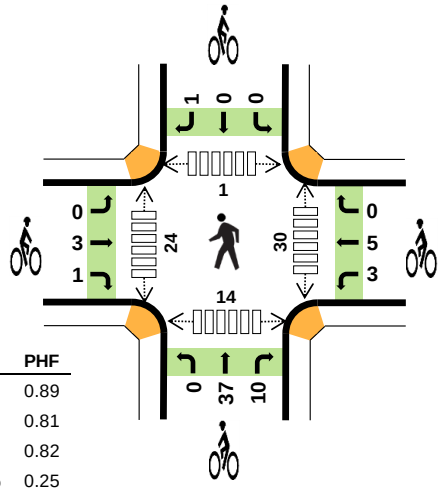
Appendix A

Traffic Counts

California St
Laurel St

Date: 11-19-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	4.0%	0.89
WB	2.9%	0.81
NB	0.3%	0.82
SB	100.0%	0.25
TOTAL	2.6%	0.83

Two-Hour Count Summaries

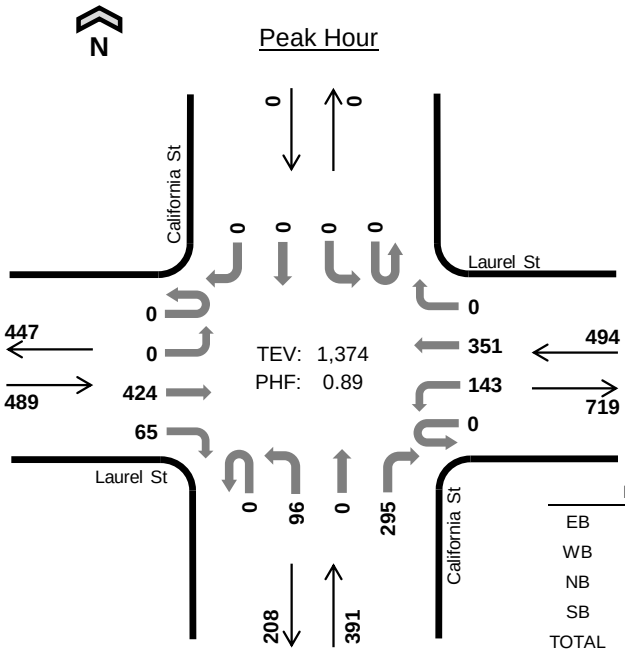
Interval Start		Laurel St Eastbound				Laurel St Westbound				California St Northbound				California St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	23	2	0	8	53	0	0	17	0	14	0	0	0	0	117	0
7:15 AM		0	0	26	10	0	8	52	0	0	19	0	23	0	0	0	0	138	0
7:30 AM		0	0	51	12	0	11	115	0	1	27	0	29	0	1	0	0	247	0
7:45 AM		**0**	**0**	**68**	**17**	**0**	**52**	**107**	**0**	**0**	**36**	**0**	**59**	**0**	**0**	**0**	**0**	**339**	841
8:00 AM		**0**	**0**	**61**	**17**	**0**	**44**	**85**	**0**	**0**	**17**	**0**	**35**	**0**	**0**	**0**	**0**	**259**	983
8:15 AM		**0**	**0**	**56**	**11**	**0**	**38**	**84**	**0**	**0**	**23**	**0**	**69**	**0**	**0**	**1**	**0**	**282**	1,127
8:30 AM		**0**	**0**	**58**	**13**	**0**	**24**	**80**	**0**	**0**	**26**	**0**	**48**	**0**	**0**	**0**	**0**	**249**	**1,129**
8:45 AM		0	0	56	20	0	31	79	0	0	26	0	58	0	0	0	0	270	1,060
Count Total		0	0	399	102	0	216	655	0	1	191	0	335	0	1	1	0	1,901	0
Peak Hour	**All**	**0**	**0**	**243**	**58**	**0**	**158**	**356**	**0**	**0**	**102**	**0**	**211**	**0**	**0**	**1**	**0**	**1,129**	**0**
	HV	**0**	**0**	**12**	**0**	**0**	**1**	**14**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**29**	**0**
	HV%	**-**	**-**	**5%**	**0%**	**-**	**1%**	**4%**	**-**	**-**	**1%**	**-**	**0%**	**-**	**-**	**100%**	**-**	**3%**	**0**

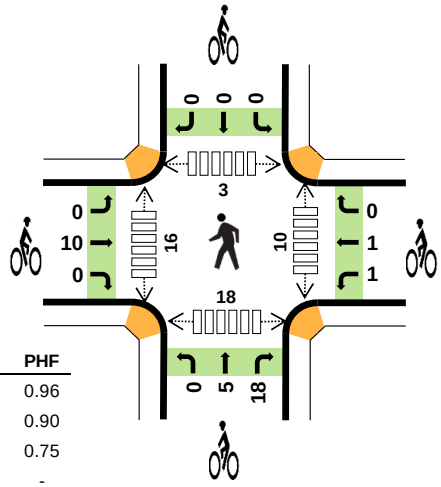
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	4	0	0	*5*	1	0	3	0	*4*	3	1	2	3	*9*
7:15 AM	3	2	0	0	*5*	0	3	1	0	*4*	3	2	0	2	*7*
7:30 AM	3	4	2	0	*9*	1	2	8	0	*11*	7	7	0	4	*18*
7:45 AM	**3**	**4**	**1**	**0**	***8***	**0**	**0**	**33**	**0**	***33***	**23**	**19**	**0**	**2**	*44*
8:00 AM	**2**	**4**	**0**	**0**	***6***	**1**	**1**	**4**	**0**	***6***	**1**	**0**	**0**	**7**	*8*
8:15 AM	**4**	**3**	**0**	**1**	***8***	**0**	**4**	**5**	**1**	***10***	**4**	**3**	**0**	**2**	*9*
8:30 AM	**3**	**4**	**0**	**0**	***7***	**3**	**3**	**5**	**0**	***11***	**2**	**2**	**1**	**3**	***8***
8:45 AM	4	7	0	0	*11*	1	5	5	0	*11*	3	1	0	3	*7*
Count Total	23	32	3	1	*59*	7	18	64	1	*90*	46	35	3	26	*110*
Peak Hour	**12**	**15**	**1**	**1**	***29***	**4**	**8**	**47**	**1**	***60***	**30**	**24**	**1**	**14**	***69***

California St
Laurel St

Date: 11-19-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	1.6%	0.96
WB	1.6%	0.90
NB	0.8%	0.75
SB	-	-
TOTAL	1.4%	0.89

Two-Hour Count Summaries

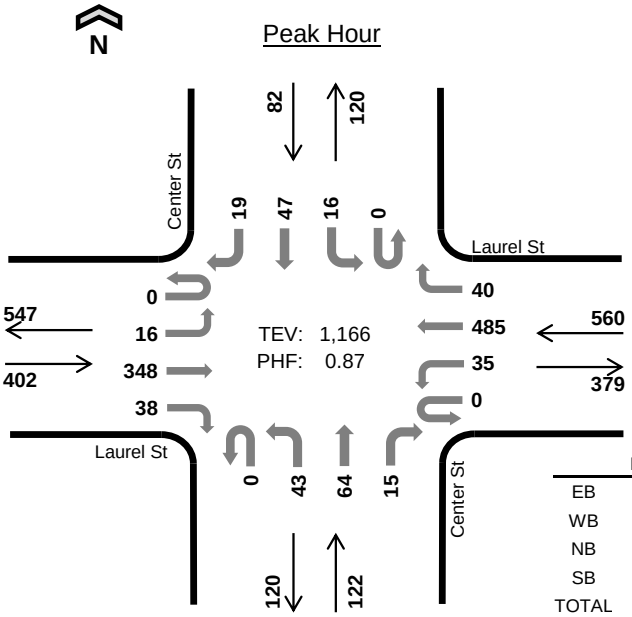
Interval Start		Laurel St Eastbound				Laurel St Westbound				California St Northbound				California St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	103	11	0	31	63	0	0	18	0	64	0	0	0	0	290	0
4:15 PM		0	0	87	20	0	22	72	0	0	20	0	47	0	0	0	0	268	0
4:30 PM		0	0	105	10	0	36	80	0	0	18	0	63	0	0	0	0	312	0
4:45 PM		**0**	**0**	**101**	**21**	**0**	**34**	**99**	**0**	**0**	**19**	**0**	**52**	**0**	**0**	**0**	**0**	**326**	1,196
5:00 PM		**0**	**0**	**114**	**13**	**0**	**29**	**88**	**0**	**0**	**21**	**0**	**60**	**0**	**0**	**0**	**0**	**325**	1,231
5:15 PM		**0**	**0**	**100**	**18**	**0**	**46**	**91**	**0**	**0**	**28**	**0**	**103**	**0**	**0**	**0**	**0**	**386**	1,349
5:30 PM		**0**	**0**	**109**	**13**	**0**	**34**	**73**	**0**	**0**	**28**	**0**	**80**	**0**	**0**	**0**	**0**	**337**	**1,374**
5:45 PM		0	0	98	19	0	29	68	0	0	33	0	71	0	0	0	0	318	1,366
Count Total		0	0	817	125	0	261	634	0	0	185	0	540	0	0	0	0	2,562	0
Peak Hour	**All**	**0**	**0**	**424**	**65**	**0**	**143**	**351**	**0**	**0**	**96**	**0**	**295**	**0**	**0**	**0**	**0**	**1,374**	**0**
	HV	**0**	**0**	**8**	**0**	**0**	**0**	**8**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**19**	**0**
	HV%	**-**	**-**	**2%**	**0%**	**-**	**0%**	**2%**	**-**	**-**	**2%**	**-**	**0%**	**-**	**-**	**-**	**-**	**1%**	**0**

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

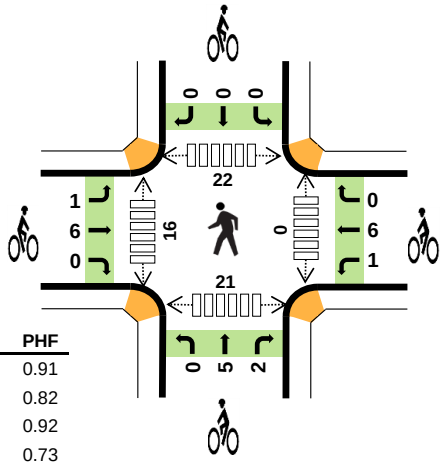
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	5	5	0	0	*10*	5	1	2	0	*8*	4	5	0	3	*12*
4:15 PM	4	3	1	0	*8*	1	0	5	0	*6*	4	3	1	4	*12*
4:30 PM	2	3	1	0	*6*	4	3	2	0	*9*	3	8	1	3	*15*
4:45 PM	**2**	**3**	**1**	**0**	***6***	**2**	**1**	**4**	**0**	***7***	**2**	**3**	**0**	**1**	*6*
5:00 PM	**2**	**2**	**0**	**0**	***4***	**2**	**0**	**4**	**0**	***6***	**5**	**3**	**0**	**7**	*15*
5:15 PM	**1**	**2**	**1**	**0**	***4***	**1**	**0**	**4**	**0**	***5***	**1**	**6**	**0**	**8**	*15*
5:30 PM	**3**	**1**	**1**	**0**	***5***	**5**	**1**	**11**	**0**	***17***	**2**	**4**	**3**	**2**	***11***
5:45 PM	5	2	0	0	*7*	3	2	2	0	*7*	2	6	3	1	*12*
Count Total	24	21	5	0	*50*	23	8	34	0	*65*	23	38	8	29	*98*
Peak Hour	**8**	**8**	**3**	**0**	***19***	**10**	**2**	**23**	**0**	***35***	**10**	**16**	**3**	**18**	***47***

Center St
Laurel St

Date: 11-20-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	2.7%	0.91
WB	2.9%	0.82
NB	0.8%	0.92
SB	1.2%	0.73
TOTAL	2.5%	0.87



Two-Hour Count Summaries

Interval Start	Laurel St Eastbound				Laurel St Westbound				Center St Northbound				Center 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	46	4	0	4	56	3	0	10	9	1	0	2	8	1	146	0
7:15 AM	0	3	47	13	0	3	75	12	0	6	4	2	0	4	10	2	181	0
7:30 AM	0	0	63	15	0	6	101	8	0	11	11	2	0	5	11	5	238	0
7:45 AM	**0**	**5**	**90**	**16**	**0**	**12**	**144**	**15**	**0**	**8**	**16**	**2**	**0**	**3**	**15**	**8**	**334**	899
8:00 AM	**0**	**3**	**79**	**13**	**0**	**9**	**100**	**10**	**0**	**11**	**17**	**5**	**0**	**5**	**15**	**8**	**275**	1,028
8:15 AM	**0**	**2**	**95**	**5**	**0**	**10**	**95**	**6**	**0**	**12**	**15**	**6**	**0**	**3**	**11**	**2**	**262**	1,109
8:30 AM	**0**	**6**	**84**	**4**	**0**	**4**	**146**	**9**	**0**	**12**	**16**	**2**	**0**	**5**	**6**	**1**	**295**	**1,166**
8:45 AM	0	5	96	10	0	4	131	9	0	10	16	4	0	1	13	5	304	1,136
Count Total	0	26	600	80	0	52	848	72	0	80	104	24	0	28	89	32	2,035	0
Peak Hour All	**0**	**16**	**348**	**38**	**0**	**35**	**485**	**40**	**0**	**43**	**64**	**15**	**0**	**16**	**47**	**19**	**1,166**	**0**
Peak Hour HV	**0**	**0**	**10**	**1**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**29**	**0**
Peak Hour HV%	**-**	**0%**	**3%**	**3%**	**-**	**0%**	**3%**	**0%**	**-**	**0%**	**0%**	**7%**	**-**	**0%**	**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
7:00 AM	3	3	0	0	*6*	1	0	0	0	*1*	1	2	7	5	*15*
7:15 AM	3	3	1	1	*8*	2	2	1	0	*5*	0	0	6	2	*8*
7:30 AM	3	2	0	0	*5*	5	3	0	1	*9*	0	3	9	2	*14*
7:45 AM	**2**	**4**	**0**	**0**	***6***	**1**	**4**	**3**	**0**	***8***	**0**	**1**	**5**	**6**	*12*
8:00 AM	**3**	**5**	**0**	**1**	***9***	**1**	**1**	**3**	**0**	***5***	**0**	**9**	**4**	**2**	*15*
8:15 AM	**4**	**5**	**1**	**0**	***10***	**3**	**1**	**1**	**0**	***5***	**0**	**3**	**2**	**6**	*11*
8:30 AM	**2**	**2**	**0**	**0**	***4***	**2**	**1**	**0**	**0**	***3***	**0**	**3**	**11**	**7**	***21***
8:45 AM	3	6	2	0	*11*	8	5	5	1	*19*	1	4	8	4	*17*
Count Total	23	30	4	2	*59*	23	17	13	2	*55*	2	25	52	34	*113*
Peak Hour	**11**	**16**	**1**	**1**	***29***	**7**	**7**	**7**	**0**	***21***	**0**	**16**	**22**	**21**	***59***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Laurel St Eastbound				Laurel St Westbound				Center St Northbound				Center 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	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0
7:15 AM	0	0	3	0	0	0	3	0	0	1	0	0	0	0	1	0	8	0
7:30 AM	0	0	3	0	0	0	1	1	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**	**6**	25
8:00 AM	**0**	**0**	**3**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**9**	28
8:15 AM	**0**	**0**	**3**	**1**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**10**	30
8:30 AM	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**29**
8:45 AM	0	1	2	0	0	0	6	0	0	2	0	0	0	0	0	0	11	34
Count Total	0	1	21	1	0	0	29	1	0	3	0	1	0	0	2	0	59	0
Peak Hour	**0**	**0**	**10**	**1**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**29**	**0**

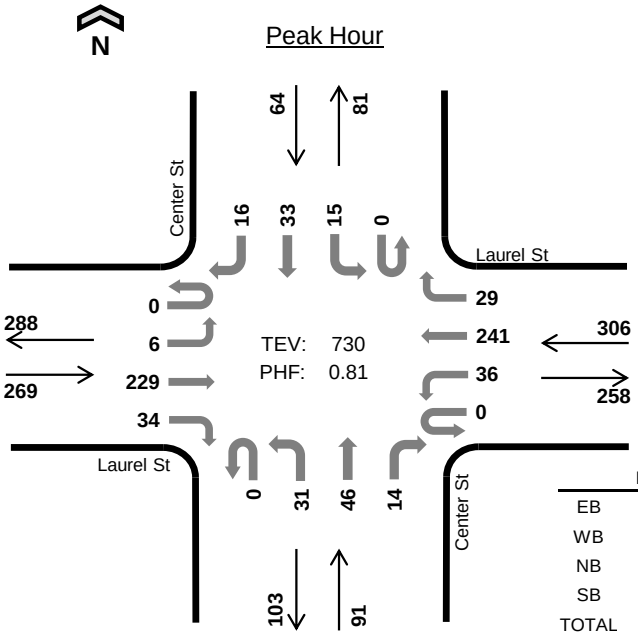
Two-Hour Count Summaries - Bikes

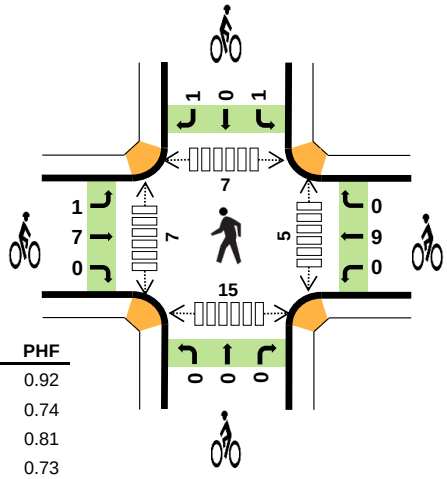
Interval Start	Laurel St Eastbound			Laurel St Westbound			Center St Northbound			Center St Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	2	0	0	2	0	0	1	0	0	0	0	5	0
7:30 AM	0	5	0	0	2	1	0	0	0	0	1	0	9	0
7:45 AM	**0**	**1**	**0**	**1**	**3**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**8**	23
8:00 AM	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**5**	27
8:15 AM	**0**	**3**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**5**	27
8:30 AM	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**21**
8:45 AM	0	8	0	0	5	0	1	2	2	0	1	0	19	32
Count Total	1	22	0	1	15	1	1	8	4	0	2	0	55	0
Peak Hour	**1**	**6**	**0**	**1**	**6**	**0**	**0**	**5**	**2**	**0**	**0**	**0**	**21**	**0**

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

Center St
Laurel St

Date: 08/18/2020
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV %:	PHF
EB	4.5%	0.92
WB	5.2%	0.74
NB	2.2%	0.81
SB	1.6%	0.73
TOTAL	4.2%	0.81

Two-Hour Count Summaries

Interval Start		Laurel St Eastbound				Laurel St Westbound				Center St Northbound				Center 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	0	17	7	0	3	22	2	0	3	4	2	0	0	8	0	68	0
7:15 AM		0	0	27	7	0	4	27	4	0	3	2	5	0	2	1	2	84	0
7:30 AM		0	1	49	11	0	3	48	4	0	1	4	2	0	1	7	2	133	0
7:45 AM		0	4	42	9	0	3	59	9	0	7	4	5	0	2	12	1	157	442
8:00 AM		**0**	**1**	**60**	**8**	**0**	**4**	**40**	**12**	**0**	**6**	**15**	**7**	**0**	**5**	**3**	**1**	**162**	536
8:15 AM		**0**	**1**	**59**	**9**	**0**	**7**	**57**	**6**	**0**	**7**	**7**	**2**	**0**	**2**	**9**	**3**	**169**	621
8:30 AM		**0**	**0**	**51**	**7**	**0**	**9**	**59**	**8**	**0**	**6**	**10**	**3**	**0**	**6**	**9**	**7**	**175**	663
8:45 AM		**0**	**4**	**59**	**10**	**0**	**16**	**85**	**3**	**0**	**12**	**14**	**2**	**0**	**2**	**12**	**5**	**224**	**730**
Count Total		0	11	364	68	0	49	397	48	0	45	60	28	0	20	61	21	1,172	0
Peak Hour	**All**	**0**	**6**	**229**	**34**	**0**	**36**	**241**	**29**	**0**	**31**	**46**	**14**	**0**	**15**	**33**	**16**	**730**	**0**
	HV	**0**	**0**	**11**	**1**	**0**	**1**	**15**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**31**	**0**
	HV%	**-**	**0%**	**5%**	**3%**	**-**	**3%**	**6%**	**0%**	**-**	**0%**	**4%**	**0%**	**-**	**0%**	**3%**	**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*	2	0	0	0	*2*	0	3	2	4	*9*
7:15 AM	4	2	0	1	*7*	1	5	0	0	*6*	0	0	7	4	*11*
7:30 AM	0	7	0	1	*8*	1	2	0	0	*3*	1	0	5	3	*9*
7:45 AM	1	2	0	0	*3*	2	2	0	0	*4*	2	4	0	5	*11*
8:00 AM	**1**	**4**	**1**	**0**	***6***	**1**	**4**	**0**	**1**	***6***	**2**	**4**	**0**	**6**	*12*
8:15 AM	**2**	**4**	**0**	**0**	***6***	**2**	**1**	**0**	**0**	***3***	**0**	**0**	**0**	**4**	*4*
8:30 AM	**5**	**6**	**0**	**0**	***11***	**0**	**3**	**0**	**0**	***3***	**2**	**2**	**4**	**2**	*10*
8:45 AM	**4**	**2**	**1**	**1**	***8***	**5**	**1**	**0**	**1**	***7***	**1**	**1**	**3**	**3**	***8***
Count Total	17	27	3	3	*50*	14	18	0	2	*34*	8	14	21	31	*74*
Peak Hour	**12**	**16**	**2**	**1**	***31***	**8**	**9**	**0**	**2**	***19***	**5**	**7**	**7**	**15**	***34***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Laurel St Eastbound				Laurel St Westbound				Center St Northbound				Center 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	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:15 AM	0	0	3	1	0	0	2	0	0	0	0	0	0	0	0	1	7	0
7:30 AM	0	0	0	0	0	0	7	0	0	0	0	0	0	0	1	0	8	0
7:45 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	19
8:00 AM	**0**	**0**	**0**	**1**	**0**	**0**	**4**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**6**	24
8:15 AM	**0**	**0**	**2**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	23
8:30 AM	**0**	**0**	**5**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	26
8:45 AM	**0**	**0**	**4**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**8**	**31**
Count Total	0	0	15	2	0	1	26	0	0	0	3	0	0	0	2	1	50	0
Peak Hour	**0**	**0**	**11**	**1**	**0**	**1**	**15**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**31**	**0**

Two-Hour Count Summaries - Bikes

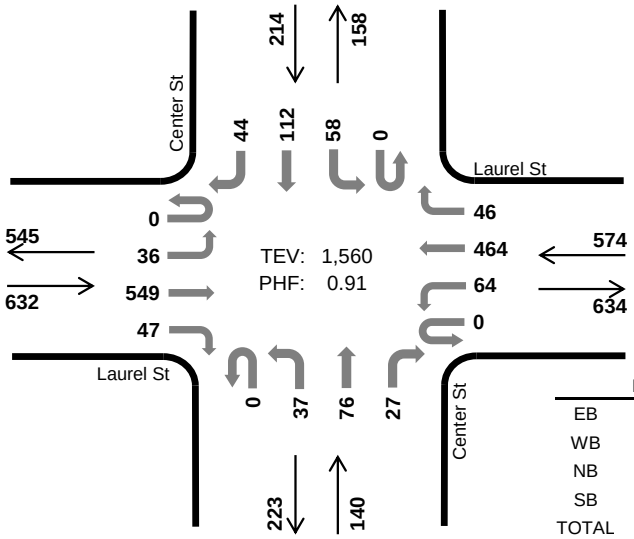
Interval Start	Laurel St Eastbound			Laurel St Westbound			Center St Northbound			Center St Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	2	0
7:15 AM	0	1	0	0	5	0	0	0	0	0	0	0	6	0
7:30 AM	1	0	0	0	2	0	0	0	0	0	0	0	3	0
7:45 AM	0	2	0	0	2	0	0	0	0	0	0	0	4	15
8:00 AM	**1**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**6**	19
8:15 AM	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	16
8:30 AM	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	16
8:45 AM	**0**	**5**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**7**	**19**
Count Total	2	12	0	0	18	0	0	0	0	1	0	1	34	0
Peak Hour	**1**	**7**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**19**	**0**

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

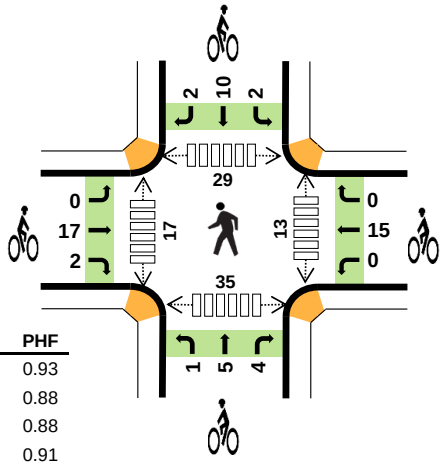
Center St
Laurel St

Date: 11-20-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM

Peak Hour



	HV %:	PHF
EB	2.5%	0.93
WB	1.7%	0.88
NB	0.7%	0.88
SB	0.0%	0.91
TOTAL	1.7%	0.91



Two-Hour Count Summaries

Interval Start		Laurel St Eastbound				Laurel St Westbound				Center St Northbound				Center 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	9	147	10	0	18	107	9	0	11	19	9	0	13	32	6	390	0
4:15 PM		**0**	**7**	**157**	**6**	**0**	**8**	**106**	**10**	**0**	**8**	**19**	**6**	**0**	**9**	**31**	**8**	**375**	0
4:30 PM		**0**	**10**	**121**	**13**	**0**	**17**	**110**	**13**	**0**	**12**	**18**	**7**	**0**	**15**	**30**	**11**	**377**	0
4:45 PM		**0**	**10**	**130**	**14**	**0**	**20**	**116**	**10**	**0**	**7**	**15**	**8**	**0**	**12**	**28**	**11**	**381**	1,523
5:00 PM		**0**	**9**	**141**	**14**	**0**	**19**	**132**	**13**	**0**	**10**	**24**	**6**	**0**	**22**	**23**	**14**	**427**	**1,560**
5:15 PM		0	6	122	11	0	16	109	10	0	13	27	17	0	12	18	12	373	1,558
5:30 PM		0	8	142	5	0	10	88	6	0	14	7	6	0	13	9	6	314	1,495
5:45 PM		0	4	148	12	0	11	96	9	0	20	10	6	0	12	20	6	354	1,468
Count Total		0	63	1,108	85	0	119	864	80	0	95	139	65	0	108	191	74	2,991	0
Peak Hour	**All**	**0**	**36**	**549**	**47**	**0**	**64**	**464**	**46**	**0**	**37**	**76**	**27**	**0**	**58**	**112**	**44**	**1,560**	**0**
	HV	**0**	**0**	**15**	**1**	**0**	**0**	**10**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**27**	**0**
	HV%	**-**	**0%**	**3%**	**2%**	**-**	**0%**	**2%**	**0%**	**-**	**3%**	**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	3	0	0	*4*	5	4	1	1	*11*	5	1	10	12	*28*
4:15 PM	**5**	**1**	**0**	**0**	***6***	**6**	**3**	**2**	**4**	***15***	**2**	**2**	**7**	**9**	*20*
4:30 PM	**3**	**4**	**0**	**0**	***7***	**4**	**5**	**0**	**3**	***12***	**5**	**3**	**9**	**14**	*31*
4:45 PM	**2**	**3**	**0**	**0**	***5***	**5**	**1**	**3**	**3**	***12***	**2**	**2**	**8**	**7**	*19*
5:00 PM	**6**	**2**	**1**	**0**	***9***	**4**	**6**	**5**	**4**	***19***	**4**	**10**	**5**	**5**	***24***
5:15 PM	2	3	0	0	*5*	7	6	1	5	*19*	5	4	12	13	*34*
5:30 PM	2	2	0	0	*4*	7	1	1	2	*11*	2	1	8	9	*20*
5:45 PM	4	2	0	0	*6*	6	2	1	0	*9*	2	3	9	7	*21*
Count Total	25	20	1	0	*46*	44	28	14	22	*108*	27	26	68	76	*197*
Peak Hour	**16**	**10**	**1**	**0**	***27***	**19**	**15**	**10**	**14**	***58***	**13**	**17**	**29**	**35**	***94***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Laurel St Eastbound				Laurel St Westbound				Center St Northbound				Center 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	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	0
4:15 PM	**0**	**0**	**5**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	0
4:30 PM	**0**	**0**	**3**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	0
4:45 PM	**0**	**0**	**2**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	22
5:00 PM	**0**	**0**	**5**	**1**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**27**
5:15 PM	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	5	26
5:30 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	23
5:45 PM	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	6	24
Count Total	0	0	24	1	0	0	20	0	0	1	0	0	0	0	0	0	46	0
Peak Hour	**0**	**0**	**15**	**1**	**0**	**0**	**10**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**27**	**0**

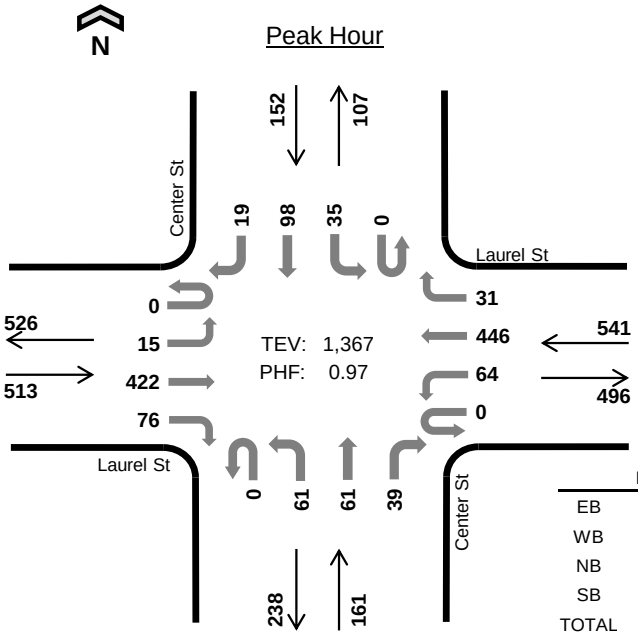
Two-Hour Count Summaries - Bikes

Interval Start	Laurel St Eastbound			Laurel St Westbound			Center St Northbound			Center St Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	5	0	1	3	0	0	1	0	0	1	0	11	0
4:15 PM	**0**	**6**	**0**	**0**	**3**	**0**	**0**	**1**	**1**	**2**	**1**	**1**	**15**	0
4:30 PM	**0**	**4**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**12**	0
4:45 PM	**0**	**4**	**1**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**3**	**0**	**12**	50
5:00 PM	**0**	**3**	**1**	**0**	**6**	**0**	**1**	**4**	**0**	**0**	**4**	**0**	**19**	**58**
5:15 PM	0	7	0	0	6	0	0	1	0	0	5	0	19	62
5:30 PM	0	7	0	0	1	0	0	1	0	0	2	0	11	61
5:45 PM	0	6	0	0	2	0	0	1	0	0	0	0	9	58
Count Total	0	42	2	1	27	0	1	9	4	2	18	2	108	0
Peak Hour	**0**	**17**	**2**	**0**	**15**	**0**	**1**	**5**	**4**	**2**	**10**	**2**	**58**	**0**

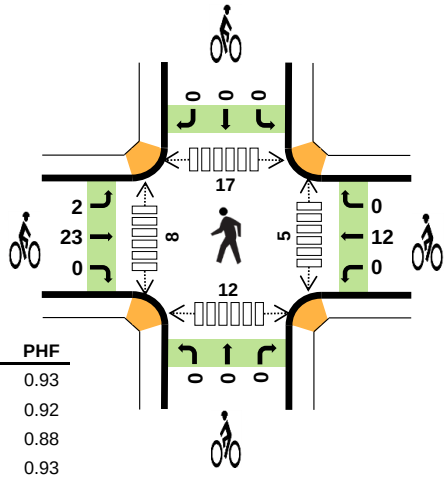
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Center St
Laurel St

Date: 08/18/2020
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	0.8%	0.93
WB	1.7%	0.92
NB	0.6%	0.88
SB	0.0%	0.93
TOTAL	1.0%	0.97



Two-Hour Count Summaries

Interval Start		Laurel St Eastbound				Laurel St Westbound				Center St Northbound				Center 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	2	99	25	0	20	88	3	0	14	9	6	0	4	28	6	304	0
4:15 PM		**0**	**0**	**101**	**15**	**0**	**13**	**115**	**6**	**0**	**17**	**14**	**9**	**0**	**6**	**27**	**7**	**330**	0
4:30 PM		**0**	**4**	**113**	**21**	**0**	**15**	**107**	**8**	**0**	**14**	**12**	**9**	**0**	**10**	**19**	**3**	**335**	0
4:45 PM		**0**	**5**	**107**	**25**	**0**	**18**	**101**	**11**	**0**	**9**	**21**	**10**	**0**	**7**	**27**	**7**	**348**	1,317
5:00 PM		**0**	**6**	**101**	**15**	**0**	**18**	**123**	**6**	**0**	**21**	**14**	**11**	**0**	**12**	**25**	**2**	**354**	**1,367**
5:15 PM		0	3	94	18	0	4	114	7	0	13	10	6	0	5	29	7	310	1,347
5:30 PM		0	7	81	16	0	14	85	7	0	14	11	5	0	8	24	5	277	1,289
5:45 PM		0	5	101	15	0	14	90	4	0	13	11	8	0	7	20	4	292	1,233
Count Total		0	32	797	150	0	116	823	52	0	115	102	64	0	59	199	41	2,550	0
Peak Hour	**All**	**0**	**15**	**422**	**76**	**0**	**64**	**446**	**31**	**0**	**61**	**61**	**39**	**0**	**35**	**98**	**19**	**1,367**	**0**
	HV	**0**	**0**	**4**	**0**	**0**	**0**	**7**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**14**	**0**
	HV%	**-**	**0%**	**1%**	**0%**	**-**	**0%**	**2%**	**6%**	**-**	**0%**	**0%**	**3%**	**-**	**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	2	1	1	0	*4*	3	3	0	0	*6*	0	1	3	3	*7*
4:15 PM	**0**	**1**	**0**	**0**	***1***	**4**	**5**	**0**	**0**	***9***	**0**	**1**	**3**	**4**	*8*
4:30 PM	**3**	**3**	**1**	**0**	***7***	**6**	**2**	**0**	**0**	***8***	**1**	**3**	**4**	**4**	*12*
4:45 PM	**1**	**2**	**0**	**0**	***3***	**5**	**2**	**0**	**0**	***7***	**0**	**0**	**4**	**1**	*5*
5:00 PM	**0**	**3**	**0**	**0**	***3***	**10**	**3**	**0**	**0**	***13***	**4**	**4**	**6**	**3**	***17***
5:15 PM	0	1	0	2	*3*	4	2	0	0	*6*	2	2	2	3	*9*
5:30 PM	2	0	1	1	*4*	3	2	0	0	*5*	0	7	5	6	*18*
5:45 PM	2	2	0	0	*4*	4	2	0	1	*7*	2	4	2	7	*15*
Count Total	10	13	3	3	*29*	39	21	0	1	*61*	9	22	29	31	*91*
Peak Hour	**4**	**9**	**1**	**0**	***14***	**25**	**12**	**0**	**0**	***37***	**5**	**8**	**17**	**12**	***42***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Laurel St Eastbound				Laurel St Westbound				Center St Northbound				Center 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	2	0	0	0	1	0	0	0	1	0	0	0	0	0	4	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**	**3**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**7**	0
4:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	15
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**14**
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	3	16
5:30 PM	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	4	13
5:45 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	4	14
Count Total	0	1	9	0	0	0	11	2	0	0	2	1	0	0	2	1	29	0
Peak Hour	**0**	**0**	**4**	**0**	**0**	**0**	**7**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**14**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	Laurel St Eastbound			Laurel St Westbound			Center St Northbound			Center St Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	3	0	0	3	0	0	0	0	0	0	0	6	0
4:15 PM	**0**	**4**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	0
4:30 PM	**1**	**5**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	0
4:45 PM	**0**	**5**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	30
5:00 PM	**1**	**9**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**37**
5:15 PM	0	4	0	0	2	0	0	0	0	0	0	0	6	34
5:30 PM	0	3	0	0	2	0	0	0	0	0	0	0	5	31
5:45 PM	0	4	0	0	2	0	0	0	0	0	0	1	7	31
Count Total	2	37	0	0	21	0	0	0	0	0	0	1	61	0
Peak Hour	**2**	**23**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**37**	**0**

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

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Laurel St				Laurel 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	5	0	0	1	4	0	0	0	0	0	0	0	0	0	10	0
4:15 PM	0	0	4	0	0	0	3	0	0	0	0	1	0	0	0	0	8	0
4:30 PM	0	0	2	0	0	0	3	0	0	0	0	1	0	0	0	0	6	0
4:45 PM	**0**	**0**	**2**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	30
5:00 PM	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	24
5:15 PM	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	20
5:30 PM	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**5**	**19**
5:45 PM	0	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	7	20
Count Total	0	0	24	0	0	1	20	0	0	2	0	3	0	0	0	0	50	0
Peak Hour	**0**	**0**	**8**	**0**	**0**	**0**	**8**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**19**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	Laurel St			Laurel 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	5	0	0	1	0	0	0	2	0	0	0	8	0
4:15 PM	0	0	1	0	0	0	0	1	4	0	0	0	6	0
4:30 PM	0	4	0	2	1	0	0	0	2	0	0	0	9	0
4:45 PM	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**7**	30
5:00 PM	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**6**	28
5:15 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**5**	27
5:30 PM	**0**	**5**	**0**	**1**	**0**	**0**	**0**	**3**	**8**	**0**	**0**	**0**	**17**	**35**
5:45 PM	0	3	0	0	2	0	0	0	2	0	0	0	7	35
Count Total	0	22	1	3	5	0	0	6	28	0	0	0	65	0
Peak Hour	**0**	**10**	**0**	**1**	**1**	**0**	**0**	**5**	**18**	**0**	**0**	**0**	**35**	**0**

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

Two-Hour Count Summaries - Heavy Vehicles

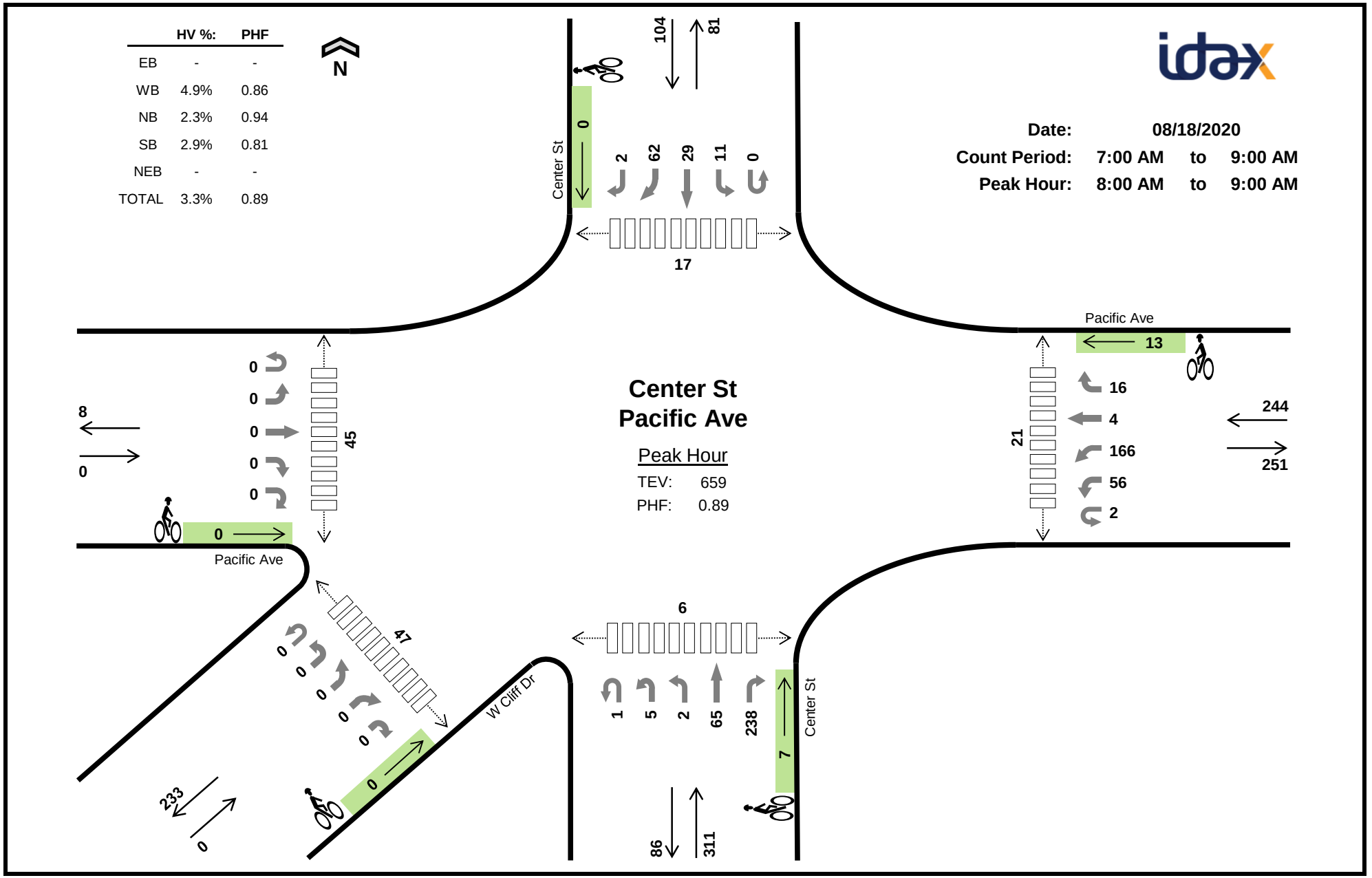
Interval Start	Laurel St Eastbound				Laurel St Westbound				California St Northbound				California St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	5	0
7:15 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	5	0
7:30 AM	0	0	3	0	0	0	4	0	0	2	0	0	0	0	0	0	9	0
7:45 AM	**0**	**0**	**3**	**0**	**0**	**0**	**4**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	27
8:00 AM	**0**	**0**	**2**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	28
8:15 AM	**0**	**0**	**4**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**8**	31
8:30 AM	**0**	**0**	**3**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**29**
8:45 AM	0	0	4	0	0	1	6	0	0	0	0	0	0	0	0	0	11	32
Count Total	0	0	23	0	0	2	30	0	0	3	0	0	0	0	1	0	59	0
Peak Hour	**0**	**0**	**12**	**0**	**0**	**1**	**14**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**29**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	Laurel St Eastbound			Laurel St Westbound			California St Northbound			California St Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	1	0	0	0	0	0	1	2	0	0	0	4	0
7:15 AM	0	0	0	2	1	0	0	1	0	0	0	0	4	0
7:30 AM	0	1	0	0	2	0	0	7	1	0	0	0	11	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**32**	**1**	**0**	**0**	**0**	**33**	52
8:00 AM	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**6**	54
8:15 AM	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**1**	**4**	**0**	**0**	**1**	**10**	60
8:30 AM	**0**	**2**	**1**	**1**	**2**	**0**	**0**	**1**	**4**	**0**	**0**	**0**	**11**	**60**
8:45 AM	0	1	0	1	4	0	0	2	3	0	0	0	11	38
Count Total	0	6	1	6	12	0	0	48	16	0	0	1	90	0
Peak Hour	**0**	**3**	**1**	**3**	**5**	**0**	**0**	**37**	**10**	**0**	**0**	**1**	**60**	**0**

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

	HV %:	PHF
EB	-	-
WB	4.9%	0.86
NB	2.3%	0.94
SB	2.9%	0.81
NEB	-	-
TOTAL	3.3%	0.89



Two-Hour Count Summaries

Interval Start		Pacific Ave Eastbound					Pacific Ave Westbound					Center St Northbound					Center St Southbound					W Cliff Dr 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	5	21	0	0	1	0	0	6	25	0	1	7	6	0	0	0	0	0	0	72	0
7:15 AM		0	0	0	0	0	0	11	31	2	1	0	0	1	7	16	0	1	4	5	0	0	0	0	0	0	79	0
7:30 AM		0	0	0	0	0	1	10	26	0	1	0	2	1	8	23	0	1	9	8	0	0	0	0	0	0	90	0
7:45 AM		0	0	0	0	0	1	8	43	1	4	0	0	0	18	50	0	0	7	10	0	0	0	0	0	0	142	383
8:00 AM		**0**	**0**	**0**	**0**	**0**	**0**	**12**	**37**	**1**	**5**	**1**	**2**	**0**	**21**	**59**	**0**	**1**	**7**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**157**	468
8:15 AM		**0**	**0**	**0**	**0**	**0**	**1**	**12**	**41**	**1**	**3**	**0**	**0**	**0**	**8**	**59**	**0**	**3**	**5**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**148**	537
8:30 AM		**0**	**0**	**0**	**0**	**0**	**1**	**11**	**44**	**1**	**3**	**0**	**2**	**1**	**19**	**57**	**0**	**6**	**10**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**169**	616
8:45 AM		**0**	**0**	**0**	**0**	**0**	**0**	**21**	**44**	**1**	**5**	**0**	**1**	**1**	**17**	**63**	**0**	**1**	**7**	**22**	**2**	**0**	**0**	**0**	**0**	**0**	**185**	**659**
Count Total		0	0	0	0	0	4	90	287	7	22	2	7	4	104	352	0	14	56	91	2	0	0	0	0	0	1,042	0
Peak Hour	**All**	**0**	**0**	**0**	**0**	**0**	**2**	**56**	**166**	**4**	**16**	**1**	**5**	**2**	**65**	**238**	**0**	**11**	**29**	**62**	**2**	**0**	**0**	**0**	**0**	**0**	**659**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**7**	**0**	**0**	**0**	**1**	**0**	**2**	**4**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**0**
	HV%	**-**	**-**	**-**	**-**	**-**	**0%**	**9%**	**4%**	**0%**	**0%**	**0%**	**20%**	**0%**	**3%**	**2%**	**-**	**0%**	**3%**	**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	NEB	Total	EB	WB	NB	SB	NEB	Total	East	West	North	South	Southwest	Total
7:00 AM	0	1	1	0	0	*2*	0	1	3	0	0	*4*	1	1	1	1	3	*7*
7:15 AM	0	2	0	1	0	*3*	0	2	1	0	0	*3*	3	8	2	0	12	*25*
7:30 AM	0	3	0	1	0	*4*	0	3	2	0	0	*5*	3	12	7	3	10	*35*
7:45 AM	0	0	1	0	0	*1*	0	3	4	0	0	*7*	8	9	4	2	4	*27*
8:00 AM	**0**	**4**	**2**	**0**	**0**	***6***	**0**	**6**	**1**	**0**	**0**	***7***	**3**	**9**	**1**	**1**	**8**	***22***
8:15 AM	**0**	**3**	**1**	**1**	**0**	***5***	**0**	**3**	**3**	**0**	**0**	***6***	**8**	**10**	**7**	**3**	**10**	***38***
8:30 AM	**0**	**2**	**0**	**0**	**0**	***2***	**0**	**1**	**1**	**0**	**0**	***2***	**6**	**14**	**4**	**0**	**13**	***37***
8:45 AM	**0**	**3**	**4**	**2**	**0**	***9***	**0**	**3**	**2**	**0**	**0**	***5***	**4**	**12**	**5**	**2**	**16**	***39***
Count Total	0	18	9	5	0	*32*	0	22	17	0	0	*39*	36	75	31	12	76	*230*
Peak Hr	**0**	**12**	**7**	**3**	**0**	***22***	**0**	**13**	**7**	**0**	**0**	***20***	**21**	**45**	**17**	**6**	**47**	*136*

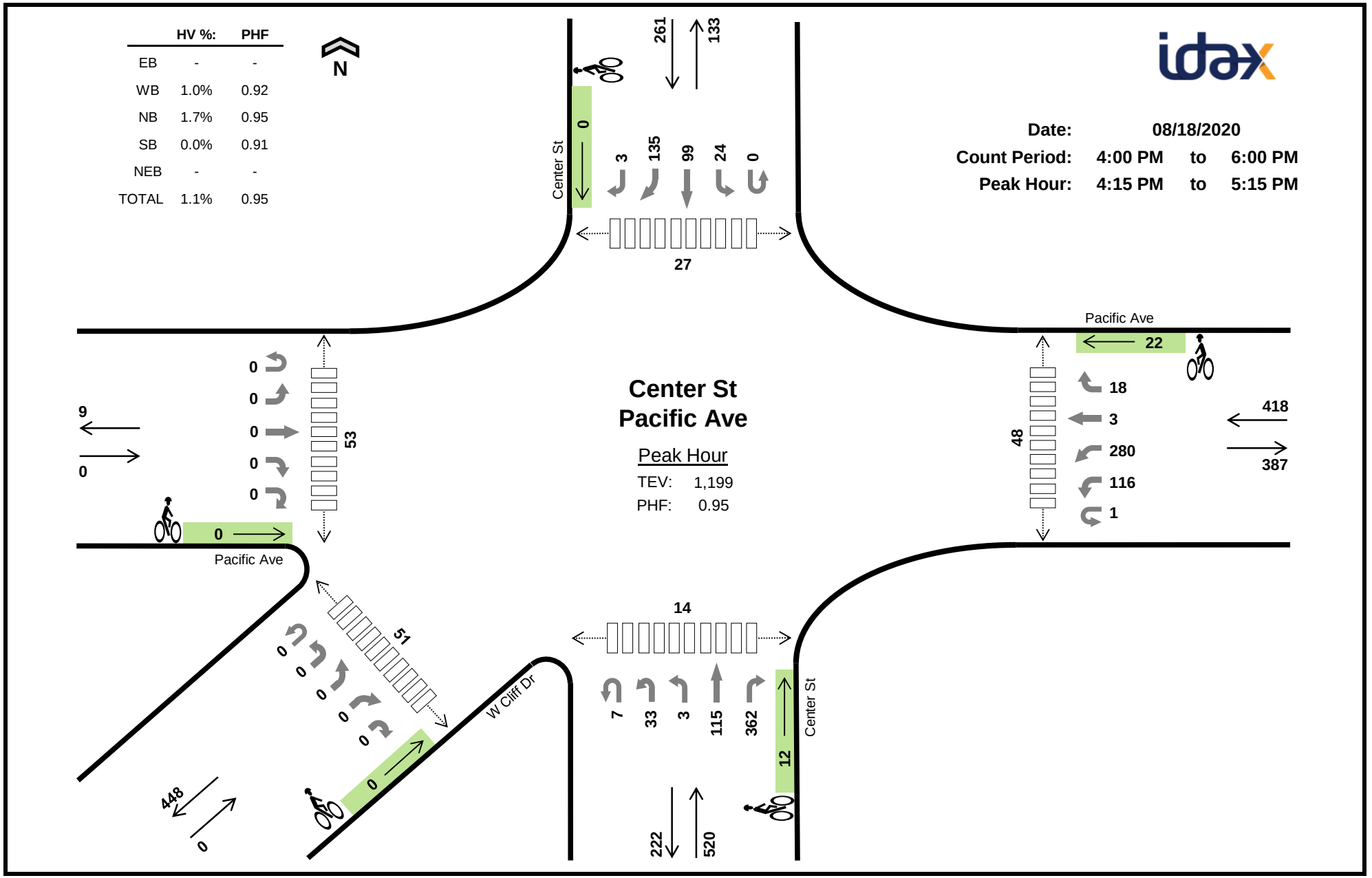
Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Pacific Ave					Pacific Ave					Center St					Center St					W Cliff Dr					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		
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
7:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0
7:30 AM	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4	0
7:45 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	10
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	14
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	16
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	14
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**22**
Count Total	0	0	0	0	0	0	7	11	0	0	0	1	0	3	5	0	0	3	2	0	0	0	0	0	0	32	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**7**	**0**	**0**	**0**	**1**	**0**	**2**	**4**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	22	**0**

Two-Hour Count Summaries - Bikes

Interval Start	Pacific Ave					Pacific Ave					Center St					Center St					W Cliff Dr					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		
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4	0
7:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0
7:30 AM	0	0	0	0	0	0	0	1	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
7:45 AM	0	0	0	0	0	0	0	3	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	7	19
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	22
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	25
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	22
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**20**
Count Total	0	0	0	0	0	0	0	20	2	0	0	5	0	0	12	0	0	0	0	0	0	0	0	0	0	39	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**1**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	20	**0**

	HV %:	PHF
EB	-	-
WB	1.0%	0.92
NB	1.7%	0.95
SB	0.0%	0.91
NEB	-	-
TOTAL	1.1%	0.95



Two-Hour Count Summaries

Interval Start		Pacific Ave Eastbound					Pacific Ave Westbound					Center St Northbound					Center St Southbound					W Cliff Dr 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	38	61	1	7	1	9	2	12	85	1	6	24	45	0	0	0	0	0	0	292	0
4:15 PM		**0**	**0**	**0**	**0**	**0**	**1**	**28**	**73**	**1**	**7**	**3**	**8**	**0**	**32**	**89**	**0**	**7**	**30**	**35**	**0**	**0**	**0**	**0**	**0**	**0**	**314**	0
4:30 PM		**0**	**0**	**0**	**0**	**0**	**0**	**29**	**78**	**1**	**5**	**1**	**6**	**1**	**20**	**95**	**0**	**3**	**20**	**30**	**1**	**0**	**0**	**0**	**0**	**0**	**290**	0
4:45 PM		**0**	**0**	**0**	**0**	**0**	**0**	**26**	**63**	**0**	**5**	**2**	**11**	**0**	**32**	**92**	**0**	**6**	**28**	**35**	**2**	**0**	**0**	**0**	**0**	**0**	**302**	1,198
5:00 PM		**0**	**0**	**0**	**0**	**0**	**0**	**33**	**66**	**1**	**1**	**1**	**8**	**2**	**31**	**86**	**0**	**8**	**21**	**35**	**0**	**0**	**0**	**0**	**0**	**0**	**293**	**1,199**
5:15 PM		0	0	0	0	0	2	31	88	1	2	0	10	2	23	79	1	8	22	28	0	0	0	0	0	0	297	1,182
5:30 PM		0	0	0	0	0	0	31	72	1	5	1	4	1	25	93	1	5	34	30	0	0	0	0	0	0	303	1,195
5:45 PM		0	0	0	0	0	1	32	56	1	5	0	8	0	24	87	0	10	15	27	0	0	0	0	0	0	266	1,159
Count Total		0	0	0	0	0	4	248	557	7	37	9	64	8	199	706	3	53	194	265	3	0	0	0	0	0	2,357	0
Peak Hour	**All**	**0**	**0**	**0**	**0**	**0**	**1**	**116**	**280**	**3**	**18**	**7**	**33**	**3**	**115**	**362**	**0**	**24**	**99**	**135**	**3**	**0**	**0**	**0**	**0**	**0**	**1,199**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**0**
	HV%	**-**	**-**	**-**	**-**	**-**	**0%**	**3%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**1%**	**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	NEB	Total	EB	WB	NB	SB	NEB	Total	East	West	North	South	Southwest	Total
4:00 PM	0	2	4	0	0	*6*	0	1	0	0	0	*1*	24	7	3	3	6	*43*
4:15 PM	**0**	**2**	**3**	**0**	**0**	***5***	**0**	**7**	**2**	**0**	**0**	***9***	**9**	**9**	**7**	**4**	**4**	***33***
4:30 PM	**0**	**1**	**2**	**0**	**0**	***3***	**0**	**6**	**4**	**0**	**0**	***10***	**9**	**10**	**7**	**4**	**12**	***42***
4:45 PM	**0**	**0**	**2**	**0**	**0**	***2***	**0**	**5**	**1**	**0**	**0**	***6***	**19**	**18**	**4**	**3**	**18**	***62***
5:00 PM	**0**	**1**	**2**	**0**	**0**	***3***	**0**	**4**	**5**	**0**	**0**	***9***	**11**	**16**	**9**	**3**	**17**	***56***
5:15 PM	0	1	1	1	0	*3*	0	10	0	0	0	*10*	19	10	7	6	7	*49*
5:30 PM	0	0	2	1	0	*3*	0	6	6	0	0	*12*	15	12	6	2	13	*48*
5:45 PM	0	2	0	1	0	*3*	0	4	4	0	0	*8*	1	11	6	3	12	*33*
Count Total	0	9	16	3	0	*28*	0	43	22	0	0	*65*	107	93	49	28	89	*366*
Peak Hr	**0**	**4**	**9**	**0**	**0**	***13***	**0**	**22**	**12**	**0**	**0**	***34***	**48**	**53**	**27**	**14**	**51**	*193*

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Pacific Ave					Pacific Ave					Center St					Center St					W Cliff Dr					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	1	1	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	6	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	16
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**13**
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	3	11
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	3	11
5:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	12
Count Total	0	0	0	0	0	0	7	2	0	0	0	0	0	3	13	0	0	0	3	0	0	0	0	0	0	28	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	13	**0**

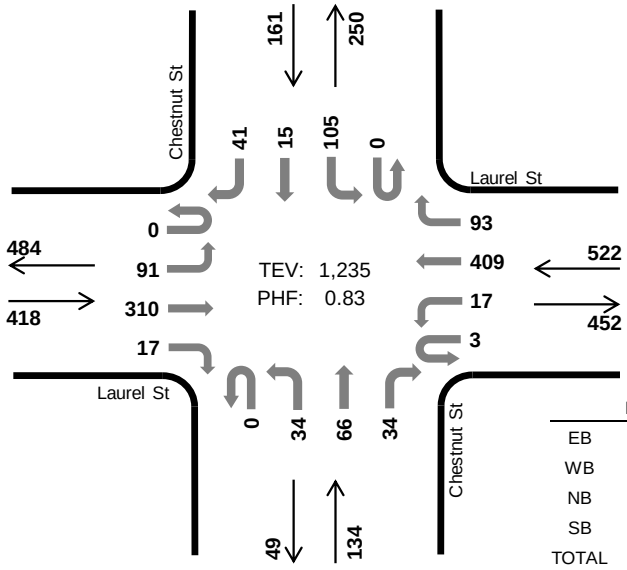
Two-Hour Count Summaries - Bikes

Interval Start	Pacific Ave					Pacific Ave					Center St					Center St					W Cliff Dr					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	1	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**	**0**	**0**	**0**	**2**	**4**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**4**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	26
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**1**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**34**
5:15 PM	0	0	0	0	0	0	3	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	35
5:30 PM	0	0	0	0	0	0	0	5	1	0	0	0	1	0	5	0	0	0	0	0	0	0	0	0	0	12	37
5:45 PM	0	0	0	0	0	0	1	3	0	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	8	39
Count Total	0	0	0	0	0	0	8	31	4	0	0	2	2	0	18	0	0	0	0	0	0	0	0	0	0	65	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**17**	**1**	**0**	**0**	**1**	**1**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	34	**0**

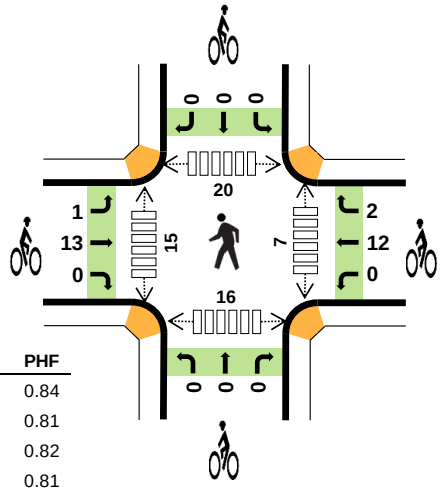
Chestnut St
Laurel St

Date: 11-19-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM

Peak Hour



	HV %:	PHF
EB	2.9%	0.84
WB	3.3%	0.81
NB	0.0%	0.82
SB	1.9%	0.81
TOTAL	2.6%	0.83



Two-Hour Count Summaries

Interval Start		Laurel St Eastbound				Laurel St Westbound				Chestnut St Northbound				Chestnut 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	25	0	0	1	58	10	0	2	8	3	0	12	1	3	131	0
7:15 AM		0	14	42	0	1	2	57	18	0	1	6	6	0	14	4	1	166	0
7:30 AM		**0**	**19**	**53**	**1**	**0**	**2**	**103**	**24**	**0**	**7**	**24**	**10**	**0**	**29**	**2**	**8**	**282**	0
7:45 AM		**0**	**23**	**99**	**3**	**0**	**2**	**126**	**34**	**0**	**5**	**23**	**7**	**0**	**34**	**2**	**14**	**372**	951
8:00 AM		**0**	**20**	**73**	**5**	**2**	**8**	**92**	**18**	**0**	**14**	**7**	**8**	**0**	**27**	**5**	**13**	**292**	1,112
8:15 AM		**0**	**29**	**85**	**8**	**1**	**5**	**88**	**17**	**0**	**8**	**12**	**9**	**0**	**15**	**6**	**6**	**289**	**1,235**
8:30 AM		0	18	93	1	0	4	95	19	0	5	8	11	0	9	2	8	273	1,226
8:45 AM		0	25	93	0	0	4	94	15	0	6	7	9	0	15	3	7	278	1,132
Count Total		0	156	563	18	4	28	713	155	0	48	95	63	0	155	25	60	2,083	0
Peak Hour	**All**	**0**	**91**	**310**	**17**	**3**	**17**	**409**	**93**	**0**	**34**	**66**	**34**	**0**	**105**	**15**	**41**	**1,235**	**0**
	HV	**0**	**1**	**11**	**0**	**0**	**0**	**16**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**32**	**0**
	HV%	**-**	**1%**	**4%**	**0%**	**0%**	**0%**	**4%**	**1%**	**-**	**0%**	**0%**	**0%**	**-**	**3%**	**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	1	4	1	0	*6*	4	6	2	0	*12*	1	1	3	1	*6*
7:15 AM	4	2	0	0	*6*	2	2	1	0	*5*	4	4	8	0	*16*
7:30 AM	**4**	**3**	**0**	**3**	***10***	**4**	**2**	**0**	**0**	***6***	**3**	**7**	**3**	**4**	*17*
7:45 AM	**2**	**6**	**0**	**0**	***8***	**2**	**3**	**0**	**0**	***5***	**1**	**2**	**7**	**6**	*16*
8:00 AM	**2**	**6**	**0**	**0**	***8***	**3**	**4**	**0**	**0**	***7***	**3**	**2**	**6**	**2**	*13*
8:15 AM	**4**	**2**	**0**	**0**	***6***	**5**	**5**	**0**	**0**	***10***	**0**	**4**	**4**	**4**	***12***
8:30 AM	4	3	0	0	*7*	5	4	0	0	*9*	7	3	8	8	*26*
8:45 AM	4	9	0	1	*14*	5	7	0	0	*12*	7	6	1	10	*24*
Count Total	25	35	1	4	*65*	30	33	3	0	*66*	26	29	40	35	*130*
Peak Hour	**12**	**17**	**0**	**3**	***32***	**14**	**14**	**0**	**0**	***28***	**7**	**15**	**20**	**16**	***58***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Laurel St				Laurel St				Chestnut St				Chestnut 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	4	0	0	0	0	1	0	0	0	0	6	0
7:15 AM	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	6	0
7:30 AM	**0**	**0**	**4**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**10**	0
7:45 AM	**0**	**0**	**2**	**0**	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	30
8:00 AM	**0**	**1**	**1**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	32
8:15 AM	**0**	**0**	**4**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**32**
8:30 AM	0	2	2	0	0	0	3	0	0	0	0	0	0	0	0	0	7	29
8:45 AM	0	0	4	0	0	1	8	0	0	0	0	0	0	0	0	1	14	35
Count Total	0	3	22	0	0	1	33	1	0	0	0	1	0	3	0	1	65	0
Peak Hour	**0**	**1**	**11**	**0**	**0**	**0**	**16**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**32**	**0**

Two-Hour Count Summaries - Bikes

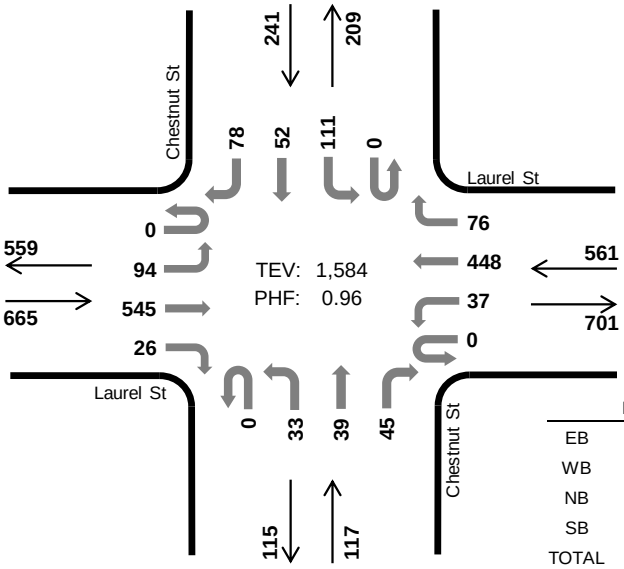
Interval Start	Laurel St			Laurel St			Chestnut St			Chestnut St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	4	0	0	4	2	0	1	1	0	0	0	12	0
7:15 AM	0	2	0	0	2	0	0	0	1	0	0	0	5	0
7:30 AM	**1**	**3**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	0
7:45 AM	**0**	**2**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	28
8:00 AM	**0**	**3**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	23
8:15 AM	**0**	**5**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**28**
8:30 AM	0	5	0	0	4	0	0	0	0	0	0	0	9	31
8:45 AM	0	4	1	0	7	0	0	0	0	0	0	0	12	38
Count Total	1	28	1	0	29	4	0	1	2	0	0	0	66	0
Peak Hour	**1**	**13**	**0**	**0**	**12**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**0**

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

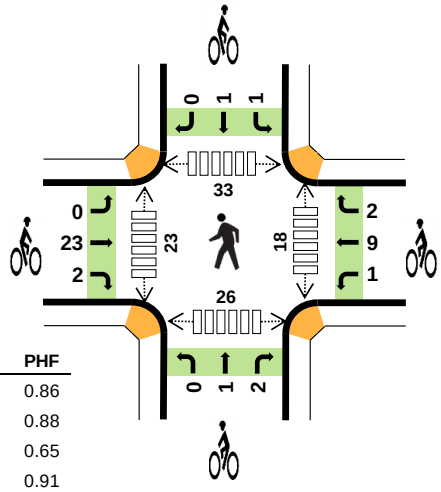
Chestnut St
Laurel St

Date: 11-19-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM

Peak Hour



	HV %:	PHF
EB	1.2%	0.86
WB	1.4%	0.88
NB	0.9%	0.65
SB	0.4%	0.91
TOTAL	1.1%	0.96



Two-Hour Count Summaries

Interval Start		Laurel St Eastbound				Laurel St Westbound				Chestnut St Northbound				Chestnut 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	23	114	5	0	13	99	23	0	3	9	12	0	28	13	8	350	0
4:15 PM		0	22	110	4	0	12	88	24	0	2	6	12	0	35	8	17	340	0
4:30 PM		0	18	126	5	0	10	112	16	0	7	3	7	0	27	13	21	365	0
4:45 PM		**0**	**18**	**131**	**5**	**0**	**5**	**111**	**17**	**0**	**8**	**10**	**9**	**0**	**26**	**14**	**25**	**379**	1,434
5:00 PM		**0**	**23**	**122**	**6**	**0**	**13**	**124**	**23**	**0**	**5**	**6**	**9**	**0**	**26**	**12**	**19**	**388**	1,472
5:15 PM		**0**	**29**	**131**	**7**	**0**	**13**	**105**	**17**	**0**	**16**	**13**	**16**	**0**	**35**	**15**	**16**	**413**	1,545
5:30 PM		**0**	**24**	**161**	**8**	**0**	**6**	**108**	**19**	**0**	**4**	**10**	**11**	**0**	**24**	**11**	**18**	**404**	**1,584**
5:45 PM		0	27	114	3	0	5	83	20	0	2	12	6	0	29	10	10	321	1,526
Count Total		0	184	1,009	43	0	77	830	159	0	47	69	82	0	230	96	134	2,960	0
Peak Hour	**All**	**0**	**94**	**545**	**26**	**0**	**37**	**448**	**76**	**0**	**33**	**39**	**45**	**0**	**111**	**52**	**78**	**1,584**	**0**
	HV	**0**	**0**	**8**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**18**	**0**
	HV%	**-**	**0%**	**1%**	**0%**	**-**	**0%**	**2%**	**0%**	**-**	**0%**	**3%**	**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	3	4	1	1	*9*	9	4	0	0	*13*	3	13	11	9	*36*
4:15 PM	6	4	0	0	*10*	6	3	1	3	*13*	4	4	8	12	*28*
4:30 PM	5	3	0	0	*8*	3	3	0	0	*6*	4	6	7	8	*25*
4:45 PM	**1**	**3**	**0**	**0**	***4***	**7**	**2**	**1**	**0**	***10***	**4**	**4**	**3**	**6**	*17*
5:00 PM	**4**	**3**	**0**	**0**	***7***	**6**	**3**	**2**	**2**	***13***	**6**	**5**	**3**	**5**	*19*
5:15 PM	**1**	**1**	**1**	**1**	***4***	**6**	**2**	**0**	**0**	***8***	**6**	**10**	**15**	**6**	*37*
5:30 PM	**2**	**1**	**0**	**0**	***3***	**6**	**5**	**0**	**0**	***11***	**2**	**4**	**12**	**9**	***27***
5:45 PM	6	2	0	0	*8*	12	2	0	0	*14*	4	4	12	7	*27*
Count Total	28	21	2	2	*53*	55	24	4	5	*88*	33	50	71	62	*216*
Peak Hour	**8**	**8**	**1**	**1**	***18***	**25**	**12**	**3**	**2**	***42***	**18**	**23**	**33**	**26**	***100***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Laurel St Eastbound				Laurel St Westbound				Chestnut St Northbound				Chestnut 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	3	0	0	0	4	0	0	0	0	1	0	1	0	0	9	0
4:15 PM	0	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0	10	0
4:30 PM	0	1	4	0	0	0	3	0	0	0	0	0	0	0	0	0	8	0
4:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	31
5:00 PM	**0**	**0**	**4**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	29
5:15 PM	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**4**	23
5:30 PM	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**18**
5:45 PM	0	0	6	0	0	0	2	0	0	0	0	0	0	0	0	0	8	22
Count Total	0	1	27	0	0	0	21	0	0	0	1	1	0	1	1	0	53	0
Peak Hour	**0**	**0**	**8**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**18**	**0**

Two-Hour Count Summaries - Bikes

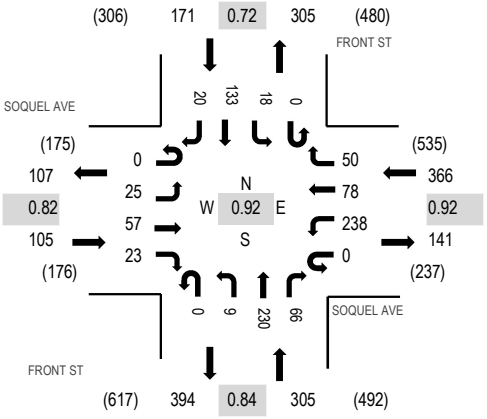
Interval Start	Laurel St Eastbound			Laurel St Westbound			Chestnut St Northbound			Chestnut St Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	9	0	1	2	1	0	0	0	0	0	0	13	0
4:15 PM	0	5	1	1	2	0	0	0	1	0	2	1	13	0
4:30 PM	0	3	0	1	2	0	0	0	0	0	0	0	6	0
4:45 PM	**0**	**6**	**1**	**0**	**1**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**10**	42
5:00 PM	**0**	**5**	**1**	**0**	**3**	**0**	**0**	**1**	**1**	**1**	**1**	**0**	**13**	42
5:15 PM	**0**	**6**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	37
5:30 PM	**0**	**6**	**0**	**0**	**4**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**42**
5:45 PM	1	11	0	0	2	0	0	0	0	0	0	0	14	46
Count Total	1	51	3	4	17	3	0	1	3	1	3	1	88	0
Peak Hour	**0**	**23**	**2**	**1**	**9**	**2**	**0**	**1**	**2**	**1**	**1**	**0**	**42**	**0**

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

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

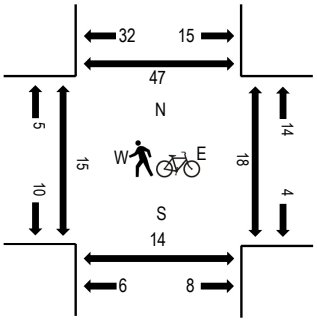
Location: 1 FRONT ST & SOQUEL AVE AM
Date: Tuesday, May 14, 2019
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	SOQUEL AVE Eastbound				SOQUEL AVE Westbound				FRONT ST Northbound				FRONT ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	2	9	4	0	23	5	5	0	0	25	9	0	2	25	5	114	562	0	1	3	6
7:15 AM	0	1	8	3	0	25	7	1	0	2	35	7	0	4	29	2	124	664	0	2	2	3
7:30 AM	0	4	6	5	0	16	9	8	0	0	41	14	0	5	24	4	136	768	1	3	1	2
7:45 AM	0	5	19	5	0	36	26	8	0	4	40	10	0	3	28	4	188	877	4	1	4	5
8:00 AM	0	9	19	6	0	50	14	8	0	3	57	17	0	4	27	2	216	947	0	2	1	9
8:15 AM	0	7	20	4	0	66	16	15	0	3	45	13	0	5	31	3	228		9	8	6	4
8:30 AM	0	6	9	2	0	63	21	13	0	2	74	15	0	6	30	4	245		2	3	5	9
8:45 AM	0	3	9	11	0	59	27	14	0	1	54	21	0	3	45	11	258		3	4	2	16

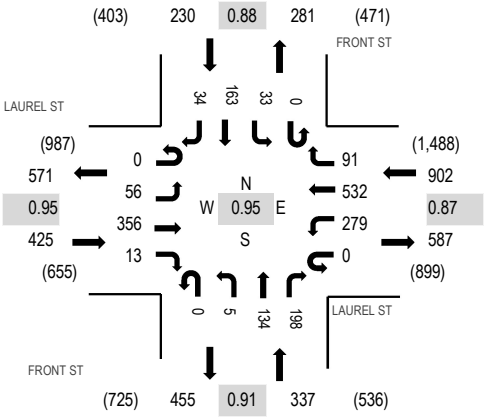
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	2	0	0	0	0	0	2	0	0	0	0	5
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	25	53	20	0	223	74	49	0	9	219	58	0	18	108	20	876
Mediums	0	0	3	3	0	13	4	1	0	0	11	6	0	0	25	0	66
Total	0	25	57	23	0	238	78	50	0	9	230	66	0	18	133	20	947

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

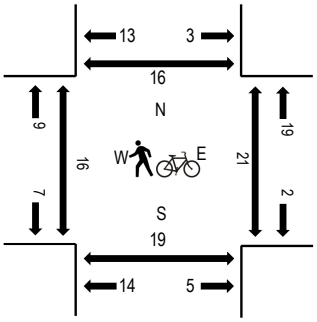
Location: 4 FRONT ST & LAUREL ST AM
Date: Tuesday, May 14, 2019
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	LAUREL ST Eastbound				LAUREL ST Westbound				FRONT ST Northbound				FRONT ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	5	24	1	0	17	61	16	0	0	9	16	0	1	20	5	175	1,219	1	3	1	3
7:15 AM	0	5	44	2	0	36	72	4	0	1	23	14	0	5	26	13	245	1,494	2	2	2	7
7:30 AM	0	6	51	2	0	36	113	15	0	0	25	24	0	4	20	7	303	1,718	5	6	2	3
7:45 AM	0	9	98	5	0	68	176	16	0	1	30	43	0	10	34	6	496	1,894	3	2	5	3
8:00 AM	0	15	86	5	0	65	117	17	0	1	36	47	0	11	41	9	450	1,863	5	7	5	7
8:15 AM	0	18	91	1	0	71	117	32	0	0	26	57	0	9	39	8	469		3	6	5	4
8:30 AM	0	14	81	2	0	75	122	26	0	3	42	51	0	3	49	11	479		5	1	2	1
8:45 AM	0	13	72	5	0	65	119	32	0	1	37	49	0	8	40	24	465		0	8	3	3

Peak Rolling Hour Flow Rates

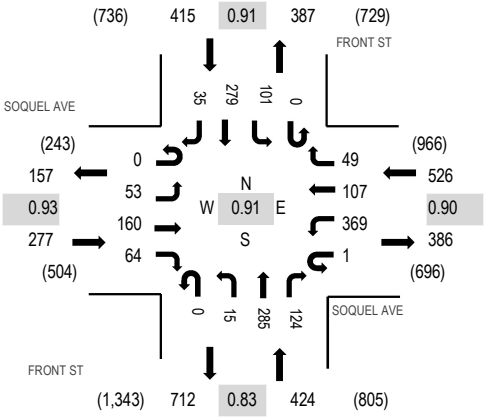
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	3	0	0	0	0	2	3	0	0	3	0	12
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	55	348	13	0	274	519	91	0	4	129	187	0	31	150	30	1,831
Mediums	0	1	7	0	0	2	13	0	0	1	3	8	0	2	10	4	51
Total	0	56	356	13	0	279	532	91	0	5	134	198	0	33	163	34	1,894

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

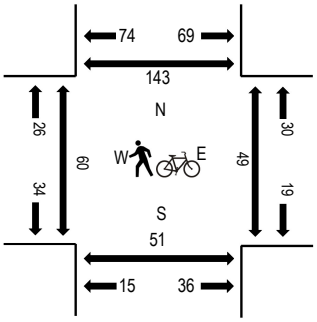
Location: 1 FRONT ST & SOQUEL AVE PM
Date: Tuesday, May 14, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

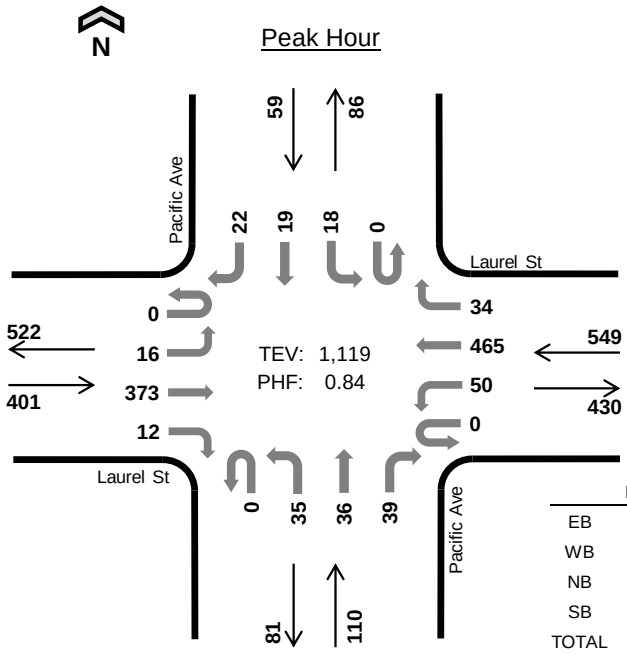
Interval Start Time	SOQUEL AVE Eastbound				SOQUEL AVE Westbound				FRONT ST Northbound				FRONT ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	15	31	12	0	70	20	10	0	1	48	25	0	14	61	3	310	1,369	8	23	16	30
4:15 PM	0	8	32	11	0	80	9	11	0	2	81	39	0	22	63	6	364	1,510	13	12	17	23
4:30 PM	0	8	26	16	0	96	18	12	0	1	63	28	0	11	54	9	342	1,553	13	6	6	24
4:45 PM	0	14	41	13	1	99	8	6	0	1	66	26	0	14	56	8	353	1,628	8	11	8	36
5:00 PM	0	6	53	17	0	95	31	19	0	3	81	32	0	27	79	8	451	1,642	5	9	7	39
5:15 PM	0	15	35	21	1	101	26	13	0	6	56	23	0	30	68	12	407		9	7	10	25
5:30 PM	0	15	40	13	0	111	34	9	0	2	56	37	0	19	71	10	417		18	13	13	34
5:45 PM	0	17	32	13	0	62	16	8	0	4	92	32	0	25	61	5	367		13	19	19	30

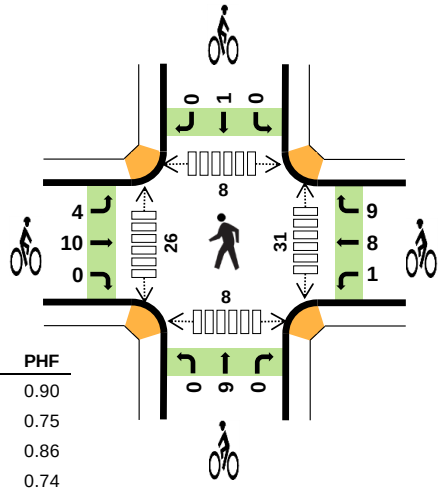
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	53	159	64	1	361	107	48	0	15	268	119	0	101	265	35	1,596
Mediums	0	0	1	0	0	8	0	1	0	0	17	5	0	0	14	0	46
Total	0	53	160	64	1	369	107	49	0	15	285	124	0	101	279	35	1,642

Pacific Ave
Laurel St

Date: 11-19-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	2.0%	0.90
WB	2.4%	0.75
NB	3.6%	0.86
SB	18.6%	0.74
TOTAL	3.2%	0.84

Two-Hour Count Summaries

Interval Start		Laurel St Eastbound				Laurel St Westbound				Pacific Ave Northbound				Pacific Ave 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	34	0	0	4	63	4	0	6	4	2	0	1	2	3	125	0
7:15 AM		0	1	44	0	0	3	73	7	0	9	4	2	0	2	4	2	151	0
7:30 AM		0	1	62	3	0	5	112	11	0	8	8	7	0	1	6	4	228	0
7:45 AM		**0**	**4**	**103**	**4**	**0**	**18**	**158**	**7**	**0**	**14**	**7**	**7**	**0**	**3**	**5**	**4**	**334**	838
8:00 AM		**0**	**4**	**86**	**3**	**0**	**13**	**94**	**4**	**0**	**8**	**6**	**16**	**0**	**7**	**5**	**8**	**254**	967
8:15 AM		**0**	**6**	**84**	**0**	**0**	**6**	**104**	**11**	**0**	**7**	**17**	**8**	**0**	**4**	**3**	**5**	**255**	1,071
8:30 AM		**0**	**2**	**100**	**5**	**0**	**13**	**109**	**12**	**0**	**6**	**6**	**8**	**0**	**4**	**6**	**5**	**276**	**1,119**
8:45 AM		0	6	78	0	0	5	113	4	0	8	9	8	0	4	6	6	247	1,032
Count Total		0	26	591	15	0	67	826	60	0	66	61	58	0	26	37	37	1,870	0
Peak Hour	**All**	**0**	**16**	**373**	**12**	**0**	**50**	**465**	**34**	**0**	**35**	**36**	**39**	**0**	**18**	**19**	**22**	**1,119**	**0**
	HV	**0**	**5**	**3**	**0**	**0**	**1**	**9**	**3**	**0**	**2**	**2**	**0**	**0**	**1**	**2**	**8**	**36**	**0**
	HV%	**-**	**31%**	**1%**	**0%**	**-**	**2%**	**2%**	**9%**	**-**	**6%**	**6%**	**0%**	**-**	**6%**	**11%**	**36%**	**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	2	2	2	1	*7*	3	4	3	0	*10*	6	1	0	2	*9*
7:15 AM	4	0	1	4	*9*	0	8	2	0	*10*	5	5	2	1	*13*
7:30 AM	3	2	1	1	*7*	2	3	2	0	*7*	4	12	6	2	*24*
7:45 AM	**2**	**7**	**1**	**2**	***12***	**2**	**4**	**3**	**0**	***9***	**5**	**4**	**4**	**2**	*15*
8:00 AM	**1**	**2**	**0**	**4**	***7***	**3**	**4**	**3**	**0**	***10***	**6**	**7**	**0**	**2**	*15*
8:15 AM	**4**	**1**	**2**	**4**	***11***	**5**	**5**	**2**	**1**	***13***	**8**	**10**	**3**	**1**	*22*
8:30 AM	**1**	**3**	**1**	**1**	***6***	**4**	**5**	**1**	**0**	***10***	**12**	**5**	**1**	**3**	***21***
8:45 AM	5	4	1	5	*15*	4	11	2	2	*19*	11	14	5	3	*33*
Count Total	22	21	9	22	*74*	23	44	18	3	*88*	57	58	21	16	*152*
Peak Hour	**8**	**13**	**4**	**11**	***36***	**14**	**18**	**9**	**1**	***42***	**31**	**26**	**8**	**8**	***73***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Laurel St Eastbound				Laurel St Westbound				Pacific Ave Northbound				Pacific Ave 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	1	1	0	0	0	2	0	0	0	2	0	0	0	0	1	7	0
7:15 AM	0	0	4	0	0	0	0	0	0	0	1	0	0	0	2	2	9	0
7:30 AM	0	1	2	0	0	0	2	0	0	0	1	0	0	0	0	1	7	0
7:45 AM	**0**	**2**	**0**	**0**	**0**	**1**	**4**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**12**	35
8:00 AM	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**7**	35
8:15 AM	**0**	**2**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**2**	**11**	37
8:30 AM	**0**	**1**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**6**	**36**
8:45 AM	0	3	2	0	0	0	4	0	0	0	1	0	0	1	1	3	15	39
Count Total	0	10	12	0	0	1	17	3	0	2	7	0	0	2	5	15	74	0
Peak Hour	**0**	**5**	**3**	**0**	**0**	**1**	**9**	**3**	**0**	**2**	**2**	**0**	**0**	**1**	**2**	**8**	**36**	**0**

Two-Hour Count Summaries - Bikes

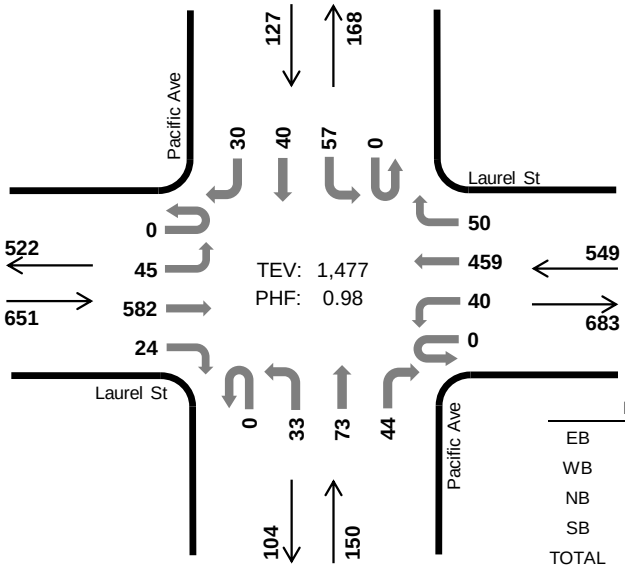
Interval Start	Laurel St Eastbound			Laurel St Westbound			Pacific Ave Northbound			Pacific Ave Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	3	0	0	2	2	0	3	0	0	0	0	10	0
7:15 AM	0	0	0	0	5	3	0	2	0	0	0	0	10	0
7:30 AM	0	2	0	0	2	1	0	2	0	0	0	0	7	0
7:45 AM	**0**	**2**	**0**	**0**	**1**	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**9**	36
8:00 AM	**0**	**3**	**0**	**0**	**2**	**2**	**0**	**3**	**0**	**0**	**0**	**0**	**10**	36
8:15 AM	**3**	**2**	**0**	**0**	**4**	**1**	**0**	**2**	**0**	**0**	**1**	**0**	**13**	39
8:30 AM	**1**	**3**	**0**	**1**	**1**	**3**	**0**	**1**	**0**	**0**	**0**	**0**	**10**	**42**
8:45 AM	1	3	0	0	8	3	0	2	0	0	2	0	19	52
Count Total	5	18	0	1	25	18	0	18	0	0	3	0	88	0
Peak Hour	**4**	**10**	**0**	**1**	**8**	**9**	**0**	**9**	**0**	**0**	**1**	**0**	**42**	**0**

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

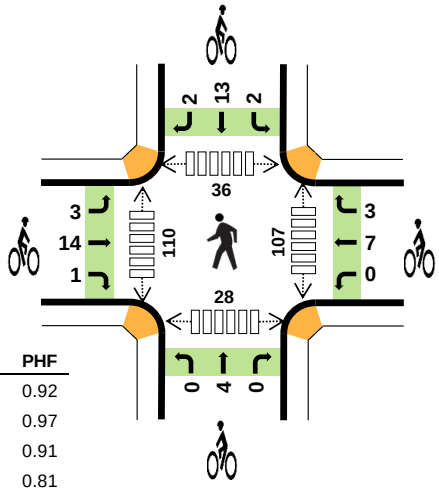
Pacific Ave
Laurel St

Date: 11-19-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM

Peak Hour



	HV %:	PHF
EB	1.5%	0.92
WB	0.4%	0.97
NB	2.0%	0.91
SB	8.7%	0.81
TOTAL	1.8%	0.98



Two-Hour Count Summaries

Interval Start		Laurel St Eastbound				Laurel St Westbound				Pacific Ave Northbound				Pacific Ave 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	12	115	4	0	15	100	13	0	9	12	15	0	10	16	7	328	0
4:15 PM		0	8	142	11	0	11	132	10	0	5	14	5	0	12	12	11	373	0
4:30 PM		0	13	109	7	0	13	106	19	0	4	17	13	0	7	9	14	331	0
4:45 PM		**0**	**9**	**152**	**6**	**0**	**12**	**115**	**9**	**0**	**4**	**16**	**13**	**0**	**20**	**9**	**8**	**373**	1,405
5:00 PM		**0**	**16**	**136**	**5**	**0**	**10**	**119**	**12**	**0**	**10**	**18**	**7**	**0**	**11**	**10**	**8**	**362**	1,439
5:15 PM		**0**	**12**	**157**	**7**	**0**	**7**	**117**	**12**	**0**	**13**	**17**	**11**	**0**	**9**	**7**	**6**	**375**	1,441
5:30 PM		**0**	**8**	**137**	**6**	**0**	**11**	**108**	**17**	**0**	**6**	**22**	**13**	**0**	**17**	**14**	**8**	**367**	**1,477**
5:45 PM		0	10	118	11	0	16	92	9	0	9	17	19	0	10	9	9	329	1,433
Count Total		0	88	1,066	57	0	95	889	101	0	60	133	96	0	96	86	71	2,838	0
Peak Hour	**All**	**0**	**45**	**582**	**24**	**0**	**40**	**459**	**50**	**0**	**33**	**73**	**44**	**0**	**57**	**40**	**30**	**1,477**	**0**
	HV	**0**	**7**	**3**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**3**	**0**	**0**	**0**	**3**	**8**	**26**	**0**
	HV%	**-**	**16%**	**1%**	**0%**	**-**	**0%**	**0%**	**4%**	**-**	**0%**	**4%**	**0%**	**-**	**0%**	**8%**	**27%**	**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	4	1	2	4	*11*	4	4	4	3	*15*	28	25	5	9	*67*
4:15 PM	4	1	2	9	*16*	6	3	5	3	*17*	24	18	18	10	*70*
4:30 PM	4	1	2	2	*9*	2	0	5	2	*9*	41	30	13	4	*88*
4:45 PM	**2**	**1**	**1**	**4**	***8***	**7**	**4**	**2**	**4**	***17***	**32**	**16**	**11**	**8**	*67*
5:00 PM	**5**	**0**	**0**	**3**	***8***	**3**	**2**	**0**	**4**	***9***	**22**	**25**	**8**	**6**	*61*
5:15 PM	**1**	**0**	**2**	**4**	***7***	**7**	**2**	**1**	**5**	***15***	**26**	**23**	**6**	**10**	*65*
5:30 PM	**2**	**1**	**0**	**0**	***3***	**1**	**2**	**1**	**4**	***8***	**27**	**46**	**11**	**4**	***88***
5:45 PM	5	1	1	3	*10*	9	4	1	3	*17*	25	17	19	5	*66*
Count Total	27	6	10	29	*72*	39	21	19	28	*107*	225	200	91	56	*572*
Peak Hour	**10**	**2**	**3**	**11**	***26***	**18**	**10**	**4**	**17**	***49***	**107**	**110**	**36**	**28**	***281***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Laurel St Eastbound				Laurel St Westbound				Pacific Ave Northbound				Pacific Ave 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	4	0	0	0	1	0	0	0	2	0	0	1	1	2	11	0
4:15 PM	0	1	3	0	0	0	1	0	0	0	1	1	0	2	4	3	16	0
4:30 PM	0	4	0	0	0	0	0	1	0	0	2	0	0	0	0	2	9	0
4:45 PM	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**3**	**8**	44
5:00 PM	**0**	**4**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**8**	41
5:15 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**2**	**7**	32
5:30 PM	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**26**
5:45 PM	0	2	3	0	0	0	0	1	0	0	1	0	0	0	1	2	10	28
Count Total	0	14	13	0	0	0	2	4	0	0	9	1	0	3	9	17	72	0
Peak Hour	**0**	**7**	**3**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**3**	**0**	**0**	**0**	**3**	**8**	**26**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	Laurel St Eastbound			Laurel St Westbound			Pacific Ave Northbound			Pacific Ave Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	4	0	1	3	0	0	4	0	0	3	0	15	0
4:15 PM	3	3	0	0	3	0	0	4	1	0	2	1	17	0
4:30 PM	0	0	2	0	0	0	0	5	0	0	2	0	9	0
4:45 PM	**2**	**4**	**1**	**0**	**2**	**2**	**0**	**2**	**0**	**1**	**3**	**0**	**17**	58
5:00 PM	**0**	**3**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**3**	**0**	**9**	52
5:15 PM	**0**	**7**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**4**	**1**	**15**	50
5:30 PM	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**1**	**0**	**0**	**3**	**1**	**8**	**49**
5:45 PM	2	7	0	0	3	1	0	0	1	0	3	0	17	49
Count Total	8	28	3	1	16	4	0	17	2	2	23	3	107	0
Peak Hour	**3**	**14**	**1**	**0**	**7**	**3**	**0**	**4**	**0**	**2**	**13**	**2**	**49**	**0**

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

Roundabout Counts

2020 Counts (8/18/2020)

Peak Hour	Center Street/Laurel Street												
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
AM	16	33	15	29	241	36	14	46	31	34	229	6	730
PM	19	98	35	31	446	64	39	61	61	76	422	15	1367

Peak Hour	Center Street/Pacific Avenue												
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
AM	64	29	11	16	4	224	238	65	8	0	0	0	659
PM	138	99	24	18	3	397	362	115	43	0	0	0	1199

2019 Counts (11/20/2019)

Peak Hour	Center Street/Laurel Street													Factor
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total	
AM	19	47	16	40	485	35	15	64	43	38	348	16	1166	1.597
PM	44	112	58	46	464	64	27	76	37	47	549	36	1560	1.141

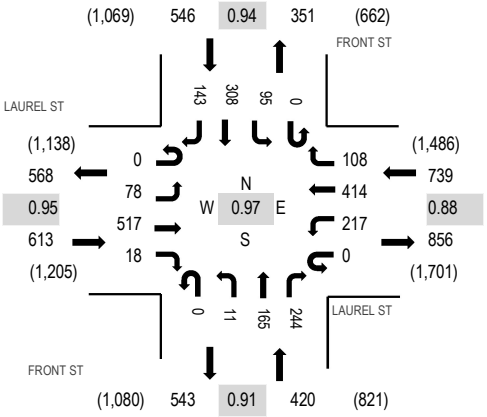
Peak Hour	Center Street/Pacific Avenue													Factor
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total	
AM	102	46	18	26	6	358	380	104	13	0	0	0	1053	1.598
PM	157	113	27	21	3	453	413	131	49	0	0	0	1367	1.140

All Traffic Data Services Inc.

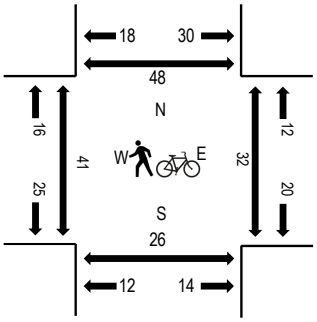
(303) 216-2439
www.alltrafficdata.net

Location: 4 FRONT ST & LAUREL ST PM
Date: Tuesday, May 14, 2019
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

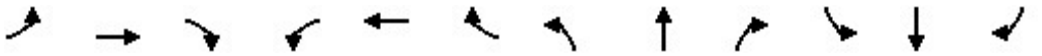
Interval Start Time	LAUREL ST Eastbound				LAUREL ST Westbound				FRONT ST Northbound				FRONT ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	18	116	6	0	60	93	21	0	0	39	79	0	22	73	39	566	2,298	13	11	6	8
4:15 PM	0	18	141	3	0	58	114	29	0	2	50	64	0	18	67	31	595	2,318	10	6	6	11
4:30 PM	0	23	130	2	0	51	90	21	0	6	35	59	0	19	88	40	564	2,317	14	12	8	13
4:45 PM	0	18	125	8	0	55	103	31	0	0	34	61	0	29	73	36	573	2,316	6	2	5	18
5:00 PM	0	19	121	5	0	53	107	27	0	3	46	60	0	29	80	36	586	2,283	9	5	6	4
5:15 PM	0	15	129	6	0	70	124	22	0	2	23	72	0	30	66	35	594		4	9	10	11
5:30 PM	0	20	121	3	0	42	98	23	0	2	33	71	0	25	86	39	563		4	9	12	11
5:45 PM	0	32	120	6	0	54	106	34	0	3	31	46	0	14	65	29	540		10	10	7	4

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	77	511	18	0	215	407	105	0	11	163	239	0	93	305	140	2,284
Mediums	0	1	6	0	0	2	7	3	0	0	2	5	0	2	3	3	34
Total	0	78	517	18	0	217	414	108	0	11	165	244	0	95	308	143	2,318

Appendix B

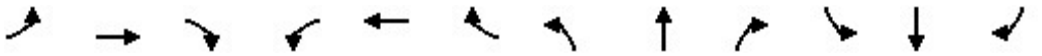
Level of Service Calculations



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	348	38	35	485	40	43	64	15	16	47	19
Future Volume (veh/h)	16	348	38	35	485	40	43	64	15	16	47	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	378	41	38	527	43	47	70	16	17	51	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	30	607	66	57	651	53	611	574	131	598	490	202
Arrive On Green	0.02	0.37	0.37	0.03	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1781	1658	180	1781	1706	139	1328	1473	337	1311	1259	518
Grp Volume(v), veh/h	17	0	419	38	0	570	47	0	86	17	0	72
Grp Sat Flow(s),veh/h/ln	1781	0	1838	1781	0	1845	1328	0	1810	1311	0	1777
Q Serve(g_s), s	0.5	0.0	10.6	1.2	0.0	15.6	1.3	0.0	1.7	0.5	0.0	1.5
Cycle Q Clear(g_c), s	0.5	0.0	10.6	1.2	0.0	15.6	2.8	0.0	1.7	2.2	0.0	1.5
Prop In Lane	1.00		0.10	1.00		0.08	1.00		0.19	1.00		0.29
Lane Grp Cap(c), veh/h	30	0	673	57	0	704	611	0	705	598	0	692
V/C Ratio(X)	0.58	0.00	0.62	0.67	0.00	0.81	0.08	0.00	0.12	0.03	0.00	0.10
Avail Cap(c_a), veh/h	189	0	1269	221	0	1307	611	0	705	598	0	692
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.6	0.0	14.7	27.0	0.0	15.6	11.8	0.0	11.0	11.8	0.0	11.0
Incr Delay (d2), s/veh	16.4	0.0	0.9	12.9	0.0	2.3	0.2	0.0	0.4	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	4.0	0.7	0.0	6.1	0.4	0.0	0.7	0.1	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.0	0.0	15.6	39.9	0.0	17.9	12.1	0.0	11.4	11.8	0.0	11.3
LnGrp LOS	D	A	B	D	A	B	B	A	B	B	A	B
Approach Vol, veh/h		436			608			133			89	
Approach Delay, s/veh		16.7			19.3			11.6			11.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.0	5.8	24.7		26.0	4.9	25.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		22.0	7.0	39.0		22.0	6.0	40.0				
Max Q Clear Time (g_c+I1), s		4.8	3.2	12.6		4.2	2.5	17.6				
Green Ext Time (p_c), s		0.5	0.0	2.8		0.3	0.0	3.9				

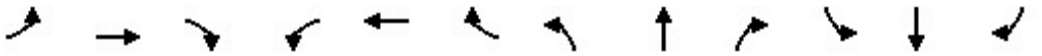
Intersection Summary												
HCM 6th Ctrl Delay			17.1									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	310	17	20	409	93	34	66	34	105	15	41
Future Volume (veh/h)	91	310	17	20	409	93	34	66	34	105	15	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	337	18	22	445	101	37	72	37	114	16	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	127	721	611	35	493	112	170	331	432	160	22	162
Arrive On Green	0.07	0.39	0.39	0.02	0.33	0.33	0.27	0.27	0.27	0.10	0.10	0.10
Sat Flow, veh/h	1781	1870	1585	1781	1475	335	624	1215	1585	1571	221	1585
Grp Volume(v), veh/h	99	337	18	22	0	546	109	0	37	130	0	45
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1810	1839	0	1585	1792	0	1585
Q Serve(g_s), s	4.1	10.1	0.5	0.9	0.0	21.5	3.4	0.0	1.3	5.3	0.0	2.0
Cycle Q Clear(g_c), s	4.1	10.1	0.5	0.9	0.0	21.5	3.4	0.0	1.3	5.3	0.0	2.0
Prop In Lane	1.00		1.00	1.00		0.18	0.34		1.00	0.88		1.00
Lane Grp Cap(c), veh/h	127	721	611	35	0	604	501	0	432	183	0	162
V/C Ratio(X)	0.78	0.47	0.03	0.63	0.00	0.90	0.22	0.00	0.09	0.71	0.00	0.28
Avail Cap(c_a), veh/h	155	725	614	131	0	677	501	0	432	445	0	394
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.2	17.2	14.3	36.4	0.0	23.8	21.0	0.0	20.3	32.5	0.0	31.1
Incr Delay (d2), s/veh	18.6	0.5	0.0	17.1	0.0	14.5	1.0	0.0	0.4	5.1	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.2	0.2	0.6	0.0	11.0	1.6	0.0	0.5	2.5	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	17.7	14.3	53.6	0.0	38.3	22.0	0.0	20.7	37.6	0.0	32.0
LnGrp LOS	D	B	B	D	A	D	C	A	C	D	A	C
Approach Vol, veh/h		454			568			146			175	
Approach Delay, s/veh		25.2			38.9			21.7			36.2	
Approach LOS		C			D			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.4	6.0	32.8		11.6	9.8	29.0				
Change Period (Y+Rc), s		4.0	4.5	4.0		4.0	4.5	4.0				
Max Green Setting (Gmax), s		20.4	5.5	29.0		18.6	6.5	28.0				
Max Q Clear Time (g_c+I1), s		5.4	2.9	12.1		7.3	6.1	23.5				
Green Ext Time (p_c), s		0.5	0.0	1.9		0.6	0.0	1.5				

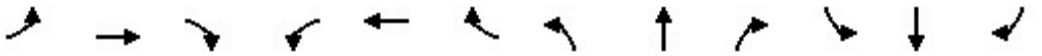
Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	243	58	158	356	0	102	0	211	0	1	0
Future Volume (veh/h)	0	243	58	158	356	0	102	0	211	0	1	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	264	63	172	387	0	111	0	229	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	3	345	82	224	814	0	724	0	664	0	783	0
Arrive On Green	0.00	0.24	0.24	0.13	0.44	0.00	0.42	0.00	0.42	0.00	0.42	0.00
Sat Flow, veh/h	1781	1459	348	1781	1870	0	1415	0	1585	0	1870	0
Grp Volume(v), veh/h	0	0	327	172	387	0	111	0	229	0	1	0
Grp Sat Flow(s),veh/h/ln	1781	0	1808	1781	1870	0	1415	0	1585	0	1870	0
Q Serve(g_s), s	0.0	0.0	9.3	5.1	8.1	0.0	2.7	0.0	5.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	9.3	5.1	8.1	0.0	2.7	0.0	5.4	0.0	0.0	0.0
Prop In Lane	1.00		0.19	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	3	0	428	224	814	0	724	0	664	0	783	0
V/C Ratio(X)	0.00	0.00	0.76	0.77	0.48	0.00	0.15	0.00	0.34	0.00	0.00	0.00
Avail Cap(c_a), veh/h	178	0	889	584	1345	0	724	0	664	0	783	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)	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.5	23.2	11.0	0.0	10.1	0.0	10.8	0.0	9.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	2.9	5.4	0.4	0.0	0.4	0.0	1.4	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	0.0	0.0	3.8	2.3	2.9	0.0	0.8	0.0	1.9	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	22.4	28.6	11.5	0.0	10.5	0.0	12.3	0.0	9.3	0.0
LnGrp LOS	A	A	C	C	B	A	B	A	B	A	A	A
Approach Vol, veh/h		327			559			340			1	
Approach Delay, s/veh		22.4			16.7			11.7			9.3	
Approach LOS		C			B			B			A	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	27.0	10.9	17.0	27.0	0.0	27.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	23.0	18.0	27.0	23.0	5.5	39.5
Max Q Clear Time (g_c+I1), s	7.4	7.1	11.3	2.0	0.0	10.1
Green Ext Time (p_c), s	1.2	0.3	1.7	0.0	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	356	13	279	532	91	5	134	198	33	163	34
Future Volume (veh/h)	56	356	13	279	532	91	5	134	198	33	163	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	387	14	303	578	99	5	146	215	36	177	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	354	1437	52	351	766	649	9	311	263	49	352	299
Arrive On Green	0.20	0.41	0.41	0.20	0.41	0.41	0.01	0.17	0.17	0.03	0.19	0.19
Sat Flow, veh/h	1781	3498	126	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	61	196	205	303	578	99	5	146	215	36	177	37
Grp Sat Flow(s),veh/h/ln	1781	1777	1848	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.3	5.9	5.9	13.3	21.3	3.2	0.2	5.7	10.5	1.6	6.8	1.6
Cycle Q Clear(g_c), s	2.3	5.9	5.9	13.3	21.3	3.2	0.2	5.7	10.5	1.6	6.8	1.6
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	730	759	351	766	649	9	311	263	49	352	299
V/C Ratio(X)	0.17	0.27	0.27	0.86	0.75	0.15	0.53	0.47	0.82	0.74	0.50	0.12
Avail Cap(c_a), veh/h	354	730	759	541	766	649	88	441	374	88	441	374
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.8	15.7	15.7	31.3	20.3	15.0	40.0	30.4	32.4	38.9	29.3	27.2
Incr Delay (d2), s/veh	1.1	0.9	0.9	8.8	6.8	0.5	40.0	1.1	9.2	19.1	1.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.5	2.6	6.4	10.1	1.2	0.2	2.6	4.6	1.0	3.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	16.6	16.6	40.1	27.2	15.5	80.0	31.5	41.6	58.0	30.4	27.4
LnGrp LOS	C	B	B	D	C	B	E	C	D	E	C	C
Approach Vol, veh/h		462			980			366			250	
Approach Delay, s/veh		18.1			30.0			38.1			34.0	
Approach LOS		B			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	17.4	19.9	37.1	4.4	19.2	20.0	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	19.0	24.5	24.5	4.0	19.0	16.0	33.0
Max Q Clear Time (g_c+I1), s	3.6	12.5	15.3	7.9	2.2	8.8	4.3	23.3
Green Ext Time (p_c), s	0.0	0.8	0.6	2.1	0.0	0.7	0.1	2.9

Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	5.7
Intersection LOS	A

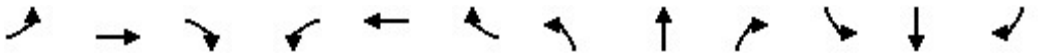
Approach	EB	WB	NB	SB
Entry Lanes	0	1	0	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	424	0	181
Demand Flow Rate, veh/h	0	433	0	184
Vehicles Circulating, veh/h	468	129	20	418
Vehicles Exiting, veh/h	134	0	448	144
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	6.5	0.0	6.1
Approach LOS	-	A	-	A

Lane	Left	Left
Designated Moves	LTR	LTR
Assumed Moves	LTR	LTR
RT Channelized		
Lane Util	1.000	1.000
Follow-Up Headway, s	2.609	2.609
Critical Headway, s	4.976	4.976
Entry Flow, veh/h	433	184
Cap Entry Lane, veh/h	1210	901
Entry HV Adj Factor	0.979	0.984
Flow Entry, veh/h	424	181
Cap Entry, veh/h	1184	886
V/C Ratio	0.358	0.204
Control Delay, s/veh	6.5	6.1
LOS	A	A
95th %tile Queue, veh	2	1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Approach	NW
Entry Lanes	1
Conflicting Circle Lanes	1
Adj Approach Flow, veh/h	540
Demand Flow Rate, veh/h	550
Vehicles Circulating, veh/h	0
Vehicles Exiting, veh/h	20
Ped Vol Crossing Leg, #/h	0
Ped Cap Adj	1.000
Approach Delay, s/veh	4.9
Approach LOS	A

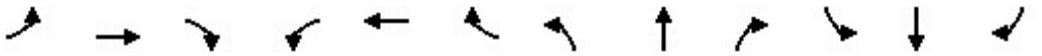
Lane	Left	Bypass
Designated Moves	R	R
Assumed Moves	R	R
RT Channelized		Yield
Lane Util	1.000	
Follow-Up Headway, s	2.609	
Critical Headway, s	4.976	421
Entry Flow, veh/h	129	1380
Cap Entry Lane, veh/h	1380	0.980
Entry HV Adj Factor	0.984	413
Flow Entry, veh/h	127	1353
Cap Entry, veh/h	1358	0.305
V/C Ratio	0.093	5.4
Control Delay, s/veh	3.4	A
LOS	A	1
95th %tile Queue, veh	0	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	373	12	50	465	34	35	36	39	18	19	22
Future Volume (veh/h)	16	373	12	50	465	34	35	36	39	18	19	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	405	13	54	505	37	38	39	42	20	21	24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	30	612	20	75	628	46	643	315	339	364	348	606
Arrive On Green	0.02	0.34	0.34	0.04	0.36	0.36	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1781	1802	58	1781	1722	126	1361	824	887	675	911	1585
Grp Volume(v), veh/h	17	0	418	54	0	542	38	0	81	41	0	24
Grp Sat Flow(s),veh/h/ln	1781	0	1860	1781	0	1848	1361	0	1711	1587	0	1585
Q Serve(g_s), s	0.5	0.0	9.7	1.5	0.0	13.4	0.9	0.0	1.6	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.5	0.0	9.7	1.5	0.0	13.4	1.6	0.0	1.6	0.7	0.0	0.5
Prop In Lane	1.00		0.03	1.00		0.07	1.00		0.52	0.49		1.00
Lane Grp Cap(c), veh/h	30	0	631	75	0	674	643	0	654	712	0	606
V/C Ratio(X)	0.57	0.00	0.66	0.72	0.00	0.80	0.06	0.00	0.12	0.06	0.00	0.04
Avail Cap(c_a), veh/h	653	0	1099	653	0	1092	643	0	654	712	0	606
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.8	0.0	14.3	24.0	0.0	14.5	10.4	0.0	10.2	9.9	0.0	9.8
Incr Delay (d2), s/veh	15.8	0.0	1.2	12.3	0.0	2.3	0.2	0.0	0.4	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	3.7	0.8	0.0	5.1	0.3	0.0	0.6	0.3	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	0.0	15.5	36.3	0.0	16.8	10.6	0.0	10.6	10.1	0.0	10.0
LnGrp LOS	D	A	B	D	A	B	B	A	B	B	A	A
Approach Vol, veh/h		435			596			119			65	
Approach Delay, s/veh		16.5			18.6			10.6			10.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.4	6.1	21.2		23.4	4.9	22.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		19.4	18.6	30.0		19.4	18.6	30.0				
Max Q Clear Time (g_c+I1), s		3.6	3.5	11.7		2.7	2.5	15.4				
Green Ext Time (p_c), s		0.4	0.1	2.5		0.2	0.0	3.1				

Intersection Summary												
HCM 6th Ctrl Delay			16.6									
HCM 6th LOS			B									

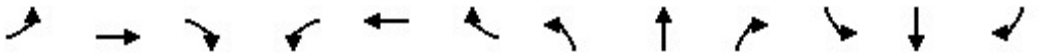


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	57	23	238	78	50	9	230	66	18	133	20
Future Volume (veh/h)	25	57	23	238	78	50	9	230	66	18	133	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	62	25	172	207	0	10	250	72	20	145	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	109	45	526	553		67	1350	374	567	812	123
Arrive On Green	0.06	0.06	0.06	0.30	0.30	0.00	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	822	1933	800	1781	1870	1585	47	2638	731	1058	1586	241
Grp Volume(v), veh/h	60	0	54	172	207	0	177	0	155	20	0	167
Grp Sat Flow(s),veh/h/ln	1829	0	1726	1781	1870	1585	1845	0	1571	1058	0	1827
Q Serve(g_s), s	2.8	0.0	2.7	6.6	7.7	0.0	0.0	0.0	4.7	0.9	0.0	4.3
Cycle Q Clear(g_c), s	2.8	0.0	2.7	6.6	7.7	0.0	4.5	0.0	4.7	5.6	0.0	4.3
Prop In Lane	0.45		0.46	1.00		1.00	0.06		0.47	1.00		0.13
Lane Grp Cap(c), veh/h	103	0	97	526	553		988	0	804	567	0	935
V/C Ratio(X)	0.58	0.00	0.56	0.33	0.37		0.18	0.00	0.19	0.04	0.00	0.18
Avail Cap(c_a), veh/h	437	0	412	526	553		988	0	804	567	0	935
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	0.96	0.00	0.96	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.5	0.0	40.5	24.2	24.6	0.0	11.6	0.0	11.6	13.1	0.0	11.5
Incr Delay (d2), s/veh	5.1	0.0	4.9	1.7	1.9	0.0	0.4	0.0	0.5	0.1	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	1.3	3.0	3.6	0.0	1.9	0.0	1.7	0.2	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	0.0	45.3	25.8	26.5	0.0	12.0	0.0	12.1	13.3	0.0	12.0
LnGrp LOS	D	A	D	C	C		B	A	B	B	A	B
Approach Vol, veh/h		114			379	A		332			187	
Approach Delay, s/veh		45.5			26.2			12.0			12.1	
Approach LOS		D			C			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		49.0		9.0		49.0		30.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		29.0		21.0		29.0		26.0				
Max Q Clear Time (g_c+I1), s		6.7		4.8		7.6		9.7				
Green Ext Time (p_c), s		1.9		0.5		0.9		1.5				

Intersection Summary		
HCM 6th Ctrl Delay	21.1	
HCM 6th LOS	C	

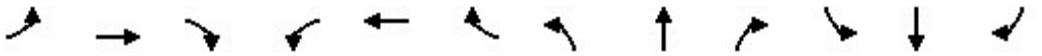
Notes
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	549	47	64	464	46	37	76	27	58	112	44
Future Volume (veh/h)	36	549	47	64	464	46	37	76	27	58	112	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	597	51	70	504	50	40	83	29	63	122	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	718	61	89	738	73	428	428	150	478	413	162
Arrive On Green	0.03	0.42	0.42	0.05	0.44	0.44	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	1699	145	1781	1674	166	1215	1324	463	1281	1277	503
Grp Volume(v), veh/h	39	0	648	70	0	554	40	0	112	63	0	170
Grp Sat Flow(s),veh/h/ln	1781	0	1844	1781	0	1840	1215	0	1787	1281	0	1780
Q Serve(g_s), s	1.3	0.0	18.4	2.3	0.0	14.2	1.5	0.0	2.7	2.2	0.0	4.2
Cycle Q Clear(g_c), s	1.3	0.0	18.4	2.3	0.0	14.2	5.7	0.0	2.7	4.9	0.0	4.2
Prop In Lane	1.00		0.08	1.00		0.09	1.00		0.26	1.00		0.28
Lane Grp Cap(c), veh/h	57	0	779	89	0	811	428	0	577	478	0	575
V/C Ratio(X)	0.68	0.00	0.83	0.78	0.00	0.68	0.09	0.00	0.19	0.13	0.00	0.30
Avail Cap(c_a), veh/h	188	0	1255	273	0	1340	428	0	577	478	0	575
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.2	0.0	15.1	27.6	0.0	13.2	17.0	0.0	14.4	16.1	0.0	14.9
Incr Delay (d2), s/veh	13.4	0.0	2.7	13.8	0.0	1.0	0.4	0.0	0.7	0.6	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	7.1	1.3	0.0	5.2	0.4	0.0	1.1	0.7	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.6	0.0	17.8	41.4	0.0	14.2	17.5	0.0	15.1	16.7	0.0	16.2
LnGrp LOS	D	A	B	D	A	B	B	A	B	B	A	B
Approach Vol, veh/h		687			624			152			233	
Approach Delay, s/veh		19.1			17.2			15.7			16.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	7.0	28.8		23.0	5.9	29.9				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		19.0	9.0	40.0		19.0	6.2	42.8				
Max Q Clear Time (g_c+I1), s		7.7	4.3	20.4		6.9	3.3	16.2				
Green Ext Time (p_c), s		0.5	0.0	4.5		0.9	0.0	4.0				

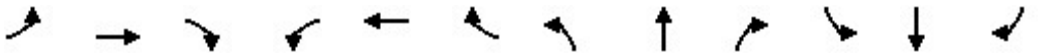
Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	545	26	37	448	76	33	39	45	111	52	78
Future Volume (veh/h)	94	545	26	37	448	76	33	39	45	111	52	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	102	592	28	40	487	83	36	42	49	121	57	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	718	608	53	530	90	209	243	392	160	75	206
Arrive On Green	0.07	0.38	0.38	0.03	0.34	0.34	0.25	0.25	0.25	0.13	0.13	0.13
Sat Flow, veh/h	1781	1870	1585	1781	1557	265	844	984	1585	1230	579	1585
Grp Volume(v), veh/h	102	592	28	40	0	570	78	0	49	178	0	85
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1823	1828	0	1585	1809	0	1585
Q Serve(g_s), s	4.4	22.5	0.9	1.8	0.0	23.7	2.6	0.0	1.9	7.5	0.0	3.9
Cycle Q Clear(g_c), s	4.4	22.5	0.9	1.8	0.0	23.7	2.6	0.0	1.9	7.5	0.0	3.9
Prop In Lane	1.00		1.00	1.00		0.15	0.46		1.00	0.68		1.00
Lane Grp Cap(c), veh/h	130	718	608	53	0	621	452	0	392	236	0	206
V/C Ratio(X)	0.79	0.82	0.05	0.76	0.00	0.92	0.17	0.00	0.13	0.76	0.00	0.41
Avail Cap(c_a), veh/h	147	723	613	113	0	670	452	0	392	424	0	372
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.0	21.9	15.2	38.0	0.0	25.0	23.4	0.0	23.1	33.1	0.0	31.5
Incr Delay (d2), s/veh	21.6	7.7	0.0	19.6	0.0	17.1	0.8	0.0	0.7	4.9	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	10.7	0.3	1.0	0.0	12.5	1.2	0.0	0.8	3.5	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	29.6	15.3	57.6	0.0	42.0	24.2	0.0	23.7	38.0	0.0	32.8
LnGrp LOS	E	C	B	E	A	D	C	A	C	D	A	C
Approach Vol, veh/h		722			610			127			263	
Approach Delay, s/veh		33.0			43.1			24.0			36.3	
Approach LOS		C			D			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.5	6.8	34.3		14.3	10.3	30.9				
Change Period (Y+Rc), s		4.0	4.5	4.0		4.0	4.5	4.0				
Max Green Setting (Gmax), s		19.5	5.0	30.5		18.5	6.5	29.0				
Max Q Clear Time (g_c+I1), s		4.6	3.8	24.5		9.5	6.4	25.7				
Green Ext Time (p_c), s		0.4	0.0	2.0		0.8	0.0	1.2				

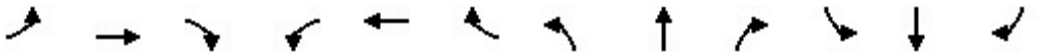
Intersection Summary												
HCM 6th Ctrl Delay			36.4									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	424	65	143	351	0	96	0	295	0	0	0
Future Volume (veh/h)	0	424	65	143	351	0	96	0	295	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	461	71	155	382	0	104	0	321	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	3	556	86	199	989	0	601	0	540	0	637	0
Arrive On Green	0.00	0.35	0.35	0.11	0.53	0.00	0.34	0.00	0.34	0.00	0.00	0.00
Sat Flow, veh/h	1781	1583	244	1781	1870	0	1418	0	1585	0	1870	0
Grp Volume(v), veh/h	0	0	532	155	382	0	104	0	321	0	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1826	1781	1870	0	1418	0	1585	0	1870	0
Q Serve(g_s), s	0.0	0.0	16.3	5.2	7.4	0.0	3.2	0.0	10.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	16.3	5.2	7.4	0.0	3.2	0.0	10.2	0.0	0.0	0.0
Prop In Lane	1.00		0.13	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	3	0	642	199	989	0	601	0	540	0	637	0
V/C Ratio(X)	0.00	0.00	0.83	0.78	0.39	0.00	0.17	0.00	0.59	0.00	0.00	0.00
Avail Cap(c_a), veh/h	160	0	1017	385	1277	0	601	0	540	0	637	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)	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	18.1	26.4	8.5	0.0	14.3	0.0	16.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	3.3	6.4	0.2	0.0	0.6	0.0	4.8	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	0.0	0.0	6.7	2.4	2.5	0.0	1.0	0.0	4.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	21.4	32.8	8.8	0.0	15.0	0.0	21.4	0.0	0.0	0.0
LnGrp LOS	A	A	C	C	A	A	B	A	C	A	A	A
Approach Vol, veh/h		532			537			425			0	
Approach Delay, s/veh		21.4			15.7			19.8			0.0	
Approach LOS		C			B			B				

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	24.8	10.8	25.5	24.8	0.0	36.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	20.8	13.2	34.0	20.8	5.5	41.7
Max Q Clear Time (g_c+I1), s	12.2	7.2	18.3	0.0	0.0	9.4
Green Ext Time (p_c), s	1.2	0.2	3.2	0.0	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	517	18	217	414	108	11	165	244	95	308	143
Future Volume (veh/h)	78	517	18	217	414	108	11	165	244	95	308	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	562	20	236	450	117	12	179	265	103	335	155
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	347	1326	47	280	638	541	21	364	309	132	481	408
Arrive On Green	0.19	0.38	0.38	0.16	0.34	0.34	0.01	0.19	0.19	0.07	0.26	0.26
Sat Flow, veh/h	1781	3500	124	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	85	285	297	236	450	117	12	179	265	103	335	155
Grp Sat Flow(s),veh/h/ln	1781	1777	1848	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.3	9.7	9.8	10.6	17.1	4.3	0.6	7.0	13.3	4.7	13.3	6.6
Cycle Q Clear(g_c), s	3.3	9.7	9.8	10.6	17.1	4.3	0.6	7.0	13.3	4.7	13.3	6.6
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	347	673	700	280	638	541	21	364	309	132	481	408
V/C Ratio(X)	0.24	0.42	0.42	0.84	0.71	0.22	0.58	0.49	0.86	0.78	0.70	0.38
Avail Cap(c_a), veh/h	347	673	700	445	638	541	87	433	367	195	547	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	18.9	18.9	33.6	23.4	19.2	40.3	29.4	31.9	37.3	27.6	25.1
Incr Delay (d2), s/veh	1.7	1.9	1.9	8.1	6.4	0.9	22.8	1.0	15.9	11.4	3.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.2	4.4	5.1	8.3	1.7	0.4	3.2	6.3	2.4	6.2	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	20.8	20.7	41.7	29.9	20.1	63.2	30.4	47.8	48.7	30.9	25.7
LnGrp LOS	C	C	C	D	C	C	E	C	D	D	C	C
Approach Vol, veh/h		667			803			456			593	
Approach Delay, s/veh		21.9			31.9			41.4			32.6	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	20.0	16.9	35.1	5.0	25.1	20.0	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	19.0	20.5	23.5	4.0	24.0	16.0	28.0
Max Q Clear Time (g_c+I1), s	6.7	15.3	12.6	11.8	2.6	15.3	5.3	19.1
Green Ext Time (p_c), s	0.0	0.7	0.4	2.8	0.0	1.7	0.1	2.2

Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

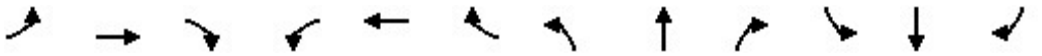
Approach	EB	WB	NB	SB
Entry Lanes	0	1	0	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	518	0	323
Demand Flow Rate, veh/h	0	528	0	329
Vehicles Circulating, veh/h	657	199	30	559
Vehicles Exiting, veh/h	231	0	627	168
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	8.4	0.0	10.2
Approach LOS	-	A	-	B

Lane	Left	Left
Designated Moves	LTR	LTR
Assumed Moves	LTR	LTR
RT Channelized		
Lane Util	1.000	1.000
Follow-Up Headway, s	2.609	2.609
Critical Headway, s	4.976	4.976
Entry Flow, veh/h	528	329
Cap Entry Lane, veh/h	1126	780
Entry HV Adj Factor	0.981	0.980
Flow Entry, veh/h	518	323
Cap Entry, veh/h	1105	765
V/C Ratio	0.469	0.422
Control Delay, s/veh	8.4	10.2
LOS	A	B
95th %tile Queue, veh	3	2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Approach	NW
Entry Lanes	1
Conflicting Circle Lanes	1
Adj Approach Flow, veh/h	644
Demand Flow Rate, veh/h	657
Vehicles Circulating, veh/h	0
Vehicles Exiting, veh/h	30
Ped Vol Crossing Leg, #/h	0
Ped Cap Adj	1.000
Approach Delay, s/veh	5.1
Approach LOS	A

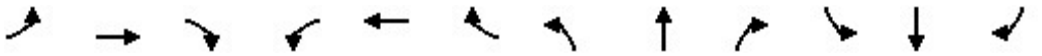
Lane	Left	Bypass
Designated Moves	R	R
Assumed Moves	R	R
RT Channelized		Yield
Lane Util	1.000	
Follow-Up Headway, s	2.609	
Critical Headway, s	4.976	458
Entry Flow, veh/h	199	1380
Cap Entry Lane, veh/h	1380	0.980
Entry HV Adj Factor	0.980	449
Flow Entry, veh/h	195	1353
Cap Entry, veh/h	1352	0.332
V/C Ratio	0.144	5.6
Control Delay, s/veh	3.8	A
LOS	A	1
95th %tile Queue, veh	1	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	582	24	40	459	50	33	73	44	57	40	30
Future Volume (veh/h)	45	582	24	40	459	50	33	73	44	57	40	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	633	26	43	499	54	36	79	48	62	43	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	737	30	62	680	74	481	372	226	350	218	541
Arrive On Green	0.04	0.41	0.41	0.03	0.41	0.41	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	1784	73	1781	1659	179	1323	1089	662	730	640	1585
Grp Volume(v), veh/h	49	0	659	43	0	553	36	0	127	105	0	33
Grp Sat Flow(s),veh/h/ln	1781	0	1857	1781	0	1838	1323	0	1751	1371	0	1585
Q Serve(g_s), s	1.5	0.0	18.4	1.4	0.0	14.4	1.2	0.0	2.9	1.2	0.0	0.8
Cycle Q Clear(g_c), s	1.5	0.0	18.4	1.4	0.0	14.4	5.3	0.0	2.9	4.2	0.0	0.8
Prop In Lane	1.00		0.04	1.00		0.10	1.00		0.38	0.59		1.00
Lane Grp Cap(c), veh/h	68	0	768	62	0	754	481	0	597	568	0	541
V/C Ratio(X)	0.73	0.00	0.86	0.70	0.00	0.73	0.07	0.00	0.21	0.18	0.00	0.06
Avail Cap(c_a), veh/h	582	0	980	582	0	969	481	0	597	568	0	541
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	0.0	15.2	27.2	0.0	14.2	15.7	0.0	13.3	13.6	0.0	12.6
Incr Delay (d2), s/veh	13.7	0.0	6.3	13.2	0.0	2.1	0.3	0.0	0.8	0.7	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	7.9	0.8	0.0	5.5	0.4	0.0	1.2	1.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	0.0	21.5	40.3	0.0	16.3	16.0	0.0	14.1	14.3	0.0	12.8
LnGrp LOS	D	A	C	D	A	B	B	A	B	B	A	B
Approach Vol, veh/h		708			596			163			138	
Approach Delay, s/veh		22.8			18.0			14.5			13.9	
Approach LOS		C			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.4	6.0	27.5		23.4	6.2	27.3				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		19.4	18.6	30.0		19.4	18.6	30.0				
Max Q Clear Time (g_c+I1), s		7.3	3.4	20.4		6.2	3.5	16.4				
Green Ext Time (p_c), s		0.6	0.1	3.2		0.5	0.1	3.1				

Intersection Summary	
HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	160	64	370	107	49	15	285	124	101	279	35
Future Volume (veh/h)	53	160	64	370	107	49	15	285	124	101	279	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	174	70	259	316	0	16	310	135	110	303	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	250	104	466	489		70	1117	466	456	782	98
Arrive On Green	0.12	0.12	0.12	0.26	0.26	0.00	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	662	2040	852	1781	1870	1585	55	2327	972	945	1629	204
Grp Volume(v), veh/h	161	0	141	259	316	0	249	0	212	110	0	341
Grp Sat Flow(s),veh/h/ln	1837	0	1717	1781	1870	1585	1826	0	1527	945	0	1834
Q Serve(g_s), s	7.4	0.0	6.9	11.1	13.2	0.0	0.0	0.0	7.4	7.0	0.0	10.5
Cycle Q Clear(g_c), s	7.4	0.0	6.9	11.1	13.2	0.0	7.0	0.0	7.4	14.4	0.0	10.5
Prop In Lane	0.36		0.50	1.00		1.00	0.06		0.64	1.00		0.11
Lane Grp Cap(c), veh/h	225	0	210	466	489		920	0	733	456	0	880
V/C Ratio(X)	0.72	0.00	0.67	0.56	0.65		0.27	0.00	0.29	0.24	0.00	0.39
Avail Cap(c_a), veh/h	459	0	429	466	489		920	0	733	456	0	880
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	0.94	0.00	0.94	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.1	0.0	36.9	28.1	28.9	0.0	13.7	0.0	13.8	18.2	0.0	14.6
Incr Delay (d2), s/veh	4.2	0.0	3.7	4.7	6.5	0.0	0.7	0.0	0.9	1.3	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	3.1	5.2	6.6	0.0	3.0	0.0	2.6	1.6	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	0.0	40.6	32.8	35.4	0.0	14.4	0.0	14.8	19.4	0.0	15.9
LnGrp LOS	D	A	D	C	D		B	A	B	B	A	B
Approach Vol, veh/h		302			575	A		461			451	
Approach Delay, s/veh		41.0			34.2			14.6			16.8	
Approach LOS		D			C			B			B	

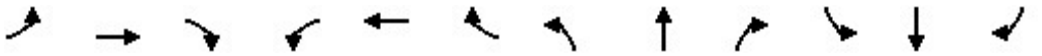
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		46.2		14.8		46.2		27.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		31.0		22.0		31.0		23.0				
Max Q Clear Time (g_c+I1), s		9.4		9.4		16.4		15.2				
Green Ext Time (p_c), s		2.8		1.4		2.3		1.7				

Intersection Summary		
HCM 6th Ctrl Delay		25.9
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

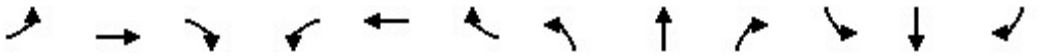
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	348	43	36	485	40	65	70	22	16	48	19
Future Volume (veh/h)	16	348	43	36	485	40	65	70	22	16	48	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	378	47	39	527	43	71	76	24	17	52	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	30	596	74	58	651	53	610	531	168	585	493	199
Arrive On Green	0.02	0.37	0.37	0.03	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1781	1631	203	1781	1706	139	1327	1363	430	1295	1267	512
Grp Volume(v), veh/h	17	0	425	39	0	570	71	0	100	17	0	73
Grp Sat Flow(s),veh/h/ln	1781	0	1834	1781	0	1845	1327	0	1793	1295	0	1778
Q Serve(g_s), s	0.5	0.0	10.8	1.2	0.0	15.6	2.0	0.0	2.0	0.5	0.0	1.5
Cycle Q Clear(g_c), s	0.5	0.0	10.8	1.2	0.0	15.6	3.5	0.0	2.0	2.5	0.0	1.5
Prop In Lane	1.00		0.11	1.00		0.08	1.00		0.24	1.00		0.29
Lane Grp Cap(c), veh/h	30	0	670	58	0	704	610	0	698	585	0	693
V/C Ratio(X)	0.58	0.00	0.63	0.68	0.00	0.81	0.12	0.00	0.14	0.03	0.00	0.11
Avail Cap(c_a), veh/h	189	0	1266	221	0	1307	610	0	698	585	0	693
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.6	0.0	14.8	27.0	0.0	15.6	12.1	0.0	11.1	12.0	0.0	11.0
Incr Delay (d2), s/veh	16.4	0.0	1.0	12.9	0.0	2.3	0.4	0.0	0.4	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	4.1	0.7	0.0	6.1	0.6	0.0	0.8	0.1	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.0	0.0	15.8	39.9	0.0	17.9	12.5	0.0	11.6	12.1	0.0	11.3
LnGrp LOS	D	A	B	D	A	B	B	A	B	B	A	B
Approach Vol, veh/h		442			609			171			90	
Approach Delay, s/veh		16.9			19.3			11.9			11.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.0	5.8	24.6		26.0	4.9	25.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		22.0	7.0	39.0		22.0	6.0	40.0				
Max Q Clear Time (g_c+I1), s		5.5	3.2	12.8		4.5	2.5	17.6				
Green Ext Time (p_c), s		0.6	0.0	2.8		0.3	0.0	3.9				

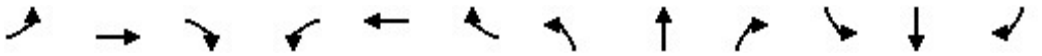
Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	312	17	20	420	104	34	66	34	107	15	41
Future Volume (veh/h)	91	312	17	20	420	104	34	66	34	107	15	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	339	18	22	457	113	37	72	37	116	16	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	127	747	633	35	503	124	161	314	410	162	22	163
Arrive On Green	0.07	0.40	0.40	0.02	0.35	0.35	0.26	0.26	0.26	0.10	0.10	0.10
Sat Flow, veh/h	1781	1870	1585	1781	1448	358	624	1215	1585	1574	217	1585
Grp Volume(v), veh/h	99	339	18	22	0	570	109	0	37	132	0	45
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1806	1839	0	1585	1792	0	1585
Q Serve(g_s), s	4.1	10.0	0.5	0.9	0.0	22.6	3.5	0.0	1.3	5.4	0.0	2.0
Cycle Q Clear(g_c), s	4.1	10.0	0.5	0.9	0.0	22.6	3.5	0.0	1.3	5.4	0.0	2.0
Prop In Lane	1.00		1.00	1.00		0.20	0.34		1.00	0.88		1.00
Lane Grp Cap(c), veh/h	127	747	633	35	0	628	475	0	410	185	0	163
V/C Ratio(X)	0.78	0.45	0.03	0.63	0.00	0.91	0.23	0.00	0.09	0.71	0.00	0.28
Avail Cap(c_a), veh/h	154	747	633	130	0	698	475	0	410	444	0	393
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.3	16.6	13.7	36.5	0.0	23.3	21.9	0.0	21.1	32.6	0.0	31.1
Incr Delay (d2), s/veh	18.8	0.4	0.0	17.2	0.0	14.8	1.1	0.0	0.4	5.1	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.1	0.2	0.6	0.0	11.5	1.6	0.0	0.5	2.5	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.1	17.0	13.7	53.7	0.0	38.2	23.1	0.0	21.6	37.7	0.0	32.0
LnGrp LOS	D	B	B	D	A	D	C	A	C	D	A	C
Approach Vol, veh/h		456			592			146			177	
Approach Delay, s/veh		24.7			38.8			22.7			36.2	
Approach LOS		C			D			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.4	6.0	34.0		11.7	9.8	30.1				
Change Period (Y+Rc), s		4.0	4.5	4.0		4.0	4.5	4.0				
Max Green Setting (Gmax), s		19.4	5.5	30.0		18.6	6.5	29.0				
Max Q Clear Time (g_c+I1), s		5.5	2.9	12.0		7.4	6.1	24.6				
Green Ext Time (p_c), s		0.5	0.0	1.9		0.6	0.0	1.5				

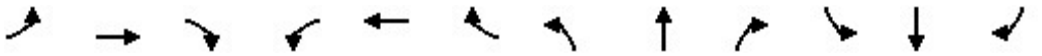
Intersection Summary												
HCM 6th Ctrl Delay			32.0									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	245	58	158	364	3	102	0	211	1	1	0
Future Volume (veh/h)	0	245	58	158	364	3	102	0	211	1	1	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	266	63	172	396	3	111	0	229	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	3	348	82	224	809	6	737	0	663	369	339	0
Arrive On Green	0.00	0.24	0.24	0.13	0.44	0.44	0.42	0.00	0.42	0.42	0.42	0.00
Sat Flow, veh/h	1781	1462	346	1781	1854	14	1450	0	1585	647	809	0
Grp Volume(v), veh/h	0	0	329	172	0	399	111	0	229	2	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1808	1781	0	1868	1450	0	1585	1456	0	0
Q Serve(g_s), s	0.0	0.0	9.3	5.1	0.0	8.4	0.0	0.0	5.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	9.3	5.1	0.0	8.4	2.1	0.0	5.4	2.1	0.0	0.0
Prop In Lane	1.00		0.19	1.00		0.01	1.00		1.00	0.50		0.00
Lane Grp Cap(c), veh/h	3	0	430	224	0	815	737	0	663	707	0	0
V/C Ratio(X)	0.00	0.00	0.77	0.77	0.00	0.49	0.15	0.00	0.35	0.00	0.00	0.00
Avail Cap(c_a), veh/h	178	0	888	583	0	1341	737	0	663	707	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)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.5	23.3	0.0	11.1	9.9	0.0	10.9	9.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	2.9	5.4	0.0	0.5	0.4	0.0	1.4	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	0.0	0.0	3.9	2.3	0.0	3.0	0.8	0.0	1.9	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	22.4	28.7	0.0	11.6	10.4	0.0	12.3	9.3	0.0	0.0
LnGrp LOS	A	A	C	C	A	B	B	A	B	A	A	A
Approach Vol, veh/h		329			571			340			2	
Approach Delay, s/veh		22.4			16.7			11.7			9.3	
Approach LOS		C			B			B			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.0	10.9	17.1		27.0	0.0	28.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		23.0	18.0	27.0		23.0	5.5	39.5				
Max Q Clear Time (g_c+I1), s		7.4	7.1	11.3		4.1	0.0	10.4				
Green Ext Time (p_c), s		1.2	0.3	1.7		0.0	0.0	2.6				

Intersection Summary												
HCM 6th Ctrl Delay			16.8									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	360	13	281	532	91	5	145	202	33	165	34
Future Volume (veh/h)	56	360	13	281	532	91	5	145	202	33	165	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	391	14	305	578	99	5	158	220	36	179	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	1426	51	353	763	646	9	317	268	49	358	304
Arrive On Green	0.20	0.41	0.41	0.20	0.41	0.41	0.01	0.17	0.17	0.03	0.19	0.19
Sat Flow, veh/h	1781	3500	125	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	61	198	207	305	578	99	5	158	220	36	179	37
Grp Sat Flow(s),veh/h/ln	1781	1777	1848	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.3	6.0	6.0	13.4	21.4	3.2	0.2	6.2	10.8	1.6	6.9	1.6
Cycle Q Clear(g_c), s	2.3	6.0	6.0	13.4	21.4	3.2	0.2	6.2	10.8	1.6	6.9	1.6
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	724	753	353	763	646	9	317	268	49	358	304
V/C Ratio(X)	0.17	0.27	0.27	0.86	0.76	0.15	0.53	0.50	0.82	0.74	0.50	0.12
Avail Cap(c_a), veh/h	352	724	753	539	763	646	88	439	372	88	439	372
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.0	16.0	16.0	31.4	20.5	15.1	40.2	30.5	32.4	39.1	29.2	27.1
Incr Delay (d2), s/veh	1.1	0.9	0.9	9.1	6.9	0.5	40.0	1.2	9.8	19.2	1.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.5	2.6	6.5	10.2	1.2	0.2	2.8	4.8	1.0	3.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	16.9	16.9	40.5	27.5	15.6	80.2	31.7	42.2	58.3	30.3	27.3
LnGrp LOS	C	B	B	D	C	B	F	C	D	E	C	C
Approach Vol, veh/h		466			982			383			252	
Approach Delay, s/veh		18.4			30.3			38.4			33.9	
Approach LOS		B			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	17.7	20.0	37.0	4.4	19.5	20.0	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	19.0	24.5	24.5	4.0	19.0	16.0	33.0
Max Q Clear Time (g_c+I1), s	3.6	12.8	15.4	8.0	2.2	8.9	4.3	23.4
Green Ext Time (p_c), s	0.0	0.9	0.6	2.1	0.0	0.7	0.1	2.9

Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	5.8
Intersection LOS	A

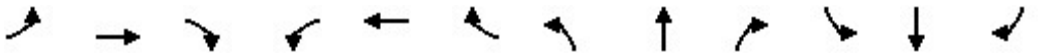
Approach	EB	WB	NB	SB
Entry Lanes	0	1	0	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	429	0	204
Demand Flow Rate, veh/h	0	438	0	208
Vehicles Circulating, veh/h	492	130	37	418
Vehicles Exiting, veh/h	134	0	455	150
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	6.6	0.0	6.5
Approach LOS	-	A	-	A

Lane	Left	Left
Designated Moves	LTR	LTR
Assumed Moves	LTR	LTR
RT Channelized		
Lane Util	1.000	1.000
Follow-Up Headway, s	2.609	2.609
Critical Headway, s	4.976	4.976
Entry Flow, veh/h	438	208
Cap Entry Lane, veh/h	1209	901
Entry HV Adj Factor	0.979	0.980
Flow Entry, veh/h	429	204
Cap Entry, veh/h	1183	883
V/C Ratio	0.362	0.231
Control Delay, s/veh	6.6	6.5
LOS	A	A
95th %tile Queue, veh	2	1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Approach	NW
Entry Lanes	1
Conflicting Circle Lanes	1
Adj Approach Flow, veh/h	541
Demand Flow Rate, veh/h	551
Vehicles Circulating, veh/h	0
Vehicles Exiting, veh/h	37
Ped Vol Crossing Leg, #/h	0
Ped Cap Adj	1.000
Approach Delay, s/veh	4.9
Approach LOS	A

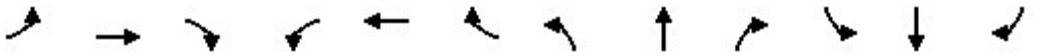
Lane	Left	Bypass
Designated Moves	R	R
Assumed Moves	R	R
RT Channelized		Yield
Lane Util	1.000	
Follow-Up Headway, s	2.609	
Critical Headway, s	4.976	421
Entry Flow, veh/h	130	1380
Cap Entry Lane, veh/h	1380	0.980
Entry HV Adj Factor	0.985	413
Flow Entry, veh/h	128	1353
Cap Entry, veh/h	1359	0.305
V/C Ratio	0.094	5.4
Control Delay, s/veh	3.4	A
LOS	A	1
95th %tile Queue, veh	0	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	377	12	50	465	34	35	36	39	18	19	23
Future Volume (veh/h)	19	377	12	50	465	34	35	36	39	18	19	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	410	13	54	505	37	38	39	42	20	21	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	617	20	75	627	46	640	313	337	362	347	603
Arrive On Green	0.02	0.34	0.34	0.04	0.36	0.36	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1781	1803	57	1781	1722	126	1360	824	887	675	911	1585
Grp Volume(v), veh/h	21	0	423	54	0	542	38	0	81	41	0	25
Grp Sat Flow(s),veh/h/ln	1781	0	1860	1781	0	1848	1360	0	1711	1587	0	1585
Q Serve(g_s), s	0.6	0.0	9.9	1.5	0.0	13.5	0.9	0.0	1.6	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.6	0.0	9.9	1.5	0.0	13.5	1.6	0.0	1.6	0.7	0.0	0.5
Prop In Lane	1.00		0.03	1.00		0.07	1.00		0.52	0.49		1.00
Lane Grp Cap(c), veh/h	36	0	637	75	0	673	640	0	651	709	0	603
V/C Ratio(X)	0.58	0.00	0.66	0.72	0.00	0.81	0.06	0.00	0.12	0.06	0.00	0.04
Avail Cap(c_a), veh/h	650	0	1094	650	0	1087	640	0	651	709	0	603
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.8	0.0	14.3	24.1	0.0	14.6	10.5	0.0	10.3	10.0	0.0	9.9
Incr Delay (d2), s/veh	14.1	0.0	1.2	12.4	0.0	2.3	0.2	0.0	0.4	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	3.7	0.9	0.0	5.1	0.3	0.0	0.6	0.3	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	0.0	15.5	36.5	0.0	16.9	10.7	0.0	10.7	10.2	0.0	10.1
LnGrp LOS	D	A	B	D	A	B	B	A	B	B	A	B
Approach Vol, veh/h		444			596			119			66	
Approach Delay, s/veh		16.6			18.7			10.7			10.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.4	6.1	21.5		23.4	5.0	22.6				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		19.4	18.6	30.0		19.4	18.6	30.0				
Max Q Clear Time (g_c+I1), s		3.6	3.5	11.9		2.7	2.6	15.5				
Green Ext Time (p_c), s		0.4	0.1	2.5		0.2	0.0	3.1				

Intersection Summary												
HCM 6th Ctrl Delay			16.7									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	57	23	240	78	50	9	236	74	18	134	21
Future Volume (veh/h)	28	57	23	240	78	50	9	236	74	18	134	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	62	25	173	208	0	10	257	80	20	146	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	51	109	45	526	553		65	1323	396	556	805	127
Arrive On Green	0.06	0.06	0.06	0.30	0.30	0.00	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	889	1886	781	1781	1870	1585	43	2591	775	1043	1577	248
Grp Volume(v), veh/h	62	0	55	173	208	0	186	0	161	20	0	169
Grp Sat Flow(s),veh/h/ln	1826	0	1730	1781	1870	1585	1847	0	1563	1043	0	1826
Q Serve(g_s), s	2.9	0.0	2.7	6.7	7.8	0.0	0.0	0.0	5.0	0.9	0.0	4.4
Cycle Q Clear(g_c), s	2.9	0.0	2.7	6.7	7.8	0.0	4.7	0.0	5.0	5.9	0.0	4.4
Prop In Lane	0.49		0.45	1.00		1.00	0.05		0.50	1.00		0.14
Lane Grp Cap(c), veh/h	105	0	100	526	553		986	0	798	556	0	932
V/C Ratio(X)	0.59	0.00	0.56	0.33	0.38		0.19	0.00	0.20	0.04	0.00	0.18
Avail Cap(c_a), veh/h	436	0	413	526	553		986	0	798	556	0	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	0.95	0.00	0.95	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.4	0.0	40.4	24.2	24.6	0.0	11.7	0.0	11.7	13.4	0.0	11.6
Incr Delay (d2), s/veh	5.1	0.0	4.8	1.7	2.0	0.0	0.4	0.0	0.5	0.1	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	1.3	3.0	3.7	0.0	2.0	0.0	1.8	0.2	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.6	0.0	45.2	25.9	26.5	0.0	12.1	0.0	12.3	13.5	0.0	12.0
LnGrp LOS	D	A	D	C	C		B	A	B	B	A	B
Approach Vol, veh/h		117			381	A		347			189	
Approach Delay, s/veh		45.4			26.2			12.2			12.2	
Approach LOS		D			C			B			B	

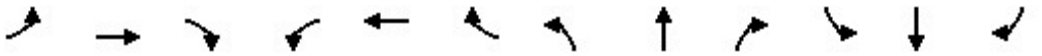
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		48.9		9.1		48.9		30.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		29.0		21.0		29.0		26.0				
Max Q Clear Time (g_c+I1), s		7.0		4.9		7.9		9.8				
Green Ext Time (p_c), s		2.0		0.5		1.0		1.5				

Intersection Summary		
HCM 6th Ctrl Delay	21.1	
HCM 6th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.

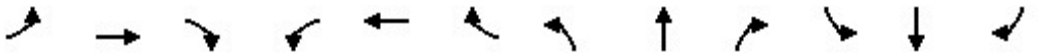
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	549	69	67	464	46	47	79	30	58	117	44
Future Volume (veh/h)	36	549	69	67	464	46	47	79	30	58	117	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	597	75	73	504	50	51	86	33	63	127	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	709	89	94	764	76	408	404	155	456	406	153
Arrive On Green	0.03	0.44	0.44	0.05	0.46	0.46	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	1629	205	1781	1674	166	1210	1287	494	1273	1293	489
Grp Volume(v), veh/h	39	0	672	73	0	554	51	0	119	63	0	175
Grp Sat Flow(s),veh/h/ln	1781	0	1834	1781	0	1840	1210	0	1781	1273	0	1782
Q Serve(g_s), s	1.3	0.0	19.8	2.5	0.0	14.2	2.0	0.0	3.0	2.3	0.0	4.5
Cycle Q Clear(g_c), s	1.3	0.0	19.8	2.5	0.0	14.2	6.5	0.0	3.0	5.3	0.0	4.5
Prop In Lane	1.00		0.11	1.00		0.09	1.00		0.28	1.00		0.27
Lane Grp Cap(c), veh/h	57	0	798	94	0	839	408	0	559	456	0	560
V/C Ratio(X)	0.69	0.00	0.84	0.78	0.00	0.66	0.12	0.00	0.21	0.14	0.00	0.31
Avail Cap(c_a), veh/h	182	0	1212	265	0	1302	408	0	559	456	0	560
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.0	0.0	15.2	28.3	0.0	12.8	18.3	0.0	15.3	17.2	0.0	15.8
Incr Delay (d2), s/veh	13.8	0.0	3.5	13.0	0.0	0.9	0.6	0.0	0.9	0.6	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	7.8	1.3	0.0	5.2	0.6	0.0	1.2	0.7	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.8	0.0	18.7	41.3	0.0	13.7	18.9	0.0	16.1	17.8	0.0	17.3
LnGrp LOS	D	A	B	D	A	B	B	A	B	B	A	B
Approach Vol, veh/h		711			627			170			238	
Approach Delay, s/veh		20.0			16.9			17.0			17.4	
Approach LOS		C			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	7.2	30.3		23.0	5.9	31.6				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		19.0	9.0	40.0		19.0	6.2	42.8				
Max Q Clear Time (g_c+I1), s		8.5	4.5	21.8		7.3	3.3	16.2				
Green Ext Time (p_c), s		0.5	0.0	4.6		0.9	0.0	4.0				

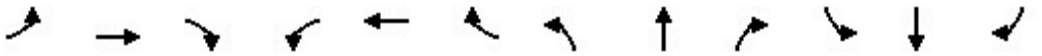
Intersection Summary												
HCM 6th Ctrl Delay			18.3									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	556	26	37	453	81	33	39	45	122	52	78
Future Volume (veh/h)	94	556	26	37	453	81	33	39	45	122	52	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	102	604	28	40	492	88	36	42	49	133	57	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	724	613	52	530	95	204	238	383	173	74	216
Arrive On Green	0.07	0.39	0.39	0.03	0.34	0.34	0.24	0.24	0.24	0.14	0.14	0.14
Sat Flow, veh/h	1781	1870	1585	1781	1544	276	844	984	1585	1265	542	1585
Grp Volume(v), veh/h	102	604	28	40	0	580	78	0	49	190	0	85
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1821	1828	0	1585	1807	0	1585
Q Serve(g_s), s	4.5	23.5	0.9	1.8	0.0	24.6	2.7	0.0	1.9	8.1	0.0	3.9
Cycle Q Clear(g_c), s	4.5	23.5	0.9	1.8	0.0	24.6	2.7	0.0	1.9	8.1	0.0	3.9
Prop In Lane	1.00		1.00	1.00		0.15	0.46		1.00	0.70		1.00
Lane Grp Cap(c), veh/h	130	724	613	52	0	625	442	0	383	247	0	216
V/C Ratio(X)	0.79	0.83	0.05	0.76	0.00	0.93	0.18	0.00	0.13	0.77	0.00	0.39
Avail Cap(c_a), veh/h	144	724	613	111	0	660	442	0	383	416	0	365
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.6	22.3	15.4	38.7	0.0	25.4	24.1	0.0	23.8	33.4	0.0	31.6
Incr Delay (d2), s/veh	22.3	8.4	0.0	20.2	0.0	18.9	0.9	0.0	0.7	5.1	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	11.3	0.3	1.1	0.0	13.3	1.2	0.0	0.8	3.8	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.9	30.6	15.4	58.8	0.0	44.3	25.0	0.0	24.5	38.5	0.0	32.8
LnGrp LOS	E	C	B	E	A	D	C	A	C	D	A	C
Approach Vol, veh/h		734			620			127			275	
Approach Delay, s/veh		34.0			45.2			24.8			36.7	
Approach LOS		C			D			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.4	6.9	35.1		15.0	10.3	31.6				
Change Period (Y+Rc), s		4.0	4.5	4.0		4.0	4.5	4.0				
Max Green Setting (Gmax), s		19.4	5.0	30.6		18.5	6.5	29.1				
Max Q Clear Time (g_c+I1), s		4.7	3.8	25.5		10.1	6.5	26.6				
Green Ext Time (p_c), s		0.4	0.0	1.8		0.8	0.0	0.9				

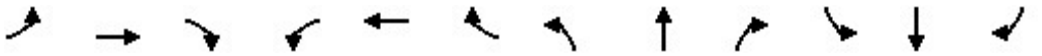
Intersection Summary												
HCM 6th Ctrl Delay			37.7									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	432	65	143	355	1	96	0	295	3	0	0
Future Volume (veh/h)	0	432	65	143	355	1	96	0	295	3	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	470	71	155	386	1	104	0	321	3	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	3	564	85	199	992	3	612	0	536	431	0	0
Arrive On Green	0.00	0.36	0.36	0.11	0.53	0.53	0.34	0.00	0.34	0.34	0.00	0.00
Sat Flow, veh/h	1781	1587	240	1781	1865	5	1464	0	1585	930	0	0
Grp Volume(v), veh/h	0	0	541	155	0	387	104	0	321	3	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1827	1781	0	1869	1464	0	1585	930	0	0
Q Serve(g_s), s	0.0	0.0	16.7	5.2	0.0	7.5	0.0	0.0	10.4	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	16.7	5.2	0.0	7.5	2.5	0.0	10.4	2.7	0.0	0.0
Prop In Lane	1.00		0.13	1.00		0.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	3	0	650	199	0	995	612	0	536	431	0	0
V/C Ratio(X)	0.00	0.00	0.83	0.78	0.00	0.39	0.17	0.00	0.60	0.01	0.00	0.00
Avail Cap(c_a), veh/h	159	0	1009	382	0	1266	612	0	536	431	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)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	18.2	26.6	0.0	8.5	14.3	0.0	16.9	15.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	3.6	6.5	0.0	0.2	0.6	0.0	4.9	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	0.0	0.0	6.9	2.4	0.0	2.6	1.0	0.0	4.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	21.8	33.1	0.0	8.7	14.9	0.0	21.8	15.3	0.0	0.0
LnGrp LOS	A	A	C	C	A	A	B	A	C	B	A	A
Approach Vol, veh/h		541			542			425			3	
Approach Delay, s/veh		21.8			15.7			20.1			15.3	
Approach LOS		C			B			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.8	10.9	25.9		24.8	0.0	36.8				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		20.8	13.2	34.0		20.8	5.5	41.7				
Max Q Clear Time (g_c+I1), s		12.4	7.2	18.7		4.7	0.0	9.5				
Green Ext Time (p_c), s		1.1	0.2	3.2		0.0	0.0	2.6				

Intersection Summary												
HCM 6th Ctrl Delay			19.1									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	519	18	225	414	108	11	170	246	95	319	143
Future Volume (veh/h)	78	519	18	225	414	108	11	170	246	95	319	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	564	20	245	450	117	12	185	267	103	347	155
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	347	1306	46	289	637	540	21	367	311	132	483	409
Arrive On Green	0.19	0.37	0.37	0.16	0.34	0.34	0.01	0.20	0.20	0.07	0.26	0.26
Sat Flow, veh/h	1781	3501	124	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	85	286	298	245	450	117	12	185	267	103	347	155
Grp Sat Flow(s),veh/h/ln	1781	1777	1848	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.3	9.9	9.9	11.0	17.2	4.3	0.6	7.3	13.4	4.7	13.9	6.6
Cycle Q Clear(g_c), s	3.3	9.9	9.9	11.0	17.2	4.3	0.6	7.3	13.4	4.7	13.9	6.6
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	347	663	689	289	637	540	21	367	311	132	483	409
V/C Ratio(X)	0.25	0.43	0.43	0.85	0.71	0.22	0.58	0.50	0.86	0.78	0.72	0.38
Avail Cap(c_a), veh/h	347	663	689	444	637	540	87	432	366	195	546	463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	19.3	19.3	33.4	23.5	19.3	40.4	29.5	31.9	37.4	27.8	25.1
Incr Delay (d2), s/veh	1.7	2.0	2.0	9.0	6.5	0.9	22.9	1.1	16.2	11.4	3.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.3	4.4	5.3	8.3	1.7	0.4	3.3	6.4	2.4	6.5	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	21.3	21.2	42.4	30.0	20.2	63.3	30.6	48.1	48.8	31.7	25.6
LnGrp LOS	C	C	C	D	C	C	E	C	D	D	C	C
Approach Vol, veh/h		669			812			464			605	
Approach Delay, s/veh		22.3			32.3			41.5			33.1	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	20.1	17.3	34.7	5.0	25.2	20.0	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	19.0	20.5	23.5	4.0	24.0	16.0	28.0
Max Q Clear Time (g_c+I1), s	6.7	15.4	13.0	11.9	2.6	15.9	5.3	19.2
Green Ext Time (p_c), s	0.0	0.7	0.4	2.8	0.0	1.7	0.1	2.2

Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

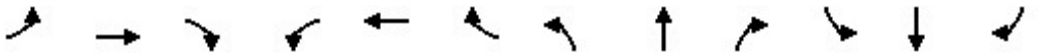
Approach	EB	WB	NB	SB
Entry Lanes	0	1	0	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	538	0	334
Demand Flow Rate, veh/h	0	549	0	341
Vehicles Circulating, veh/h	669	205	38	559
Vehicles Exiting, veh/h	231	0	631	195
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	8.8	0.0	10.5
Approach LOS	-	A	-	B

Lane	Left	Left
Designated Moves	LTR	LTR
Assumed Moves	LTR	LTR
RT Channelized		
Lane Util	1.000	1.000
Follow-Up Headway, s	2.609	2.609
Critical Headway, s	4.976	4.976
Entry Flow, veh/h	549	341
Cap Entry Lane, veh/h	1120	780
Entry HV Adj Factor	0.980	0.981
Flow Entry, veh/h	538	334
Cap Entry, veh/h	1097	765
V/C Ratio	0.490	0.437
Control Delay, s/veh	8.8	10.5
LOS	A	B
95th %tile Queue, veh	3	2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Approach	NW
Entry Lanes	1
Conflicting Circle Lanes	1
Adj Approach Flow, veh/h	650
Demand Flow Rate, veh/h	663
Vehicles Circulating, veh/h	0
Vehicles Exiting, veh/h	38
Ped Vol Crossing Leg, #/h	0
Ped Cap Adj	1.000
Approach Delay, s/veh	5.1
Approach LOS	A

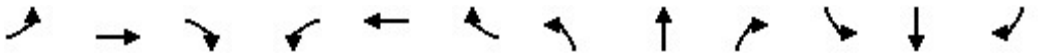
Lane	Left	Bypass
Designated Moves	R	R
Assumed Moves	R	R
RT Channelized		Yield
Lane Util	1.000	
Follow-Up Headway, s	2.609	
Critical Headway, s	4.976	458
Entry Flow, veh/h	205	1380
Cap Entry Lane, veh/h	1380	0.980
Entry HV Adj Factor	0.980	449
Flow Entry, veh/h	201	1353
Cap Entry, veh/h	1353	0.332
V/C Ratio	0.149	5.6
Control Delay, s/veh	3.9	A
LOS	A	1
95th %tile Queue, veh	1	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	584	24	40	459	50	33	73	44	57	40	33
Future Volume (veh/h)	46	584	24	40	459	50	33	73	44	57	40	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	50	635	26	43	499	54	36	79	48	62	43	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	739	30	62	681	74	479	371	225	349	218	540
Arrive On Green	0.04	0.41	0.41	0.03	0.41	0.41	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	1784	73	1781	1659	179	1320	1089	662	730	640	1585
Grp Volume(v), veh/h	50	0	661	43	0	553	36	0	127	105	0	36
Grp Sat Flow(s),veh/h/ln	1781	0	1857	1781	0	1838	1320	0	1751	1370	0	1585
Q Serve(g_s), s	1.6	0.0	18.4	1.4	0.0	14.5	1.2	0.0	2.9	1.2	0.0	0.9
Cycle Q Clear(g_c), s	1.6	0.0	18.4	1.4	0.0	14.5	5.3	0.0	2.9	4.2	0.0	0.9
Prop In Lane	1.00		0.04	1.00		0.10	1.00		0.38	0.59		1.00
Lane Grp Cap(c), veh/h	68	0	769	62	0	754	479	0	596	567	0	540
V/C Ratio(X)	0.73	0.00	0.86	0.70	0.00	0.73	0.08	0.00	0.21	0.19	0.00	0.07
Avail Cap(c_a), veh/h	582	0	978	582	0	968	479	0	596	567	0	540
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	0.0	15.2	27.2	0.0	14.2	15.7	0.0	13.4	13.6	0.0	12.7
Incr Delay (d2), s/veh	13.9	0.0	6.4	13.2	0.0	2.1	0.3	0.0	0.8	0.7	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	7.9	0.8	0.0	5.5	0.4	0.0	1.2	1.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.0	0.0	21.6	40.4	0.0	16.3	16.0	0.0	14.2	14.3	0.0	12.9
LnGrp LOS	D	A	C	D	A	B	B	A	B	B	A	B
Approach Vol, veh/h		711			596			163			141	
Approach Delay, s/veh		22.9			18.0			14.6			14.0	
Approach LOS		C			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.4	6.0	27.6		23.4	6.2	27.4				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		19.4	18.6	30.0		19.4	18.6	30.0				
Max Q Clear Time (g_c+I1), s		7.3	3.4	20.4		6.2	3.6	16.5				
Green Ext Time (p_c), s		0.6	0.1	3.1		0.5	0.1	3.1				

Intersection Summary												
HCM 6th Ctrl Delay			19.5									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	160	64	378	107	49	15	288	128	101	284	38
Future Volume (veh/h)	54	160	64	378	107	49	15	288	128	101	284	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	174	70	264	322	0	16	313	139	110	309	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	250	104	466	489		69	1109	472	452	775	103
Arrive On Green	0.12	0.12	0.12	0.26	0.26	0.00	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	672	2034	849	1781	1870	1585	53	2313	985	939	1617	215
Grp Volume(v), veh/h	161	0	142	264	322	0	253	0	215	110	0	350
Grp Sat Flow(s),veh/h/ln	1837	0	1718	1781	1870	1585	1827	0	1525	939	0	1832
Q Serve(g_s), s	7.4	0.0	6.9	11.3	13.5	0.0	0.0	0.0	7.5	7.1	0.0	10.8
Cycle Q Clear(g_c), s	7.4	0.0	6.9	11.3	13.5	0.0	7.2	0.0	7.5	14.6	0.0	10.8
Prop In Lane	0.37		0.49	1.00		1.00	0.06		0.65	1.00		0.12
Lane Grp Cap(c), veh/h	225	0	211	466	489		920	0	731	452	0	878
V/C Ratio(X)	0.72	0.00	0.67	0.57	0.66		0.28	0.00	0.29	0.24	0.00	0.40
Avail Cap(c_a), veh/h	459	0	429	466	489		920	0	731	452	0	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	0.94	0.00	0.94	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.1	0.0	36.9	28.2	29.0	0.0	13.8	0.0	13.9	18.3	0.0	14.7
Incr Delay (d2), s/veh	4.2	0.0	3.7	4.9	6.8	0.0	0.7	0.0	1.0	1.3	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	3.1	5.3	6.8	0.0	3.1	0.0	2.7	1.6	0.0	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	0.0	40.6	33.1	35.8	0.0	14.5	0.0	14.8	19.6	0.0	16.1
LnGrp LOS	D	A	D	C	D		B	A	B	B	A	B
Approach Vol, veh/h		303			586	A		468			460	
Approach Delay, s/veh		41.0			34.6			14.6			16.9	
Approach LOS		D			C			B			B	

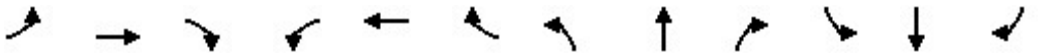
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		46.2		14.8		46.2		27.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		31.0		22.0		31.0		23.0				
Max Q Clear Time (g_c+I1), s		9.5		9.4		16.6		15.5				
Green Ext Time (p_c), s		2.9		1.4		2.4		1.7				

Intersection Summary		
HCM 6th Ctrl Delay		26.0
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

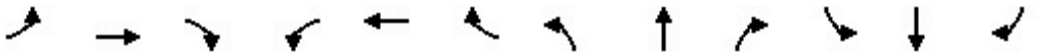
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	965	65	56	823	58	62	94	56	133	77	50
Future Volume (veh/h)	30	965	65	56	823	58	62	94	56	133	77	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	1049	71	61	895	63	67	102	61	145	84	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	45	1042	71	78	1072	75	271	239	143	250	232	149
Arrive On Green	0.03	0.60	0.60	0.04	0.62	0.62	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	1732	117	1781	1727	122	1251	1097	656	1223	1064	684
Grp Volume(v), veh/h	33	0	1120	61	0	958	67	0	163	145	0	138
Grp Sat Flow(s),veh/h/ln	1781	0	1849	1781	0	1848	1251	0	1752	1223	0	1747
Q Serve(g_s), s	1.6	0.0	53.0	3.0	0.0	35.9	4.2	0.0	7.1	10.2	0.0	5.9
Cycle Q Clear(g_c), s	1.6	0.0	53.0	3.0	0.0	35.9	10.1	0.0	7.1	17.3	0.0	5.9
Prop In Lane	1.00		0.06	1.00		0.07	1.00		0.37	1.00		0.39
Lane Grp Cap(c), veh/h	45	0	1113	78	0	1147	271	0	382	250	0	381
V/C Ratio(X)	0.74	0.00	1.01	0.78	0.00	0.84	0.25	0.00	0.43	0.58	0.00	0.36
Avail Cap(c_a), veh/h	113	0	1113	117	0	1147	271	0	382	250	0	381
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.6	0.0	17.5	41.7	0.0	13.2	33.5	0.0	29.7	37.1	0.0	29.2
Incr Delay (d2), s/veh	20.6	0.0	28.5	17.1	0.0	5.5	2.2	0.0	3.5	9.4	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	28.0	1.7	0.0	14.5	1.4	0.0	3.3	3.7	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.3	0.0	46.1	58.8	0.0	18.6	35.7	0.0	33.1	46.6	0.0	31.9
LnGrp LOS	E	A	F	E	A	B	D	A	C	D	A	C
Approach Vol, veh/h		1153			1019			230			283	
Approach Delay, s/veh		46.6			21.1			33.9			39.4	
Approach LOS		D			C			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.2	7.9	57.0		23.2	6.2	58.7				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		19.2	5.8	53.0		19.2	5.6	53.2				
Max Q Clear Time (g_c+I1), s		12.1	5.0	55.0		19.3	3.6	37.9				
Green Ext Time (p_c), s		0.6	0.0	0.0		0.0	0.0	6.8				

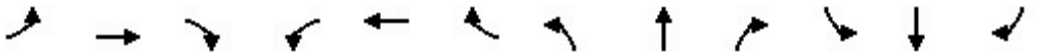
Intersection Summary												
HCM 6th Ctrl Delay			35.0									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	982	91	79	866	28	141	59	95	26	72	76
Future Volume (veh/h)	111	982	91	79	866	28	141	59	95	26	72	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	121	1067	99	86	941	30	153	64	103	28	78	83
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	1101	933	103	1019	32	192	80	238	37	103	120
Arrive On Green	0.08	0.59	0.59	0.06	0.57	0.57	0.15	0.15	0.15	0.08	0.08	0.08
Sat Flow, veh/h	1781	1870	1585	1781	1803	57	1274	533	1585	488	1358	1585
Grp Volume(v), veh/h	121	1067	99	86	0	971	217	0	103	106	0	83
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1860	1807	0	1585	1846	0	1585
Q Serve(g_s), s	8.7	70.8	3.6	6.2	0.0	61.5	15.0	0.0	7.7	7.3	0.0	6.6
Cycle Q Clear(g_c), s	8.7	70.8	3.6	6.2	0.0	61.5	15.0	0.0	7.7	7.3	0.0	6.6
Prop In Lane	1.00		1.00	1.00		0.03	0.71		1.00	0.26		1.00
Lane Grp Cap(c), veh/h	145	1101	933	103	0	1052	272	0	238	139	0	120
V/C Ratio(X)	0.83	0.97	0.11	0.83	0.00	0.92	0.80	0.00	0.43	0.76	0.00	0.69
Avail Cap(c_a), veh/h	153	1125	954	103	0	1067	272	0	238	263	0	226
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.7	25.5	11.7	60.5	0.0	25.6	53.2	0.0	50.0	58.8	0.0	58.5
Incr Delay (d2), s/veh	30.1	19.5	0.0	41.8	0.0	12.9	21.3	0.0	5.6	8.2	0.0	7.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	35.5	1.3	4.0	0.0	29.7	8.4	0.0	3.4	3.7	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.8	45.0	11.7	102.2	0.0	38.5	74.4	0.0	55.7	67.0	0.0	65.4
LnGrp LOS	F	D	B	F	A	D	E	A	E	E	A	E
Approach Vol, veh/h		1287			1057			320			189	
Approach Delay, s/veh		46.6			43.7			68.4			66.3	
Approach LOS		D			D			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.5	12.0	80.3		13.8	15.1	77.3				
Change Period (Y+Rc), s		4.0	4.5	4.0		4.0	4.5	4.0				
Max Green Setting (Gmax), s		19.5	7.5	78.0		18.5	11.1	74.4				
Max Q Clear Time (g_c+I1), s		17.0	8.2	72.8		9.3	10.7	63.5				
Green Ext Time (p_c), s		0.4	0.0	3.6		0.5	0.0	5.6				

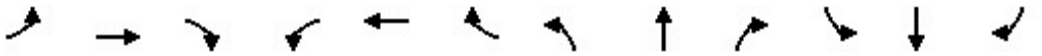
Intersection Summary												
HCM 6th Ctrl Delay			49.3									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	828	30	168	752	20	35	224	326	23	169	29
Future Volume (veh/h)	11	828	30	168	752	20	35	224	326	23	169	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	900	33	183	817	22	38	243	354	25	184	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	21	932	34	217	1142	31	78	344	355	56	239	38
Arrive On Green	0.01	0.52	0.52	0.12	0.63	0.63	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	1793	66	1781	1813	49	144	1535	1585	53	1068	172
Grp Volume(v), veh/h	12	0	933	183	0	839	281	0	354	241	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1859	1781	0	1862	1679	0	1585	1292	0	0
Q Serve(g_s), s	0.6	0.0	43.2	9.0	0.0	27.1	0.0	0.0	19.9	3.1	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	43.2	9.0	0.0	27.1	13.7	0.0	19.9	16.8	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.03	0.14		1.00	0.10		0.13
Lane Grp Cap(c), veh/h	21	0	966	217	0	1172	422	0	355	334	0	0
V/C Ratio(X)	0.58	0.00	0.97	0.84	0.00	0.72	0.67	0.00	1.00	0.72	0.00	0.00
Avail Cap(c_a), veh/h	110	0	979	220	0	1172	422	0	355	334	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	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	43.9	0.0	20.7	38.4	0.0	11.1	31.9	0.0	34.6	32.0	0.0	0.0
Incr Delay (d2), s/veh	23.6	0.0	20.8	24.6	0.0	2.1	8.1	0.0	46.8	12.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	22.5	5.3	0.0	10.3	6.4	0.0	12.1	6.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	0.0	41.5	63.0	0.0	13.2	39.9	0.0	81.4	44.6	0.0	0.0
LnGrp LOS	E	A	D	E	A	B	D	A	F	D	A	A
Approach Vol, veh/h		945			1022			635			241	
Approach Delay, s/veh		41.8			22.1			63.0			44.6	
Approach LOS		D			C			E			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.0	14.9	50.4		24.0	5.0	60.2				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		20.0	11.0	47.0		20.0	5.5	52.5				
Max Q Clear Time (g_c+I1), s		21.9	11.0	45.2		18.8	2.6	29.1				
Green Ext Time (p_c), s		0.0	0.0	1.2		0.2	0.0	6.9				

Intersection Summary	
HCM 6th Ctrl Delay	39.7
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	996	29	227	830	195	4	228	254	202	366	262
Future Volume (veh/h)	165	996	29	227	830	195	4	228	254	202	366	262
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	179	1083	32	247	902	212	4	248	276	220	398	285
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	1541	46	275	857	726	7	296	251	208	507	429
Arrive On Green	0.13	0.44	0.44	0.15	0.46	0.46	0.00	0.16	0.16	0.12	0.27	0.27
Sat Flow, veh/h	1781	3524	104	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	179	546	569	247	902	212	4	248	276	220	398	285
Grp Sat Flow(s),veh/h/ln	1781	1777	1852	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	11.6	30.0	30.0	16.3	55.0	10.0	0.3	15.4	19.0	14.0	23.7	19.2
Cycle Q Clear(g_c), s	11.6	30.0	30.0	16.3	55.0	10.0	0.3	15.4	19.0	14.0	23.7	19.2
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	777	809	275	857	726	7	296	251	208	507	429
V/C Ratio(X)	0.75	0.70	0.70	0.90	1.05	0.29	0.54	0.84	1.10	1.06	0.79	0.66
Avail Cap(c_a), veh/h	238	777	809	318	857	726	59	296	251	208	507	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.1	27.4	27.4	49.8	32.5	20.3	59.6	49.0	50.5	53.0	40.5	38.9
Incr Delay (d2), s/veh	19.7	5.3	5.1	24.4	45.4	1.0	49.6	18.6	86.1	78.8	8.0	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	13.6	14.2	9.1	34.8	3.9	0.2	8.7	13.5	10.8	11.9	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.8	32.7	32.5	74.2	77.9	21.3	109.3	67.6	136.6	131.8	48.5	42.7
LnGrp LOS	E	C	C	E	F	C	F	E	F	F	D	D
Approach Vol, veh/h		1294			1361			528			903	
Approach Delay, s/veh		37.8			68.4			104.0			67.0	
Approach LOS		D			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	23.0	22.5	56.5	4.5	36.5	20.0	59.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	19.0	21.4	49.6	4.0	29.0	16.0	55.0
Max Q Clear Time (g_c+I1), s	16.0	21.0	18.3	32.0	2.3	25.7	13.6	57.0
Green Ext Time (p_c), s	0.0	0.0	0.2	7.2	0.0	1.2	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	63.0
HCM 6th LOS	E

Intersection	
Intersection Delay, s/veh	11.7
Intersection LOS	B

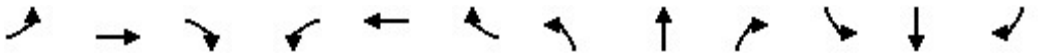
Approach	EB	WB	NB	SB
Entry Lanes	0	1	0	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	737	0	446
Demand Flow Rate, veh/h	0	752	0	456
Vehicles Circulating, veh/h	711	204	38	704
Vehicles Exiting, veh/h	449	0	673	252
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	13.0	0.0	19.5
Approach LOS	-	B	-	C

Lane	Left	Left
Designated Moves	LTR	LTR
Assumed Moves	LTR	LTR
RT Channelized		
Lane Util	1.000	1.000
Follow-Up Headway, s	2.609	2.609
Critical Headway, s	4.976	4.976
Entry Flow, veh/h	752	456
Cap Entry Lane, veh/h	1121	673
Entry HV Adj Factor	0.980	0.979
Flow Entry, veh/h	737	446
Cap Entry, veh/h	1099	659
V/C Ratio	0.671	0.678
Control Delay, s/veh	13.0	19.5
LOS	B	C
95th %tile Queue, veh	5	5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Approach	NW
Entry Lanes	1
Conflicting Circle Lanes	1
Adj Approach Flow, veh/h	797
Demand Flow Rate, veh/h	813
Vehicles Circulating, veh/h	0
Vehicles Exiting, veh/h	38
Ped Vol Crossing Leg, #/h	0
Ped Cap Adj	1.000
Approach Delay, s/veh	6.2
Approach LOS	A

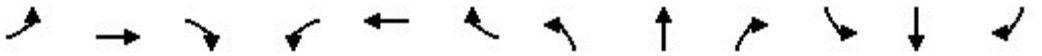
Lane	Left	Bypass
Designated Moves	R	R
Assumed Moves	R	R
RT Channelized		Yield
Lane Util	1.000	
Follow-Up Headway, s	2.609	
Critical Headway, s	4.976	609
Entry Flow, veh/h	204	1380
Cap Entry Lane, veh/h	1380	0.980
Entry HV Adj Factor	0.980	597
Flow Entry, veh/h	200	1353
Cap Entry, veh/h	1353	0.441
V/C Ratio	0.148	7.0
Control Delay, s/veh	3.9	A
LOS	A	2
95th %tile Queue, veh	1	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	1075	44	64	982	91	59	96	44	97	59	63
Future Volume (veh/h)	162	1075	44	64	982	91	59	96	44	97	59	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	176	1168	48	70	1067	99	64	104	48	105	64	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	1229	51	89	1058	98	49	217	100	130	57	284
Arrive On Green	0.11	0.69	0.69	0.05	0.63	0.63	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	1784	73	1781	1686	156	1258	1211	559	502	317	1585
Grp Volume(v), veh/h	176	0	1216	70	0	1166	64	0	152	169	0	68
Grp Sat Flow(s),veh/h/ln	1781	0	1857	1781	0	1842	1258	0	1770	818	0	1585
Q Serve(g_s), s	14.3	0.0	86.8	5.7	0.0	92.4	0.0	0.0	11.4	15.0	0.0	5.4
Cycle Q Clear(g_c), s	14.3	0.0	86.8	5.7	0.0	92.4	26.4	0.0	11.4	26.4	0.0	5.4
Prop In Lane	1.00		0.04	1.00		0.08	1.00		0.32	0.62		1.00
Lane Grp Cap(c), veh/h	199	0	1280	89	0	1156	49	0	317	186	0	284
V/C Ratio(X)	0.88	0.00	0.95	0.79	0.00	1.01	1.31	0.00	0.48	0.91	0.00	0.24
Avail Cap(c_a), veh/h	232	0	1280	225	0	1156	49	0	317	186	0	284
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	64.5	0.0	20.6	69.2	0.0	27.4	73.6	0.0	54.3	66.9	0.0	51.8
Incr Delay (d2), s/veh	27.9	0.0	14.8	14.0	0.0	28.6	232.3	0.0	5.1	45.2	0.0	2.0
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	8.1	0.0	39.9	3.0	0.0	47.5	5.0	0.0	5.6	8.8	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.4	0.0	35.4	83.1	0.0	56.0	306.0	0.0	59.4	112.1	0.0	53.8
LnGrp LOS	F	A	D	F	A	F	F	A	E	F	A	D
Approach Vol, veh/h		1392			1236			216			237	
Approach Delay, s/veh		42.6			57.6			132.4			95.4	
Approach LOS		D			E			F			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.4	11.4	105.5		30.4	20.5	96.4				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		26.4	18.6	93.0		26.4	19.2	92.4				
Max Q Clear Time (g_c+I1), s		28.4	7.7	88.8		28.4	16.3	94.4				
Green Ext Time (p_c), s		0.0	0.1	3.2		0.0	0.1	0.0				

Intersection Summary	
HCM 6th Ctrl Delay	59.0
HCM 6th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	262	44	498	314	79	46	523	243	193	649	75
Future Volume (veh/h)	70	262	44	498	314	79	46	523	243	193	649	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	285	48	441	481	0	50	568	264	210	705	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	365	64	410	430		63	754	484	282	832	97
Arrive On Green	0.14	0.14	0.14	0.23	0.23	0.00	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	647	2536	445	1781	1870	1585	46	1489	956	660	1645	191
Grp Volume(v), veh/h	216	0	193	441	481	0	459	0	423	210	0	787
Grp Sat Flow(s),veh/h/ln	1838	0	1790	1781	1870	1585	961	0	1530	660	0	1836
Q Serve(g_s), s	11.4	0.0	10.3	23.0	23.0	0.0	11.2	0.0	18.8	31.8	0.0	37.1
Cycle Q Clear(g_c), s	11.4	0.0	10.3	23.0	23.0	0.0	48.2	0.0	18.8	50.6	0.0	37.1
Prop In Lane	0.35		0.25	1.00		1.00	0.11		0.62	1.00		0.10
Lane Grp Cap(c), veh/h	264	0	258	410	430		526	0	774	282	0	929
V/C Ratio(X)	0.82	0.00	0.75	1.08	1.12		0.87	0.00	0.55	0.75	0.00	0.85
Avail Cap(c_a), veh/h	331	0	322	410	430		526	0	774	282	0	929
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	0.73	0.00	0.73	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.5	0.0	41.1	38.5	38.5	0.0	21.2	0.0	16.8	34.2	0.0	21.3
Incr Delay (d2), s/veh	12.0	0.0	7.3	66.4	79.6	0.0	13.8	0.0	2.0	16.4	0.0	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	5.0	17.4	19.8	0.0	8.6	0.0	6.8	6.2	0.0	17.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	0.0	48.4	104.9	118.1	0.0	35.0	0.0	18.9	50.6	0.0	30.8
LnGrp LOS	D	A	D	F	F		D	A	B	D	A	C
Approach Vol, veh/h		409			922	A		882			997	
Approach Delay, s/veh		51.1			111.8			27.3			34.9	
Approach LOS		D			F			C			C	

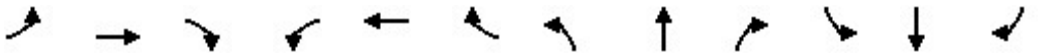
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.6		18.4		54.6		27.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		47.0		18.0		47.0		23.0				
Max Q Clear Time (g_c+I1), s		50.2		13.4		52.6		25.0				
Green Ext Time (p_c), s		0.0		1.0		0.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	57.0	
HCM 6th LOS	E	

Notes

User approved volume balancing among the lanes for turning movement.

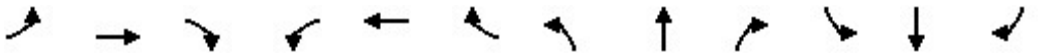
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	965	87	59	823	58	72	97	59	133	82	50
Future Volume (veh/h)	30	965	87	59	823	58	72	97	59	133	82	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	1049	95	64	895	63	78	105	64	145	89	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	45	1022	93	82	1081	76	260	232	141	238	232	141
Arrive On Green	0.03	0.60	0.60	0.05	0.63	0.63	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	1690	153	1781	1727	122	1245	1088	663	1216	1090	661
Grp Volume(v), veh/h	33	0	1144	64	0	958	78	0	169	145	0	143
Grp Sat Flow(s),veh/h/ln	1781	0	1843	1781	0	1848	1245	0	1751	1216	0	1751
Q Serve(g_s), s	1.6	0.0	53.4	3.1	0.0	35.5	5.1	0.0	7.4	10.4	0.0	6.2
Cycle Q Clear(g_c), s	1.6	0.0	53.4	3.1	0.0	35.5	11.2	0.0	7.4	17.8	0.0	6.2
Prop In Lane	1.00		0.08	1.00		0.07	1.00		0.38	1.00		0.38
Lane Grp Cap(c), veh/h	45	0	1115	82	0	1157	260	0	373	238	0	373
V/C Ratio(X)	0.74	0.00	1.03	0.78	0.00	0.83	0.30	0.00	0.45	0.61	0.00	0.38
Avail Cap(c_a), veh/h	113	0	1115	117	0	1157	260	0	373	238	0	373
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.7	0.0	17.4	41.7	0.0	12.8	34.6	0.0	30.3	38.0	0.0	29.8
Incr Delay (d2), s/veh	20.7	0.0	33.8	18.8	0.0	5.1	2.9	0.0	3.9	11.0	0.0	3.0
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	1.0	0.0	29.7	1.8	0.0	14.2	1.7	0.0	3.5	3.8	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.4	0.0	51.3	60.4	0.0	17.9	37.5	0.0	34.2	49.1	0.0	32.7
LnGrp LOS	E	A	F	E	A	B	D	A	C	D	A	C
Approach Vol, veh/h		1177			1022			247			288	
Approach Delay, s/veh		51.6			20.6			35.2			41.0	
Approach LOS		D			C			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.8	8.1	57.4		22.8	6.2	59.3				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		18.8	5.8	53.4		18.8	5.6	53.6				
Max Q Clear Time (g_c+I1), s		13.2	5.1	55.4		19.8	3.6	37.5				
Green Ext Time (p_c), s		0.5	0.0	0.0		0.0	0.0	7.0				

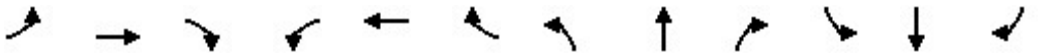
Intersection Summary												
HCM 6th Ctrl Delay			37.4									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	993	91	79	871	33	141	59	95	37	72	76
Future Volume (veh/h)	111	993	91	79	871	33	141	59	95	37	72	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	121	1079	99	86	947	36	153	64	103	40	78	83
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	1122	951	101	1031	39	184	77	228	50	98	128
Arrive On Green	0.08	0.60	0.60	0.06	0.58	0.58	0.14	0.14	0.14	0.08	0.08	0.08
Sat Flow, veh/h	1781	1870	1585	1781	1790	68	1274	533	1585	623	1216	1585
Grp Volume(v), veh/h	121	1079	99	86	0	983	217	0	103	118	0	83
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1858	1807	0	1585	1839	0	1585
Q Serve(g_s), s	9.3	76.0	3.7	6.7	0.0	66.4	16.3	0.0	8.3	8.8	0.0	7.1
Cycle Q Clear(g_c), s	9.3	76.0	3.7	6.7	0.0	66.4	16.3	0.0	8.3	8.8	0.0	7.1
Prop In Lane	1.00		1.00	1.00		0.04	0.71		1.00	0.34		1.00
Lane Grp Cap(c), veh/h	144	1122	951	101	0	1070	260	0	228	149	0	128
V/C Ratio(X)	0.84	0.96	0.10	0.85	0.00	0.92	0.83	0.00	0.45	0.79	0.00	0.65
Avail Cap(c_a), veh/h	149	1167	989	101	0	1108	260	0	228	244	0	210
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	63.2	26.4	11.9	65.2	0.0	26.6	58.1	0.0	54.6	63.0	0.0	62.2
Incr Delay (d2), s/veh	32.3	17.5	0.0	46.5	0.0	11.8	25.7	0.0	6.3	9.2	0.0	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	37.6	1.3	4.3	0.0	31.8	9.3	0.0	3.7	4.5	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.5	43.9	11.9	111.7	0.0	38.4	83.8	0.0	60.9	72.1	0.0	67.6
LnGrp LOS	F	D	B	F	A	D	F	A	E	E	A	E
Approach Vol, veh/h		1299			1069			320			201	
Approach Delay, s/veh		46.3			44.3			76.4			70.2	
Approach LOS		D			D			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.1	12.4	87.7		15.3	15.7	84.3				
Change Period (Y+Rc), s		4.0	4.5	4.0		4.0	4.5	4.0				
Max Green Setting (Gmax), s		20.1	7.9	87.0		18.5	11.7	83.2				
Max Q Clear Time (g_c+I1), s		18.3	8.7	78.0		10.8	11.3	68.4				
Green Ext Time (p_c), s		0.3	0.0	5.6		0.5	0.0	6.9				

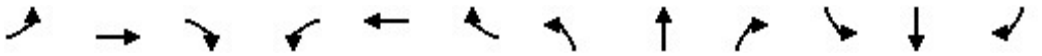
Intersection Summary												
HCM 6th Ctrl Delay			50.5									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	836	30	168	756	21	35	224	326	26	169	29
Future Volume (veh/h)	11	836	30	168	756	21	35	224	326	26	169	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	909	33	183	822	23	38	243	354	28	184	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	21	935	34	217	1143	32	77	335	354	57	223	36
Arrive On Green	0.01	0.52	0.52	0.12	0.63	0.63	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	1794	65	1781	1811	51	139	1502	1585	54	999	159
Grp Volume(v), veh/h	12	0	942	183	0	845	281	0	354	244	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1859	1781	0	1861	1640	0	1585	1213	0	0
Q Serve(g_s), s	0.6	0.0	44.1	9.0	0.0	27.5	0.0	0.0	20.0	4.2	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	44.1	9.0	0.0	27.5	14.1	0.0	20.0	18.2	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.03	0.14		1.00	0.11		0.13
Lane Grp Cap(c), veh/h	21	0	969	217	0	1175	412	0	354	316	0	0
V/C Ratio(X)	0.58	0.00	0.97	0.84	0.00	0.72	0.68	0.00	1.00	0.77	0.00	0.00
Avail Cap(c_a), veh/h	109	0	975	219	0	1175	412	0	354	316	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	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.1	0.0	20.8	38.5	0.0	11.2	32.1	0.0	34.8	32.8	0.0	0.0
Incr Delay (d2), s/veh	23.6	0.0	22.2	24.8	0.0	2.2	8.8	0.0	47.9	16.7	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	0.4	0.0	23.2	5.4	0.0	10.4	6.5	0.0	12.2	6.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	0.0	43.0	63.3	0.0	13.3	41.0	0.0	82.7	49.5	0.0	0.0
LnGrp LOS	E	A	D	E	A	B	D	A	F	D	A	A
Approach Vol, veh/h		954			1028			635			244	
Approach Delay, s/veh		43.4			22.2			64.3			49.5	
Approach LOS		D			C			E			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.0	14.9	50.7		24.0	5.0	60.6				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		20.0	11.0	47.0		20.0	5.5	52.5				
Max Q Clear Time (g_c+I1), s		22.0	11.0	46.1		20.2	2.6	29.5				
Green Ext Time (p_c), s		0.0	0.0	0.6		0.0	0.0	6.9				

Intersection Summary												
HCM 6th Ctrl Delay			40.9									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	998	29	235	830	195	4	233	256	202	377	262
Future Volume (veh/h)	165	998	29	235	830	195	4	233	256	202	377	262
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	179	1085	32	255	902	212	4	253	278	220	410	285
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	1525	45	283	857	726	7	296	251	208	507	429
Arrive On Green	0.13	0.43	0.43	0.16	0.46	0.46	0.00	0.16	0.16	0.12	0.27	0.27
Sat Flow, veh/h	1781	3525	104	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	179	547	570	255	902	212	4	253	278	220	410	285
Grp Sat Flow(s),veh/h/ln	1781	1777	1852	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	11.6	30.3	30.3	16.9	55.0	10.0	0.3	15.8	19.0	14.0	24.6	19.2
Cycle Q Clear(g_c), s	11.6	30.3	30.3	16.9	55.0	10.0	0.3	15.8	19.0	14.0	24.6	19.2
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	769	801	283	857	726	7	296	251	208	507	429
V/C Ratio(X)	0.75	0.71	0.71	0.90	1.05	0.29	0.54	0.85	1.11	1.06	0.81	0.66
Avail Cap(c_a), veh/h	238	769	801	327	857	726	59	296	251	208	507	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.1	27.9	27.9	49.5	32.5	20.3	59.6	49.2	50.5	53.0	40.9	38.9
Incr Delay (d2), s/veh	19.7	5.5	5.3	24.4	45.4	1.0	49.6	20.9	88.8	78.8	9.5	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	13.8	14.4	9.4	34.8	3.9	0.2	9.1	13.7	10.8	12.6	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.8	33.4	33.2	73.9	77.9	21.3	109.3	70.0	139.3	131.8	50.4	42.7
LnGrp LOS	E	C	C	E	F	C	F	E	F	F	D	D
Approach Vol, veh/h		1296			1369			535			915	
Approach Delay, s/veh		38.4			68.4			106.3			67.6	
Approach LOS		D			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	23.0	23.1	55.9	4.5	36.5	20.0	59.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	19.0	22.0	49.0	4.0	29.0	16.0	55.0
Max Q Clear Time (g_c+I1), s	16.0	21.0	18.9	32.3	2.3	26.6	13.6	57.0
Green Ext Time (p_c), s	0.0	0.0	0.2	7.0	0.0	0.9	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	63.7
HCM 6th LOS	E

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

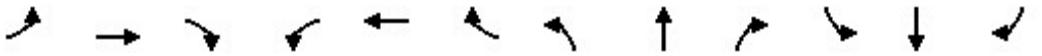
Approach	EB	WB	NB	SB
Entry Lanes	0	1	0	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	758	0	457
Demand Flow Rate, veh/h	0	774	0	467
Vehicles Circulating, veh/h	722	210	46	704
Vehicles Exiting, veh/h	449	0	676	280
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	13.9	0.0	20.4
Approach LOS	-	B	-	C

Lane	Left	Left
Designated Moves	LTR	LTR
Assumed Moves	LTR	LTR
RT Channelized		
Lane Util	1.000	1.000
Follow-Up Headway, s	2.609	2.609
Critical Headway, s	4.976	4.976
Entry Flow, veh/h	774	467
Cap Entry Lane, veh/h	1114	673
Entry HV Adj Factor	0.980	0.979
Flow Entry, veh/h	758	457
Cap Entry, veh/h	1091	659
V/C Ratio	0.695	0.694
Control Delay, s/veh	13.9	20.4
LOS	B	C
95th %tile Queue, veh	6	6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Approach	NW
Entry Lanes	1
Conflicting Circle Lanes	1
Adj Approach Flow, veh/h	803
Demand Flow Rate, veh/h	819
Vehicles Circulating, veh/h	0
Vehicles Exiting, veh/h	46
Ped Vol Crossing Leg, #/h	0
Ped Cap Adj	1.000
Approach Delay, s/veh	6.2
Approach LOS	A

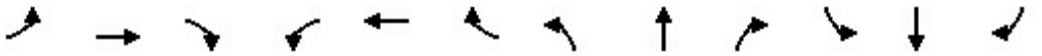
Lane	Left	Bypass
Designated Moves	R	R
Assumed Moves	R	R
RT Channelized		Yield
Lane Util	1.000	
Follow-Up Headway, s	2.609	
Critical Headway, s	4.976	609
Entry Flow, veh/h	210	1380
Cap Entry Lane, veh/h	1380	0.980
Entry HV Adj Factor	0.981	597
Flow Entry, veh/h	206	1353
Cap Entry, veh/h	1354	0.441
V/C Ratio	0.152	7.0
Control Delay, s/veh	3.9	A
LOS	A	2
95th %tile Queue, veh	1	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	1077	44	64	982	91	59	96	44	97	59	66
Future Volume (veh/h)	163	1077	44	64	982	91	59	96	44	97	59	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	1171	48	70	1067	99	64	104	48	105	64	72
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	200	1230	50	89	1057	98	49	217	100	129	57	284
Arrive On Green	0.11	0.69	0.69	0.05	0.63	0.63	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	1784	73	1781	1686	156	1253	1211	559	502	316	1585
Grp Volume(v), veh/h	177	0	1219	70	0	1166	64	0	152	169	0	72
Grp Sat Flow(s),veh/h/ln	1781	0	1857	1781	0	1842	1253	0	1770	818	0	1585
Q Serve(g_s), s	14.4	0.0	87.4	5.7	0.0	92.4	0.0	0.0	11.4	15.0	0.0	5.8
Cycle Q Clear(g_c), s	14.4	0.0	87.4	5.7	0.0	92.4	26.4	0.0	11.4	26.4	0.0	5.8
Prop In Lane	1.00		0.04	1.00		0.08	1.00		0.32	0.62		1.00
Lane Grp Cap(c), veh/h	200	0	1280	89	0	1155	49	0	317	186	0	284
V/C Ratio(X)	0.89	0.00	0.95	0.79	0.00	1.01	1.31	0.00	0.48	0.91	0.00	0.25
Avail Cap(c_a), veh/h	232	0	1280	225	0	1155	49	0	317	186	0	284
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	64.5	0.0	20.7	69.2	0.0	27.5	73.7	0.0	54.3	66.9	0.0	52.0
Incr Delay (d2), s/veh	28.2	0.0	15.2	14.0	0.0	28.8	232.7	0.0	5.1	45.5	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	0.0	40.3	3.0	0.0	47.6	5.0	0.0	5.6	8.8	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.6	0.0	35.9	83.2	0.0	56.2	306.3	0.0	59.4	112.4	0.0	54.1
LnGrp LOS	F	A	D	F	A	F	F	A	E	F	A	D
Approach Vol, veh/h		1396			1236			216			241	
Approach Delay, s/veh		43.1			57.8			132.6			95.0	
Approach LOS		D			E			F			F	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	30.4	11.4	105.6	30.4	20.5	96.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	26.4	18.6	93.0	26.4	19.2	92.4
Max Q Clear Time (g_c+I1), s	28.4	7.7	89.4	28.4	16.4	94.4
Green Ext Time (p_c), s	0.0	0.1	2.8	0.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	59.3
HCM 6th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	262	44	506	314	79	46	526	247	193	654	78
Future Volume (veh/h)	71	262	44	506	314	79	46	526	247	193	654	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	285	48	446	487	0	50	572	268	210	711	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	361	63	421	442		60	741	491	276	839	100
Arrive On Green	0.14	0.14	0.14	0.24	0.24	0.00	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	654	2530	444	1781	1870	1585	46	1447	959	655	1639	196
Grp Volume(v), veh/h	216	0	194	446	487	0	463	0	427	210	0	796
Grp Sat Flow(s),veh/h/ln	1838	0	1790	1781	1870	1585	923	0	1529	655	0	1835
Q Serve(g_s), s	12.6	0.0	11.4	26.0	26.0	0.0	14.2	0.0	20.8	35.2	0.0	41.1
Cycle Q Clear(g_c), s	12.6	0.0	11.4	26.0	26.0	0.0	55.3	0.0	20.8	56.0	0.0	41.1
Prop In Lane	0.36		0.25	1.00		1.00	0.11		0.63	1.00		0.11
Lane Grp Cap(c), veh/h	263	0	256	421	442		509	0	783	276	0	939
V/C Ratio(X)	0.82	0.00	0.76	1.06	1.10		0.91	0.00	0.55	0.76	0.00	0.85
Avail Cap(c_a), veh/h	334	0	326	421	442		509	0	783	276	0	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	0.72	0.00	0.72	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.8	0.0	45.3	42.0	42.0	0.0	24.5	0.0	18.2	37.2	0.0	23.2
Incr Delay (d2), s/veh	12.5	0.0	7.5	60.4	73.3	0.0	17.9	0.0	2.0	17.7	0.0	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	5.6	18.3	20.8	0.0	9.9	0.0	7.6	6.9	0.0	19.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.3	0.0	52.8	102.4	115.3	0.0	42.4	0.0	20.2	54.9	0.0	32.5
LnGrp LOS	E	A	D	F	F		D	A	C	D	A	C
Approach Vol, veh/h		410			933	A		890			1006	
Approach Delay, s/veh		55.7			109.1			31.7			37.2	
Approach LOS		E			F			C			D	

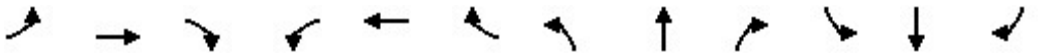
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.3		19.7		60.3		30.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		52.0		20.0		52.0		26.0				
Max Q Clear Time (g_c+I1), s		57.3		14.6		58.0		28.0				
Green Ext Time (p_c), s		0.0		1.1		0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			58.7									
HCM 6th LOS			E									

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



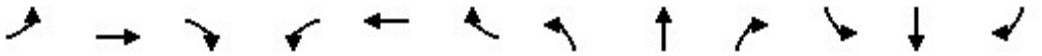
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	998	29	235	830	195	4	233	256	202	377	262
Future Volume (veh/h)	165	998	29	235	830	195	4	233	256	202	377	262
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	179	1085	32	255	902	212	4	253	278	220	410	285
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	327	1205	36	289	917	215	8	326	534	245	576	779
Arrive On Green	0.18	0.34	0.34	0.16	0.32	0.32	0.00	0.17	0.17	0.14	0.31	0.31
Sat Flow, veh/h	1781	3525	104	1781	2856	671	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	179	547	570	255	561	553	4	253	278	220	410	285
Grp Sat Flow(s),veh/h/ln	1781	1777	1852	1781	1777	1750	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	8.0	25.5	25.5	12.2	27.3	27.4	0.2	11.3	12.3	10.6	16.9	9.7
Cycle Q Clear(g_c), s	8.0	25.5	25.5	12.2	27.3	27.4	0.2	11.3	12.3	10.6	16.9	9.7
Prop In Lane	1.00		0.06	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	327	608	633	289	570	562	8	326	534	245	576	779
V/C Ratio(X)	0.55	0.90	0.90	0.88	0.98	0.98	0.53	0.78	0.52	0.90	0.71	0.37
Avail Cap(c_a), veh/h	327	608	633	290	570	562	82	386	585	245	576	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	27.3	27.3	35.7	29.4	29.4	43.3	34.4	23.2	37.0	26.8	13.8
Incr Delay (d2), s/veh	6.5	18.8	18.2	25.3	33.8	34.4	47.5	8.1	0.8	31.9	4.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	13.5	14.0	7.2	16.5	16.4	0.2	5.7	4.5	6.7	7.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	46.1	45.5	61.0	63.2	63.8	90.8	42.5	24.0	68.9	30.9	14.0
LnGrp LOS	D	D	D	E	E	E	F	D	C	E	C	B
Approach Vol, veh/h		1296			1369			535			915	
Approach Delay, s/veh		44.8			63.0			33.2			34.8	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	19.2	18.2	33.8	4.4	30.8	20.0	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	18.0	14.2	29.8	4.0	26.0	16.0	28.0
Max Q Clear Time (g_c+I1), s	12.6	14.3	14.2	27.5	2.2	18.9	10.0	29.4
Green Ext Time (p_c), s	0.0	0.9	0.0	1.5	0.0	2.1	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	47.1
HCM 6th LOS	D

Notes

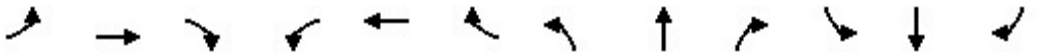
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	1077	44	64	982	91	59	96	44	97	59	66
Future Volume (veh/h)	163	1077	44	64	982	91	59	96	44	97	59	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	1171	48	70	1067	99	64	104	48	105	64	72
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	200	1273	52	89	1098	102	150	186	86	141	123	139
Arrive On Green	0.11	0.71	0.71	0.05	0.65	0.65	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1781	1784	73	1781	1686	156	1253	1211	559	1235	804	904
Grp Volume(v), veh/h	177	0	1219	70	0	1166	64	0	152	105	0	136
Grp Sat Flow(s),veh/h/ln	1781	0	1857	1781	0	1842	1253	0	1770	1235	0	1708
Q Serve(g_s), s	14.2	0.0	79.2	5.6	0.0	87.1	7.2	0.0	11.5	10.7	0.0	10.6
Cycle Q Clear(g_c), s	14.2	0.0	79.2	5.6	0.0	87.1	17.8	0.0	11.5	22.2	0.0	10.6
Prop In Lane	1.00		0.04	1.00		0.08	1.00		0.32	1.00		0.53
Lane Grp Cap(c), veh/h	200	0	1325	89	0	1200	150	0	271	141	0	262
V/C Ratio(X)	0.88	0.00	0.92	0.78	0.00	0.97	0.43	0.00	0.56	0.75	0.00	0.52
Avail Cap(c_a), veh/h	236	0	1325	231	0	1229	150	0	271	141	0	262
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	63.3	0.0	17.3	68.0	0.0	24.0	64.6	0.0	56.8	67.8	0.0	56.4
Incr Delay (d2), s/veh	27.1	0.0	10.5	13.8	0.0	19.0	8.6	0.0	8.1	29.7	0.0	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	34.5	2.9	0.0	41.7	2.7	0.0	5.8	5.1	0.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.4	0.0	27.8	81.8	0.0	43.0	73.2	0.0	64.9	97.5	0.0	63.6
LnGrp LOS	F	A	C	F	A	D	E	A	E	F	A	E
Approach Vol, veh/h		1396			1236			216			241	
Approach Delay, s/veh		35.7			45.2			67.4			78.4	
Approach LOS		D			D			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.2	11.3	107.3		26.2	20.3	98.3				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		22.2	18.8	97.0		22.2	19.2	96.6				
Max Q Clear Time (g_c+I1), s		19.8	7.6	81.2		24.2	16.2	89.1				
Green Ext Time (p_c), s		0.2	0.1	9.9		0.0	0.1	5.2				

Intersection Summary												
HCM 6th Ctrl Delay			45.1									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	262	44	506	314	79	46	526	247	193	654	78
Future Volume (veh/h)	71	262	44	506	314	79	46	526	247	193	654	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	285	48	550	341	0	50	572	268	210	711	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	356	312	53	691	374		54	614	449	251	765	91
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.00	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1781	1560	263	3456	1870	1585	21	1316	963	655	1639	196
Grp Volume(v), veh/h	77	0	333	550	341	0	465	0	425	210	0	796
Grp Sat Flow(s),veh/h/ln	1781	0	1823	1728	1870	1585	771	0	1529	655	0	1835
Q Serve(g_s), s	3.3	0.0	16.1	13.6	16.1	0.0	5.2	0.0	18.5	23.5	0.0	36.8
Cycle Q Clear(g_c), s	3.3	0.0	16.1	13.6	16.1	0.0	42.0	0.0	18.5	42.0	0.0	36.8
Prop In Lane	1.00		0.14	1.00		1.00	0.11		0.63	1.00		0.11
Lane Grp Cap(c), veh/h	356	0	365	691	374		404	0	713	251	0	856
V/C Ratio(X)	0.22	0.00	0.91	0.80	0.91		1.15	0.00	0.60	0.84	0.00	0.93
Avail Cap(c_a), veh/h	356	0	365	691	374		404	0	713	251	0	856
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	0.68	0.00	0.68	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.1	0.0	35.2	34.3	35.2	0.0	20.8	0.0	17.7	35.4	0.0	22.6
Incr Delay (d2), s/veh	0.3	0.0	26.7	9.2	28.8	0.0	85.4	0.0	2.5	26.9	0.0	17.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	9.7	6.5	10.1	0.0	15.0	0.0	6.6	6.5	0.0	18.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.4	0.0	61.9	43.5	64.0	0.0	106.3	0.0	20.2	62.4	0.0	40.4
LnGrp LOS	C	A	E	D	E		F	A	C	E	A	D
Approach Vol, veh/h		410			891	A		890			1006	
Approach Delay, s/veh		56.0			51.3			65.1			45.0	
Approach LOS		E			D			E			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		46.0		22.0		46.0		22.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		42.0		18.0		42.0		18.0				
Max Q Clear Time (g_c+I1), s		44.0		18.1		44.0		18.1				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			53.8									
HCM 6th LOS			D									

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	35	122	5	7	120
Future Vol, veh/h	21	35	122	5	7	120
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	38	133	5	8	130

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	282	136	0	0	138	0
Stage 1	136	-	-	-	-	-
Stage 2	146	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	708	913	-	-	1446	-
Stage 1	890	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	704	913	-	-	1446	-
Mov Cap-2 Maneuver	704	-	-	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	876	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	822	1446	-
HCM Lane V/C Ratio	-	-	0.074	0.005	-
HCM Control Delay (s)	-	-	9.7	7.5	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

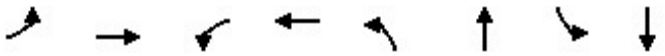
Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	16	140	24	30	223
Future Vol, veh/h	10	16	140	24	30	223
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	17	152	26	33	242

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	473	165	0	0	178	0
Stage 1	165	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	550	879	-	-	1398	-
Stage 1	864	-	-	-	-	-
Stage 2	745	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	535	879	-	-	1398	-
Mov Cap-2 Maneuver	535	-	-	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	725	-	-	-	-	-

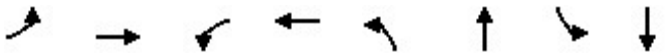
Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	705	1398	-
HCM Lane V/C Ratio	-	-	0.04	0.023	-
HCM Control Delay (s)	-	-	10.3	7.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-



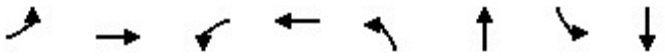
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	17	419	38	570	47	86	17	72
v/c Ratio	0.09	0.59	0.19	0.73	0.09	0.12	0.03	0.10
Control Delay	30.5	17.6	30.2	19.4	16.5	14.1	16.9	12.7
Queue Delay	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	30.5	17.6	30.2	19.5	16.5	14.1	16.9	12.7
Queue Length 50th (ft)	5	88	10	136	8	12	3	8
Queue Length 95th (ft)	27	203	46	297	43	61	21	49
Internal Link Dist (ft)		235		234		924		122
Turn Bay Length (ft)	100		100		100		50	
Base Capacity (vph)	195	1322	228	1360	536	743	529	735
Starvation Cap Reductn	0	163	0	149	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.36	0.17	0.47	0.09	0.12	0.03	0.10

Intersection Summary



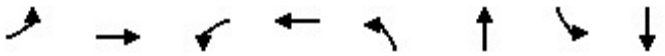
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	39	648	70	554	40	112	63	170
v/c Ratio	0.22	0.79	0.32	0.65	0.11	0.19	0.15	0.29
Control Delay	35.8	23.2	34.5	16.6	22.9	19.3	23.0	20.8
Queue Delay	0.0	0.5	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	35.8	23.7	34.5	16.9	22.9	19.3	23.0	20.8
Queue Length 50th (ft)	16	227	28	168	13	29	20	49
Queue Length 95th (ft)	48	358	72	260	41	79	58	117
Internal Link Dist (ft)		235		234		924		122
Turn Bay Length (ft)	100		100		100		50	
Base Capacity (vph)	184	1240	267	1311	374	586	407	585
Starvation Cap Reductn	0	233	0	290	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.64	0.26	0.54	0.11	0.19	0.15	0.29

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	17	425	39	570	71	100	17	73
v/c Ratio	0.08	0.59	0.17	0.71	0.14	0.14	0.03	0.11
Control Delay	28.1	16.8	26.8	17.2	17.0	14.2	17.1	13.1
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	28.1	16.8	26.8	17.3	17.0	14.2	17.1	13.1
Queue Length 50th (ft)	4	78	9	118	11	13	3	8
Queue Length 95th (ft)	26	203	44	277	58	66	21	49
Internal Link Dist (ft)		235		234		562		122
Turn Bay Length (ft)	100		100		100		50	
Base Capacity (vph)	218	1459	317	1544	500	692	488	688
Starvation Cap Reductn	0	127	0	127	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.32	0.12	0.40	0.14	0.14	0.03	0.11

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	39	672	73	554	51	119	63	175
v/c Ratio	0.22	0.80	0.34	0.63	0.14	0.21	0.16	0.30
Control Delay	36.3	23.8	35.3	16.1	23.6	19.7	23.6	21.5
Queue Delay	0.0	0.7	0.0	0.4	0.0	0.0	0.0	0.0
Total Delay	36.3	24.5	35.3	16.5	23.6	19.7	23.6	21.5
Queue Length 50th (ft)	16	241	30	168	17	32	21	53
Queue Length 95th (ft)	48	379	74	260	50	82	58	121
Internal Link Dist (ft)		235		234		924		122
Turn Bay Length (ft)	100		100		100		50	
Base Capacity (vph)	181	1214	263	1294	361	576	398	576
Starvation Cap Reductn	0	237	0	307	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.69	0.28	0.56	0.14	0.21	0.16	0.30

Intersection Summary

Appendix C

Volume Spreadsheet

Intersection Number: 1
Synchro Node Number: 2947
Intersection Name: Center Street & Laurel Street
Peak Hour: AM
Count Date: 11/20/19
Scenario: 130 Center Street TIA
Date of Analysis: 08/21/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions	19	47	16	40	485	35	15	64	43	38	348	16	1166
Project Trips	0	1	0	0	0	1	7	6	22	5	0	0	42
Existing + Project	19	48	16	40	485	36	22	70	65	43	348	16	1208

Intersection Number: 2
Synchro Node Number: 2946
Intersection Name: Chestnut Street & Laurel Street
Peak Hour: AM
Count Date: 11/19/19
Scenario: 130 Center Street TIA
Date of Analysis: 08/21/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions	41	15	105	93	409	20	34	66	34	17	310	91	1235
Project Trips	0	0	2	11	11	0	0	0	0	0	2	0	26
Existing + Project	41	15	107	104	420	20	34	66	34	17	312	91	1261

Intersection Number: 3
Synchro Node Number: 2945
Intersection Name: California Street & Laurel Street
Peak Hour: AM
Count Date: 11/19/19
Scenario: 130 Center Street TIA
Date of Analysis: 08/21/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions	0	1	0	0	356	158	211	0	102	58	243	0	1129
Project Trips	0	0	1	3	8	0	0	0	0	0	2	0	14
Existing + Project	0	1	1	3	364	158	211	0	102	58	245	0	1143

Intersection Number: 4
Synchro Node Number: 2950
Intersection Name: Front Street & Laurel Street
Peak Hour: AM
Count Date: 05/14/19
Scenario: 130 Center Street TIA
Date of Analysis: 08/21/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions	34	163	33	91	532	279	198	134	5	13	356	56	1894
Project Trips	0	2	0	0	0	2	4	11	0	0	4	0	23
Existing + Project	34	165	33	91	532	281	202	145	5	13	360	56	1917

Intersection Number: 5
Synchro Node Number: 2964
Intersection Name: Center Street/Cliff Drive & Pacific Avenue
Peak Hour: AM
Count Date: 08/18/20
Scenario: 130 Center Street TIA
Date of Analysis: 08/21/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions	102	46	18	26	6	358	380	104	13	0	0	0	1053
Project Trips	0	6	15	4	0	0	0	1	0	0	0	0	26
Existing + Project	102	52	33	30	6	358	380	105	13	0	0	0	1079

Intersection Number: 6
Synchro Node Number: 2949
Intersection Name: Pacific Avenue & Laurel Street
Peak Hour: AM
Count Date: 11/19/19
Scenario: 130 Center Street TIA
Date of Analysis: 08/21/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions	22	19	18	34	465	50	39	36	35	12	373	16	1119
Project Trips	1	0	0	0	0	0	0	0	0	0	4	3	8
Existing + Project	23	19	18	34	465	50	39	36	35	12	377	19	1127

Intersection Number: 7
Synchro Node Number: 2953
Intersection Name: Front Street & Soquel Avenue
Peak Hour: AM
Count Date: 05/14/19
Scenario: 130 Center Street TIA
Date of Analysis: 08/21/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions	20	133	18	50	78	238	66	230	9	23	57	25	947
Project Trips	1	1	0	0	0	2	8	6	0	0	0	3	21
Existing + Project	21	134	18	50	78	240	74	236	9	23	57	28	968

Intersection Number: 1
Synchro Node Number: 2947
Intersection Name: Center Street & Laurel Street
Peak Hour: PM
Count Date: 11/20/19
Scenario: 130 Center Street TIA
Date of Analysis: 08/21/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions	44	112	58	46	464	64	27	76	37	47	549	36	1560
Project Trips	0	5	0	0	0	3	3	3	10	22	0	0	46
Existing + Project	44	117	58	46	464	67	30	79	47	69	549	36	1606
Cumulative Baseline Conditions	50	77	133	58	823	56	56	94	62	65	965	30	2469
Cumulative + Proj Conditions	50	82	133	58	823	59	59	97	72	87	965	30	2515

Intersection Number: 2
Synchro Node Number: 2946
Intersection Name: Chestnut Street & Laurel Street
Peak Hour: PM
Count Date: 11/19/19
Scenario: 130 Center Street TIA
Date of Analysis: 08/21/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions	78	52	111	76	448	37	45	39	33	26	545	94	1584
Project Trips	0	0	11	5	5	0	0	0	0	0	11	0	32
Existing + Project	78	52	122	81	453	37	45	39	33	26	556	94	1616
Cumulative Baseline Conditions	76	72	26	28	866	79	95	59	141	91	982	111	2626
Cumulative + Proj Conditions	76	72	37	33	871	79	95	59	141	91	993	111	2658

Intersection Number: 3
Synchro Node Number: 2945
Intersection Name: California Street & Laurel Street
Peak Hour: PM
Count Date: 11/19/19
Scenario: 130 Center Street TIA
Date of Analysis: 08/21/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions	0	0	0	0	351	143	295	0	96	65	424	0	1374
Project Trips	0	0	3	1	4	0	0	0	0	0	8	0	16
Existing + Project	0	0	3	1	355	143	295	0	96	65	432	0	1390
Cumulative Baseline Conditions	29	169	23	20	752	168	326	224	35	30	828	11	2615
Cumulative + Proj Conditions	29	169	26	21	756	168	326	224	35	30	836	11	2631

Intersection Number: 4
Synchro Node Number: 2950
Intersection Name: Front Street & Laurel Street
Peak Hour: PM
Count Date: 05/14/19
Scenario: 130 Center Street TIA
Date of Analysis: 08/21/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions	143	308	95	108	414	217	244	165	11	18	517	78	2318
Project Trips	0	11	0	0	0	8	2	5	0	0	2	0	28
Existing + Project	143	319	95	108	414	225	246	170	11	18	519	78	2346
Cumulative Baseline Conditions	262	366	202	195	830	227	254	228	4	29	996	165	3758
Cumulative + Proj Conditions	262	377	202	195	830	235	256	233	4	29	998	165	3786

Intersection Number: 5
Synchro Node Number: 2964
Intersection Name: Center Street/Cliff Drive & Pacific Avenue
Peak Hour: PM
Count Date: 08/18/20
Scenario: 130 Center Street TIA
Date of Analysis: 08/21/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions	157	113	27	21	3	453	413	131	49	0	0	0	1367
Project Trips	0	3	7	19	0	0	0	5	0	0	0	0	34
Existing + Project	157	116	34	40	3	453	413	136	49	0	0	0	1401
Cumulative Baseline Conditions	214	162	34	62	172	444	549	166	18	0	0	0	1821
Cumulative + Proj Conditions	214	165	41	81	172	444	549	171	18	0	0	0	1855

Intersection Number: 6
Synchro Node Number: 2949
Intersection Name: Pacific Avenue & Laurel Street
Peak Hour: PM
Count Date: 11/19/19
Scenario: 130 Center Street TIA
Date of Analysis: 08/21/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions	30	40	57	50	459	40	44	73	33	24	582	45	1477
Project Trips	3	0	0	0	0	0	0	0	0	0	2	1	6
Existing + Project	33	40	57	50	459	40	44	73	33	24	584	46	1483
Cumulative Baseline Conditions	63	59	97	91	982	64	44	96	59	44	1075	162	2836
Cumulative + Proj Conditions	66	59	97	91	982	64	44	96	59	44	1077	163	2842

Intersection Number: 7
Synchro Node Number: 2953
Intersection Name: Front Street & Soquel Avenue
Peak Hour: PM
Count Date: 05/14/19
Scenario: 130 Center Street TIA
Date of Analysis: 08/21/20

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions	35	279	101	49	107	370	124	285	15	64	160	53	1642
Project Trips	3	5	0	0	0	8	4	3	0	0	0	1	24
Existing + Project	38	284	101	49	107	378	128	288	15	64	160	54	1666
Cumulative Baseline Conditions	75	649	193	79	314	498	243	523	46	44	262	70	2996
Cumulative + Proj Conditions	78	654	193	79	314	506	247	526	46	44	262	71	3020

Appendix D

VMT Analysis Sketch Tool Summary

VMT CALCULATOR

Version 1.2 Build Date 11_02_20

PROJECT INFORMATION

Project Name	130 Center
Address	36.96618, -122.02619
TAZ	
Project Context/Setting	Suburban Center
	TAZ# 787

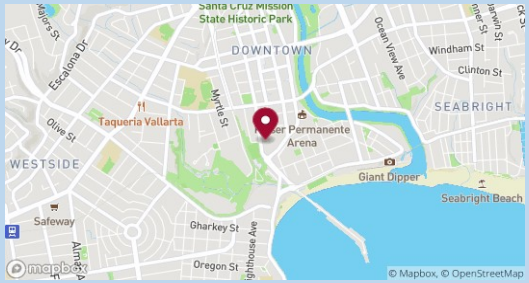
LAND USE INFORMATION

VMT Land Use Type	Residential
ITE Trip Gen Land Use	221 | Multifamily Housing (Mid-Rise)
Dwelling Unit(s)	233
Mixed-Use Adjustment	0%

PRESUMPTIONS OF LESS THAN SIGNIFICANT IMPACT

- ☐ **Affordable Housing**
- ☑ **Within a 1/2 mile of Major Transit Stop**
- ☐ **Local Retail (<50,000 Sq Ft)**
- ☐ **Less than 110 Trips per Day**

SEARCH LOCATION | RESET



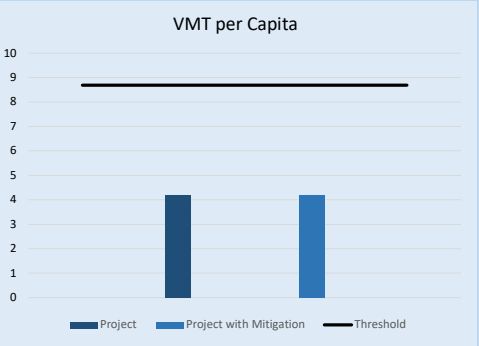
VMT OUTPUT

This tool is only intended for projects of 2,000 trips or less.

	PROJECT	REDUCTIONS	PROJ. WITH MITIGATION
VMT/Capita	4.2	0.0	4.2
Daily Trips	1,268	0	1,268

Average (VMT/Capita)	10.2
Threshold (15% below Average)	8.7
Significant Impact?	No
	Overridden by Presumption

County of Santa Cruz Threshold



TRANSPORTATION DEMAND MANAGEMENT (TDM) STRATEGIES

- PARKING STRATEGIES
- TRANSIT STRATEGIES
- COMMUNICATIONS & INFORMATION STRATEGIES
- COMMUTING STRATEGIES
- SHARED MOBILITY STRATEGIES
- BICYCLE INFRASTRUCTURE STRATEGIES
- NEIGHBORHOOD ENHANCEMENT STRATEGIES
- MISCELLANEOUS STRATEGIES