HEXAGON TRANSPORTATION CONSULTANTS, INC.

1010 Admiral Court
Genesis & Hyundai Dealership

Traffic Impact Analysis

Prepared for:

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Executive Summary

This report presents the results of the Transportation Analysis (TA) for the proposed auto dealership at 1010 Admiral Court in San Bruno, California. The project would build 171,610 s.f. of dealership building including a showroom, auto parts sales, administrative space, automobile service bays, and a 5-level parking garage. Of the 171,620 s.f. floor area of the project building, only 43,254 s.f. floor area would be used for vehicle sales and service, and the remaining 128,356 s.f. would be used for vehicle storage. Access to the site would be provided via three driveways along Admiral Court and Commodore Drive. The site is currently vacant, and part of the site is used for parking.

Vehicles Miles Traveled (VMT) Analysis

The City of San Bruno has not yet adopted any thresholds or guidelines related to VMT. The VMT thresholds used for this project are based on the San Mateo County VMT guidelines, published September 23, 2020. Car dealerships are not explicitly represented in the VMT guidelines. For the purpose of evaluating the VMT impact, an auto dealership can be analyzed as a retail development.

The OPR's Technical Advisory provides guidelines for evaluating the VMT impacts of a retail project based on whether it's local-serving or regional-serving retail (50,000 s.f. or less). By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, can lead to substitution of longer trips for shorter ones and may have a significant impact. A majority of the trips generated by the proposed dealership will be existing Genesis/Hyundai owners bringing their vehicles for service. It is assumed that these service customers are currently taking their vehicles to the closest existing Genesis/Hyundai dealership to their home or work for service. Therefore, adding a Genesis/Hyundai dealership will shorten trips and reduce VMT for its service customers that are currently driving to Fremont or San Jose. Adding a new Genesis/Hyundai dealership within a metropolitan area does not cause more vehicles to require service or result in more vehicles to be sold. This is the same assumption that is made with adding a new grocery store within a metropolitan area. A new grocery store does not result in more apples being sold. It only reallocates where the apples are purchased. Because most vehicle trips generated by the project are and would continue to be from the vehicle owners bringing in their cars for service, the project would operate similar to local-serving retail development.

The project proposes to build 171,610 s.f. of dealership building including showroom, auto parts sales, administrative space, automobile service bays, and a 5-level parking garage. Of the 171,620 s.f. floor area of the project building, only 43,254 s.f. floor area would be used for vehicle sales and service. Therefore, the dealership building would be less than 50,000 square feet and would serve the local and

regional community. Therefore, the project meets the local and regional serving retail screening criteria and would not result in a significant VMT impact.

There is one Genesis & Hyundai showroom in San Jose and Hyundai showrooms in Fremont and San Leandro in the region. Because there are no Genesis & Hyundai dealerships between San Francisco and San Jose, vehicle owners or buyers in the project area need to travel to San Jose or Fremont, which are approximately 36 and 33 miles, respectively, from the project site. Placing the proposed Genesis & Hyundai dealership at the project site would shorten the car service trips for the existing and future owners in the project area. Although the project could increase the VMT generated by employees and vehicle delivery trucks, the reduction in the VMT generated by car service trips would be more than enough to offset the increase in employee and vehicle delivery related VMT. Therefore, the proposed Genesis & Hyundai dealership would result in an overall reduction in VMT.

Project Trip Generation

The proposed project would generate 80 trips in the AM peak hour and 105 trips in the PM peak hour.

Intersection Levels of Service

The results of the intersection LOS analysis under existing plus project and background plus project conditions show that all the study intersections would operate at an acceptable level during both the AM and PM peak hours of traffic when measured against the applicable municipal and CMP level of service standards. The intersection level of service results for all scenarios are summarized in Table ES-1.

Signal Warrant Analysis

A peak hour signal warrant analysis (MUTCD 2010 Edition, Part 4, Warrant 3) was performed for the unsignalized study intersections to determine whether the project would produce an impact according to the City of San Bruno potentially adverse effect criteria. The peak-hour signal warrant was checked for existing, background and project conditions. Based on their peak-hour traffic volumes, the study intersections would not warrant signalization under any traffic scenario without and with the project.

Travel Demand Management (TDM) Measures

The project would be required to reduce trips to be in compliance with C/CAG TDM guidelines. This report includes recommended TDM measures to achieve a 26% daily trip reduction per the guidelines.

Other Transportation Issues

The proposed site plan shows adequate site access and on-site circulation, and the project would not have an adverse effect on the existing transit services, pedestrian facilities, or bicycle facilities in the study area. Hexagon provides the following recommendations and enhancements for the project:

- The San Bruno Walk ‘n Bike plan would improve the pedestrian facilities in the project area with the intent to make walking safer in a more pedestrian friendly environment. Specifically, the plan calls for a future improvement on El Camino Real for a crosswalk at the I 380 on-ramp (not required by the project). No other improvements are specifically recommended in the plan in the vicinity of the project site.
- The site plan does not show bicycle parking. The project is required to provide 14 short term bicycle parking spaces and 4 long term bicycle parking spaces.

Table ES 1
Intersection Level of Service Summary

Study Number	Intersection	Peak Hour	Count Date	Traffic Control	Existing				Background			
					No Project		with Project		No Project		with Project	
					Avg. Delay (sec.)[1]	LOS	Avg. Delay (sec.)[1]	LOS	Avg. Delay (sec.)[1]	LOS	Avg. Delay (sec.)[1]	LOS
1	Admiral Court and Commodore Drive*	AM	9/22/2022**	TWSC	11.1	B	11.7	B	11.1	B	11.7	B
		PM	9/22/2022**		9.9	A	10.4	B	9.9	A	10.4	B
2	El Camino Real and Commodore Drive *(CMP)*	AM	Sep 2017	Signal	20.2	C	21.4	C	26.3	C	27.4	C
		PM	Sep 2017		10.6	B	11.7	B	13.7	B	15.1	B
3	El Camino Real and I-380 Westbnound Off Ramps *(CMP)**	AM	Sep 2017	Signal	13.8	B	14.1	B	17.5	B	17.7	B
		PM	Sep 2017		25.8	C	26.6	C	28.1	C	29.1	C
4	El Camino Real and I-380 Eastbound Off Ramps *(CMP)*	AM	Sep 2017	Signal	5.5	A	5.8	A	14.8	B	15.1	B
		PM	Sep 2017		22.9	C	24.6	C	27.0	C	29.6	C
5	El Camino Real and Sneath Lane *(CMP)*	AM	Sep 2017	Signal	30.8	C	30.8	C	38.5	D	38.6	D
		PM	Sep 2017		33.2	C	33.4	C	43.3	D	43.3	D
6	El Camino Real and Bayhill Dirve *(CMP)*	AM	Sep 2017	Signal	5.3	A	5.3	A	14.8	B	14.7	B
		PM	Sep 2017		11.3	B	11.3	B	18.5	B	18.5	B
7	Cherry Avenue and Commodore Drive	AM	9/22/2022**	AWSC	10.4	B	10.4	B	12.4	B	12.4	B
		PM	9/22/2022**		9.4	A	9.5	A	11.3	B	11.3	B
8	National Avenue and Sneath Lane	AM	9/22/2022**	Signal	21.6	C	21.7	C	21.6	C	21.7	C
		PM	9/22/2022**		21.5	C	21.6	C	21.8	C	21.8	C

Note:

AWSC = All-Way Stop Control; TWSC = Two-Way Stop Control

* The Highway Capacity Manual (HCM) 2010 does not support turning movements with shared and exclusive lanes or non-standard phasings. Therefore, this intersection was analyzed using the HCM 2000.

** Traffic count adjusted based on factor derived between 2017 growth rate to 2022, and new 2022 counts at El Camino Real and I-380 Ramps (#3 and #4).

[1] Average delay for an all-way stop controlled intersection is reported for the entire intersection. Average delay for a side-street stop controlled intersection is reported for the worst stop-controlled approach.

1. Introduction

This report presents the results of the Transportation Analysis (TA) for the proposed auto dealership at 1010 Admiral Court in San Bruno, California (see Figure 1). The project would build 171,610 s.f. of dealership building including a showroom, auto parts sales, administrative space, automobile service bays, and a 5-level parking garage. Of the 171,620 s.f. floor area of the project building, only 43,254 s.f. floor area would be used for vehicle sales and service, and the remaining 128,356 s.f. would be used for vehicle storage. Access to the site would be provided via three driveways along Admiral Court and Commodore Drive (see Figure 2). The site is currently vacant, and part of the site is used for parking.

CEQA Transportation Analysis Scope and Methodology

The CEQA transportation analysis for the project consists of a project-level vehicle miles traveled (VMT) impact analysis. SB 743 established VMT as the appropriate measure for transportation impacts under CEQA. The Governor's Office of Planning & Research (OPR) published guidelines for the evaluation of VMT, which became mandatory as of July 1, 2020. San Bruno has yet to establish its own VMT guidelines; therefore, this study uses San Mateo County guidelines.

Local Transportation Analysis Scope

The local transportation analysis supplements the VMT analysis by identifying potential adverse operational effects that may arise due to the new development, as well as evaluating the effects of the new development on site access, circulation, and other safety-related elements in the proximate area of the project.

The effects of the project were evaluated in accordance with the standards set forth by the City of San Bruno and the City/County Association of Governments (C/CAG) of San Mateo County. The C/CAG administers the San Mateo County Congestion Management Program (CMP), which requires non-residential and multi-family residential projects generating more than 100 daily trips to complete the C/CAG checklist.

The traffic analysis was based on level of service for six signalized intersections and two unsignalized intersections. The study intersections are identified below.

Study Intersections

1. Admiral Court and Commodore Drive (unsignalized)
2. El Camino Real and Commodore Drive*
3. El Camino Real and I-380 WB Ramps*
4. El Camino Real and I-380 EB Ramps*

5. Sneath Lane and El Camino Real*
6. Bayhill Drive and El Camino Real*
7. Commodore Drive and Cherry Avenue (unsignalized)
8. National Avenue and Sneath Lane

*Denotes Caltrans Intersection

Per CMP technical guidelines, a freeway segment level of service analysis is required when a project would add trips greater than one percent of a segment's capacity. The project is not expected to generate trips more than one percent of the capacity on any freeway segments in the area (see Table 1). A freeway analysis for the CMP is therefore not necessary. Trip generation for the project is discussed in Chapter 5.

Table 1
Freeway Capacity Check

Freeway	Segment	Direction	# of Mixed Flow Lanes	Capacity[1] (vph)	1% of Capacity	Peak Hour	Project Trips
I 380	SR 82/El Camino Real to US 101	EB	4	9200	92	AM	9
						PM	26
I 380	US 101 to SR 82/El Camino Real	WB	4	9200	92	AM	23
						PM	17
I 380	I 280 to SR 82/El Camino Real	EB	3	6900	69	AM	11
						PM	9
I 380	SR 82/El Camino Real to I 280	WB	4	9200	92	AM	7
						PM	19

Notes:
1. Capacity was based on the ideal capacity cited in the *2000 Highway Capacity Manual*.

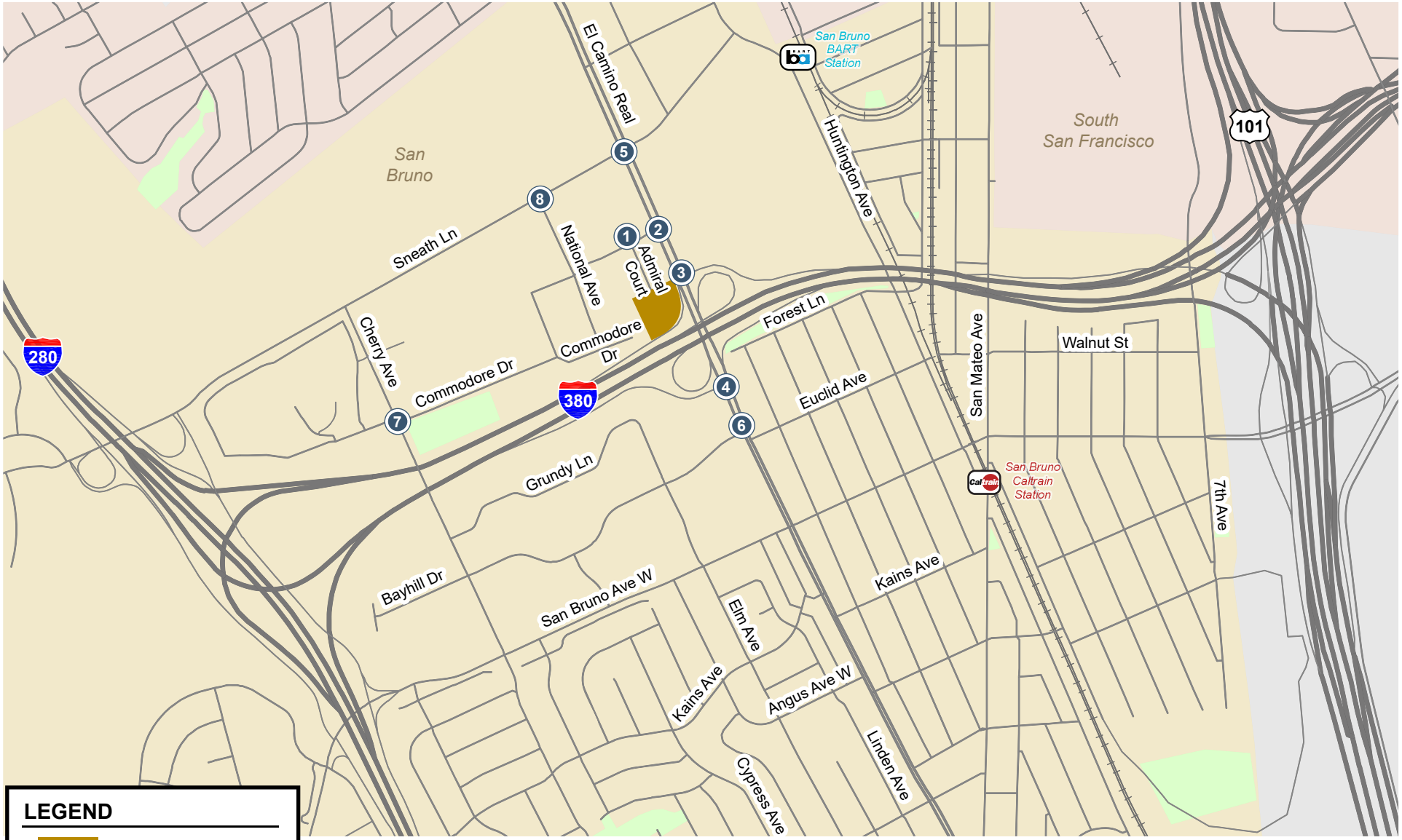


Figure 1
Site Location and Study Intersections

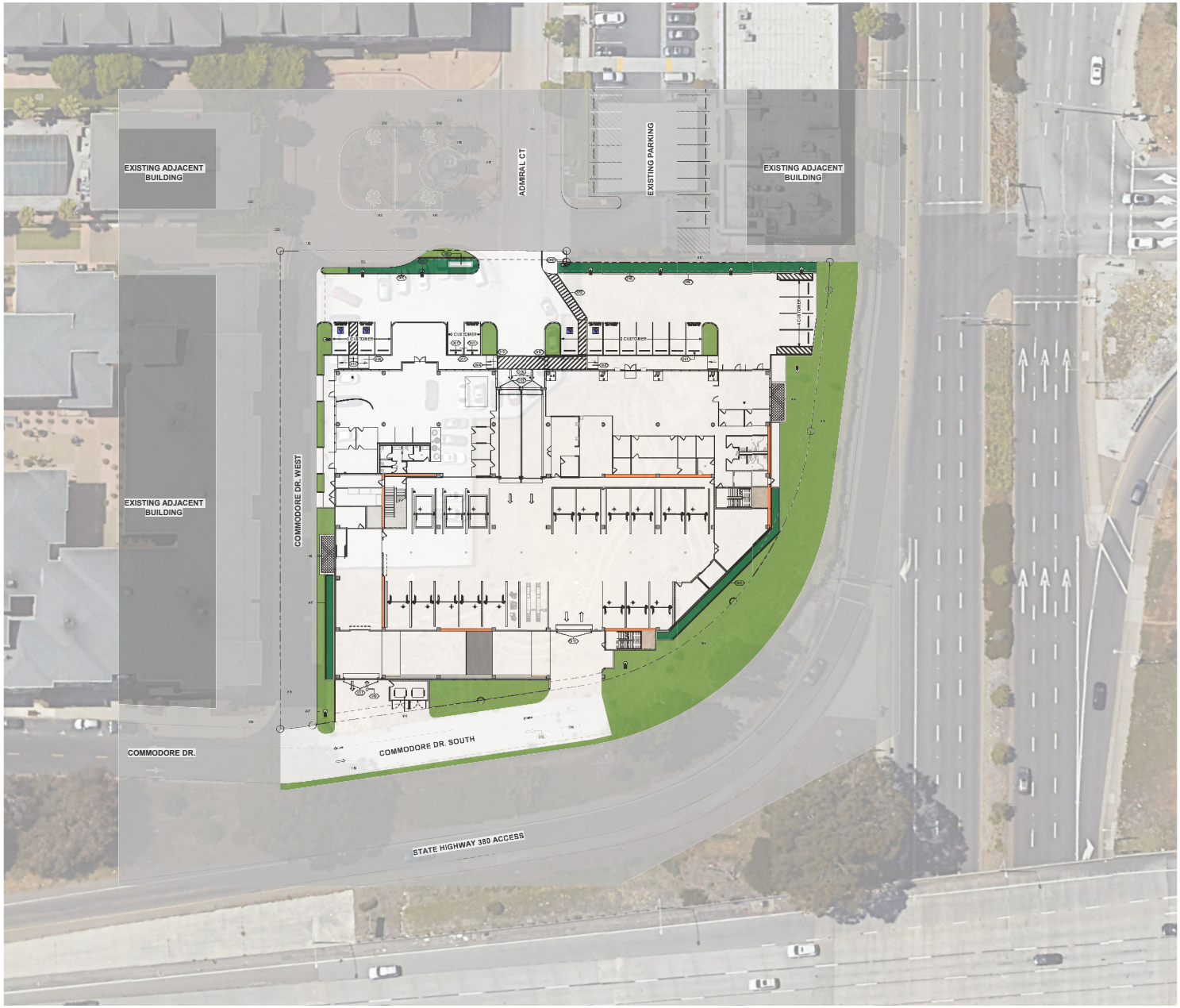


Figure 2
Project Site Plan

NORTH
Not to Scale

Traffic conditions at the study intersections were analyzed for both the weekday AM and PM peak hours of adjacent street traffic. The AM peak hour typically occurs between 7:00 AM and 9:00 AM, and the PM peak hour occurs between 4:00 PM and 6:00 PM on a regular weekday. These are the peak commute hours during which most traffic congestion occurs on the roadways.

Traffic conditions were evaluated for the following scenarios:

Scenario 1: *Existing Conditions.* Hexagon used pre-pandemic traffic counts from 2017 available at five of the study intersections. The intersections at El Camino Real and the I-380 Ramps were counted in 2017 and 2022. The 2022 counts for the intersections of Admiral Court/Commodore Drive, Cherry Avenue/Commodore Avenue, and National Avenue/Sneath Lane were factored up based on the 2017 counts at El Camino Real and the I-380 Ramps. Adjustment factors of 1.28 and 1.23 were applied for the AM and PM peak hours, respectively. Intersection volumes along El Camino Real were balanced based on cross streets and driveway locations. The study intersections were evaluated with a level of service analysis using Synchro software in accordance with the 2010 Highway Capacity Manual methodology.

Scenario 2: *Background Conditions.* Background traffic volumes were estimated by adding to existing volumes the projected volumes from approved but not yet completed developments in the project area. A list of such projects was obtained from the City of San Bruno, City of South San Francisco, and City of Millbrae websites.

Scenario 3: *Existing plus Project Conditions.* Existing traffic volumes with the project were estimated by adding to existing traffic volumes the additional traffic generated by the project. Existing plus project conditions were evaluated relative to existing conditions in order to determine the effects the project would have on the existing roadway network.

Scenario 4: *Background plus Project Conditions.* Background plus Project traffic volumes were estimated by adding to background traffic volumes the additional traffic generated by the project. Project conditions were evaluated relative to background conditions to determine potential adverse effects caused by the project.

Methodology

This section presents the methods used to determine the traffic conditions for each scenario described above. 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 recent traffic counts, the City of San Bruno, City of South San Francisco, City of Millbrae, previous traffic studies, and field observations. The following data were collected from these sources:

- existing peak-hour intersection turning-movement volumes
- existing lane configurations
- signal timing and phasing
- existing bicycle and pedestrian volumes, and
- list of approved projects.

Level of Service Standards and Analysis Methodologies

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 various analysis methods are described below.

Signalized Intersections

Level of service at signalized intersections was evaluated based on the *2010 Highway Capacity Manual* (HCM) level of service methodology using Synchro software. This method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. The correlation between average control delay and level of service at signalized intersections is shown in Table 2.

Table 2
Signalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	Up to 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lenghts, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurences. This is considered to be the limit of acceptable delay.	55.1 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	Greater than 80.0

Source: Transportation Research Board, *2010 Highway Capacity Manual* , (Washington, D.C., 2010).

Unsignalized Intersections

Level of service analysis at unsignalized intersections is generally used to determine the need for modification in the type of intersection control (i.e., all-way stop or signalization). As part of the evaluation, traffic volumes, delays and traffic signal warrants are evaluated to determine if the existing intersection control is appropriate.

There are two unsignalized study intersections in the vicinity of the project site. Levels of service at the unsignalized intersections were based on the *2010 Highway Capacity Manual* (2010 HCM) method

using the Synchro software. This method is applicable for both two-way and all-way stop-controlled intersections. Synchro evaluates unsignalized intersections on the basis of average stopped delay for all-way stop controlled intersections, and the worst approach delay at the intersection for two-way stop-controlled intersections. The correlation between average control delay and LOS for unsignalized intersections is shown in Table 3.

Table 3
Unsignalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Little or no traffic delay	10.0 or less
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays	greater than 50.0

Source: Transportation Research Board, 2010 *Highway Capacity Manual* (Washington, D.C., 2010).

Traffic Signal Warrant Analysis

The level of service calculations at the unsignalized intersections was supplemented with an assessment of the need for installation of a traffic signal, known as a signal warrant analysis. The need for signalization of unsignalized intersections in an urban or suburban context is typically assessed based on the Peak Hour Volume Warrant (Warrant 3) described in the *California Manual on Uniform Traffic Control Devices for Streets and Highways* (CA MUTCD), Part 4, Highway Traffic Signals. This method makes no evaluation of intersection level of service, but simply provides an indication whether vehicular peak hour volumes are, or would be, sufficiently high to justify installation of a traffic signal. The decision to install a traffic signal should not be based purely on the warrants alone. Instead, the decision should be considered when one or more of the warrants are met, which triggers further feasibility analysis. Engineering judgment should be exercised to determine how a traffic signal could affect collision rates and traffic conditions at the subject intersection, as well as at adjacent intersections. Other options besides a traffic signal should also be considered, such as all-way stop control, new or enhanced signage, or roadway geometry changes; these measures may be more appropriate than a new traffic signal.

City of San Bruno Intersection Level of Service Standards

The City of San Bruno General Plan specifies certain intersections at which a level of service standard (LOS D) must be maintained during AM and PM peak periods. The relevant General Plan polices are listed below:

- Policy T-B: Maintain acceptable levels of service for vehicular movement along the city's street network. Acceptable level of service could vary based on characteristics of the area under consideration.
- Policy T-6: Maintain LOS standards for intersections for AM and PM peak periods as shown in Figure 4-2.

The City does not have a general LOS standard that applies to all intersections, but the El Camino Real/Sneath Lane, El Camino Real/I-380 WB Ramps, El Camino Real/I-380 EB Ramps, and National Avenue/Sneath Lane study intersections are included in General Plan Figure 4-2 with a LOS standard of D. The LOS analysis is to ensure that the study intersections would remain consistent with General Plan Policy T-B with implementation of the proposed project.

California Department of Transportation (Caltrans) Intersection Level of Service Standard

El Camino Real/Sneath Lane, El Camino Real/I-380 WB Ramps, El Camino Real/I-380 EB Ramps, El Camino Real/Commodore Drive and Bayhill Drive/El Camino Real study intersections are within the jurisdiction of Caltrans. Therefore, the study intersections are subject to Caltrans' standards in addition to San Bruno standards. According to Caltrans' *Guide for the Preparation of Traffic Impact Studies*, Caltrans seeks to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities but acknowledges that this may not always be feasible. In instances where an existing State highway facility is operating worse than the appropriate target LOS, the existing measure of effectiveness (i.e., vehicle delay at intersections and v/c ratio at the ramps) should be maintained. Thus, LOS D is considered the appropriate target LOS for these State Route intersections.

Intersection LOS Adverse Effect Criteria for Signalized Intersections

The project is said to create an adverse effect on traffic conditions at a signalized intersection in the City of San Bruno if the project is not consistent with General Plan Policy T-B. In order to be consistent with the General Plan Policy T-B, an adverse on intersection operations would occur if for either peak hour

1. The level of service at the intersection degrades from an acceptable level (LOS D or better) under existing conditions to an unacceptable level under existing plus project conditions, or
2. The level of service at the intersection is an unacceptable level (LOS E or F) under existing conditions, and the addition of project trips would cause the critical-movement delay at the intersection to increase by four (4) or more seconds.

Unsignalized Intersections

In order to be consistent with the General Plan Policy T-B, an unsignalized intersection would have an adverse effect on traffic conditions if the following would occur:

1. The intersection or a stop-controlled approach degrades from an acceptable LOS D to an unacceptable LOS E or F or is already operating below LOS D, and
2. The project would add ten (10) or more vehicle trips to the critical movement of the intersection or stop-controlled approach during the peak hour, and
3. The intersection meets the California Manual on Uniform Traffic Control Devices (MUTCD) peak hour volume traffic signal warrant after project completion.

Intersection Vehicle Queuing Analysis

For selected high-demand movements at the study intersections, the estimated maximum vehicle queues were compared to the existing or planned storage capacity. The queuing analysis is used to determine the appropriate storage lengths for the high-demand turn lanes where the proposed project

would add a substantial number of trips to these movements. Vehicle queues were estimated using Poisson probability for unsignalized intersections and Synchro for signalized intersections.

The basis of the analysis is as follows: (1) Synchro/ Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles per signal cycle for a particular movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement.

For signalized intersections, the 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles. In other words, a queue length larger than the 95th percentile queue would only occur on five percent of the signal cycles (about three cycles during the peak hour for a signal with a 60-second cycle length). Therefore, left-turn storage pocket designs based on the 95th percentile queue length would ensure that storage space would be exceeded only five percent of the time. The 95th percentile queue length is also known as the "design queue length."

Vehicle queues were calculated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

$$P(x = n) = \frac{\lambda^n e^{-(\lambda)}}{n!}$$

Where:

$P(x = n)$ = probability of "n" vehicles in queue per lane

n = number of vehicles in the queue per lane

λ = Average number of vehicles in the queue per lane (vehicles per hour per lane/signal cycles per hour)

Report Organization

The remainder of this report is divided into five chapters. Chapter 2 describes the existing roadway network, transit services, and pedestrian and bicycle facilities. Chapter 3 presents the vehicle miles travelled (VMT) analysis. Chapter 4 presents the intersection operations in the study area under the background scenario conditions, including the approved projects in the City of San Bruno. Chapter 5 describes the methods used to estimate the project traffic on the roadway network and presents the intersection operations under existing plus project and background plus project conditions. Chapter 6 includes a list of potential TDM measures as per C/CAG. Chapter 7 provides an evaluation of other transportation-related issues, including potential project impacts on bicycle, pedestrian, and transit facilities, as well as site access and on-site circulation.

2. Existing Conditions

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

Existing Roadway Network

Regional access to the project site is provided via I-280 and US 101.

I-280 is a north/south freeway that extends from San Francisco to downtown San Jose. In the project vicinity, I-280 has eight mixed-flow lanes. Regional access to the project site is provided via an exit at Sneath Lane and interchange at I-380.

US 101 is a north/south freeway that extends from north of San Francisco to south of San Jose. In the project vicinity, US 101 has eight mixed-flow lanes. US 101 provides access to the project site via the interchanges at San Bruno Avenue and I-380.

Local access to the site is provided via I-380, El Camino Real, Commodore Drive and Admiral Court. These roadways are described below.

I-380 is a six lane east/west freeway that connects I-280 and US-101 within San Bruno. El Camino Real provides access to I-380 via an interchange.

El Camino Real (SR 82) is a six-lane north-south arterial with a raised center median within the project area. El Camino Real extends northward to San Francisco where it changes designation to Mission Street and San Jose Avenue, and southward through San Jose. The posted speed limit on El Camino Real is 35 mph. On-street parking is provided on both sides of the street in most locations within the study area. There are sidewalks on the west side of the street in some portions of the project vicinity. El Camino Real provides access to the project site via Commodore Drive and Admiral Court.

Sneath Lane is an east/west arterial street that extends east from Huntington Avenue to Monterey Drive. West of I-280, it is a two-lane street and has a posted speed limit of 30 mph. East of I-280, it is a 4-lane street, and has a posted speed limit of 40 mph. Portions of the street have a landscaped center median, and parking is not allowed on either side of the street in the project vicinity. Continuous sidewalks are present on both sides of the street east of

Rollingwood Drive. West of Rollingwood Drive up to Engvall Court, sidewalk is missing on the south side of the street. West of Engvall Court, sidewalk is missing on the north side of the street. Access to the project site is provided via Cherry Avenue/National Avenue, Commodore Drive and Admiral Court.

National Avenue is a two-lane north/south street that extends from Sneath Lane in the north and terminates south of Commodore Drive. National Avenue provides access to the project site via Commodore Drive and Admiral Court. Continuous sidewalk is present on the west side of the street and portions of the east side of the street. The posted speed limit is 25 mph.

1st Street West / Admiral Court is a two-lane north/south street that extends from Commodore Drive in the north and provides access to the project site. Continuous sidewalk is present on both sides of the street except the west side of the project boundary. The posted speed limit is 25 mph.

Commodore Drive is a four to two-lane east/west street that extends from El Camino Real in the east and terminates at Cherry Avenue. East of El Camino Real, Commodore Drive continues as Tanforan Way. East of Admiral Court, Commodore Drive has four lanes, whereas west of Admiral Court it has two lanes. Commodore Drive runs in a U shape and then connects to Cherry Avenue. Continuous sidewalk is present on both sides of the street except along the west side of the project boundary. The posted speed limit is 25 mph.

Existing Pedestrian and Bicycle Facilities

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. In the vicinity of the project site, sidewalks exist along both sides of El Camino Real, Admiral Court, and Commodore Drive except on the west side of the project boundary. Marked crosswalks with pedestrian signal heads and push buttons are provided on at least 2 approaches of the signalized intersections along El Camino Real and Sneath Lane. Crosswalks are available at the nearby unsignalized intersections along Commodore Drive. Overall, the network of sidewalks and crosswalks in the study area provides pedestrians with safe routes to the surrounding neighborhoods. The pedestrian and bicycle plan and goals adopted by the City Council in the Walk ‘n Bike Plan are discussed in Chapter 6.

In the vicinity of the project, there are existing bicycle facilities on Sneath Lane except between the I-280 ramps and between National Avenue and Sea Biscuit Avenue. Although the Class II bike lanes along Sneath Lane are the only bicycle lanes that currently exist in San Bruno, the City plans to improve the on-street bicycle network. In July of 2016, the City Council adopted the Walk ‘n Bike Plan (see Figure 3). This Plan outlines specific improvements to ensure that walking and biking are safe, comfortable, and convenient. The Plan calls for many support programs and initiatives to encourage more walking and cycling throughout the city.

Existing Transit Service

Existing transit service to the study area is provided by the San Mateo County Transit District (SamTrans), BART, and Caltrain (See Figure 4).

SamTrans Bus Service

Existing bus service to the study area is provided by SamTrans. The closest bus stop is at El Camino Real and Sneath Lane, which is 1,150 feet from the project site. There are five bus routes that serve that stop, as described below in Table 4 and shown on Figure 4.

Table 4
Existing Transit Service

Bus Route[1]	Route Description	Weekday Hours of Operation[2]	Headway[2]
Operated by SamTrans			
Local Route 141	Airport/Linden - Skyline College	6:15 AM - 8:00 PM	30 min
Route ECRO	Daly City - SFO Airport	1:15 AM - 5:10 AM	60 min
Local Route 142	SFO - Shelter Creek	6:00 AM - 6:45 PM	60 min
Route ECR	Daly City BART Station to Palo Alto Transit Center	4:00 AM - 2:00 AM	13 - 18 min
Route 398	Redwood City Transit Center - SF Transbay Terminal	6:00 AM - 11:30 AM 3:45 PM - 9:20 PM	100 - 120 min

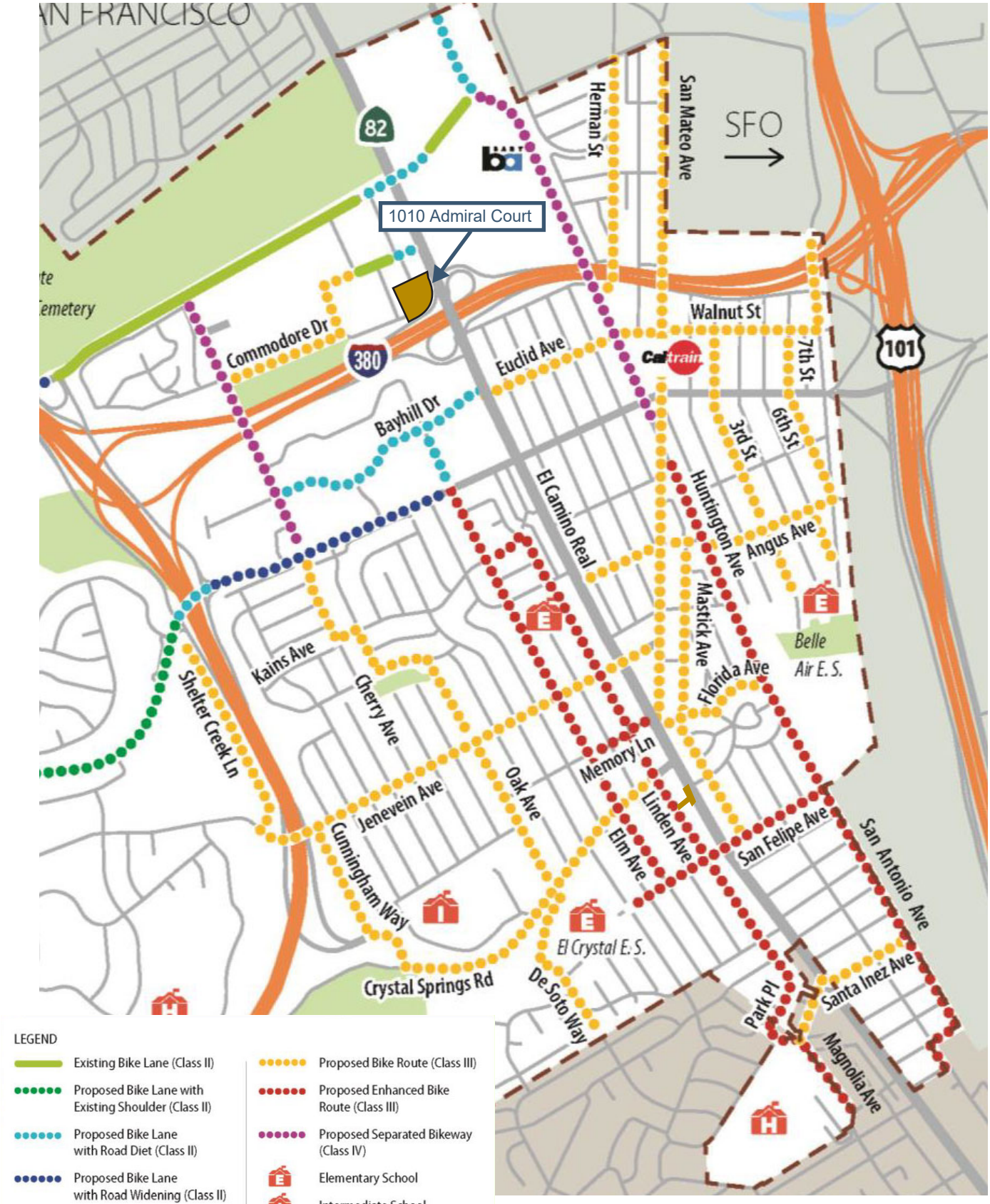
Notes:
Source: SamTrans Service Schedule and Map, September 2022
[1] Closest bus stop to bus routes 142, 398, ECR and ECRO is located at El Camino Real and Sneath Lne (1,150 feet from the project location) and all others are at Sneath Lane and National Avenue (1,650 feet from the project location).
[2] Approximate weekday operation hours and headways during peak periods in the project area, as of September 2022.

Caltrain Service

The San Bruno Caltrain Station is located just under 1 mile southeast of the project site. The station can be accessed by SamTrans Bus route ECR. Caltrain provides frequent passenger train service between San Jose and San Francisco seven days a week. During commute hours, Caltrain provides extended service to Morgan Hill and Gilroy. Trains that stop at the San Bruno Station operate at approximately 30-40 minute headways in both directions during the commute hours, with somewhat less frequent service midday. Service operates between about 5:40 AM and 12:15 AM in the northbound direction and between 5:15 AM and 12:30 AM in the southbound direction. Bicycles are permitted on Caltrain. There are bicycle racks and bicycle lockers available at the San Bruno Station.

BART Service

Bay Area Rapid Transit (BART) operates regional rail service in the Bay Area, connecting between San Francisco International Airport and the Millbrae Intermodal Station to the south, San Francisco to the north, and cities in the East Bay. The nearest BART station is the San Bruno Station, located approximately 1.5 miles from the project site on Huntington Avenue, east of the project. The BART station can be accessed by SamTrans Route 140. BART trains operate with 15 to 30-minute headways during peak hours.



Reference: City of San Bruno Walk 'n Bike Plan

Figure 3
Existing and Planned Bicycle Facilities

Figure 4
Existing Transit Services

Existing Intersection Lane Configurations and Traffic Volumes

The existing lane configurations at the study intersections were determined by Google maps and Google Earth and are shown on Figure 5. Current traffic conditions on the roadway network are atypical due to the unprecedented conditions caused by the COVID-19 pandemic in San Mateo County. Traffic counts conducted in September 2022 at El Camino Real and the I-380 Ramps were approximately 22% lower than the 2017 counts during the AM peak hour and 18% lower during the PM peak hour. Also, 2017 intersection counts conducted at El Camino Real and the I-380 Ramps were higher than the 2018 and January 2020 (pre-pandemic) counts. Therefore, Hexagon used the pre-pandemic traffic counts from 2017 available at five of the study intersections from the Bayhill Specific Plan. The intersections at El Camino Real and the I-380 Ramps were counted in 2017. The 2022 counts for the intersections of Admiral Court/Commodore Drive, Cherry Avenue/Commodore Avenue, and National Avenue/Sneath Lane were factored up based on the 2017 counts at El Camino Real and the I-380 Ramps. Adjustment factors of 1.28 and 1.23 were applied for the AM and PM peak hours, respectively. Intersection volumes along El Camino Real were balanced based on cross streets and driveway locations. The existing peak-hour intersection volumes are shown on Figure 6. Intersection turning movement counts conducted for this analysis are presented in Appendix A. The volume summary sheets with the increased existing counts are presented in Appendix B.

Existing Intersection Levels of Service

The results of the intersection level of service analysis show that all of the study intersections currently operate at LOS D or better during the AM and PM peak hours of traffic (see Table 5). The intersection level of service calculation sheets are provided in Appendix C.

Table 5
Existing Intersection Levels of Service

Study Number	Intersection	Count Date	Traffic Control	Peak Hour	Existing Conditions Avg. Delay (sec.)[1]	Existing Conditions LOS
1	Admiral Court and Commodore Drive*	9/22/2022** 9/22/2022**	TWSC	AM PM	11.1 9.9	B A
2	El Camino Real and Commodore Drive (CMP)	Sep 2017 Sep 2017	Signal	AM PM	20.2 10.6	C B
3	El Camino Real and I-380 Westbnound Off Ramps (CMP)*	Sep 2017 Sep 2017	Signal	AM PM	13.8 25.8	B C
4	El Camino Real and I-380 Eastbound Off Ramps (CMP)	Sep 2017 Sep 2017	Signal	AM PM	5.5 22.9	A C
5	El Camino Real and Sneath Lane (CMP)	Sep 2017 Sep 2017	Signal	AM PM	30.8 33.2	C C
6	El Camino Real and Bayhill Dirve (CMP)	Sep 2017 Sep 2017	Signal	AM PM	5.3 11.3	A B
7	Cherry Avenue and Commodore Drive	9/22/2022** 9/22/2022**	AWSC	AM PM	10.4 9.4	B A
8	National Avenue and Sneath Lane	9/22/2022** 9/22/2022**	Signal	AM PM	21.6 21.5	C C

Notes:

AWSC = All-Way Stop Control; TWSC = Two-Way Stop Control

* The Highway Capacity Manual (HCM) 2010 does not support turning movements with shared and exclusive lanes or non-standard phasings. Therefore, this intersection was analyzed using the HCM 2000.

** Traffic count adjusted based on factor derived between 2017 growth rate to 2022, and new 2022 counts at El Camino Real and I-380 Ramps (#3 and #4).

[1] Average delay for an all-way stop controlled intersection is reported for the entire intersection. Average delay for a side-street stop controlled intersection is reported for the worst stop-controlled approach.

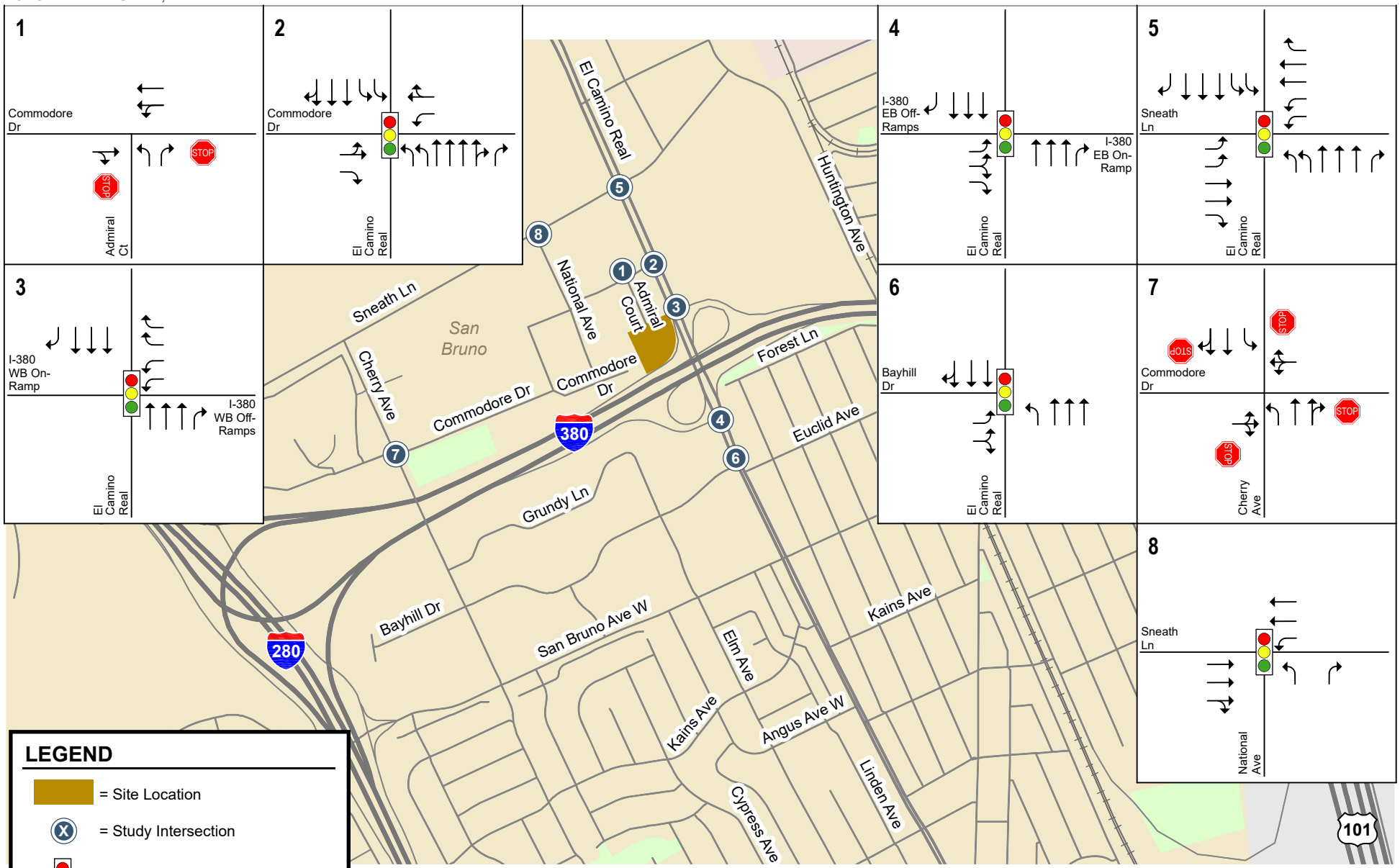
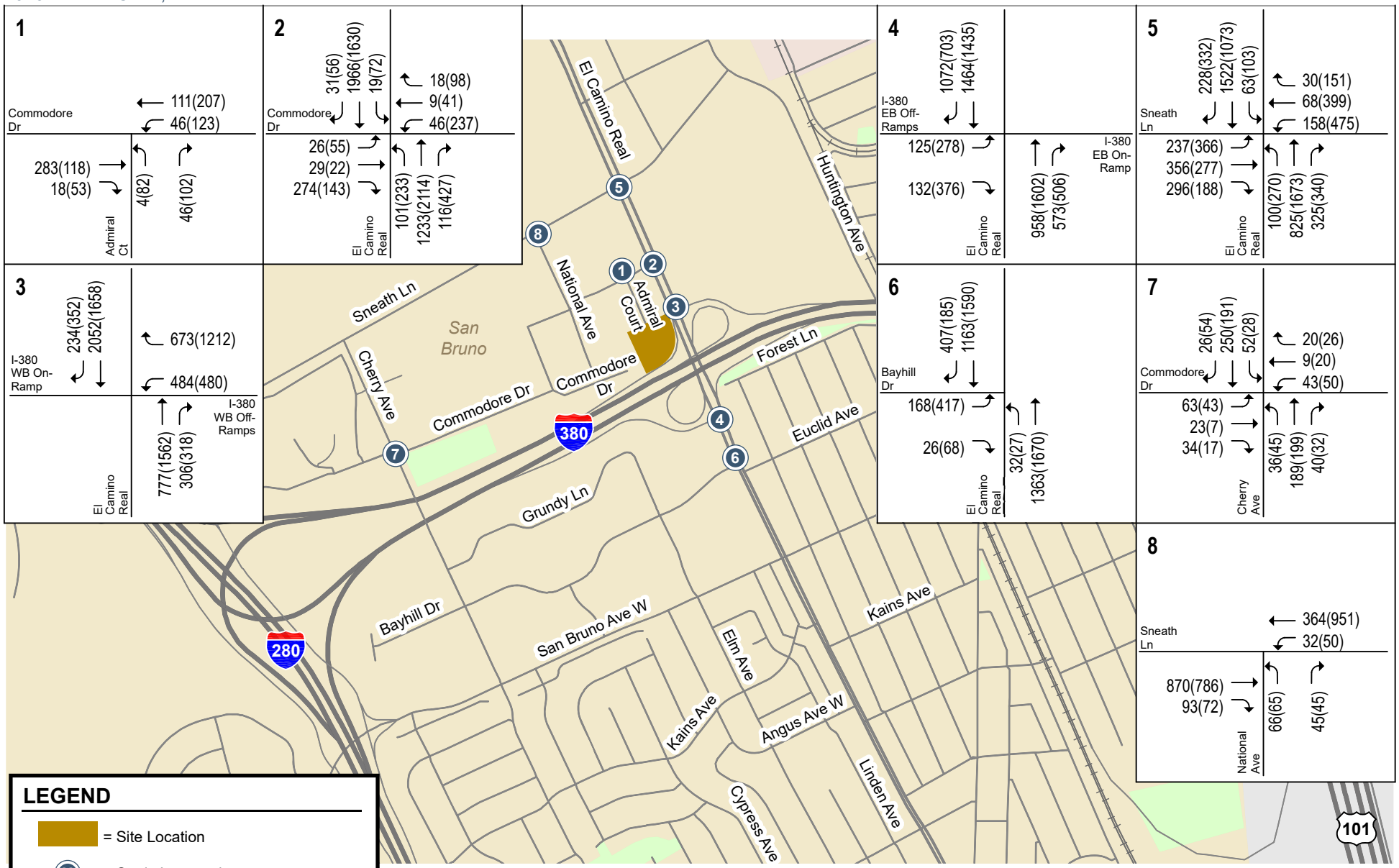


Figure 5
Existing Lane Configurations



LEGEND

- = Site Location
- X = Study Intersection
- XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 6
Existing Traffic Volumes

3. Vehicle Miles Traveled (VMT) Analysis

Vehicle Miles Traveled (VMT) is the total miles traveled by motorized vehicles that a development is expected to generate in a day. The Governor's Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA in April, 2018 that contains OPR's technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures.

The City of San Bruno has not yet adopted any thresholds or guidelines related to VMT. Thus, the VMT thresholds used for this project are based on the San Mateo County VMT guidelines, published September 23, 2020. San Mateo County VMT Implementation Guidelines specify procedures for determining project impacts on VMT based on the project description, characteristics, and location. The VMT methodology also includes screening criteria that are used to identify types, characteristics, and locations of projects that would not exceed the VMT thresholds of significance. Car dealerships are not explicitly represented in the VMT guidelines. For the purpose of evaluating the VMT impact, an auto dealership can be analyzed as a retail development.

Screening for VMT Analysis

The San Mateo County VMT Policy establishes screening criteria for developments that are expected to cause a less-than-significant transportation impact under CEQA and are not required to prepare further VMT analysis. The San Mateo County VMT Policy provides the following screening criteria to exempt development projects from conducting a full VMT analysis:

- Small developments – Projects that generate fewer than 110 trips per day
- Projects in Low-VMT Areas – Projects located in low-VMT areas that have similar features as existing developments
- Projects in Proximity to Major Transit Stops – Projects that are located within a half mile of an existing high-quality transit stop or rail station
- Affordable Housing – 100% affordable housing in infill locations
- Local and Regional Serving Retail – Retail projects of 50,000 s.f. or less

The OPR's Technical Advisory provides guidelines for evaluating the VMT impacts of a retail project based on whether it's local-serving or regional-serving retail (50,000 s.f. or less). By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, can lead to substitution of longer trips for shorter ones and may have a significant

impact. A majority of the trips generated by the proposed dealership will be existing Genesis/Hyundai owners bringing their vehicles for service. It is assumed that these service customers are currently taking their vehicles to the closest existing Genesis/Hyundai dealership to their home or work for service. Therefore, adding a Genesis/Hyundai dealership will shorten trips and reduce VMT for its service customers that are currently driving to Fremont or San Jose. Adding a new Genesis/Hyundai dealership within a metropolitan area does not cause more vehicles to require service or result in more vehicles to be sold. This is the same assumption that is made with adding a new grocery store within a metropolitan area. A new grocery store does not result in more apples being sold. It only reallocates where the apples are purchased. Because most vehicle trips generated by the project are and would continue to be from the vehicle owners bringing in their cars for service, the project would operate similar to local-serving retail development.

The project proposes to build 171,610 s.f. of dealership building including showroom, auto parts sales, administrative space, automobile service bays, and a 5-level parking garage. Of the 171,620 s.f. floor area of the project building, only 43,254 s.f. floor area would be used for vehicle sales and service. Therefore, the dealership building would be less than 50,000 square feet and would serve the local and regional community. Therefore, the project meets the local and regional serving retail screening criteria and would not result in a significant VMT impact.

Genesis & Hyundai Dealership

There is one Genesis & Hyundai showroom in San Jose and Hyundai showrooms in Fremont and San Leandro in the region. Because there are no Genesis & Hyundai dealerships between San Francisco and San Jose, vehicle owners or buyers in the project area need to travel to San Jose or Fremont, which are approximately 36 and 33 miles, respectively, from the project site. Placing the proposed Genesis & Hyundai dealership at the project site would shorten the car service trips for the existing and future owners in the project area. Although the project could increase the VMT generated by employees and vehicle delivery trucks, the reduction in the VMT generated by car service trips would be more than enough to offset the increase in employee and vehicle delivery related VMT. Therefore, the proposed Genesis & Hyundai dealership would result in an overall reduction in VMT.

4. Background Conditions

This chapter describes background traffic conditions without the project. Traffic volumes for background conditions comprise volumes from existing traffic counts plus traffic generated by other approved developments in the vicinity of the site. This chapter describes the procedure used to determine background traffic volumes and the resulting traffic conditions.

Transportation Network under Background Conditions

It is assumed in this analysis that the transportation network under background conditions, including roadways and intersection lane configurations, would be the same as that described under existing conditions at all study intersections.

Background Traffic Volumes

Background traffic volumes were estimated by adding to the existing traffic volumes the traffic estimated to be generated by the approved but not yet constructed projects in the Cities of San Bruno, Millbrae, and South San Francisco. A list of approved projects was provided on the City of San Bruno, Millbrae, and South San Francisco websites. Based on a review of traffic studies prepared for these projects, the types and sizes of these developments, and their distance from the project site, the following approved developments from San Bruno, Millbrae, and South San Francisco are expected to add traffic to at least one of the study intersections during at least one of the peak hour periods.

1. 1400-1450 Bayhill Drive (San Bruno) - 287,000 square feet of office space
2. Bayhill Specific Plan EIR Phase 1 (San Bruno) – 440,000 square feet of office space.
3. Mills Park Mixed-Use Development (San Bruno) - 427 dwelling units, 7,947 sq. ft. of commercial space, 669 parking spaces, and 65 units designated for very low-, low-, and moderate-income households
4. 160 El Camino Real (San Bruno) - 28-room hotel
5. 271 El Camino Real (San Bruno) - 23 residential units including eight townhomes and 15 condominium units
6. Millbrae Station Area Specific Plan & TOD#1 and TOD#2 (Millbrae) – 1,653,340 square feet of office space, 275,110 square feet of retail space, 1,750 residential dwelling units, and 370 hotel rooms
7. 1100 El Camino Real (Millbrae) - 384 dwelling units, multi-family apartment building
8. 959 El Camino Real (Millbrae) - 278 multi-family dwelling units and 17, 210 square feet of ground floor commercial space
9. 410 Noor Avenue (South San Francisco) – 338 residential units

10. 180 El Camino Real (South San Francisco) - 285 residential apartments and approximately 222,500 square feet of retail and commercial space

The Tanforan project located at 1122, 1150 and 1178 El Camino Real submitted a project application to the City on October 5, 2022 and is still in the review process. Therefore, this project is not included in the background trips. Projects approved as ofl August, 2022, are included in the background trips. Trip generation estimates for the approved projects were based on traffic impact studies conducted for each of the projects, if available. The estimated trips from the approved projects were distributed and assigned to the project study area roadways based on the trip distribution assumptions present in the traffic studies, if available, or knowledge of the study area. The traffic study for 1400-1450 Bayhill Drive was not available, therefore, the trips were estimated based on ITE trip rates and assigned based on the trip distribution pattern developed for the Bayhill Specific Plan Phase 1. Appendix E includes the trip generation for this project.

Trips generated by the approved projects were added to existing traffic volumes to estimate background traffic volumes. The AM and PM peak-hour intersection traffic volumes under background conditions are shown on Figure 7. The trips assigned to the study intersections are tabulated in Appendix B.

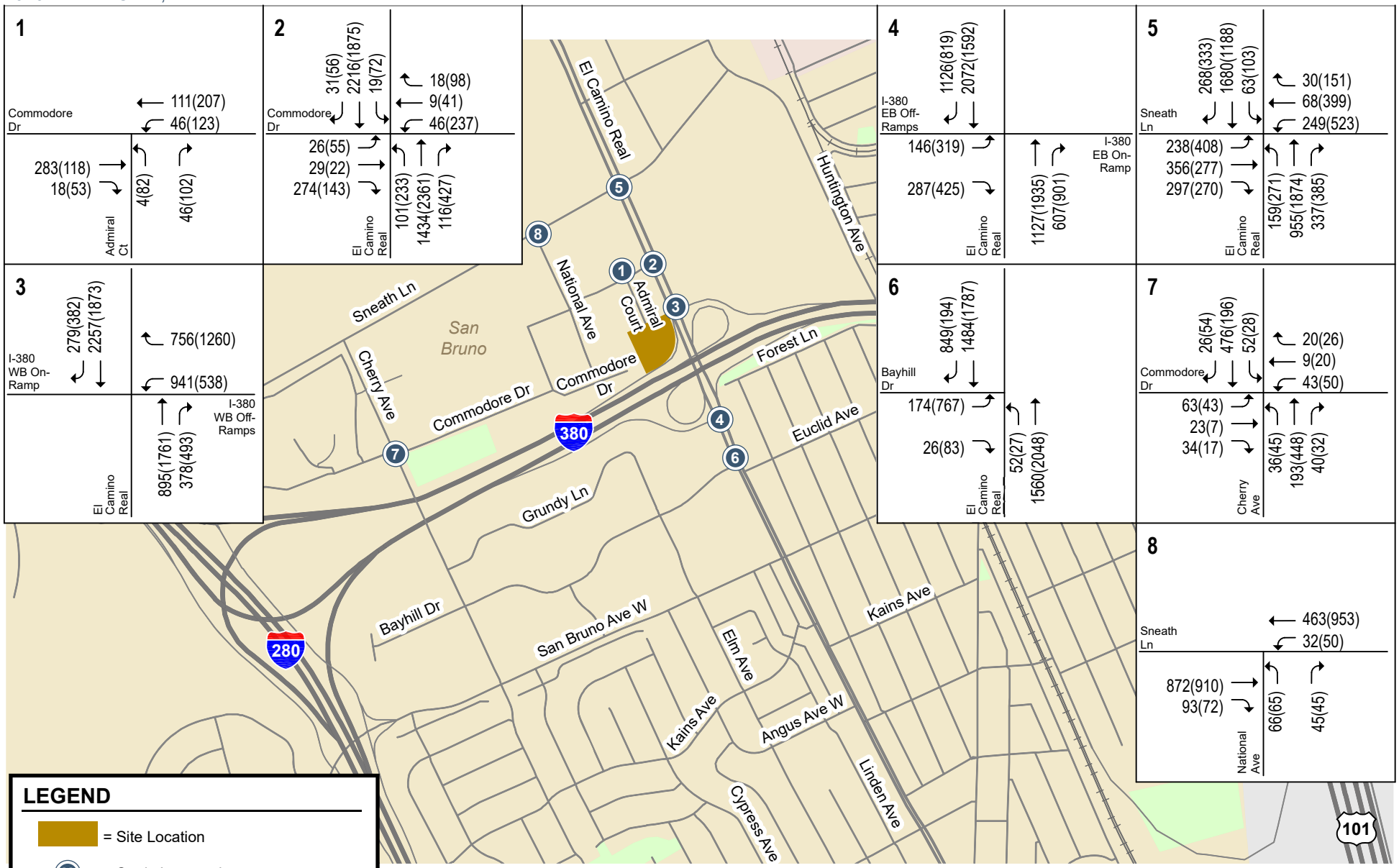
Background Intersection Levels of Service

The results of the level of service analysis under background conditions show that all study intersections would continue to operate at acceptable levels during both the AM and PM peak hours (see Table 6). The level of service calculation sheets are included in Appendix C.

Table 6
Background Intersection Levels of Service

Study Number	Intersection	Traffic Control	Peak Hour	Existing Conditions Avg. Delay (sec.)[1]	Existing Conditions LOS	Background Conditions Avg. Delay (sec.)[1]	Background Conditions LOS
1	Admiral Court and Commodore Drive*	TWSC	AM	11.1	B	11.1	B
			PM	9.9	A	9.9	A
2	El Camino Real and Commodore Drive (CMP)	Signal	AM	20.2	C	26.3	C
			PM	10.6	B	13.7	B
3	El Camino Real and I-380 Westbnound Off Ramps (CMP)*	Signal	AM	13.8	B	17.5	B
			PM	25.8	C	28.1	C
4	El Camino Real and I-380 Eastbound Off Ramps (CMP)	Signal	AM	5.5	A	14.8	B
			PM	22.9	C	27.0	C
5	El Camino Real and Sneath Lane (CMP)	Signal	AM	30.8	C	38.5	D
			PM	33.2	C	43.3	D
6	El Camino Real and Bayhill Dirve (CMP)	Signal	AM	5.3	A	14.8	B
			PM	11.3	B	18.5	B
7	Cherry Avenue and Commodore Drive	AWSC	AM	10.4	B	12.4	B
			PM	9.4	A	11.3	B
8	National Avenue and Sneath Lane	Signal	AM	21.6	C	21.6	C
			PM	21.5	C	21.8	C

Notes:
AWSC = All-Way Stop Control; TWSC = Two-Way Stop Control
* The Highway Capacity Manual (HCM) 2010 does not support turning movements with shared and exclusive lanes or non-standard phasings. Therefore, this intersection was analyzed using the HCM 2000.
[1] Average delay for an all-way stop controlled intersection is reported for the entire intersection.



LEGEND

= Site Location

X = Study Intersection

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 7
Background Traffic Volumes

HEXAGON

NORTH
Not to Scale

5. Project Conditions

This chapter describes traffic conditions with the project. It begins with a description of the transportation system under existing plus project conditions and the method by which project traffic is estimated. A summary of levels of service under existing plus project traffic conditions is presented in this chapter. Existing plus project conditions are represented by existing traffic conditions with the addition of traffic generated by the project. Existing plus project traffic conditions could potentially occur if the project were to be occupied prior to the other approved projects in the area.

Transportation Network under Existing Plus Project Conditions

It is assumed in this analysis that the transportation network under existing plus project conditions would be the same as the existing transportation network.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear were 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 traveling to and from the proposed satellite parking facility was estimated for the AM and PM peak hours. As part of the project trip distribution, the directions to and from which the project trips would travel were estimated. In the project trip assignment, the project trips were 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 expected to be produced by many types of land uses. The research is published by the Institute of Transportation Engineers (ITE) in Trip Generation, 11th Edition (2021). Trip generation estimates were prepared for the proposed auto dealership based on published trip rates presented in the Institute of Transportation Engineers' (ITE), *Trip Generation Manual, 11th Edition,* for Auto Dealership (Land Use Code 840). Average rates were used to determine the magnitude of trips that would be generated by the project based on Showroom, Office and Service area square footages. The other areas of the dealership would be used as vehicle storage for vehicle inventory, which is typically outdoors at most dealerships. Therefore, the floor area is not included in the trip generation estimation. Since the site is currently vacant, no trip credit was applied to the trip generation.

The project would generate 1,204 daily trips, including 80 AM peak hour trips (58 inbound and 22 outbound) and 105 PM peak hour trips (42 inbound and 63 outbound). The trip generation estimates for the project are presented in Table 7.

Table 7
Project Trip Generation Estimates

Land Use	Land Use Code	Size		Daily Rate	Daily Trips	AM Peak Hour Rate	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour Rate	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Proposed													
Auto Dealership[1]	840	43.254	ksf	27.84	1,204	1.86	58	22	80	2.42	42	63	105

ksf = 1,000 square feet

[1] Average rates used for Daily Weekday, AM peak hour, and PM peak hour based on ITE Trip Generation, 11th Edition land use Automobile Sales (New). The project size includes showroom area, office area and service area.

Trip Distribution and Assignment

The trip distribution pattern for the proposed project was developed based on existing travel patterns and knowledge of the study area. Based on the nature of the land use, the project would attract trips from other cities in the Bay Area. The nearest Genesis & Hyundai dealerships are located in San Jose or Fremont, which are approximately 36 and 33 miles away, respectively. The trip distribution pattern is shown on Figure 8. The peak hour vehicle trips generated by the project were assigned to the roadway network in accordance with the trip distribution pattern (see Figure 9).

Project Traffic Volumes

Project trips, as represented in the above project trip assignment, were added to the existing and background traffic volumes to obtain existing plus and background plus project traffic volumes. Figures 10 and 11 shows the intersection turning-movement volumes under existing plus project and background plus project conditions, respectively.

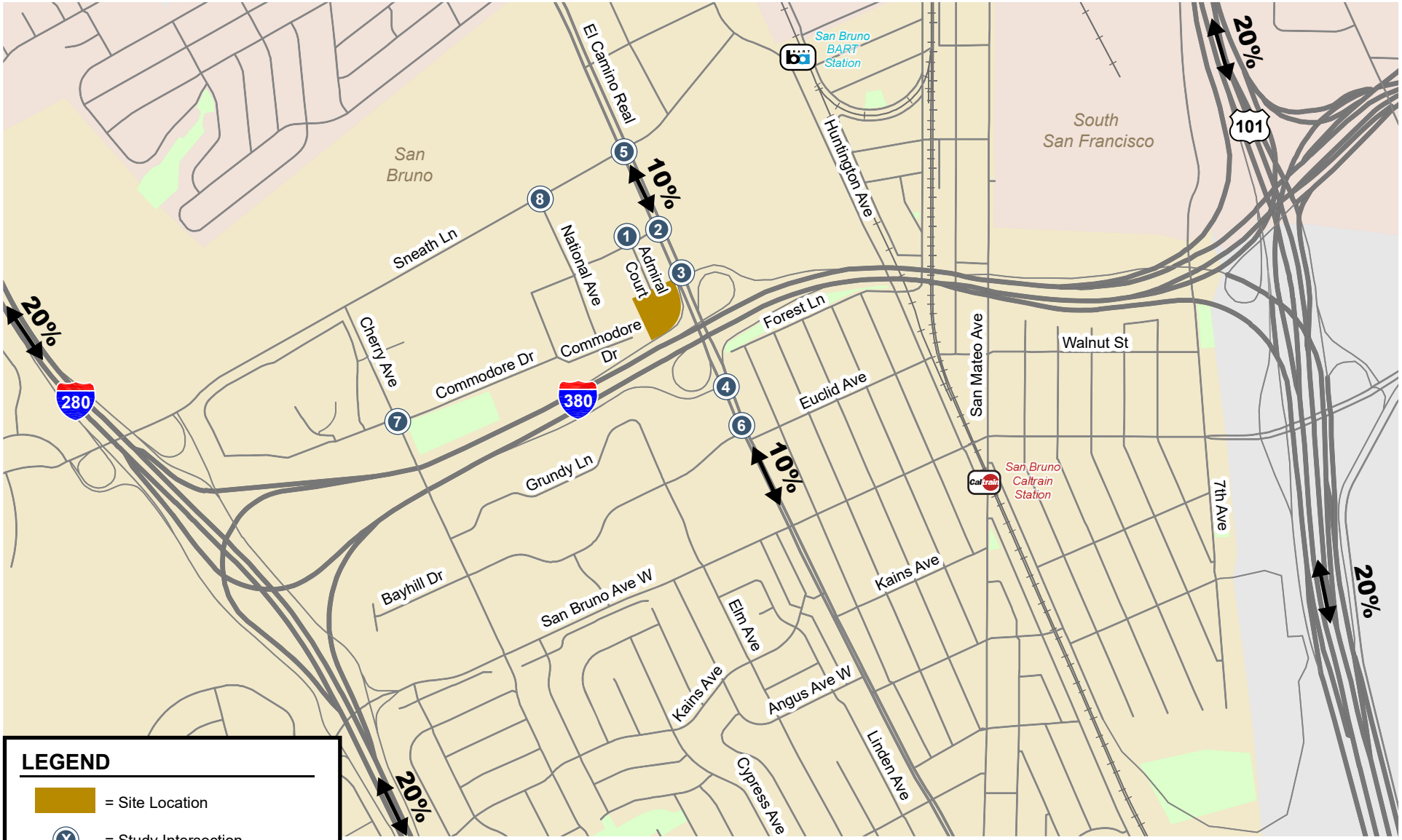


Figure 8
Project Trip Distribution

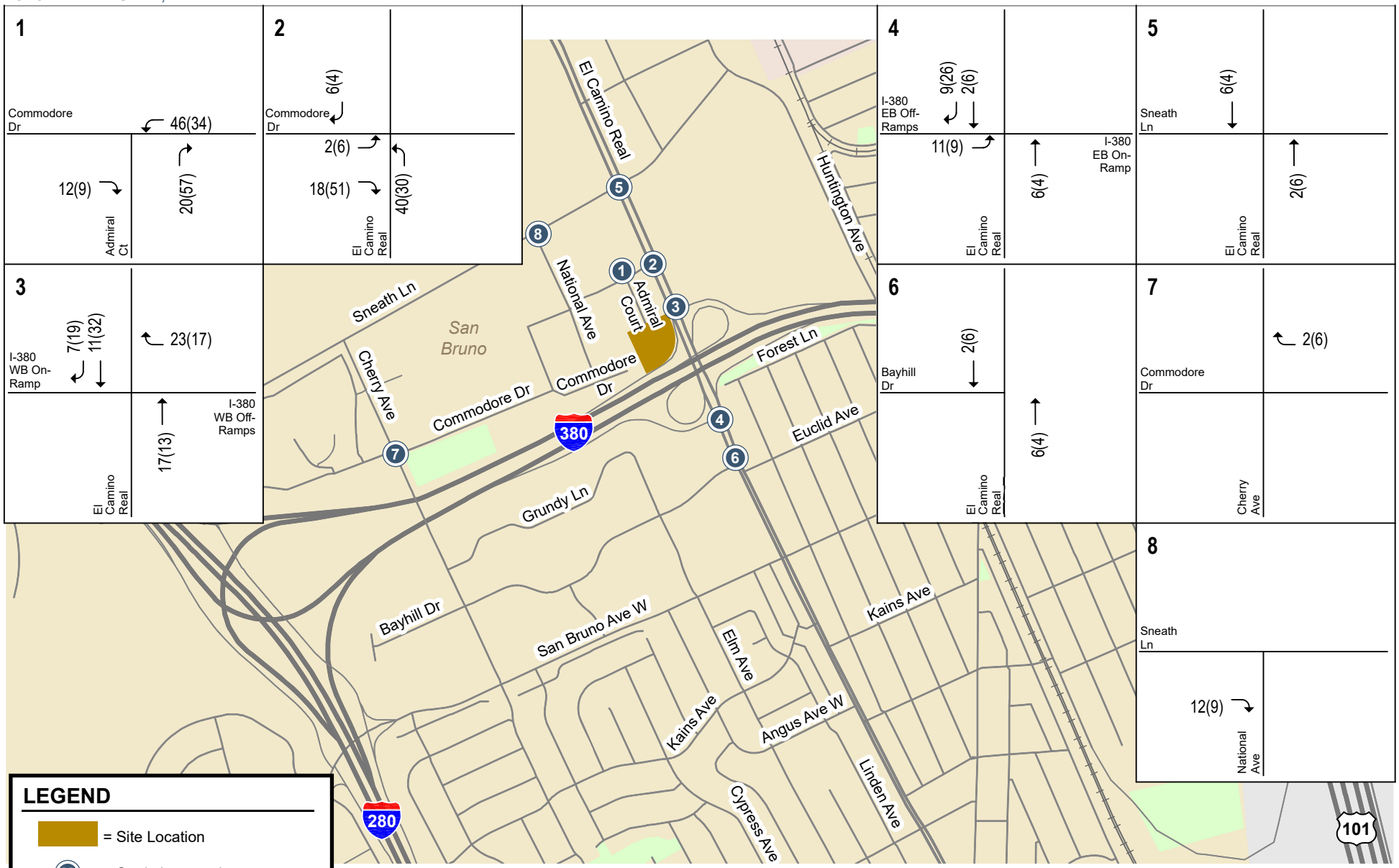


Figure 9
Project Trip Assignment

NORTH
Not to Scale

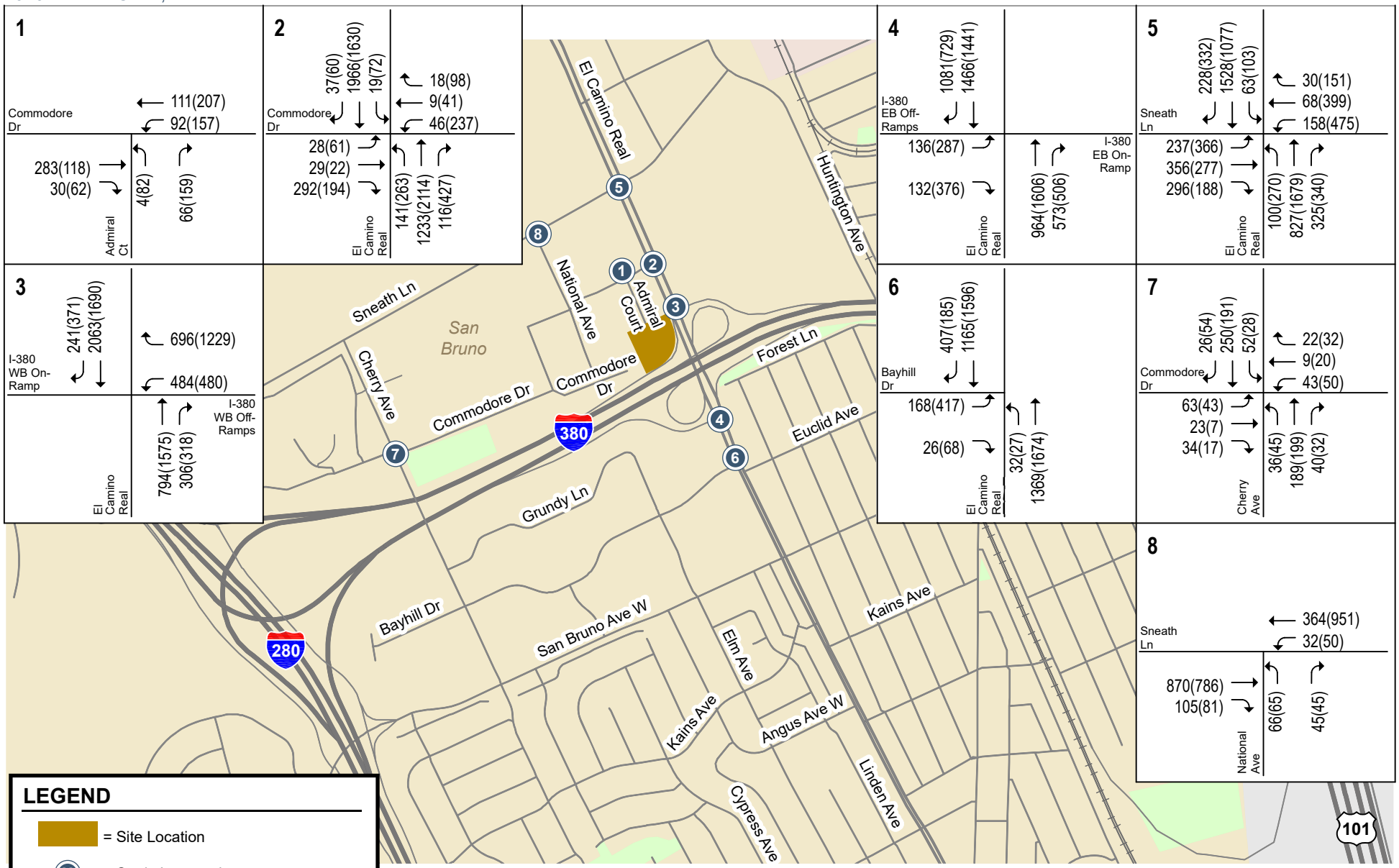


Figure 10
Existing Plus Project Traffic Volumes

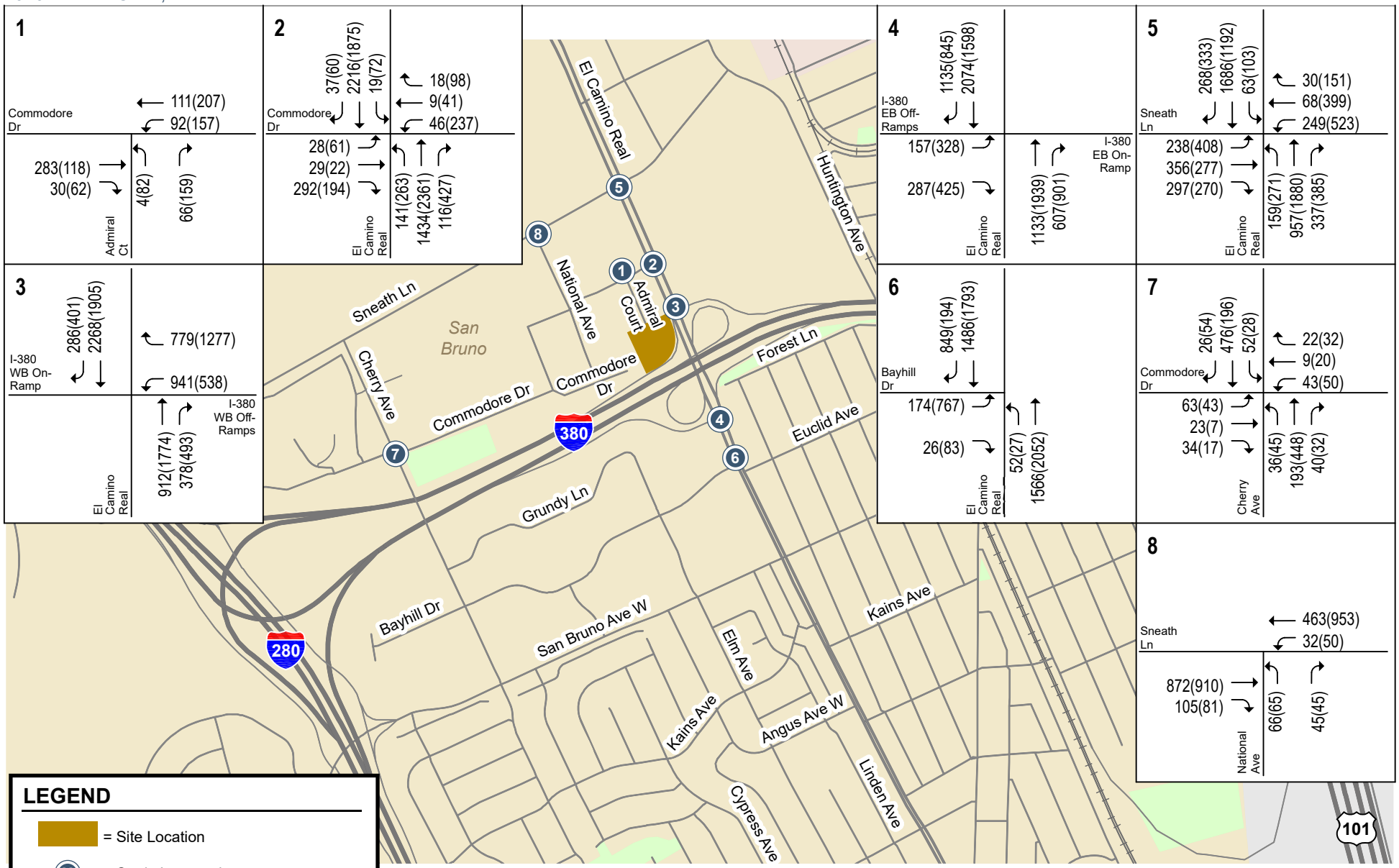


Figure 11
Background Plus Project Traffic Volumes

Project Conditions Intersection Levels of Service

The results of the intersection LOS analysis under existing plus project and background plus project conditions show that all study intersections would operate at an acceptable level during both the AM and PM peak hours of traffic when measured against the applicable municipal and CMP level of service standards (see Table 8).

The volume summary table is included in Appendix B. LOS calculation sheets of each study intersection are included in Appendix C.

Table 8
Project Levels of Service

Study Number	Intersection	Peak Hour	Count Date	Traffic Control	Existing				Background			
					No Project		with Project		No Project		with Project	
					Avg. Delay (sec.)[1]	LOS	Avg. Delay (sec.)[1]	LOS	Avg. Delay (sec.)[1]	LOS	Avg. Delay (sec.)[1]	LOS
1	Admiral Court and Commodore Drive*	AM	9/22/2022**	TWSC	11.1	B	11.7	B	11.1	B	11.7	B
		PM	9/22/2022**		9.9	A	10.4	B	9.9	A	10.4	B
2	El Camino Real and Commodore Drive *(CMP)*	AM	Sep 2017	Signal	20.2	C	21.4	C	26.3	C	27.4	C
		PM	Sep 2017		10.6	B	11.7	B	13.7	B	15.1	B
3	El Camino Real and I-380 Westbnound Off Ramps *(CMP)**	AM	Sep 2017	Signal	13.8	B	14.1	B	17.5	B	17.7	B
		PM	Sep 2017		25.8	C	26.6	C	28.1	C	29.1	C
4	El Camino Real and I-380 Eastbound Off Ramps *(CMP)*	AM	Sep 2017	Signal	5.5	A	5.8	A	14.8	B	15.1	B
		PM	Sep 2017		22.9	C	24.6	C	27.0	C	29.6	C
5	El Camino Real and Sneath Lane *(CMP)*	AM	Sep 2017	Signal	30.8	C	30.8	C	38.5	D	38.6	D
		PM	Sep 2017		33.2	C	33.4	C	43.3	D	43.3	D
6	El Camino Real and Bayhill Dirve *(CMP)*	AM	Sep 2017	Signal	5.3	A	5.3	A	14.8	B	14.7	B
		PM	Sep 2017		11.3	B	11.3	B	18.5	B	18.5	B
7	Cherry Avenue and Commodore Drive	AM	9/22/2022**	AWSC	10.4	B	10.4	B	12.4	B	12.4	B
		PM	9/22/2022**		9.4	A	9.5	A	11.3	B	11.3	B
8	National Avenue and Sneath Lane	AM	9/22/2022**	Signal	21.6	C	21.7	C	21.6	C	21.7	C
		PM	9/22/2022**		21.5	C	21.6	C	21.8	C	21.8	C

Note:

AWSC = All-Way Stop Control; TWSC = Two-Way Stop Control

* The Highway Capacity Manual (HCM) 2010 does not support turning movements with shared and exclusive lanes or non-standard phasings. Therefore, this intersection was analyzed using the HCM 2000.

** Traffic count adjusted based on factor derived between 2017 growth rate to 2022, and new 2022 counts at El Camino Real and I-380 Ramps (#3 and #4).

[1] Average delay for an all-way stop controlled intersection is reported for the entire intersection. Average delay for a side-street stop controlled intersection is reported for the worst stop-controlled approach.

6.
Travel Demand Management Plan

Transportation Demand Management (TDM) is a combination of services, incentives, facilities, and actions that reduce single-occupant vehicle (SOV) trips to help relieve traffic congestion, parking demand, and air pollution problems. This chapter describes the recommended TDM Plan for the project.

CMP Compliance

The City/County Association of Governments of San Mateo County (C/CAG) is the designated Congestion Management Agency (CMA) for San Mateo County and prepares a Congestion Management Program (CMP) on a biennial basis. The express goal of the CMP is to manage traffic congestion on the designated CMP Network within San Mateo County, which is a system of State highways and principal arterials that course through the County, including incorporated and unincorporated jurisdictions. C/CAG requires that all new non-residential developments that would generate over 100 average daily trips limit their impact on regional roadway facilities. To accomplish this, C/CAG provides a list of potential TDM measures those developments may use to reduce their trip generation. The percent trip reduction for each TDM measure is quantified by C/CAG depending on a project's location relative to a high-quality transit station.

C/CAG categorizes new developments as small projects and large projects. Non-residential retail and restaurant projects that generate more than 500 average daily trips (ADT) are considered to be large projects. The recommended vehicle trip reduction target for the proposed project is 25% below the estimated project ADT.

To accomplish the reduction goal, C/CAG provides a list of potential TDM measures, some of which are required and some of which are optional. Each measure has an associated point value and reduction percentage. Based on the C/CAG TDM policy, projects located within 0.5 miles of a transit corridor with high-quality transit service shall be subject to a 25% trip reduction goal. A high-quality transit corridor means a corridor with fixed route bus service with intervals no longer than 15 minutes during peak commute hours. Route ECR provides service between 4:00 AM and 2:00 AM, with 15-minute headways during both commute hours. The proposed project is located within 1,125 feet (0.2 miles) of the Route ECR bus stop, which qualifies El Camino Real as a high-quality transit corridor. Therefore, the project must first fulfill all required measures for individual land uses prior to selecting a sufficient number of additional recommended measures to achieve a minimum 25 percent trip reduction. Note that because of the nature of the development, the TDM program would be targeted to employees of the dealership.

C/CAG requires the following for large projects (see Table 9):

- Complete a travel survey of employees/occupants biennially for the first six (6) years after occupancy and then triennially for the life of the project.
- Though project site traffic counts conducted by project tenants are optional, C/CAG would prefer to have counts for transportation performance measurement purposes.

Table 9
Estimated C/CAG Trip Credits for Large TOD Retail

Category	Measure	Point Value	Estimated Trip Reduction Percentage
Required TDM Measures (Transit Oriented Development)			
Parking Management for Ridesharing	Free/Preferential Parking for Carpools	1	1.0%
TDM Management and Admin	TDM Coordinator/Contact Person	1	0.5%
	Actively Participate in Commute.org, or Transportation Management Association (TMA) Equivalent [1]	8	6.5%
Shuttles, Transit, and Ridesharing	Carpool or Vanpool Program	3	2.0%
	Transit or Ridesharing Passes/Subsidies[2]	8	10.0%
	Pre-tax Transportation Benefits	3	1.0%
Active Transportation	Secure Bicycle Storage	1	1.0%
Site Design Initiatives	Design Streets to Encourage Bike/Pedestrian Access	1	1.0%
	Pedestrian Oriented Uses & Amenities on Ground Floor	4	3.0%
TDM Measures Total (Transit Oriented Development)		**30**	**26%**

Notes:

[1] Actively Participate in Commute.org or TMA includes certified participation in Commute.org, or equivalent, commute assistance and ride-matching, guaranteed ride home, and orientation, education, promotional programs, and/or materials.

[2] Public transit passes or subsidies; or carpool/vanpool subsidies to employees equivalent to 30% of the value of their monthly fare or $50 monthly.

TDM Measures

The following TDM measures would apply to employees and not to the customers.

Free or preferential parking for carpoolers/vanpoolers –Allowing carpool and vanpool participants and drivers of low-emission (electric) vehicles to park near building entrances or on the first floor of a parking garage is a common TDM measure. Preferential parking spaces in “prime” locations provide a prominent visual message to employees that alternative transportation and efforts to reduce trips and

greenhouse gas emissions are valued. Employee parking would be provided in the basement levels 1 and 2. Therefore, the project could designate preferential parking spaces for the employees near the elevator/stairs.

TDM Coordinator/Contact Person – Provide a TDM coordinator or contact person. This individual may either be an employee of the development project or may be a contracted through a third-party provider. The project should appoint a TDM coordinator who would be the primary contact with the City and would be responsible for implementing and managing the TDM plan. The TDM coordinator would be a point of contact for employees if TDM-related questions arise and would be responsible for ensuring that employees are aware of all transportation options and how to fully utilize the TDM programs. The TDM coordinator should provide the following services and functions to ensure the TDM plan runs smoothly:

- Provide information about transit passes
- Provide transportation information brochures to new employees
- Audit and review building transportation needs
- Manage travel surveys to track trends and develop new commute programs

Actively participate in Commute.org, or Transportation Management Association equivalent – The project should consider joining Commute.org or a Transportation Management Association (TMA) with equivalent TDM service, whose role is to coordinate transportation-related programs and services in this geographic area.

Carpool or vanpool program – The TDM coordinator should provide employees with information on 511.org's carpool/vanpool subsidy program. The 511.org's Carpool/Vanpool Program offers a number of incentive programs to encourage people to try carpooling and vanpooling. Most of these programs are designed to reward someone for forming or trying a carpool or vanpool and provide an award or subsidy after the first three to six months of use.

Transit or ridesharing passes/subsidies – Subsidized transit passes are an effective means of encouraging employees to use transit rather than drive to work. Transit passes allow employees to save money and avoid the stress of driving during the commute periods.

The project should provide free transit passes for employees. There are a number of ways to structure a financial incentive for transit. Employers can cover the total monthly cost of transit for those employees who take transit through a pre-tax benefit, or purchase transit or carpool/vanpool subsidies to tenants' equivalent to 30% of the value of their monthly fare or $50 monthly, to incentivize transit use and ridesharing.

Pre-tax transportation benefits for employees – The project should allow employees to participate in a pre-tax transit and parking benefits program to save money and encourage the use of sustainable transportation modes.

Secure bicycle storage (long term and short term) – Secured bicycle parking encourages employees to ride bike to workplace. By providing bicycle parking, employees are more likely to ride their bikes instead of driving. The project is required to provide 14 short term bicycle parking spaces and 4 long term bicycle parking spaces.

Design streets / roads that encourage pedestrian and bicycle access – The project would connect to existing improvements that provide travel choices and give people the option to avoid traffic congestion, increasing the overall capacity of the transportation network. Street designs should enable safe access for all users of all ages and abilities. Improving pedestrian and cyclist safety and comfort

can increase the use of active transportation for residents or employees of a project site. The project will provide a connection from the existing sidewalk on Commodore Drive to the building.

Pedestrian-oriented uses on ground floor – The project would include active, pedestrian-oriented showroom space on the ground floor to create more walkable and inviting areas.

7. Other Transportation Issues

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

- Vehicle Queuing
- Signal Warrant Analysis
- Potential impacts to transit, bicycle and pedestrian facilities
- Site access and circulation

Unlike the level of service impact methodology, which is adopted by the City Council, the analyses in this chapter are based on professional judgement in accordance with the standards and methods employed by the traffic engineering community.

Intersection Queueing Analysis

The analysis of intersection levels of service was supplemented with a vehicle queuing analysis for intersection left-turning movements where the proposed project would add significant trips per lane in the vicinity of the Project Site and affect intersection operations. This analysis provides a basis for estimating future storage requirements at these intersections (see Table 10). Vehicle queues were estimated using the methodology described in Chapter 1. The following turn movements were selected for evaluation:

- Westbound left-turn on Commodore Drive at Admiral Court (AM and PM)
- Northbound left-turn on El Camino Real at Commodore Drive (AM and PM)

As shown in Table 10, the estimated 95th percentile queue would not exceed the available storage capacity at the study intersections.

Synchro queuing analysis outputs are included in Appendix C.

Table 10
Queuing Analysis for Unsignalized Intersection

Measurement	#1 Admiral Court and Commodore Drive		#2 El Camino Real and Commodore Drive[3]	
	WBL AM	WBL PM	NBL AM	NBL PM
Existing				
Cycle Length[1] (sec)	7.7	9.4	120	150
Volume (vphpl)	46	123	101	233
95th %. Queue (veh)[2]	1	1	3	6
95th %. Queue (ft.)	25	25	75	150
Storage (ft./ ln.)	100	100	185	185
Adequate (Y/N)	**Y**	**Y**	**Y**	**Y**
Background				
Cycle Length[1] (sec)	7.7	9.4	120	150
Volume (vphpl)	46	123	101	233
95th %. Queue (veh)[2]	1	1	3	6
95th %. Queue (ft.)	25	25	75	150
Storage (ft./ ln.)	100	100	185	185
Adequate (Y/N)	**Y**	**Y**	**Y**	**Y**
Existing + Project				
Cycle Length[1] (sec)	8.3	10.4	120	150
Volume (vphpl)	92	157	141	263
95th %. Queue (veh)[2]	1	2	3	6
95th %. Queue (ft.)	25	50	75	150
Storage (ft./ ln.)	100	100	185	185
Adequate (Y/N)	**Y**	**Y**	**Y**	**Y**
Background + Project				
Cycle Length[1] (sec)	8.3	10.4	120	150
Volume (vphpl)	92	157	141	263
95th %. Queue (veh)[2]	1	2	3	6
95th %. Queue (ft.)	25	50	75	150
Storage (ft./ ln.)	100	100	185	185
Adequate (Y/N)	**Y**	**Y**	**Y**	**Y**

[1] Vehicle queue calculations based on movement delay for unsignalized intersections.

[2] Assumes 25 feet per vehicle queued.

[3] Vehicle queue based on Synchro queuing analysis outputs.

Pedestrian, Bicycle, and Transit Analysis

All new development projects in San Bruno should enhance opportunities for all modes of transportation, consistent with the goals of the City's General Plan and the Walk 'n Bike Plan. It is the goal of the General Plan and the Walk 'n Bike Plan that all development projects accommodate and encourage the use of non-automobile transportation modes within the area. The Walk 'n Bike Plan establishes strategies to foster more multi-modal opportunities, promote active living, and connect to the other modes of transportation within the network. In order to further the goals of the City, pedestrian and bicycle facilities should be encouraged with new development projects.

Pedestrian Facilities

As mentioned earlier in this report, in July of 2016 City Council adopted the *Walk 'n Bike Plan*. The Plan recommends specific improvements to ensure that walking is safe, comfortable, and convenient. Over the next few years, the City aims to:

- Enhance crosswalks with improvements such as high-visibility striping and extended curbs
- Add safety signs and markings to roadways
- Fill in key sidewalk gaps
- Beautify streetscapes, or areas where people often walk; and
- Better connect the BART and Caltrain stations to popular destinations like downtown, Bayhill Shopping Center and Office Park, and the Shops at Tanforan

The Walk 'n Bike plan would improve the pedestrian facilities in the project area with the intent to make walking safer in a more pedestrian friendly environment. Specifically, the plan calls for a future improvement on El Camino Real for a crosswalk at the I 380 on-ramp (not required by the project). No other improvements are specifically recommended in the plan in the vicinity of the project site.

Bicycle Facilities

There is a bike lane along Sneath Lane, except between the I-280 ramps, in the immediate vicinity of the project site (see Chapter 2 for details). However, there are several potential future additional bicycle facilities in the study area. The City's Walk 'n Bike Plan outlines the following potential bicycle improvement strategies near the project site, although none are planned or funded projects:

- Class II bike lane on Sneath Avenue between the I-280 ramps and between National Avenue and Sea Biscuit Avenue
- Enhanced Class III bike route on Cherry Avenue between Sneath Lane and San Bruno Avenue
- Class III bike route on Commodore Drive between Cherry Avenue and El Camino Real

The project would not remove any bicycle facilities, nor would it conflict with any adopted plans or policies for new bicycle facilities. Thus, no project sponsored improvements would be necessary.

Transit Services

The project area is served by SamTrans, BART, and Caltrain (see Chapter 2 for details). The nearest bus stop is located at El Camino Real and Sneath Lane. With the proximity to transit services, it could be expected that a portion of employees and customers would use transit. Assuming up to 10% of the project trips are transit trips, the project would generate 8 transit trips during the AM peak and 11 transit trips during the PM peak hour. There are 24 scheduled buses that serve the bus stop near the site during peak hours respectively. It is assumed that the buses would have sufficient capacity to accommodate this relatively minor increase in ridership.

Given that the project would not remove any transit facilities, nor would it conflict with any adopted plans or policies for new transit facilities or services, the proposed project is not expected to have an adverse impact on transit services in the immediate vicinity of the project site. Thus, no project sponsored improvements would be necessary.

Signal Warrant Analysis

A peak hour signal warrant analysis (MUTCD 2010 Edition, Part 4, Warrant 3) was performed for the unsignalized study intersections to determine whether the project would produce an impact according to the City of San Bruno potentially adverse effect criteria. The peak-hour signal warrant was checked for existing, background and project conditions. Based on their peak-hour traffic volumes, the study intersections would not warrant signalization under any traffic scenario without and with the project. Signal warrant worksheets and threshold tables are included in Appendix D.

Site Access and On-Site Circulation

The site access and on-site circulation evaluation is based on the site plan prepared by Goree Interiors | Architects dated 5 May 2022 (see Figure 2). On-site vehicular site access and circulation was reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles.

Site Access and Circulation

Vehicle access to the project site would be provided via the existing driveways located on Admiral Court (Driveway #1) and Commodore Drive South (Driveway #3). The project would add another driveway along Commodore Drive West (Driveway #2).

Driveway #1 forms the south leg of the intersection at Admiral Court and Commodore Drive West. This driveway would provide full project access to and from Admiral Court. The dealership customer parking would be provided in front of the building connecting to driveways 1 and 2. Driveways 1 and 2 would serve as the primary access for the dealership customers. Additional customer parking spaces would be provided in basement level 2 and upper level 3 – the roof deck. Access to these customer spaces would be provided via a ramp from driveway 3 (see Figure 12). The service customers would drop-off and pick-up their vehicles at the service shop by entering the service drive from driveway 1 or 2. The service customers would exit the service shop through the vehicular access provided to driveway 3 (see Figure 13). The employee parking would be provided in basement levels 1 and 2. Employees would enter and exit the vehicular access provided to the ramp from driveway 3 (see Figure 14).

Under project conditions, it is anticipated that driveways would serve 80 AM peak hour trips (58 inbound/22 outbound) and 105 PM peak hour (42 inbound/63 outbound). Given the location of the Admiral Court driveway, the inbound and outbound vehicles would drive straight in or out and would not create any queuing issues. Due to the low volume on Admiral Court during the AM and PM peak hours (maximum of 184 vehicles), the vehicles entering the project site are not expected to block through traffic.

The project proposes to widen the existing driveway on Admiral Court to 34 feet. The width of driveway 2 would be 26 feet, and driveway 3 would be 24 feet. The width of all the three driveways would provide adequate room for vehicles to enter and exit the project site. The project driveways should be free and clear of any obstructions to optimize sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and other vehicles traveling on adjacent roadways. Any landscaping and signage should be located in such a way as to ensure an unobstructed view for drivers entering and exiting the site. Adequate corner sight distance (sight distance triangles) should be provided at all site

access points in accordance with the City's standards. Sight distance triangles should be measured approximately 15 feet back from the traveled way. Sight distance requirements vary depending on the roadway speeds. The speed limit near the project vicinity is 25 mph. The Caltrans recommended stopping sight distance is 200 feet. The site plan does not show any landscaping features that would interfere with the sight distance between project driveways 1 and 2. In order to ensure the safety of all employees and customers, no objects should be placed within the sight distance triangle that would obstruct the vision of exiting drivers.

The project would provide 90-degree parking stalls in the parking garage. The site plan shows the drive aisle width to be 24 feet wide, which would provide sufficient room for vehicles to back out of the parking stalls. The parking stall dimensions would be 8.5 feet wide by 18 feet long. The parking lots show dead ends, but adequate space would be provided to allow vehicles to turn around, if necessary. The tandem stalls and mechanical stackers proposed in the garage would be for inventory storage. Based on the dimensions on the site plan, the garage ramp slope was estimated to be a maximum of 8.5 percent. Though there are no city standards for ramp slope, the proposed ramp slopes would be adequate. The circulation within the proposed dealership parking area is logical.

Delivery Truck and Garbage Collection

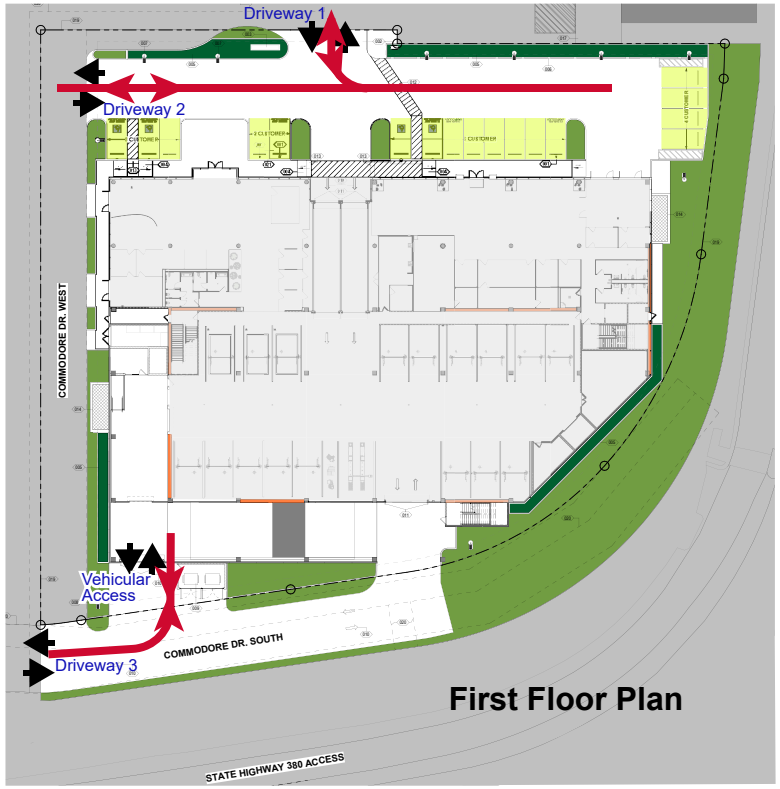
A trash enclosure structure would be located along the south side of the building, and accessible from the southern Commodore Drive driveway connection. Delivery vehicles for auto parts, servicing and administrative supplies would utilize the south Commodore Drive driveway entry, and unload within the building. The project site plan was reviewed for truck access using truck turning movement templates for a SU-30 (single-unit) truck type, which represents small- to medium-sized emergency vehicles, garbage trucks, delivery trucks and moving trucks (see Figures 15 and 16). Based on the site plan configuration, SU-30 trucks would have adequate space to maneuver in and out of the loading area.

Emergency Vehicle Access

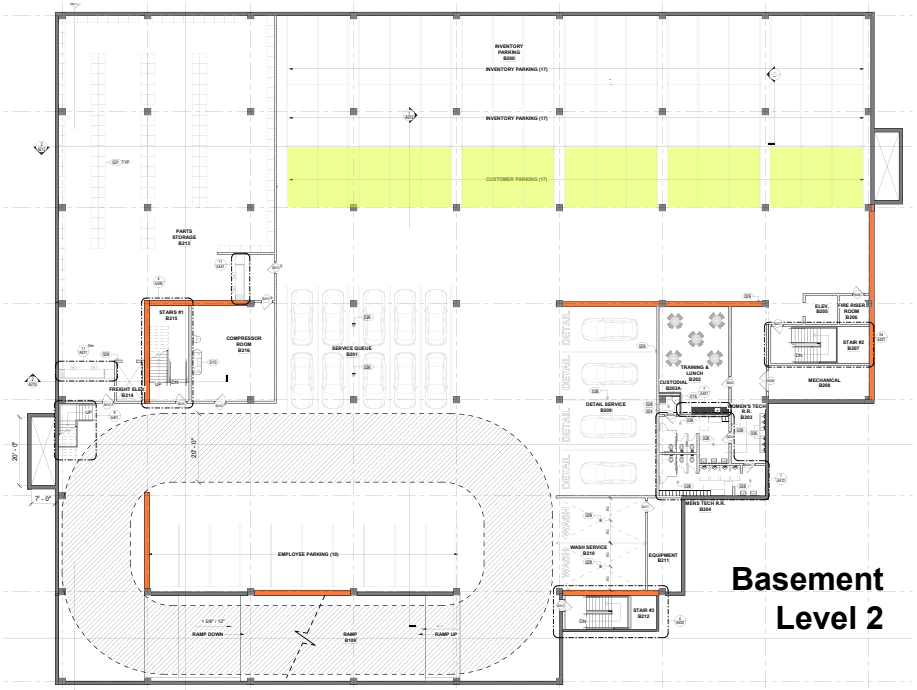
Since on-street parking is prohibited along Admiral Court and Commodore Drive, emergency vehicle access (EVA) to the site would be provided via all the three driveways into the site.

Loading Space

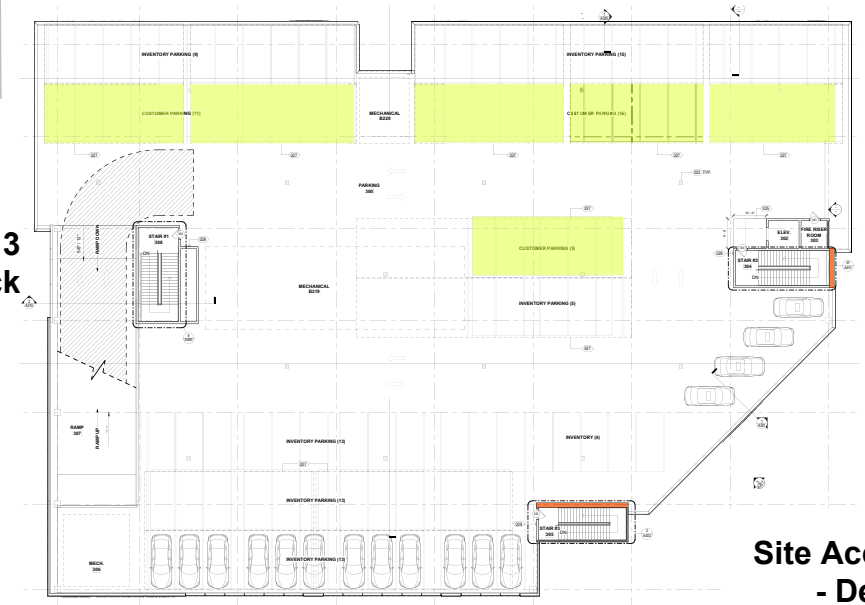
As per the San Bruno City zoning ordinance (12.100.090), all new commercial developments with 10,000 s.f. to 49,999 s.f. of total gross floor area are required to provide one loading space. Loading spaces must have a width of no less than 12 feet and length of 25 feet and 14 feet vertical clearance. As described above, normal delivery vehicles would park and unload within the building. Automobile inventory would be delivered by use of vehicle truck trailers, which would unload vehicles on the south side of Commodore Drive, approximately two blocks west of the project site; this area would be labeled for loading. Off-loading of vehicles is requested to be permitted Monday – Saturday between 7:00AM and 7:00PM. Off-loaded automobiles would be driven by dealership staff to the project site, for storage inside the facility building. Hexagon reviewed the truck turning templates prepared by Commercial Development Resources dated November 29, 2022. The trucks would drop off the vehicles at the loading zone on the south side of Commodore Drive and loop around to exit via the north side of Commodore Drive. Although trucks would require the use of all two northbound lanes on Cherry Avenue and eastbound lanes on Sneath Lane while entering and exiting the site, this situation is common for large trucks.



First Floor Plan



Basement Level 2



Level 3 - Roof Deck

LEGEND

= Customer Parking

= Site Circulation - Dealership Customers

Figure 12
Site Access and Circulation - Dealership Customers

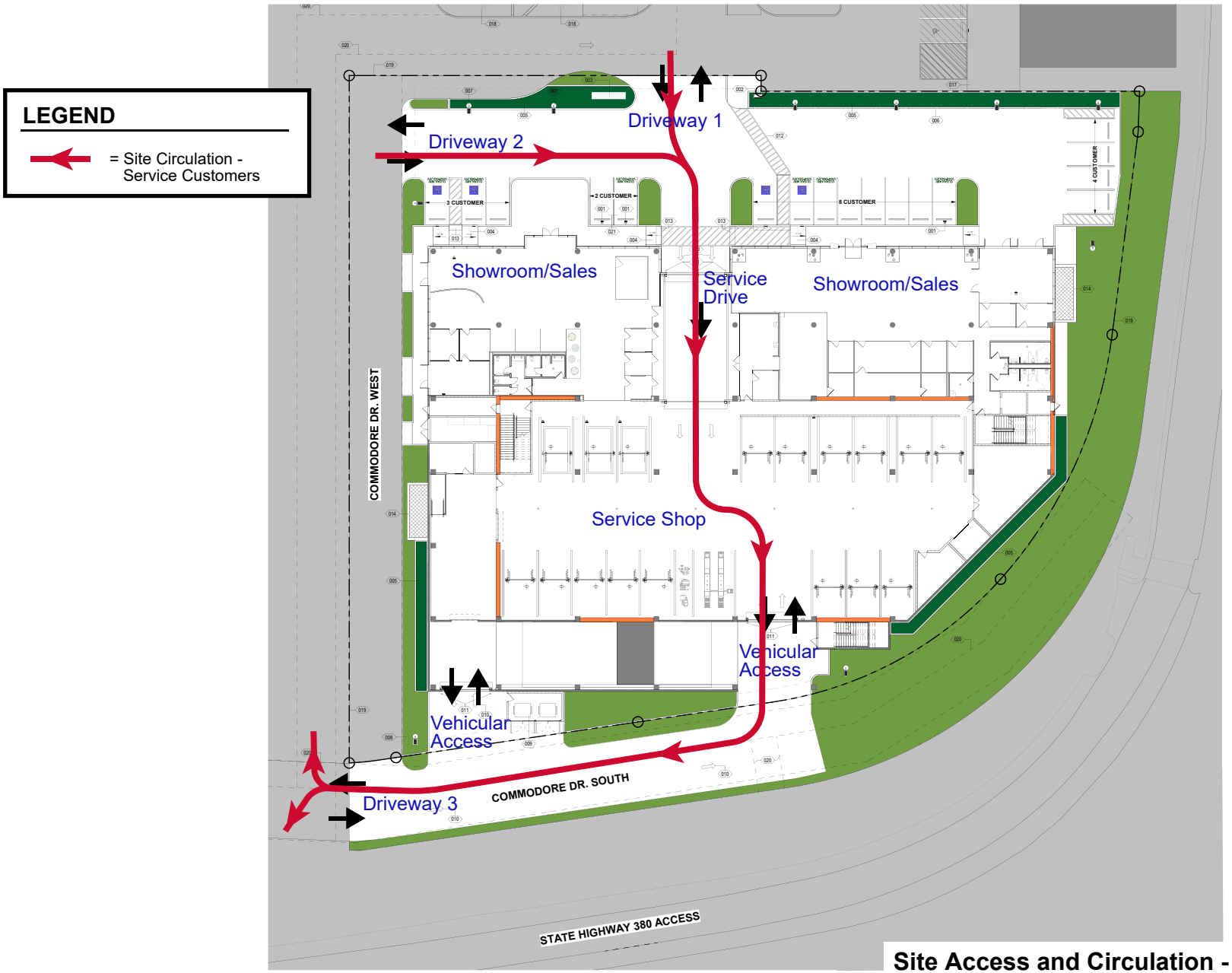
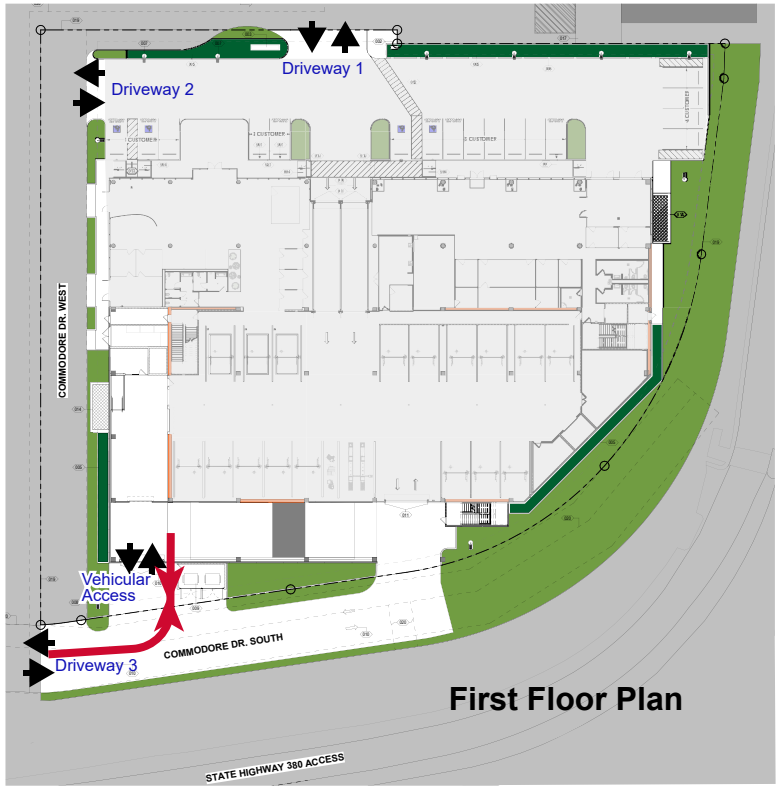
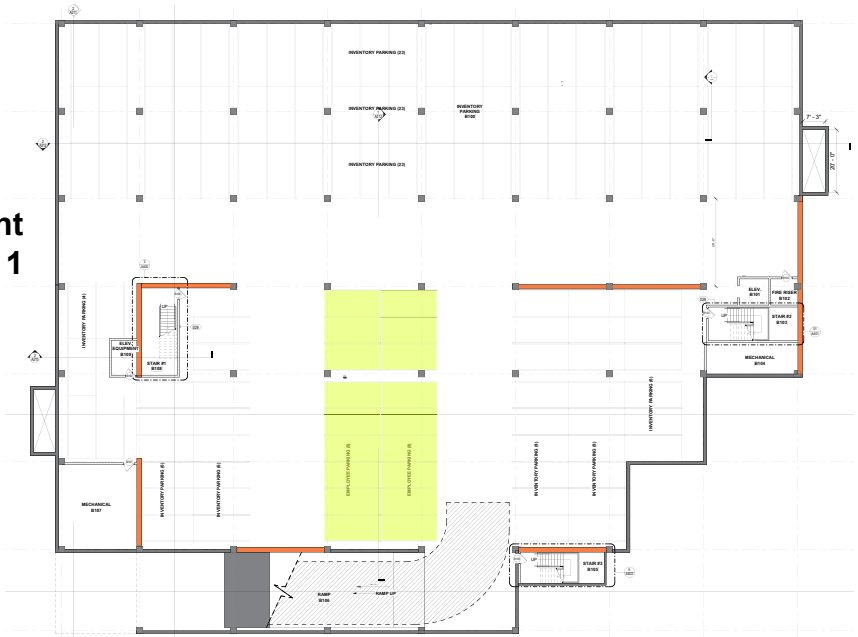


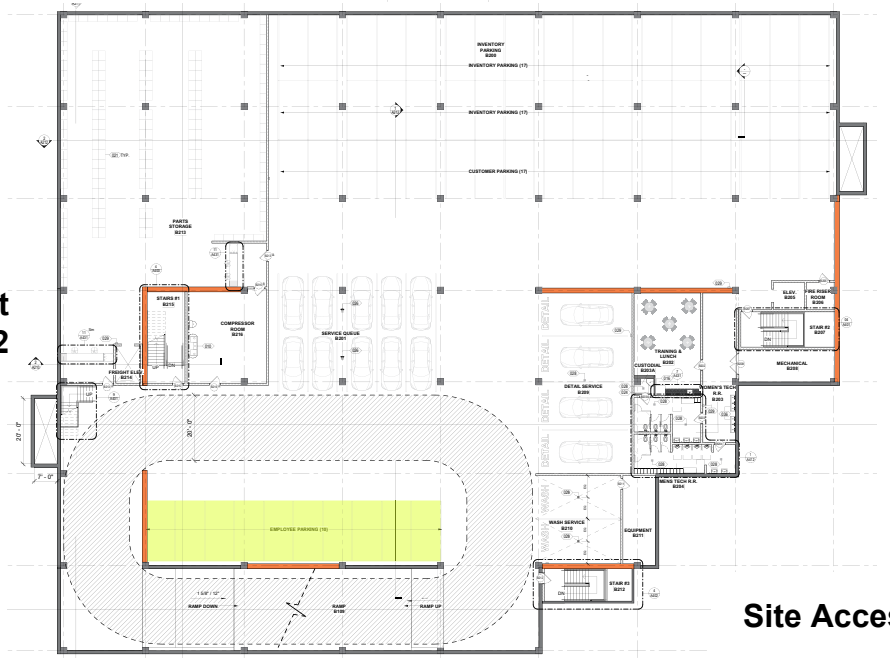
Figure 13
Site Access and Circulation - Service Customers



Basement Level 1



Basement Level 2



LEGEND

= Employee Parking

= Site Circulation - Employees

Figure 14
Site Access and Circulation - Employees

HEXAGON

NORTH
Not to Scale

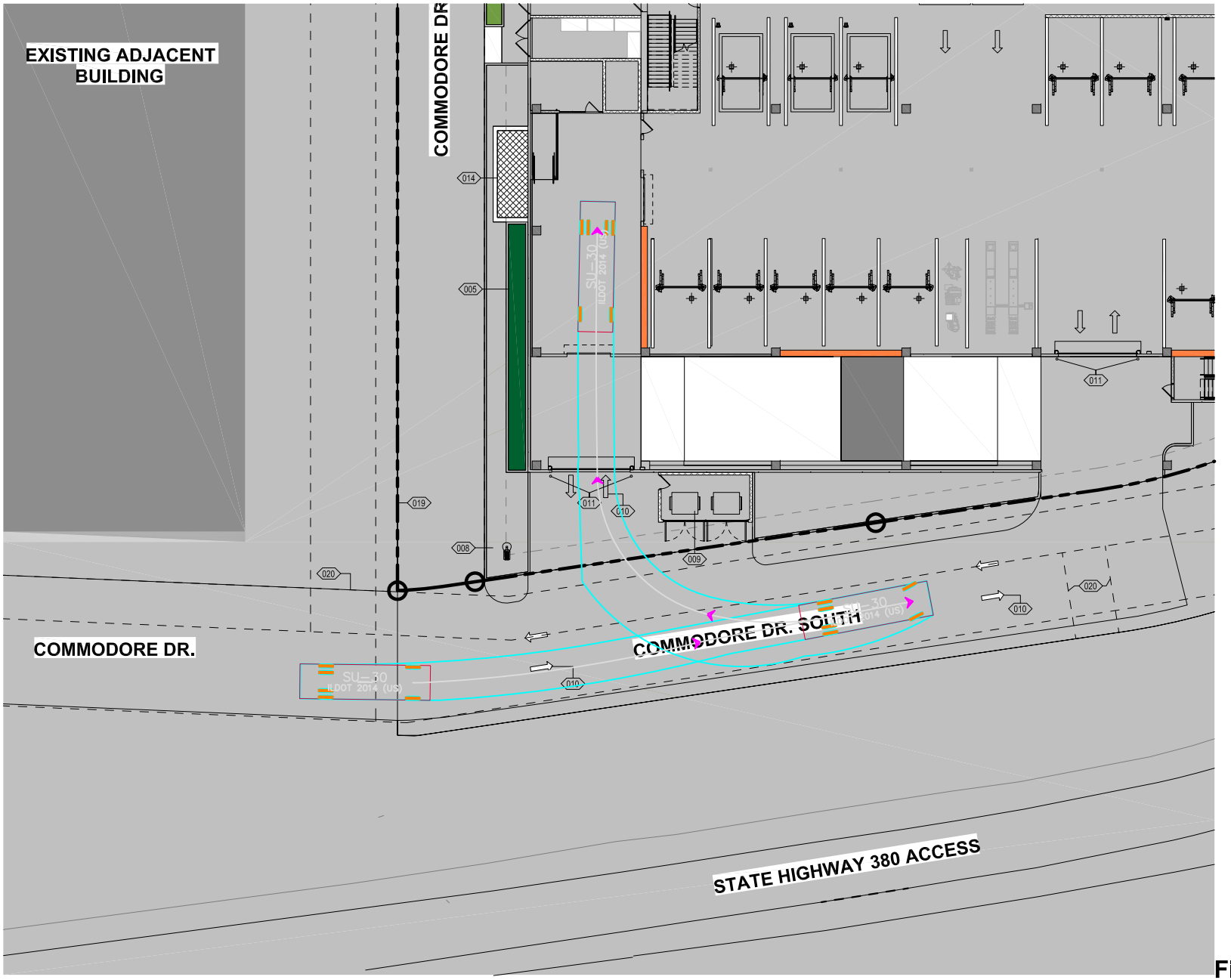


Figure 15
Inbound Truck Turning Template

NORTH
Not to Scale

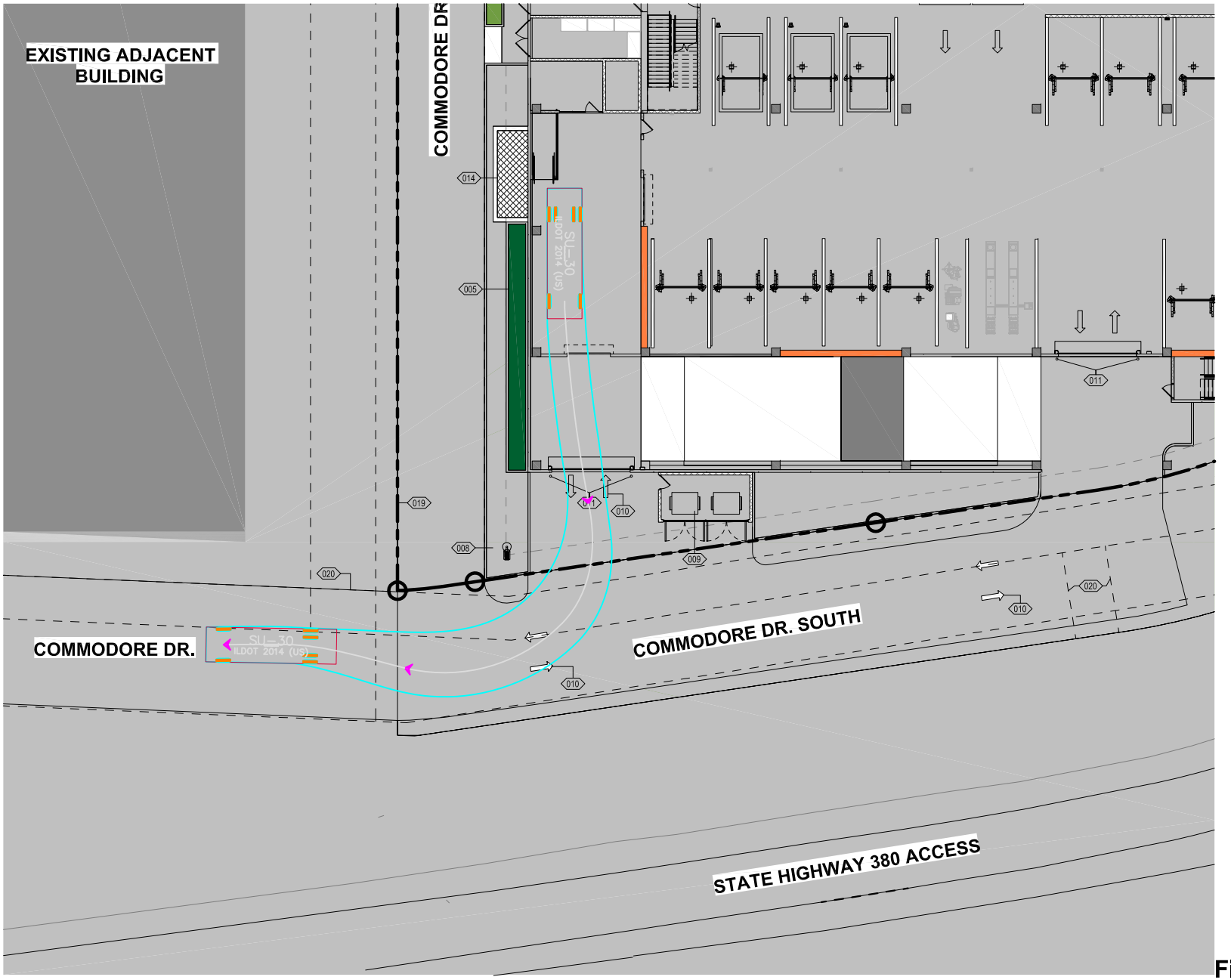


Figure 16
Outbound Truck Turning Template

Parking

The proposed project would be required provide parking spaces for employees based on office area and customers based on service and showroom area. The San Bruno City zoning ordinance (12.100.030) requires parking to be provided at the rate of one parking space per 600 square feet of show room related floor area, 1 space per 500 square feet of service floor area and one space per 300 square feet of office floor area. The project proposes 16,376 s.f. of show room area, 24,133 s.f. of service area and 2,745 s.f. of office area. Therefore, the project is required to provide a total of 85 parking spaces, not counting vehicle inventory. As per the site plan, the project proposes to include 85 parking spaces for employees and customers in multi levels, which meets the City's requirement. The remaining parking spaces would be utilized for inventory parking.

Per the California Building Code (CBC) requirements, projects that include 76 to 100 parking spaces should provide at least 4 accessible parking spaces, including one van accessible space. Therefore, the proposed project is required to provide 4 accessible parking spaces including 1 van accessible space. As shown on the site plan, the project is planning to provide four accessible parking spaces, including three van accessible spaces, which meets the California Building Code requirements. As per the CALGREEN Clean Air Vehicle parking requirements (Table 5.106.5.2), parking facilities containing 76 to 100 spaces should provide at least 12 parking spaces for Clean Air Vehicles (CAV). Therefore, the project should provide 12 CAV spaces. As per the CALGREEN Electric Vehicle (EV) parking standards (Table 5.106.5.3.3), parking facilities containing 76 to 100 spaces should provide at least five spaces for Electric Vehicles (EV). Therefore, the project should provide five EV spaces. Based on the project site plan, the project includes 12 EV parking spaces and eight CAV parking spaces, including three ADA CAV Van accessible spaces, which exceeds the requirements. The EV requirement for ADA is provided as per CBC TABLE 11B-228.3.2.1.

Bicycle Parking

The project falls under the category of retail sales and service for vehicle sales. Based on the Zoning Ordinance (Table 12.100-3) bicycle parking requirements, the project should provide one short-term space per 5,000 square feet and one long-term space per 12,000 square feet of vehicle sales and service floor area and one short-term space per 20,000 square feet and one long-term space per 10,000 square feet of office use. Therefore, the project is required to provide 14 short term bicycle parking spaces and 4 long term bicycle parking spaces. The site plan does not show bicycle parking.

1010 Admiral Road San Bruno TIA

Technical Appendices

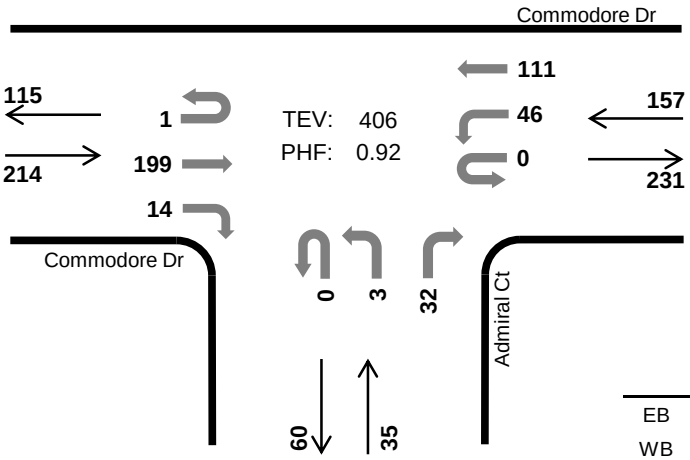
Appendix A
Traffic Counts

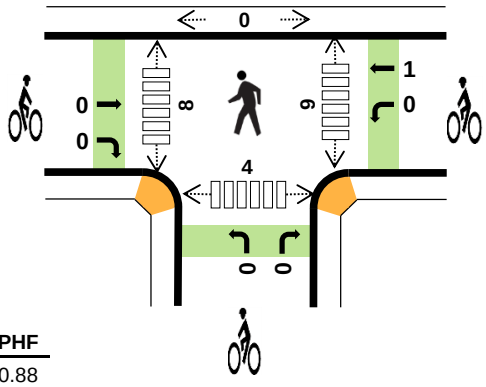
Admiral Ct
Commodore Dr

N

Peak Hour

Date: 09/22/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV %:	PHF
EB	4.7%	0.88
WB	6.4%	0.80
NB	0.0%	0.88
SB	-	-
TOTAL	4.9%	0.92

Two-Hour Count Summaries

Interval Start		Commodore Dr Eastbound				Commodore Dr Westbound				Admiral Ct Northbound				N/A Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	32	0	0	3	15	0	0	0	0	4	0	0	0	0	54	0
7:15 AM		0	0	41	0	0	4	20	0	0	0	0	9	0	0	0	0	74	0
7:30 AM		0	0	45	4	0	5	18	0	0	0	0	8	0	0	0	0	80	0
7:45 AM		0	0	39	1	0	13	25	0	0	0	0	13	0	0	0	0	91	299
8:00 AM		**0**	**0**	**49**	**2**	**0**	**8**	**27**	**0**	**0**	**1**	**0**	**9**	**0**	**0**	**0**	**0**	**96**	341
8:15 AM		**0**	**0**	**57**	**4**	**0**	**8**	**32**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**109**	376
8:30 AM		**1**	**0**	**47**	**3**	**0**	**11**	**22**	**0**	**0**	**1**	**0**	**6**	**0**	**0**	**0**	**0**	**91**	387
8:45 AM		**0**	**0**	**46**	**5**	**0**	**19**	**30**	**0**	**0**	**1**	**0**	**9**	**0**	**0**	**0**	**0**	**110**	**406**
Count Total		1	0	356	19	0	71	189	0	0	3	0	66	0	0	0	0	705	0
Peak Hour	**All**	**1**	**0**	**199**	**14**	**0**	**46**	**111**	**0**	**0**	**3**	**0**	**32**	**0**	**0**	**0**	**0**	**406**	**0**
	HV	**0**	**0**	**10**	**0**	**0**	**1**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**0**
	HV%	**0%**	**-**	**5%**	**0%**	**-**	**2%**	**8%**	**-**	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**-**	**5%**	**0**

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	*0*	0	1	0	0	*1*	0	1	0	0	*1*
7:15 AM	0	2	0	0	*2*	0	0	0	0	*0*	2	1	0	2	*5*
7:30 AM	0	1	1	0	*2*	0	0	0	0	*0*	5	3	0	0	*8*
7:45 AM	1	0	0	0	*1*	0	0	0	0	*0*	4	4	0	0	*8*
8:00 AM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**1**	**3**	**0**	**0**	*4*
8:15 AM	**2**	**5**	**0**	**0**	***7***	**0**	**0**	**0**	**0**	***0***	**4**	**2**	**0**	**3**	*9*
8:30 AM	**5**	**1**	**0**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**2**	**1**	**0**	**1**	*4*
8:45 AM	**3**	**3**	**0**	**0**	***6***	**0**	**1**	**0**	**0**	***1***	**2**	**2**	**0**	**0**	***4***
Count Total	11	13	1	0	*25*	0	2	0	0	*2*	20	17	0	6	*43*
Peak Hr	**10**	**10**	**0**	**0**	***20***	**0**	**1**	**0**	**0**	***1***	**9**	**8**	**0**	**4**	***21***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Commodore Dr				Commodore Dr				Admiral Ct				N/A				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	2	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	6
8:15 AM	**0**	**0**	**2**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	11
8:30 AM	**0**	**0**	**5**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	15
8:45 AM	**0**	**0**	**3**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**20**
Count Total	0	0	11	0	0	2	11	0	0	0	0	1	0	0	0	0	25	0
Peak Hour	**0**	**0**	**10**	**0**	**0**	**1**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	Commodore Dr			Commodore Dr			Admiral Ct			N/A			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:45 AM	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
Count Total	0	0	0	0	2	0	0	0	0	0	0	0	2	0
Peak Hour	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**

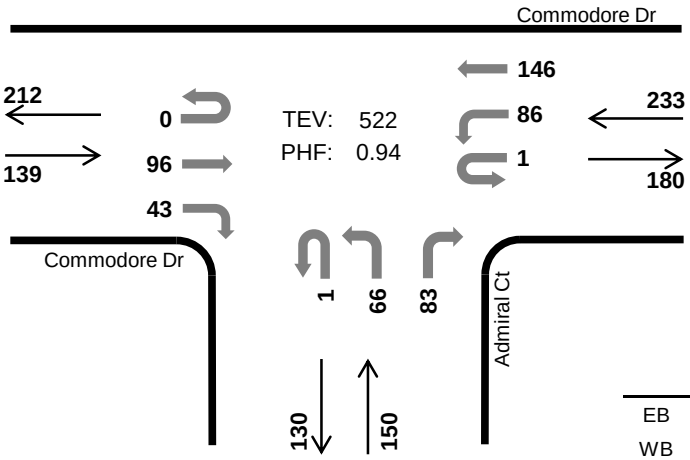
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

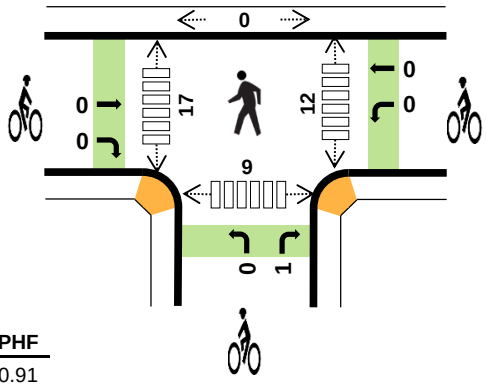
Admiral Ct
Commodore Dr

N

Peak Hour

Date: 09/22/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	0.0%	0.91
WB	0.9%	0.77
NB	0.7%	0.53
SB	-	-
TOTAL	0.6%	0.94

Two-Hour Count Summaries

Interval Start	Commodore Dr Eastbound				Commodore Dr Westbound				Admiral Ct Northbound				N/A Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	1	0	20	5	0	30	36	0	0	1	0	18	0	0	0	0	111	0
4:15 PM	0	0	29	13	0	20	44	0	0	12	0	17	0	0	0	0	135	0
4:30 PM	0	0	28	9	0	18	33	0	0	2	0	19	0	0	0	0	109	0
4:45 PM	0	0	34	6	1	23	43	0	0	5	0	21	0	0	0	0	133	488
5:00 PM	**0**	**0**	**26**	**11**	**0**	**26**	**37**	**0**	**0**	**9**	**0**	**15**	**0**	**0**	**0**	**0**	**124**	501
5:15 PM	**0**	**0**	**23**	**10**	**1**	**27**	**48**	**0**	**1**	**4**	**0**	**25**	**0**	**0**	**0**	**0**	**139**	505
5:30 PM	**0**	**0**	**27**	**11**	**0**	**23**	**35**	**0**	**0**	**10**	**0**	**15**	**0**	**0**	**0**	**0**	**121**	517
5:45 PM	**0**	**0**	**20**	**11**	**0**	**10**	**26**	**0**	**0**	**43**	**0**	**28**	**0**	**0**	**0**	**0**	**138**	**522**
Count Total	1	0	207	76	2	177	302	0	1	86	0	158	0	0	0	0	1,010	0
Peak Hour All	**0**	**0**	**96**	**43**	**1**	**86**	**146**	**0**	**1**	**66**	**0**	**83**	**0**	**0**	**0**	**0**	**522**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	**0**
Peak Hour HV%	**-**	**-**	**0%**	**0%**	**0%**	**0%**	**1%**	**-**	**0%**	**0%**	**-**	**1%**	**-**	**-**	**-**	**-**	**1%**	**0**

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	1	0	0	*1*	1	0	0	0	*1*	4	4	0	5	*13*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	1	1	0	2	*4*
4:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	4	2	0	2	*8*
4:45 PM	1	0	0	0	*1*	0	0	1	0	*1*	4	5	0	1	*10*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**4**	**7**	**0**	**3**	*14*
5:15 PM	**0**	**1**	**1**	**0**	***2***	**0**	**0**	**1**	**0**	***1***	**7**	**3**	**0**	**5**	*15*
5:30 PM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**1**	*3*
5:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**1**	**5**	**0**	**0**	***6***
Count Total	1	3	1	0	*5*	1	0	2	0	*3*	25	29	0	19	*73*
Peak Hr	**0**	**2**	**1**	**0**	***3***	**0**	**0**	**1**	**0**	***1***	**12**	**17**	**0**	**9**	***38***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Commodore Dr				Commodore Dr				Admiral Ct				N/A				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	3
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	4
5:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
Count Total	0	0	0	1	0	1	2	0	0	0	0	1	0	0	0	0	5	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	**0**

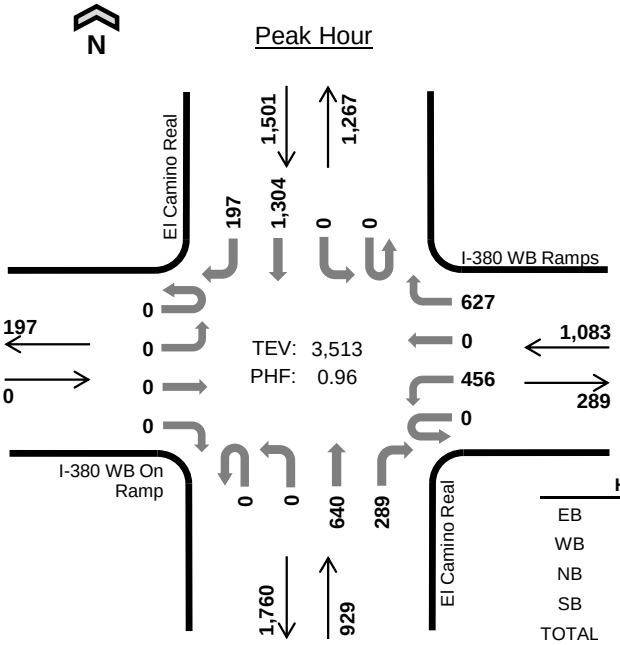
Two-Hour Count Summaries - Bikes

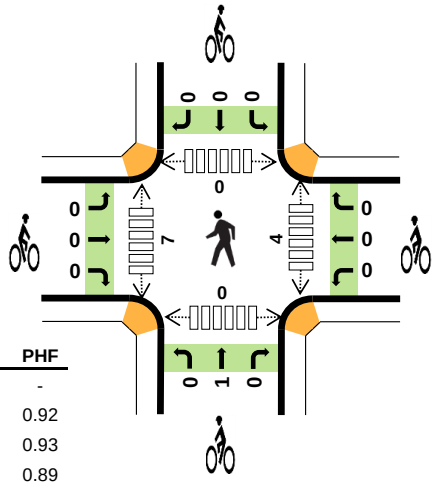
Interval Start	Commodore Dr			Commodore Dr			Admiral Ct			N/A			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	2
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	2
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	2
5:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
Count Total	0	1	0	0	0	0	0	0	2	0	0	0	3	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**

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

El Camino Real
I-380 WB On Ramp

Date: 09/22/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	-	-
WB	9.0%	0.92
NB	3.1%	0.93
SB	7.5%	0.89
TOTAL	6.8%	0.96

Two-Hour Count Summaries

Interval Start	I-380 WB On Ramp Eastbound				I-380 WB Ramps Westbound				El Camino Real Northbound				El Camino Real 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	76	0	110	0	0	81	43	0	0	180	39	529	0
7:15 AM	0	0	0	0	0	74	0	135	0	0	76	58	0	0	217	33	593	0
7:30 AM	0	0	0	0	0	82	0	121	0	0	110	78	0	0	304	44	739	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**121**	**0**	**172**	**0**	**0**	**156**	**76**	**0**	**0**	**296**	**36**	**857**	2,718
8:00 AM	**0**	**0**	**0**	**0**	**0**	**123**	**0**	**149**	**0**	**0**	**158**	**66**	**0**	**0**	**314**	**54**	**864**	3,053
8:15 AM	**0**	**0**	**0**	**0**	**0**	**107**	**0**	**171**	**0**	**0**	**150**	**74**	**0**	**0**	**332**	**47**	**881**	3,341
8:30 AM	**0**	**0**	**0**	**0**	**0**	**105**	**0**	**135**	**0**	**0**	**176**	**73**	**0**	**0**	**362**	**60**	**911**	**3,513**
8:45 AM	0	0	0	0	0	114	0	176	0	0	148	72	0	0	286	56	852	3,508
Count Total	0	0	0	0	0	802	0	1,169	0	0	1,055	540	0	0	2,291	369	6,226	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**456**	**0**	**627**	**0**	**0**	**640**	**289**	**0**	**0**	**1,304**	**197**	**3,513**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**51**	**0**	**46**	**0**	**0**	**25**	**4**	**0**	**0**	**105**	**7**	**238**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**11%**	**-**	**7%**	**-**	**-**	**4%**	**1%**	**-**	**-**	**8%**	**4%**	**7%**	**0**

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

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
7:00 AM	0	33	6	21	*60*	0	0	0	0	*0*	0	3	0	0	*3*
7:15 AM	0	23	4	26	*53*	0	0	0	0	*0*	0	6	0	0	*6*
7:30 AM	0	32	11	27	*70*	0	0	1	0	*1*	1	2	0	0	*3*
7:45 AM	**0**	**38**	**6**	**22**	***66***	**0**	**0**	**1**	**0**	***1***	**2**	**2**	**0**	**0**	*4*
8:00 AM	**0**	**26**	**6**	**30**	***62***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**0**	*2*
8:15 AM	**0**	**20**	**10**	**29**	***59***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
8:30 AM	**0**	**13**	**7**	**31**	***51***	**0**	**0**	**0**	**0**	***0***	**2**	**2**	**0**	**0**	***4***
8:45 AM	0	17	6	16	*39*	0	0	0	1	*1*	1	1	0	0	*2*
Count Total	0	202	56	202	*460*	0	0	2	1	*3*	6	19	0	0	*25*
Peak Hour	**0**	**97**	**29**	**112**	***238***	**0**	**0**	**1**	**0**	***1***	**4**	**7**	**0**	**0**	***11***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	I-380 WB On Ramp				I-380 WB Ramps				El Camino Real				El Camino Real				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	21	0	12	0	0	5	1	0	0	19	2	60	0
7:15 AM	0	0	0	0	0	15	0	8	0	0	3	1	0	0	26	0	53	0
7:30 AM	0	0	0	0	0	26	0	6	0	0	10	1	0	0	24	3	70	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**23**	**0**	**15**	**0**	**0**	**5**	**1**	**0**	**0**	**21**	**1**	**66**	249
8:00 AM	**0**	**0**	**0**	**0**	**0**	**19**	**0**	**7**	**0**	**0**	**4**	**2**	**0**	**0**	**28**	**2**	**62**	251
8:15 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**18**	**0**	**0**	**10**	**0**	**0**	**0**	**28**	**1**	**59**	257
8:30 AM	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**6**	**0**	**0**	**6**	**1**	**0**	**0**	**28**	**3**	**51**	**238**
8:45 AM	0	0	0	0	0	8	0	9	0	0	2	4	0	0	14	2	39	211
Count Total	0	0	0	0	0	121	0	81	0	0	45	11	0	0	188	14	460	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**51**	**0**	**46**	**0**	**0**	**25**	**4**	**0**	**0**	**105**	**7**	**238**	**0**

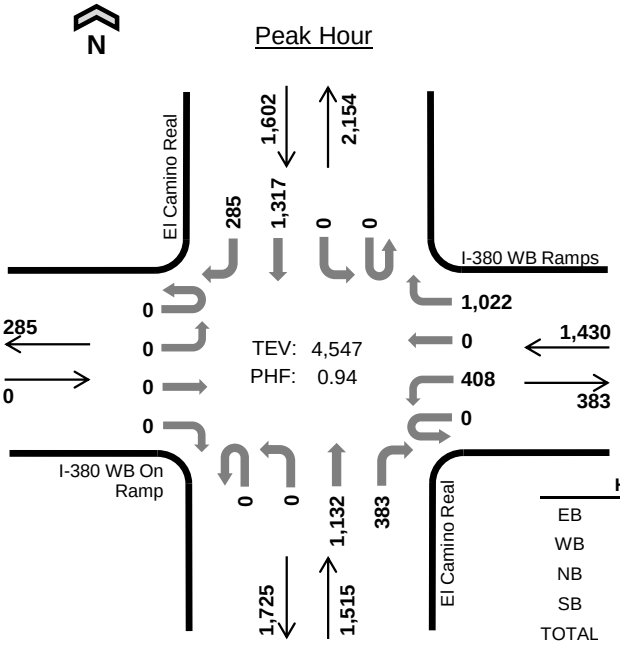
Two-Hour Count Summaries - Bikes

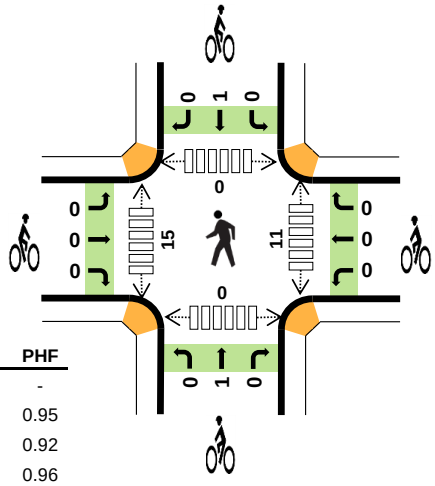
Interval Start	I-380 WB On Ramp			I-380 WB Ramps			El Camino Real			El Camino Real			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	2
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	2
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	2
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Count Total	0	0	0	0	0	0	0	2	0	0	1	0	3	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**

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

El Camino Real
I-380 WB On Ramp

Date: 09/22/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	-	-
WB	2.2%	0.95
NB	1.7%	0.92
SB	1.6%	0.96
TOTAL	1.8%	0.94

Two-Hour Count Summaries

Interval Start	I-380 WB On Ramp Eastbound				I-380 WB Ramps Westbound				El Camino Real Northbound				El Camino Real 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	0	0	0	104	0	278	0	0	262	99	0	0	312	92	1,147	0
4:15 PM	0	0	0	0	0	96	0	244	0	0	242	77	0	0	337	71	1,067	0
4:30 PM	0	0	0	0	0	104	0	219	0	0	235	96	0	0	352	72	1,078	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**103**	**0**	**238**	**0**	**0**	**243**	**108**	**0**	**0**	**331**	**79**	**1,102**	4,394
5:00 PM	**0**	**0**	**0**	**0**	**0**	**116**	**0**	**262**	**0**	**0**	**310**	**102**	**0**	**0**	**337**	**80**	**1,207**	4,454
5:15 PM	**0**	**0**	**0**	**0**	**0**	**101**	**0**	**273**	**0**	**0**	**304**	**93**	**0**	**0**	**320**	**60**	**1,151**	4,538
5:30 PM	**0**	**0**	**0**	**0**	**0**	**88**	**0**	**249**	**0**	**0**	**275**	**80**	**0**	**0**	**329**	**66**	**1,087**	**4,547**
5:45 PM	0	0	0	0	0	87	0	241	0	0	271	69	0	0	326	72	1,066	4,511
Count Total	0	0	0	0	0	799	0	2,004	0	0	2,142	724	0	0	2,644	592	8,905	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**408**	**0**	**1,022**	**0**	**0**	**1,132**	**383**	**0**	**0**	**1,317**	**285**	**4,547**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**25**	**0**	**0**	**25**	**1**	**0**	**0**	**24**	**2**	**83**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**1%**	**-**	**2%**	**-**	**-**	**2%**	**0%**	**-**	**-**	**2%**	**1%**	**2%**	**0**

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	12	3	8	*23*	0	0	0	0	*0*	8	4	0	0	*12*
4:15 PM	0	8	6	4	*18*	0	0	0	0	*0*	2	2	0	0	*4*
4:30 PM	0	10	6	4	*20*	0	0	1	0	*1*	4	3	0	0	*7*
4:45 PM	**0**	**11**	**5**	**6**	***22***	**0**	**0**	**0**	**0**	***0***	**3**	**4**	**0**	**0**	*7*
5:00 PM	**0**	**12**	**9**	**7**	***28***	**0**	**0**	**0**	**0**	***0***	**2**	**3**	**0**	**0**	*5*
5:15 PM	**0**	**5**	**9**	**7**	***21***	**0**	**0**	**1**	**0**	***1***	**2**	**3**	**0**	**0**	*5*
5:30 PM	**0**	**3**	**3**	**6**	***12***	**0**	**0**	**0**	**1**	***1***	**4**	**5**	**0**	**0**	***9***
5:45 PM	0	6	0	4	*10*	0	0	0	0	*0*	9	2	0	0	*11*
Count Total	0	67	41	46	*154*	0	0	2	1	*3*	34	26	0	0	*60*
Peak Hour	**0**	**31**	**26**	**26**	***83***	**0**	**0**	**1**	**1**	***2***	**11**	**15**	**0**	**0**	***26***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	I-380 WB On Ramp				I-380 WB Ramps				El Camino Real				El Camino Real				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	2	0	10	0	0	3	0	0	0	6	2	23	0
4:15 PM	0	0	0	0	0	1	0	7	0	0	6	0	0	0	3	1	18	0
4:30 PM	0	0	0	0	0	3	0	7	0	0	6	0	0	0	4	0	20	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**7**	**0**	**0**	**4**	**1**	**0**	**0**	**6**	**0**	**22**	83
5:00 PM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**10**	**0**	**0**	**9**	**0**	**0**	**0**	**6**	**1**	**28**	88
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**9**	**0**	**0**	**0**	**7**	**0**	**21**	91
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**3**	**0**	**0**	**0**	**5**	**1**	**12**	**83**
5:45 PM	0	0	0	0	0	0	0	6	0	0	0	0	0	0	4	0	10	71
Count Total	0	0	0	0	0	12	0	55	0	0	40	1	0	0	41	5	154	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**25**	**0**	**0**	**25**	**1**	**0**	**0**	**24**	**2**	**83**	**0**

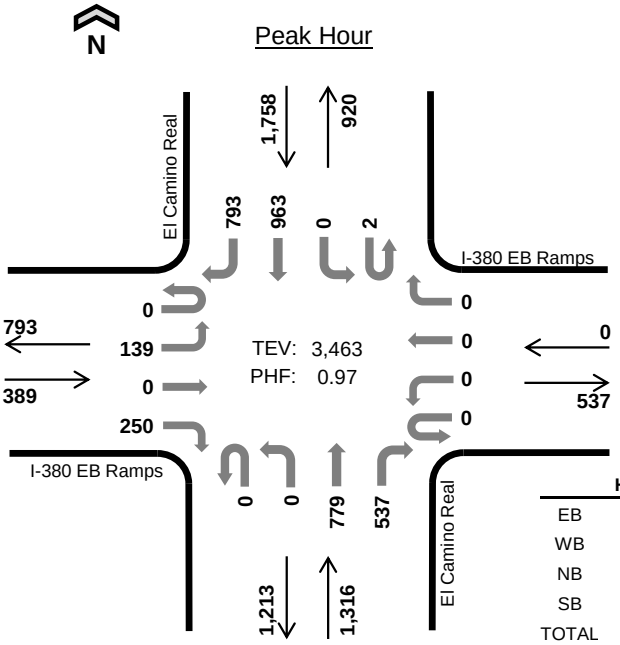
Two-Hour Count Summaries - Bikes

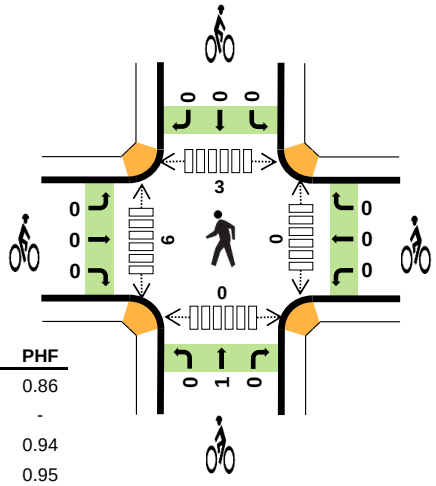
Interval Start	I-380 WB On Ramp			I-380 WB Ramps			El Camino Real			El Camino Real			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	2
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**2**
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	0	0	0	0	0	2	0	0	1	0	3	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**2**	**0**

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

El Camino Real
I-380 EB Ramps

Date: 09/22/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	2.1%	0.86
WB	-	-
NB	3.7%	0.94
SB	9.0%	0.95
TOTAL	6.2%	0.97

Two-Hour Count Summaries

Interval Start	I-380 EB Ramps Eastbound				I-380 EB Ramps Westbound				El Camino Real Northbound				El Camino Real 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	25	0	30	0	0	0	0	0	0	103	91	0	0	119	133	501	0
7:15 AM	0	17	0	44	0	0	0	0	0	0	120	118	0	0	144	157	600	0
7:30 AM	0	35	1	55	0	0	0	0	0	0	154	112	0	0	195	187	739	0
7:45 AM	**0**	**36**	**0**	**72**	**0**	**0**	**0**	**0**	**0**	**0**	**195**	**125**	**0**	**0**	**232**	**181**	**841**	2,681
8:00 AM	**0**	**43**	**0**	**70**	**0**	**0**	**0**	**0**	**0**	**0**	**181**	**131**	**1**	**0**	**252**	**189**	**867**	3,047
8:15 AM	**0**	**36**	**0**	**56**	**0**	**0**	**0**	**0**	**0**	**0**	**179**	**154**	**1**	**0**	**247**	**193**	**866**	3,313
8:30 AM	**0**	**24**	**0**	**52**	**0**	**0**	**0**	**0**	**0**	**0**	**224**	**127**	**0**	**0**	**232**	**230**	**889**	**3,463**
8:45 AM	0	29	1	48	0	0	0	0	0	0	190	128	0	0	243	154	793	3,415
Count Total	0	245	2	427	0	0	0	0	0	0	1,346	986	2	0	1,664	1,424	6,096	0
Peak Hour All	**0**	**139**	**0**	**250**	**0**	**0**	**0**	**0**	**0**	**0**	**779**	**537**	**2**	**0**	**963**	**793**	**3,463**	**0**
Peak Hour HV	**0**	**5**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**24**	**25**	**0**	**0**	**66**	**92**	**215**	**0**
Peak Hour HV%	**-**	**4%**	**-**	**1%**	**-**	**-**	**-**	**-**	**-**	**-**	**3%**	**5%**	**0%**	**-**	**7%**	**12%**	**6%**	**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	0	8	38	*48*	0	0	0	0	*0*	0	3	0	0	*3*
7:15 AM	4	0	10	43	*57*	0	0	0	0	*0*	0	6	3	0	*9*
7:30 AM	5	0	14	50	*69*	0	0	1	1	*2*	0	4	0	0	*4*
7:45 AM	**2**	**0**	**16**	**43**	***61***	**0**	**0**	**1**	**0**	***1***	**0**	**2**	**2**	**0**	*4*
8:00 AM	**2**	**0**	**12**	**50**	***64***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
8:15 AM	**2**	**0**	**13**	**30**	***45***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**0**	*2*
8:30 AM	**2**	**0**	**8**	**35**	***45***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**1**	**0**	***2***
8:45 AM	4	0	11	21	*36*	0	0	0	1	*1*	0	2	1	0	*3*
Count Total	23	0	92	310	*425*	0	0	2	2	*4*	0	21	7	0	*28*
Peak Hour	**8**	**0**	**49**	**158**	***215***	**0**	**0**	**1**	**0**	***1***	**0**	**6**	**3**	**0**	***9***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	I-380 EB Ramps				I-380 EB Ramps				El Camino Real				El Camino Real				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	0	1	0	0	0	0	0	0	5	3	0	0	24	14	48	0
7:15 AM	0	1	0	3	0	0	0	0	0	0	5	5	0	0	17	26	57	0
7:30 AM	0	3	0	2	0	0	0	0	0	0	8	6	0	0	31	19	69	0
7:45 AM	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**11**	**0**	**0**	**22**	**21**	**61**	235
8:00 AM	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**6**	**0**	**0**	**28**	**22**	**64**	251
8:15 AM	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**6**	**0**	**0**	**5**	**25**	**45**	239
8:30 AM	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**2**	**0**	**0**	**11**	**24**	**45**	**215**
8:45 AM	0	1	0	3	0	0	0	0	0	0	5	6	0	0	13	8	36	190
Count Total	0	11	0	12	0	0	0	0	0	0	47	45	0	0	151	159	425	0
Peak Hour	**0**	**5**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**24**	**25**	**0**	**0**	**66**	**92**	**215**	**0**

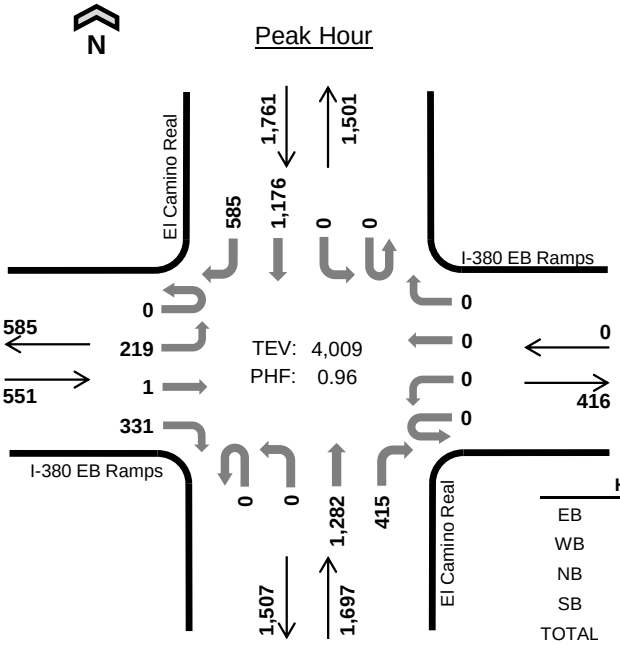
Two-Hour Count Summaries - Bikes

Interval Start	I-380 EB Ramps			I-380 EB Ramps			El Camino Real			El Camino Real			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	3
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	3
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	3
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Count Total	0	0	0	0	0	0	0	2	0	0	2	0	4	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**

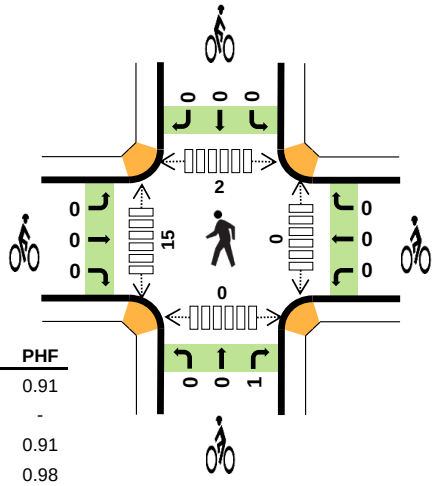
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

El Camino Real
I-380 EB Ramps

Date: 09/22/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	3.3%	0.91
WB	-	-
NB	1.8%	0.91
SB	1.8%	0.98
TOTAL	2.0%	0.96



Two-Hour Count Summaries

Interval Start		I-380 EB Ramps Eastbound				I-380 EB Ramps Westbound				El Camino Real Northbound				El Camino Real 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	46	1	69	0	0	0	0	0	0	303	91	0	0	269	138	917	0
4:15 PM		0	40	1	91	0	0	0	0	0	0	285	109	0	0	277	167	970	0
4:30 PM		**0**	**43**	**0**	**87**	**0**	**0**	**0**	**0**	**0**	**0**	**293**	**88**	**0**	**0**	**295**	**154**	**960**	0
4:45 PM		**0**	**48**	**1**	**88**	**0**	**0**	**0**	**0**	**0**	**0**	**294**	**118**	**0**	**0**	**281**	**149**	**979**	3,826
5:00 PM		**0**	**63**	**0**	**69**	**0**	**0**	**0**	**0**	**0**	**0**	**357**	**110**	**0**	**0**	**299**	**143**	**1,041**	3,950
5:15 PM		**0**	**65**	**0**	**87**	**0**	**0**	**0**	**0**	**0**	**0**	**338**	**99**	**0**	**0**	**301**	**139**	**1,029**	**4,009**
5:30 PM		0	73	2	90	0	0	0	0	0	0	280	86	0	0	260	139	930	3,979
5:45 PM		0	48	0	90	0	0	0	0	0	0	294	103	0	0	274	156	965	3,965
Count Total		0	426	5	671	0	0	0	0	0	0	2,444	804	0	0	2,256	1,185	7,791	0
Peak Hour	**All**	**0**	**219**	**1**	**331**	**0**	**0**	**0**	**0**	**0**	**0**	**1,282**	**415**	**0**	**0**	**1,176**	**585**	**4,009**	**0**
	HV	**0**	**12**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**13**	**0**	**0**	**20**	**11**	**79**	**0**
	HV%	**-**	**5%**	**0%**	**2%**	**-**	**-**	**-**	**-**	**-**	**-**	**1%**	**3%**	**-**	**-**	**2%**	**2%**	**2%**	**0**

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	5	0	3	7	*15*	0	0	0	0	*0*	0	4	1	0	*5*
4:15 PM	1	0	8	5	*14*	0	0	0	0	*0*	0	4	0	0	*4*
4:30 PM	**5**	**0**	**7**	**7**	***19***	**0**	**0**	**0**	**0**	***0***	**0**	**3**	**0**	**0**	*3*
4:45 PM	**4**	**0**	**4**	**8**	***16***	**0**	**0**	**1**	**0**	***1***	**0**	**1**	**2**	**0**	*3*
5:00 PM	**8**	**0**	**7**	**7**	***22***	**0**	**0**	**0**	**0**	***0***	**0**	**7**	**0**	**0**	*7*
5:15 PM	**1**	**0**	**12**	**9**	***22***	**0**	**0**	**0**	**0**	***0***	**0**	**4**	**0**	**0**	***4***
5:30 PM	8	0	4	5	*17*	0	0	0	1	*1*	1	2	0	0	*3*
5:45 PM	1	0	3	5	*9*	0	0	0	0	*0*	0	9	4	0	*13*
Count Total	33	0	48	53	*134*	0	0	1	1	*2*	1	34	7	0	*42*
Peak Hour	**18**	**0**	**30**	**31**	***79***	**0**	**0**	**1**	**0**	***1***	**0**	**15**	**2**	**0**	***17***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	I-380 EB Ramps				I-380 EB Ramps				El Camino Real				El Camino Real				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	3	0	2	0	0	0	0	0	0	1	2	0	0	3	4	15	0
4:15 PM	0	0	0	1	0	0	0	0	0	0	5	3	0	0	3	2	14	0
4:30 PM	**0**	**2**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**2**	**0**	**0**	**6**	**1**	**19**	0
4:45 PM	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**7**	**1**	**16**	64
5:00 PM	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**4**	**0**	**0**	**4**	**3**	**22**	71
5:15 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**7**	**0**	**0**	**3**	**6**	**22**	**79**
5:30 PM	0	2	0	6	0	0	0	0	0	0	2	2	0	0	3	2	17	77
5:45 PM	0	0	0	1	0	0	0	0	0	0	0	3	0	0	3	2	9	70
Count Total	0	17	0	16	0	0	0	0	0	0	25	23	0	0	32	21	134	0
Peak Hour	**0**	**12**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**13**	**0**	**0**	**20**	**11**	**79**	**0**

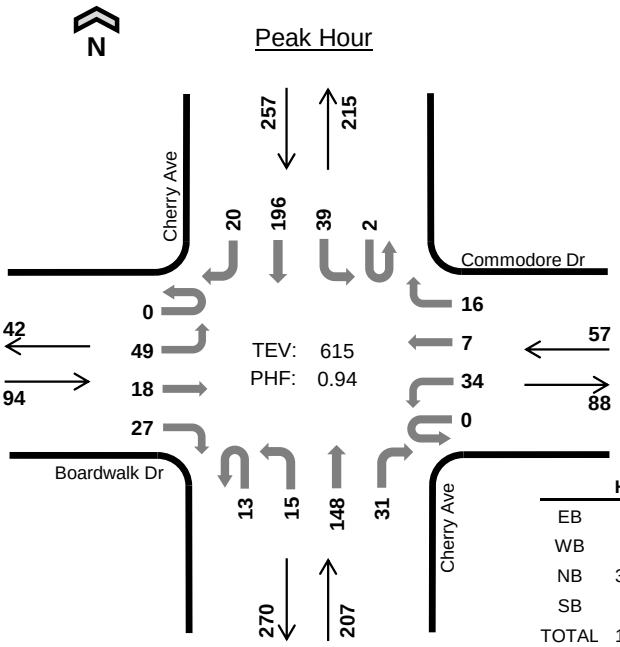
Two-Hour Count Summaries - Bikes

Interval Start	I-380 EB Ramps			I-380 EB Ramps			El Camino Real			El Camino Real			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	1
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	1	0	1	0	2	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**

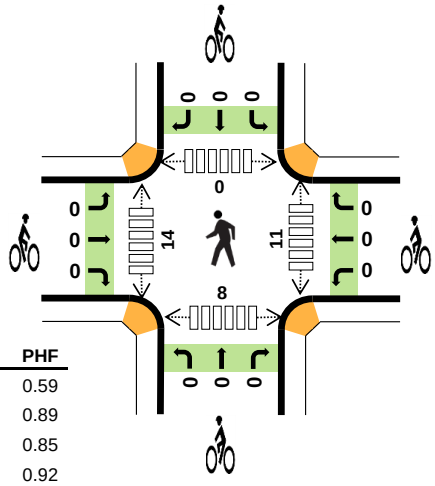
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Cherry Ave
Commodore Dr

Date: 09/22/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	2.1%	0.59
WB	8.8%	0.89
NB	37.2%	0.85
SB	8.9%	0.92
TOTAL	17.4%	0.94



Two-Hour Count Summaries

Interval Start		Boardwalk Dr Eastbound				Commodore Dr Westbound				Cherry Ave Northbound				Cherry 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	10	7	7	0	1	1	2	5	1	18	0	0	3	19	0	74	0
7:15 AM		0	21	11	7	0	6	2	5	2	1	26	1	0	2	37	2	123	0
7:30 AM		0	8	4	7	0	7	1	2	4	2	30	6	0	7	45	0	123	0
7:45 AM		**0**	**21**	**5**	**14**	**0**	**7**	**0**	**9**	**3**	**1**	**37**	**2**	**0**	**13**	**41**	**3**	**156**	476
8:00 AM		**0**	**9**	**3**	**8**	**0**	**9**	**4**	**1**	**6**	**4**	**43**	**6**	**0**	**6**	**58**	**6**	**163**	565
8:15 AM		**0**	**12**	**3**	**5**	**0**	**9**	**2**	**3**	**2**	**8**	**36**	**15**	**1**	**11**	**51**	**5**	**163**	605
8:30 AM		**0**	**7**	**7**	**0**	**0**	**9**	**1**	**3**	**2**	**2**	**32**	**8**	**1**	**9**	**46**	**6**	**133**	**615**
8:45 AM		0	14	1	6	0	8	2	5	5	2	19	4	2	5	45	2	120	579
Count Total		0	102	41	54	0	56	13	30	29	21	241	42	4	56	342	24	1,055	0
Peak Hour	**All**	**0**	**49**	**18**	**27**	**0**	**34**	**7**	**16**	**13**	**15**	**148**	**31**	**2**	**39**	**196**	**20**	**615**	**0**
	HV	**0**	**0**	**2**	**0**	**0**	**5**	**0**	**0**	**9**	**0**	**67**	**1**	**0**	**4**	**18**	**1**	**107**	**0**
	HV%	**-**	**0%**	**11%**	**0%**	**-**	**15%**	**0%**	**0%**	**69%**	**0%**	**45%**	**3%**	**0%**	**10%**	**9%**	**5%**	**17%**	**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	12	1	*13*	0	0	0	0	*0*	2	2	0	0	*4*
7:15 AM	0	0	15	8	*23*	0	1	0	0	*1*	1	3	0	2	*6*
7:30 AM	0	1	23	5	*29*	0	0	0	0	*0*	3	2	0	2	*7*
7:45 AM	**0**	**1**	**20**	**6**	***27***	**0**	**0**	**0**	**0**	***0***	**5**	**6**	**0**	**2**	*13*
8:00 AM	**1**	**0**	**21**	**7**	***29***	**0**	**0**	**0**	**0**	***0***	**2**	**2**	**0**	**2**	*6*
8:15 AM	**0**	**1**	**23**	**8**	***32***	**0**	**0**	**0**	**0**	***0***	**1**	**3**	**0**	**2**	*6*
8:30 AM	**1**	**3**	**13**	**2**	***19***	**0**	**0**	**0**	**0**	***0***	**3**	**3**	**0**	**2**	***8***
8:45 AM	0	2	4	4	*10*	0	0	0	1	*1*	2	5	0	1	*8*
Count Total	2	8	131	41	*182*	0	1	0	1	*2*	19	26	0	13	*58*
Peak Hour	**2**	**5**	**77**	**23**	***107***	**0**	**0**	**0**	**0**	***0***	**11**	**14**	**0**	**8**	***33***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Boardwalk Dr Eastbound				Commodore Dr Westbound				Cherry Ave Northbound				Cherry 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	0	0	0	0	0	0	0	3	0	9	0	0	0	1	0	13	0
7:15 AM	0	0	0	0	0	0	0	0	2	0	13	0	0	1	7	0	23	0
7:30 AM	0	0	0	0	0	1	0	0	3	0	19	1	0	0	5	0	29	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**3**	**0**	**17**	**0**	**0**	**1**	**5**	**0**	**27**	92
8:00 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**18**	**0**	**0**	**0**	**7**	**0**	**29**	108
8:15 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**20**	**1**	**0**	**2**	**5**	**1**	**32**	117
8:30 AM	**0**	**0**	**1**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**12**	**0**	**0**	**1**	**1**	**0**	**19**	**107**
8:45 AM	0	0	0	0	0	1	0	1	3	0	1	0	0	0	4	0	10	90
Count Total	0	0	2	0	0	7	0	1	20	0	109	2	0	5	35	1	182	0
Peak Hour	**0**	**0**	**2**	**0**	**0**	**5**	**0**	**0**	**9**	**0**	**67**	**1**	**0**	**4**	**18**	**1**	**107**	**0**

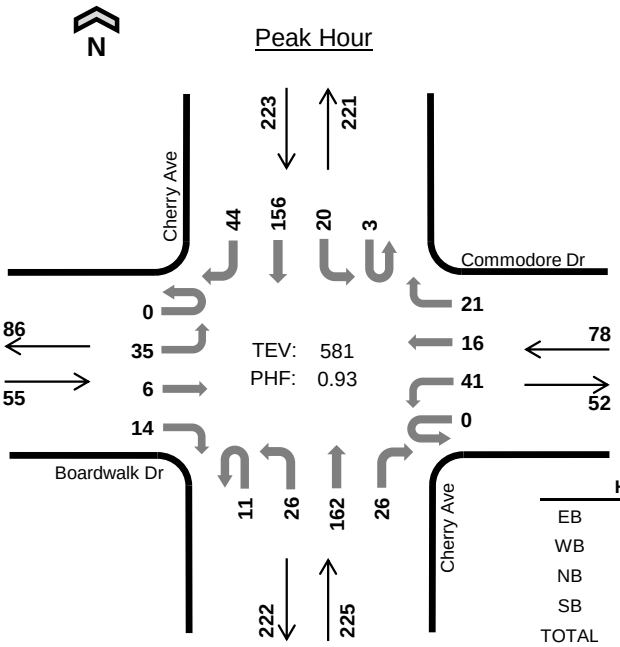
Two-Hour Count Summaries - Bikes

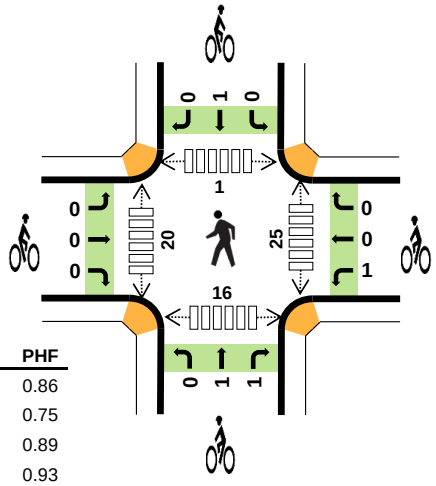
Interval Start	Boardwalk Dr Eastbound			Commodore Dr Westbound			Cherry Ave Northbound			Cherry Ave Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Count Total	0	0	0	1	0	0	0	0	0	0	1	0	2	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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

Cherry Ave
Commodore Dr

Date: 09/22/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	0.0%	0.86
WB	3.8%	0.75
NB	0.9%	0.89
SB	3.1%	0.93
TOTAL	2.1%	0.93

Two-Hour Count Summaries

Interval Start	Boardwalk Dr Eastbound				Commodore Dr Westbound				Cherry Ave Northbound				Cherry 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	3	2	4	0	6	8	3	3	3	36	6	1	5	27	9	116	0
4:15 PM	0	7	4	3	0	10	6	11	2	6	46	8	2	8	24	9	146	0
4:30 PM	0	10	4	4	0	15	3	3	4	9	22	3	0	6	38	7	128	0
4:45 PM	0	2	4	3	0	3	4	5	2	4	39	12	0	4	39	8	129	519
5:00 PM	**0**	**9**	**1**	**5**	**0**	**7**	**1**	**5**	**2**	**5**	**33**	**6**	**0**	**5**	**37**	**12**	**128**	531
5:15 PM	**0**	**6**	**1**	**2**	**0**	**9**	**8**	**3**	**4**	**8**	**43**	**8**	**1**	**5**	**37**	**11**	**146**	531
5:30 PM	**0**	**11**	**2**	**2**	**0**	**10**	**4**	**5**	**1**	**8**	**46**	**7**	**1**	**6**	**38**	**10**	**151**	554
5:45 PM	**0**	**9**	**2**	**5**	**0**	**15**	**3**	**8**	**4**	**5**	**40**	**5**	**1**	**4**	**44**	**11**	**156**	**581**
Count Total	0	57	20	28	0	75	37	43	22	48	305	55	6	43	284	77	1,100	0
Peak Hour All	**0**	**35**	**6**	**14**	**0**	**41**	**16**	**21**	**11**	**26**	**162**	**26**	**3**	**20**	**156**	**44**	**581**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**7**	**0**	**12**	**0**
Peak Hour HV%	**-**	**0%**	**0%**	**0%**	**-**	**7%**	**0%**	**0%**	**0%**	**0%**	**1%**	**4%**	**0%**	**0%**	**4%**	**0%**	**2%**	**0**

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	1	0	*1*	4	3	0	3	*10*
4:15 PM	0	0	0	3	*3*	0	0	0	0	*0*	2	5	0	0	*7*
4:30 PM	0	0	1	3	*4*	0	0	1	1	*2*	2	10	0	2	*14*
4:45 PM	0	0	1	2	*3*	0	0	0	1	*1*	2	7	0	7	*16*
5:00 PM	**0**	**0**	**0**	**3**	***3***	**0**	**0**	**0**	**1**	***1***	**9**	**8**	**0**	**9**	*26*
5:15 PM	**0**	**1**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**6**	**3**	**0**	**3**	*12*
5:30 PM	**0**	**1**	**0**	**1**	***2***	**0**	**1**	**1**	**0**	***2***	**5**	**3**	**1**	**2**	*11*
5:45 PM	**0**	**1**	**2**	**2**	***5***	**0**	**0**	**1**	**0**	***1***	**5**	**6**	**0**	**2**	***13***
Count Total	0	3	4	15	*22*	0	1	4	3	*8*	35	45	1	28	*109*
Peak Hour	**0**	**3**	**2**	**7**	***12***	**0**	**1**	**2**	**1**	***4***	**25**	**20**	**1**	**16**	***62***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Boardwalk Dr Eastbound				Commodore Dr Westbound				Cherry Ave Northbound				Cherry 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	4	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	10
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**3**	13
5:15 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	12
5:30 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	10
5:45 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**2**	**0**	**5**	**12**
Count Total	0	0	0	0	0	3	0	0	0	0	2	2	0	0	15	0	22	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**7**	**0**	**12**	**0**

Two-Hour Count Summaries - Bikes

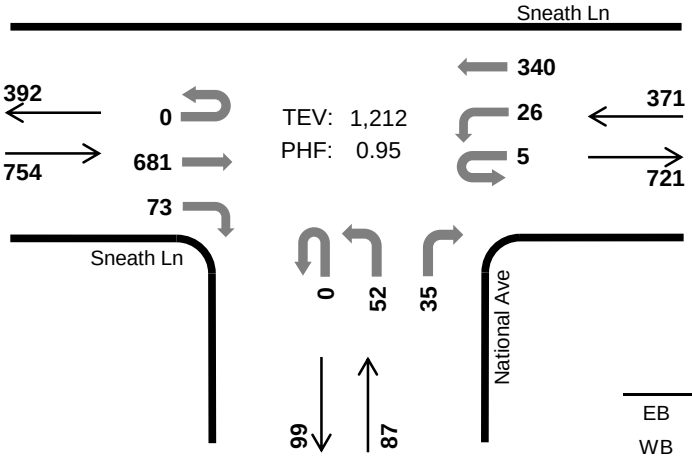
Interval Start	Boardwalk Dr Eastbound			Commodore Dr Westbound			Cherry Ave Northbound			Cherry Ave Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	4
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	4
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	4
5:30 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	4
5:45 PM	**0**	**0**		**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**4**
Count Total	0	0	0	1	0	0	0	2	2	0	3	0	8	0
Peak Hour	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**1**	**0**	**4**	**0**

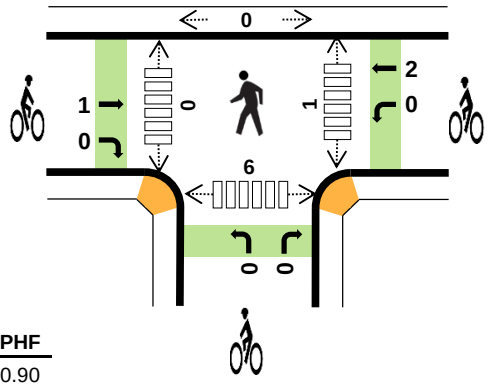
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

National Ave
Sneath Ln

Peak Hour

Date: 09/22/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	10.9%	0.90
WB	5.4%	0.95
NB	0.0%	0.73
SB	-	-
TOTAL	8.4%	0.95

Two-Hour Count Summaries

Interval Start		Sneath Ln Eastbound				Sneath Ln Westbound				National Ave Northbound				N/A Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	83	5	0	2	34	0	0	2	0	1	0	0	0	0	127	0
7:15 AM		0	0	105	4	0	4	39	0	0	5	0	3	0	0	0	0	160	0
7:30 AM		0	0	121	11	0	1	65	0	0	5	0	4	0	0	0	0	207	0
7:45 AM		**0**	**0**	**166**	**20**	**3**	**5**	**78**	**0**	**0**	**13**	**0**	**8**	**0**	**0**	**0**	**0**	**293**	787
8:00 AM		**0**	**0**	**179**	**12**	**2**	**4**	**92**	**0**	**0**	**21**	**0**	**9**	**0**	**0**	**0**	**0**	**319**	979
8:15 AM		**0**	**0**	**185**	**25**	**0**	**10**	**81**	**0**	**0**	**11**	**0**	**7**	**0**	**0**	**0**	**0**	**319**	1,138
8:30 AM		**0**	**0**	**151**	**16**	**0**	**7**	**89**	**0**	**0**	**7**	**0**	**11**	**0**	**0**	**0**	**0**	**281**	**1,212**
8:45 AM		0	0	159	19	0	8	84	0	0	2	0	4	0	0	0	0	276	1,195
Count Total		0	0	1,149	112	5	41	562	0	0	66	0	47	0	0	0	0	1,982	0
Peak Hour	**All**	**0**	**0**	**681**	**73**	**5**	**26**	**340**	**0**	**0**	**52**	**0**	**35**	**0**	**0**	**0**	**0**	**1,212**	**0**
	HV	**0**	**0**	**80**	**2**	**0**	**2**	**18**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**102**	**0**
	HV%	**-**	**-**	**12%**	**3%**	**0%**	**8%**	**5%**	**-**	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**-**	**8%**	**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	9	2	0	0	*11*	0	0	0	0	*0*	1	0	0	1	*2*
7:15 AM	16	1	1	0	*18*	0	0	0	0	*0*	0	0	0	3	*3*
7:30 AM	18	7	0	0	*25*	0	0	0	0	*0*	0	0	0	4	*4*
7:45 AM	**22**	**2**	**0**	**0**	***24***	**1**	**2**	**0**	**0**	***3***	**1**	**0**	**0**	**1**	*2*
8:00 AM	**19**	**8**	**0**	**0**	***27***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**26**	**6**	**0**	**0**	***32***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**3**	*3*
8:30 AM	**15**	**4**	**0**	**0**	***19***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	***2***
8:45 AM	4	5	0	0	*9*	0	0	0	0	*0*	1	0	0	3	*4*
Count Total	129	35	1	0	*165*	1	2	0	0	*3*	3	0	0	17	*20*
Peak Hr	**82**	**20**	**0**	**0**	***102***	**1**	**2**	**0**	**0**	***3***	**1**	**0**	**0**	**6**	***7***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Sneath Ln Eastbound				Sneath Ln Westbound				National Ave Northbound				N/A Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	8	1	0	1	1	0	0	0	0	0	0	0	0	0	11	0
7:15 AM	0	0	16	0	0	0	1	0	0	1	0	0	0	0	0	0	18	0
7:30 AM	0	0	18	0	0	0	7	0	0	0	0	0	0	0	0	0	25	0
7:45 AM	**0**	**0**	**22**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**24**	78
8:00 AM	**0**	**0**	**19**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**27**	94
8:15 AM	**0**	**0**	**24**	**2**	**0**	**2**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**32**	108
8:30 AM	**0**	**0**	**15**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**19**	**102**
8:45 AM	0	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	9	87
Count Total	0	0	126	3	0	3	32	0	0	1	0	0	0	0	0	0	165	0
Peak Hour	**0**	**0**	**80**	**2**	**0**	**2**	**18**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**102**	**0**

Two-Hour Count Summaries - Bikes

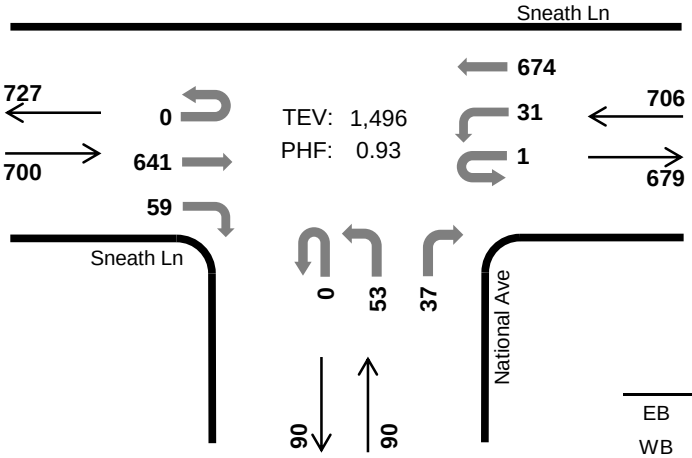
Interval Start	Sneath Ln Eastbound			Sneath Ln Westbound			National Ave Northbound			N/A Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	3
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	3
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	3
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	1	0	0	2	0	0	0	0	0	0	0	3	0
Peak Hour	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**

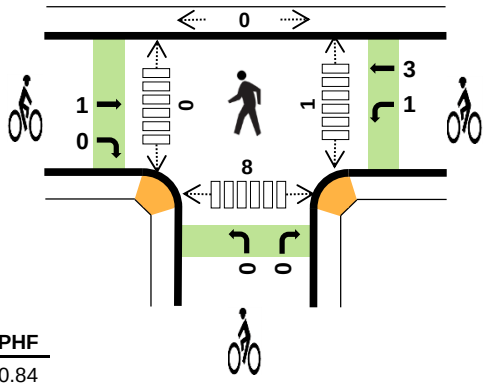
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

National Ave
Sneath Ln

Peak Hour

Date: 09/22/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	1.9%	0.84
WB	1.4%	0.96
NB	0.0%	0.73
SB	-	-
TOTAL	1.5%	0.93

Two-Hour Count Summaries

Interval Start		Sneath Ln Eastbound				Sneath Ln Westbound				National Ave Northbound				N/A Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	130	11	1	2	172	0	0	8	0	10	0	0	0	0	334	0
4:15 PM		0	0	143	17	0	6	146	0	0	14	0	5	0	0	0	0	331	0
4:30 PM		0	0	130	18	1	7	150	0	0	12	0	6	0	0	0	0	324	0
4:45 PM		0	0	152	12	0	9	160	0	0	18	0	6	0	0	0	0	357	1,346
5:00 PM		**0**	**0**	**148**	**10**	**0**	**7**	**176**	**0**	**0**	**16**	**0**	**15**	**0**	**0**	**0**	**0**	**372**	1,384
5:15 PM		**0**	**0**	**146**	**10**	**0**	**5**	**172**	**0**	**0**	**13**	**0**	**7**	**0**	**0**	**0**	**0**	**353**	1,406
5:30 PM		**0**	**0**	**159**	**19**	**0**	**9**	**164**	**0**	**0**	**11**	**0**	**7**	**0**	**0**	**0**	**0**	**369**	1,451
5:45 PM		**0**	**0**	**188**	**20**	**1**	**10**	**162**	**0**	**0**	**13**	**0**	**8**	**0**	**0**	**0**	**0**	**402**	**1,496**
Count Total		0	0	1,196	117	3	55	1,302	0	0	105	0	64	0	0	0	0	2,842	0
Peak Hour	**All**	**0**	**0**	**641**	**59**	**1**	**31**	**674**	**0**	**0**	**53**	**0**	**37**	**0**	**0**	**0**	**0**	**1,496**	**0**
	HV	**0**	**0**	**13**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	**0**
	HV%	**-**	**-**	**2%**	**0%**	**0%**	**0%**	**1%**	**-**	**-**	**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	7	4	0	0	*11*	0	0	0	0	*0*	0	0	0	2	*2*
4:15 PM	2	6	0	0	*8*	1	0	0	0	*1*	1	0	0	3	*4*
4:30 PM	3	5	0	0	*8*	1	0	0	0	*1*	1	0	0	2	*3*
4:45 PM	4	3	0	0	*7*	0	2	0	0	*2*	1	0	0	2	*3*
5:00 PM	**3**	**3**	**0**	**0**	***6***	**1**	**2**	**0**	**0**	***3***	**0**	**0**	**0**	**1**	*1*
5:15 PM	**2**	**3**	**0**	**0**	***5***	**0**	**1**	**0**	**0**	***1***	**1**	**0**	**0**	**2**	*3*
5:30 PM	**4**	**2**	**0**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	*2*
5:45 PM	**4**	**2**	**0**	**0**	***6***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**3**	***3***
Count Total	29	28	0	0	*57*	3	6	0	0	*9*	4	0	0	17	*21*
Peak Hr	**13**	**10**	**0**	**0**	***23***	**1**	**4**	**0**	**0**	***5***	**1**	**0**	**0**	**8**	***9***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Sneath Ln Eastbound				Sneath Ln Westbound				National Ave Northbound				N/A Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	7	0	0	0	4	0	0	0	0	0	0	0	0	0	11	0
4:15 PM	0	0	2	0	0	0	6	0	0	0	0	0	0	0	0	0	8	0
4:30 PM	0	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	8	0
4:45 PM	0	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	7	34
5:00 PM	**0**	**0**	**3**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	29
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**	**4**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	24
5:45 PM	**0**	**0**	**4**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**23**
Count Total	0	0	29	0	0	0	28	0	0	0	0	0	0	0	0	0	57	0
Peak Hour	**0**	**0**	**13**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	Sneath Ln Eastbound			Sneath Ln Westbound			National Ave Northbound			N/A Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2	4
5:00 PM	**0**	**1**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	7
5:15 PM	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	7
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	6
5:45 PM	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**5**
Count Total	0	3	0	1	5	0	0	0	0	0	0	0	9	0
Peak Hour	**0**	**1**	**0**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**

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

Appendix B
Volume Summary

Intersection Number: 1
Traffix Node Number: 1
Intersection Name: Admiral Court and Commodore Drive
Peak Hour: AM
Count Date: 9/22/2022

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**0**	**0**	**0**	**0**	**111**	**46**	**46**	**0**	**4**	**18**	**283**	**0**	**508**
Approved Project Trips													
Mills Park Mixed-Use Development	0	0	0	0	0	0	0	0	0	0	0	0	0
160 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
271 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
Bayhill Specific Plan EIR Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0
1400-1450 Bayhill Drive	0	0	0	0	0	0	0	0	0	0	0	0	0
1100 El Camino Real (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
Millbrae Station Area Specific Plan (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
959 El Camino Real (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
410 Noor Avenue (South San Francisco)	0	0	0	0	0	0	0	0	0	0	0	0	0
180 El Camino Real (South San Francisco)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	**0**	**0**	**0**	**0**	**111**	**46**	**46**	**0**	**4**	**18**	**283**	**0**	**508**
Project Trips	0	0	0	0	0	46	20	0	0	12	0	0	78
Existing Plus Project Conditions	**0**	**0**	**0**	**0**	**111**	**92**	**66**	**0**	**4**	**30**	**283**	**0**	**586**
Background Plus Project Conditions	**0**	**0**	**0**	**0**	**111**	**92**	**66**	**0**	**4**	**30**	**283**	**0**	**586**

Intersection Number: 2
Traffix Node Number: 2
Intersection Name: El Camino Real and Commodore Drive
Peak Hour: AM
Count Date: Sep-17

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**31**	**1966**	**19**	**18**	**9**	**46**	**116**	**1233**	**101**	**274**	**29**	**26**	**3868**
Approved Project Trips													
Mills Park Mixed-Use Development	0	18	0	0	0	0	0	28	0	0	0	0	46
160 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
271 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
Bayhill Specific Plan EIR Phase 1	0	30	0	0	0	0	0	52	0	0	0	0	82
1400-1450 Bayhill Drive	0	3	0	0	0	0	0	7	0	0	0	0	10
1100 El Camino Real (Millbrae)	0	1	0	0	0	0	0	1	0	0	0	0	2
Millbrae Station Area Specific Plan (Millbrae)	0	80	0	0	0	0	0	42	0	0	0	0	122
959 El Camino Real (Millbrae)	0	1	0	0	0	0	0	5	0	0	0	0	6
410 Noor Avenue (South San Francisco)	0	91	0	0	0	0	0	24	0	0	0	0	115
180 El Camino Real (South San Francisco)	0	25	0	0	0	0	0	37	0	0	0	0	62
Total Approved Trips	0	250	0	0	0	0	0	201	0	0	0	0	451
Background Conditions	**31**	**2216**	**19**	**18**	**9**	**46**	**116**	**1434**	**101**	**274**	**29**	**26**	**4319**
Project Trips	6	0	0	0	0	0	0	0	40	18	0	2	66
Existing Plus Project Conditions	**37**	**1966**	**19**	**18**	**9**	**46**	**116**	**1233**	**141**	**292**	**29**	**28**	**3934**
Background Plus Project Conditions	**37**	**2216**	**19**	**18**	**9**	**46**	**116**	**1434**	**141**	**292**	**29**	**28**	**4385**

Intersection Number: 3
Traffix Node Number: 3
Intersection Name: El Camino Real and I-380 WB Off-Ramps
Peak Hour: AM
Count Date: Sep-17

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**234**	**2052**	**0**	**673**	**0**	**484**	**306**	**777**	**0**	**0**	**0**	**0**	**4526**
	0												
Approved Project Trips													
Mills Park Mixed-Use Development	0	18	0	0	0	12	41	28	0	0	0	0	99
160 El Camino Real	0	0	0	0	0	1	2	0	0	0	0	0	3
271 El Camino Real	0	0	0	0	0	0	2	0	0	0	0	0	2
Bayhill Specific Plan EIR Phase 1	0	30	0	52	0	352	0	0	0	0	0	0	434
1400-1450 Bayhill Drive	0	3	0	7	0	49	1	0	0	0	0	0	60
1100 El Camino Real (Millbrae)	0	1	0	0	0	2	0	1	0	0	0	0	4
Millbrae Station Area Specific Plan (Millbrae)	0	80	0	0	0	40	22	42	0	0	0	0	184
959 El Camino Real (Millbrae)	0	1	0	0	0	1	2	5	0	0	0	0	9
410 Noor Avenue (South San Francisco)	37	54	0	12	0	0	0	12	0	0	0	0	115
180 El Camino Real (South San Francisco)	8	17	0	12	0	0	0	25	0	0	0	0	62
Total Approved Trips	45	205	0	83	0	457	72	118	0	0	0	0	980
Background Conditions	**279**	**2257**	**0**	**756**	**0**	**941**	**378**	**895**	**0**	**0**	**0**	**0**	**5506**
	0												
Project Trips	7	11	0	23	0	0	0	17	0	0	0	0	58
Existing Plus Project Conditions	**241**	**2063**	**0**	**696**	**0**	**484**	**306**	**794**	**0**	**0**	**0**	**0**	**4584**
	0												
Background Plus Project Conditions	**286**	**2268**	**0**	**779**	**0**	**941**	**378**	**912**	**0**	**0**	**0**	**0**	**5564**
	0												

Intersection Number: 4
Traffix Node Number: 4
Intersection Name: El Camino Real and I-380 EB Off-Ramps
Peak Hour: AM
Count Date: Sep-17

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**1072**	**1464**	**0**	**0**	**0**	**0**	**573**	**958**	**0**	**132**	**0**	**125**	**4324**
Approved Project Trips													
Mills Park Mixed-Use Development	0	30	0	0	0	0	0	69	0	12	0	0	111
160 El Camino Real	0	1	0	0	0	0	0	2	0	2	0	0	5
271 El Camino Real	0	0	0	0	0	0	0	2	0	1	0	0	3
Bayhill Specific Plan EIR Phase 1	0	382	0	0	0	0	0	0	0	86	0	0	468
1400-1450 Bayhill Drive	3	49	0	0	0	0	6	1	0	12	0	0	71
1100 El Camino Real (Millbrae)	0	3	0	0	0	0	4	1	0	0	0	0	8
Millbrae Station Area Specific Plan (Millbrae)	0	120	0	0	0	0	22	64	0	40	0	0	246
959 El Camino Real (Millbrae)	0	2	0	0	0	0	2	7	0	1	0	0	12
410 Noor Avenue (South San Francisco)	42	12	0	0	0	0	0	3	0	0	0	9	66
180 El Camino Real (South San Francisco)	9	8	0	0	0	0	0	13	0	0	0	12	42
Total Approved Trips	54	608	0	0	0	0	34	169	0	155	0	21	1041
Background Conditions	**1126**	**2072**	**0**	**0**	**0**	**0**	**607**	**1127**	**0**	**287**	**0**	**146**	**5365**
Project Trips	9	2	0	0	0	0	0	6	0	0	0	11	28
Existing Plus Project Conditions	**1081**	**1466**	**0**	**0**	**0**	**0**	**573**	**964**	**0**	**132**	**0**	**136**	**4352**
Background Plus Project Conditions	**1135**	**2074**	**0**	**0**	**0**	**0**	**607**	**1133**	**0**	**287**	**0**	**157**	**5393**

Intersection Number: 5
Traffix Node Number: 5
Intersection Name: El Camino Real and Sneath Lane
Peak Hour: AM
Count Date: Sep-17

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**228**	**1522**	**63**	**30**	**68**	**158**	**325**	**825**	**100**	**296**	**356**	**237**	**4208**
Approved Project Trips													
Mills Park Mixed-Use Development	0	18	0	0	0	0	0	28	0	0	0	0	46
160 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
271 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
Bayhill Specific Plan EIR Phase 1	38	30	0	0	0	0	0	0	52	0	0	0	120
1400-1450 Bayhill Drive	2	2	0	0	0	0	0	0	7	1	0	1	13
1100 El Camino Real (Millbrae)	0	1	0	0	0	0	0	1	0	0	0	0	2
Millbrae Station Area Specific Plan (Millbrae)	0	80	0	0	0	0	0	42	0	0	0	0	122
959 El Camino Real (Millbrae)	0	1	0	0	0	0	0	5	0	0	0	0	6
410 Noor Avenue (South San Francisco)	0	0	0	0	0	91	12	12	0	0	0	0	115
180 El Camino Real (South San Francisco)	0	25	0	0	0	0	0	37	0	0	0	0	62
Total Approved Trips	40	158	0	0	0	91	12	130	59	1	0	1	492
Background Conditions	**268**	**1680**	**63**	**30**	**68**	**249**	**337**	**955**	**159**	**297**	**356**	**238**	**4700**
Project Trips	0	6	0	0	0	0	0	2	0	0	0	0	8
Existing Plus Project Conditions	**228**	**1528**	**63**	**30**	**68**	**158**	**325**	**827**	**100**	**296**	**356**	**237**	**4216**
Background Plus Project Conditions	**268**	**1686**	**63**	**30**	**68**	**249**	**337**	**957**	**159**	**297**	**356**	**238**	**4708**

Intersection Number: 6
Traffix Node Number: 6
Intersection Name: El Camino Real and Bayhill Dirve
Peak Hour: AM
Count Date: Sep-17

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**407**	**1163**	**0**	**0**	**0**	**0**	**0**	**1363**	**32**	**26**	**0**	**168**	**3159**
Approved Project Trips													
Mills Park Mixed-Use Development	0	42	0	0	0	0	0	69	0	0	0	0	111
160 El Camino Real	0	3	0	0	0	0	0	2	0	0	0	0	5
271 El Camino Real	0	1	0	0	0	0	0	2	0	0	0	0	3
Bayhill Specific Plan EIR Phase 1	393	75	0	0	0	0	0	0	19	0	0	0	487
1400-1450 Bayhill Drive	49	12	0	0	0	0	0	1	1	0	0	6	69
1100 El Camino Real (Millbrae)	0	3	0	0	0	0	0	5	0	0	0	0	8
Millbrae Station Area Specific Plan (Millbrae)	0	160	0	0	0	0	0	86	0	0	0	0	246
959 El Camino Real (Millbrae)	0	3	0	0	0	0	0	9	0	0	0	0	12
410 Noor Avenue (South San Francisco)	0	12	0	0	0	0	0	3	0	0	0	0	15
180 El Camino Real (South San Francisco)	0	8	0	0	0	0	0	13	0	0	0	0	21
Total Approved Trips	442	321	0	0	0	0	0	197	20	0	0	6	986
Background Conditions	**849**	**1484**	**0**	**0**	**0**	**0**	**0**	**1560**	**52**	**26**	**0**	**174**	**4145**
Project Trips	0	2	0	0	0	0	0	6	0	0	0	0	8
Existing Plus Project Conditions	**407**	**1165**	**0**	**0**	**0**	**0**	**0**	**1369**	**32**	**26**	**0**	**168**	**3167**
Background Plus Project Conditions	**849**	**1486**	**0**	**0**	**0**	**0**	**0**	**1566**	**52**	**26**	**0**	**174**	**4153**

Intersection Number: 7
Traffix Node Number: 7
Intersection Name: Cherry Avenue and Commodore Drive
Peak Hour: AM
Count Date: 9/22/2022

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**26**	**250**	**52**	**20**	**9**	**43**	**40**	**189**	**36**	**34**	**23**	**63**	**785**
Approved Project Trips													
Mills Park Mixed-Use Development	0	0	0	0	0	0	0	0	0	0	0	0	0
160 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
271 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
Bayhill Specific Plan EIR Phase 1	0	202	0	0	0	0	0	0	0	0	0	0	202
1400-1450 Bayhill Drive	0	24	0	0	0	0	0	4	0	0	0	0	28
1100 El Camino Real (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
Millbrae Station Area Specific Plan (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
959 El Camino Real (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
410 Noor Avenue (South San Francisco)	0	0	0	0	0	0	0	0	0	0	0	0	0
180 El Camino Real (South San Francisco)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	226	0	0	0	0	0	4	0	0	0	0	230
Background Conditions	**26**	**476**	**52**	**20**	**9**	**43**	**40**	**193**	**36**	**34**	**23**	**63**	**1015**
Project Trips	0	0	0	2	0	0	0	0	0	0	0	0	2
Existing Plus Project Conditions	**26**	**250**	**52**	**22**	**9**	**43**	**40**	**189**	**36**	**34**	**23**	**63**	**787**
Background Plus Project Conditions	**26**	**476**	**52**	**22**	**9**	**43**	**40**	**193**	**36**	**34**	**23**	**63**	**1017**

Intersection Number: 8
Traffix Node Number: 8
Intersection Name: National Avenue and Sneath Lane
Peak Hour: AM
Count Date: 9/22/2022

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**0**	**0**	**0**	**0**	**364**	**32**	**45**	**0**	**66**	**93**	**870**	**0**	**1470**
Approved Project Trips													
Mills Park Mixed-Use Development	0	0	0	0	0	0	0	0	0	0	0	0	0
160 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
271 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
Bayhill Specific Plan EIR Phase 1	0	0	0	0	90	0	0	0	0	0	0	0	90
1400-1450 Bayhill Drive	0	0	0	0	9	0	0	0	0	0	2	0	11
1100 El Camino Real (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
Millbrae Station Area Specific Plan (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
959 El Camino Real (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
410 Noor Avenue (South San Francisco)	0	0	0	0	0	0	0	0	0	0	0	0	0
180 El Camino Real (South San Francisco)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	99	0	0	0	0	0	2	0	101
Background Conditions	**0**	**0**	**0**	**0**	**463**	**32**	**45**	**0**	**66**	**93**	**872**	**0**	**1571**
Project Trips	0	0	0	0	0	0	0	0	0	12	0	0	12
Existing Plus Project Conditions	**0**	**0**	**0**	**0**	**364**	**32**	**45**	**0**	**66**	**105**	**870**	**0**	**1482**
Background Plus Project Conditions	**0**	**0**	**0**	**0**	**463**	**32**	**45**	**0**	**66**	**105**	**872**	**0**	**1583**

Intersection Number: 1
Traffix Node Number: 1
Intersection Name: Admiral Court and Commodore Drive
Peak Hour: PM
Count Date: 9/22/2022

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**0**	**0**	**0**	**0**	**207**	**123**	**102**	**0**	**82**	**53**	**118**	**0**	**685**
Approved Project Trips													
Mills Park Mixed-Use Development	0	0	0	0	0	0	0	0	0	0	0	0	0
160 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
271 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
Bayhill Specific Plan EIR Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0
1400-1450 Bayhill Drive	0	0	0	0	0	0	0	0	0	0	0	0	0
1100 El Camino Real (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
Millbrae Station Area Specific Plan (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
959 El Camino Real (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
410 Noor Avenue (South San Francisco)	0	0	0	0	0	0	0	0	0	0	0	0	0
180 El Camino Real (South San Francisco)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	**0**	**0**	**0**	**0**	**207**	**123**	**102**	**0**	**82**	**53**	**118**	**0**	**685**
Net Project Trips	0	0	0	0	0	34	57	0	0	9	0	0	100
Existing Plus Project Conditions	**0**	**0**	**0**	**0**	**207**	**157**	**159**	**0**	**82**	**62**	**118**	**0**	**785**
Background Plus Project Conditions	**0**	**0**	**0**	**0**	**207**	**157**	**159**	**0**	**82**	**62**	**118**	**0**	**785**

Intersection Number: 2
Traffix Node Number: 2
Intersection Name: El Camino Real and Commodore Drive
Peak Hour: PM
Count Date: Sep-17

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**56**	**1630**	**72**	**98**	**41**	**237**	**427**	**2114**	**233**	**143**	**22**	**55**	**5128**
Approved Project Trips													
Mills Park Mixed-Use Development	0	26	0	0	0	0	0	21	0	0	0	0	47
160 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
271 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
Bayhill Specific Plan EIR Phase 1	0	73	0	0	0	0	0	31	0	0	0	0	104
1400-1450 Bayhill Drive	0	9	0	0	0	0	0	2	0	0	0	0	11
1100 El Camino Real (Millbrae)	0	2	0	0	0	0	0	2	0	0	0	0	4
Millbrae Station Area Specific Plan (Millbrae)	0	44	0	0	0	0	0	82	0	0	0	0	126
959 El Camino Real (Millbrae)	0	2	0	0	0	0	0	2	0	0	0	0	4
410 Noor Avenue (South San Francisco)	0	48	0	0	0	0	0	90	0	0	0	0	138
180 El Camino Real (South San Francisco)	0	35	0	0	0	0	0	14	0	0	0	0	49
Total Approved Trips	0	245	0	0	0	0	0	247	0	0	0	0	492
Background Conditions	**56**	**1875**	**72**	**98**	**41**	**237**	**427**	**2361**	**233**	**143**	**22**	**55**	**5620**
Net Project Trips	4	0	0	0	0	0	0	0	30	51	0	6	91
Existing Plus Project Conditions	**60**	**1630**	**72**	**98**	**41**	**237**	**427**	**2114**	**263**	**194**	**22**	**61**	**5219**
Background Plus Project Conditions	**60**	**1875**	**72**	**98**	**41**	**237**	**427**	**2361**	**263**	**194**	**22**	**61**	**5711**

Intersection Number: 3
Traffix Node Number: 3
Intersection Name: El Camino Real and I-380 WB Off-Ramps
Peak Hour: PM
Count Date: Sep-17

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**352**	**1658**	**0**	**1212**	**0**	**480**	**318**	**1562**	**0**	**0**	**0**	**0**	**5582**
	0												
Approved Project Trips													
Mills Park Mixed-Use Development	0	26	0	0	0	18	31	21	0	0	0	0	96
160 El Camino Real	0	0	0	0	0	2	3	0	0	0	0	0	5
271 El Camino Real	0	0	0	0	0	1	2	0	0	0	0	0	3
Bayhill Specific Plan EIR Phase 1	0	73	0	0	0	0	87	31	0	0	0	0	191
1400-1450 Bayhill Drive	0	9	0	1	0	9	7	1	0	0	0	0	27
1100 El Camino Real (Millbrae)	0	2	0	0	0	5	0	2	0	0	0	0	9
Millbrae Station Area Specific Plan (Millbrae)	0	44	0	0	0	21	42	82	0	0	0	0	189
959 El Camino Real (Millbrae)	0	2	0	0	0	2	1	2	0	0	0	0	7
410 Noor Avenue (South San Francisco)	19	29	0	42	0	0	0	48	0	0	0	0	138
180 El Camino Real (South San Francisco)	11	24	0	5	0	0	0	9	0	0	0	0	49
Total Approved Trips	30	215	0	48	0	58	175	199	0	0	0	0	725
Background Conditions	**382**	**1873**	**0**	**1260**	**0**	**538**	**493**	**1761**	**0**	**0**	**0**	**0**	**6307**
	0												
Net Project Trips	19	32	0	17	0	0	0	13	0	0	0	0	81
Existing Plus Project Conditions	**371**	**1690**	**0**	**1229**	**0**	**480**	**318**	**1575**	**0**	**0**	**0**	**0**	**5663**
	0												
Background Plus Project Conditions	**401**	**1905**	**0**	**1277**	**0**	**538**	**493**	**1774**	**0**	**0**	**0**	**0**	**6388**
	0												

Intersection Number: 4
Traffix Node Number: 4
Intersection Name: El Camino Real and I-380 EB Off-Ramps
Peak Hour: PM
Count Date: Sep-17

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**703**	**1435**	**0**	**0**	**0**	**0**	**506**	**1602**	**0**	**376**	**0**	**278**	**4900**
Approved Project Trips													
Mills Park Mixed-Use Development	0	44	0	0	0	0	0	52	0	18	0	0	114
160 El Camino Real	0	2	0	0	0	0	0	3	0	2	0	0	7
271 El Camino Real	0	1	0	0	0	0	0	2	0	1	0	0	4
Bayhill Specific Plan EIR Phase 1	73	0	0	0	0	0	307	118	0	0	0	0	498
1400-1450 Bayhill Drive	9	9	0	0	0	0	40	8	0	2	0	0	68
1100 El Camino Real (Millbrae)	0	7	0	0	0	0	5	2	0	0	0	0	14
Millbrae Station Area Specific Plan (Millbrae)	0	65	0	0	0	0	42	124	0	21	0	0	252
959 El Camino Real (Millbrae)	0	4	0	0	0	0	1	3	0	2	0	0	10
410 Noor Avenue (South San Francisco)	22	7	0	0	0	0	0	12	0	0	0	36	77
180 El Camino Real (South San Francisco)	12	12	0	0	0	0	0	4	0	0	0	5	33
Total Approved Trips	116	157	0	0	0	0	395	333	0	49	0	41	1091
Background Conditions	**819**	**1592**	**0**	**0**	**0**	**0**	**901**	**1935**	**0**	**425**	**0**	**319**	**5991**
Net Project Trips	26	6	0	0	0	0	0	4	0	0	0	9	45
Existing Plus Project Conditions	**729**	**1441**	**0**	**0**	**0**	**0**	**506**	**1606**	**0**	**376**	**0**	**287**	**4945**
Background Plus Project Conditions	**845**	**1598**	**0**	**0**	**0**	**0**	**901**	**1939**	**0**	**425**	**0**	**328**	**6036**

Intersection Number: 5
Traffix Node Number: 5
Intersection Name: El Camino Real and Sneath Lane
Peak Hour: PM
Count Date: Sep-17

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**332**	**1073**	**103**	**151**	**399**	**475**	**340**	**1673**	**270**	**188**	**277**	**366**	**5647**
Approved Project Trips													
Mills Park Mixed-Use Development	0	26	0	0	0	0	0	21	0	0	0	0	47
160 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
271 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
Bayhill Specific Plan EIR Phase 1	0	0	0	0	0	0	0	31	0	73	0	40	144
1400-1450 Bayhill Drive	1	0	0	0	0	0	0	1	1	9	0	2	14
1100 El Camino Real (Millbrae)	0	2	0	0	0	0	0	2	0	0	0	0	4
Millbrae Station Area Specific Plan (Millbrae)	0	44	0	0	0	0	0	82	0	0	0	0	126
959 El Camino Real (Millbrae)	0	2	0	0	0	0	0	2	0	0	0	0	4
410 Noor Avenue (South San Francisco)	0	0	0	0	0	48	45	45	0	0	0	0	138
180 El Camino Real (South San Francisco)	0	35	0	0	0	0	0	14	0	0	0	0	49
Total Approved Trips	1	115	0	0	0	48	45	201	1	82	0	42	535
Background Conditions	**333**	**1188**	**103**	**151**	**399**	**523**	**385**	**1874**	**271**	**270**	**277**	**408**	**6182**
Net Project Trips	0	4	0	0	0	0	0	6	0	0	0	0	10
Existing Plus Project Conditions	**332**	**1077**	**103**	**151**	**399**	**475**	**340**	**1679**	**270**	**188**	**277**	**366**	**5657**
Background Plus Project Conditions	**333**	**1192**	**103**	**151**	**399**	**523**	**385**	**1880**	**271**	**270**	**277**	**408**	**6192**

Intersection Number: 6
Traffix Node Number: 6
Intersection Name: El Camino Real and Bayhill Dirve
Peak Hour: PM
Count Date: Sep-17

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**185**	**1590**	**0**	**0**	**0**	**0**	**0**	**1670**	**27**	**68**	**0**	**417**	**3957**
Approved Project Trips													
Mills Park Mixed-Use Development	0	62	0	0	0	0	0	52	0	0	0	0	114
160 El Camino Real	0	4	0	0	0	0	0	3	0	0	0	0	7
271 El Camino Real	0	2	0	0	0	0	0	2	0	0	0	0	4
Bayhill Specific Plan EIR Phase 1	0	0	0	0	0	0	0	115	0	14	0	310	439
1400-1450 Bayhill Drive	9	2	0	0	0	0	0	8	0	1	0	40	60
1100 El Camino Real (Millbrae)	0	7	0	0	0	0	0	7	0	0	0	0	14
Millbrae Station Area Specific Plan (Millbrae)	0	86	0	0	0	0	0	166	0	0	0	0	252
959 El Camino Real (Millbrae)	0	6	0	0	0	0	0	4	0	0	0	0	10
410 Noor Avenue (South San Francisco)	0	7	0	0	0	0	0	12	0	0	0	0	19
180 El Camino Real (South San Francisco)	0	12	0	0	0	0	0	4	0	0	0	0	16
Total Approved Trips	9	197	0	0	0	0	0	378	0	15	0	350	949
Background Conditions	**194**	**1787**	**0**	**0**	**0**	**0**	**0**	**2048**	**27**	**83**	**0**	**767**	**4906**
Net Project Trips	0	6	0	0	0	0	0	4	0	0	0	0	10
Existing Plus Project Conditions	**185**	**1596**	**0**	**0**	**0**	**0**	**0**	**1674**	**27**	**68**	**0**	**417**	**3967**
Background Plus Project Conditions	**194**	**1793**	**0**	**0**	**0**	**0**	**0**	**2052**	**27**	**83**	**0**	**767**	**4916**

Intersection Number: 7
Traffix Node Number: 7
Intersection Name: Cherry Avenue and Commodore Drive
Peak Hour: PM
Count Date: 9/22/2022

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**54**	**191**	**28**	**26**	**20**	**50**	**32**	**199**	**45**	**17**	**7**	**43**	**712**
Approved Project Trips													
Mills Park Mixed-Use Development	0	0	0	0	0	0	0	0	0	0	0	0	0
160 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
271 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
Bayhill Specific Plan EIR Phase 1	0	0	0	0	0	0	0	228	0	0	0	0	228
1400-1450 Bayhill Drive	0	5	0	0	0	0	0	21	0	0	0	0	26
1100 El Camino Real (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
Millbrae Station Area Specific Plan (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
959 El Camino Real (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
410 Noor Avenue (South San Francisco)	0	0	0	0	0	0	0	0	0	0	0	0	0
180 El Camino Real (South San Francisco)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	5	0	0	0	0	0	249	0	0	0	0	254
Background Conditions	**54**	**196**	**28**	**26**	**20**	**50**	**32**	**448**	**45**	**17**	**7**	**43**	**966**
Net Project Trips	0	0	0	6	0	0	0	0	0	0	0	0	6
Existing Plus Project Conditions	**54**	**191**	**28**	**32**	**20**	**50**	**32**	**199**	**45**	**17**	**7**	**43**	**718**
Background Plus Project Conditions	**54**	**196**	**28**	**32**	**20**	**50**	**32**	**448**	**45**	**17**	**7**	**43**	**972**

Intersection Number: 8
Traffix Node Number: 8
Intersection Name: National Avenue and Sneath Lane
Peak Hour: PM
Count Date: 9/22/2022

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**0**	**0**	**0**	**0**	**951**	**50**	**45**	**0**	**65**	**72**	**786**	**0**	**1969**
Approved Project Trips													
Mills Park Mixed-Use Development	0	0	0	0	0	0	0	0	0	0	0	0	0
160 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
271 El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0
Bayhill Specific Plan EIR Phase 1	0	0	0	0	0	0	0	0	0	0	113	0	113
1400-1450 Bayhill Drive	0	0	0	0	2	0	0	0	0	0	11	0	13
1100 El Camino Real (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
Millbrae Station Area Specific Plan (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
959 El Camino Real (Millbrae)	0	0	0	0	0	0	0	0	0	0	0	0	0
410 Noor Avenue (South San Francisco)	0	0	0	0	0	0	0	0	0	0	0	0	0
180 El Camino Real (South San Francisco)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	2	0	0	0	0	0	124	0	126
Background Conditions	**0**	**0**	**0**	**0**	**953**	**50**	**45**	**0**	**65**	**72**	**910**	**0**	**2095**
Net Project Trips	0	0	0	0	0	0	0	0	0	9	0	0	9
Existing Plus Project Conditions	**0**	**0**	**0**	**0**	**951**	**50**	**45**	**0**	**65**	**81**	**786**	**0**	**1978**
Background Plus Project Conditions	**0**	**0**	**0**	**0**	**953**	**50**	**45**	**0**	**65**	**81**	**910**	**0**	**2104**

Appendix C
Level of Service Calculations

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Yield	Stop	
Traffic Volume (vph)	283	18	46	111	4	46
Future Volume (vph)	283	18	46	111	4	46
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	308	20	50	121	4	50

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	328	90	81	4	50
Volume Left (vph)	0	50	0	4	0
Volume Right (vph)	20	0	0	0	50
Hadj (s)	0.05	0.38	0.10	0.53	-0.67
Departure Headway (s)	4.7	5.3	5.0	6.2	5.0
Degree Utilization, x	0.43	0.13	0.11	0.01	0.07
Capacity (veh/h)	758	663	700	536	655
Control Delay (s)	11.1	7.9	7.4	8.1	7.2
Approach Delay (s)	11.1	7.7		7.2	
Approach LOS	B	A		A	

Intersection Summary			
Delay	9.7		
Level of Service	A		
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	484	673	777	306	0	2052
Future Volume (vph)	484	673	777	306	0	2052
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	4.4	4.4		4.4
Lane Util. Factor	0.97	0.88	0.91	1.00		0.91
Frt	1.00	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3400	2760	5036	1568		5036
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3400	2760	5036	1568		5036
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	499	694	801	315	0	2115
RTOR Reduction (vph)	0	113	0	127	0	0
Lane Group Flow (vph)	499	581	801	188	0	2115
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	custom	NA	Perm		NA
Protected Phases	4	4 5	6			2
Permitted Phases				6		
Actuated Green, G (s)	28.9	40.5	71.5	71.5		82.1
Effective Green, g (s)	28.9	40.5	71.5	71.5		82.1
Actuated g/C Ratio	0.24	0.34	0.60	0.60		0.68
Clearance Time (s)	4.6		4.4	4.4		4.4
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	818	931	3000	934		3445
v/s Ratio Prot	0.15	c0.21	0.16			c0.42
v/s Ratio Perm				0.12		
v/c Ratio	0.61	0.62	0.27	0.20		0.61
Uniform Delay, d1	40.5	33.4	11.7	11.1		10.3
Progression Factor	1.00	1.00	0.46	0.70		0.36
Incremental Delay, d2	1.4	1.3	0.2	0.4		0.6
Delay (s)	41.9	34.7	5.6	8.2		4.3
Level of Service	D	C	A	A		A
Approach Delay (s)	37.7		6.3			4.3
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.6
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	29	274	46	9	18	101	1233	116	19	1966	31
Future Volume (veh/h)	26	29	274	46	9	18	101	1233	116	19	1966	31
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	27	30	26	47	9	1	104	1271	81	20	2027	31
Adj No. of Lanes	0	1	1	1	1	0	2	4	1	2	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	105	173	176	163	18	172	4623	982	84	3077	47
Arrive On Green	0.11	0.11	0.11	0.10	0.10	0.10	0.03	0.42	0.42	0.02	0.60	0.60
Sat Flow, veh/h	862	958	1583	1774	1647	183	3548	7451	1583	3442	5160	79
Grp Volume(v), veh/h	57	0	26	47	0	10	104	1271	81	20	1331	727
Grp Sat Flow(s),veh/h/ln	1820	0	1583	1774	0	1830	1774	1863	1583	1721	1695	1849
Q Serve(g_s), s	3.5	0.0	1.8	2.9	0.0	0.6	3.5	13.5	3.7	0.7	31.3	31.4
Cycle Q Clear(g_c), s	3.5	0.0	1.8	2.9	0.0	0.6	3.5	13.5	3.7	0.7	31.3	31.4
Prop In Lane	0.47		1.00	1.00		0.10	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	199	0	173	176	0	182	172	4623	982	84	2022	1103
V/C Ratio(X)	0.29	0.00	0.15	0.27	0.00	0.06	0.61	0.27	0.08	0.24	0.66	0.66
Avail Cap(c_a), veh/h	271	0	236	649	0	670	266	4623	982	258	2022	1103
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.89	0.89	0.89	0.73	0.73	0.73
Uniform Delay (d), s/veh	49.1	0.0	48.4	50.0	0.0	49.0	56.9	17.3	14.4	57.4	16.1	16.1
Incr Delay (d2), s/veh	0.8	0.0	0.4	0.8	0.0	0.1	3.0	0.1	0.1	1.1	1.2	2.3
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	1.8	0.0	0.8	1.5	0.0	0.3	1.8	7.0	1.7	0.3	15.0	16.6
LnGrp Delay(d),s/veh	49.9	0.0	48.8	50.8	0.0	49.1	59.9	17.4	14.5	58.5	17.3	18.4
LnGrp LOS	D		D	D		D	E	B	B	E	B	B
Approach Vol, veh/h		83			57			1456			2078	
Approach Delay, s/veh		49.6			50.5			20.3			18.1	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.8	77.0		16.5	5.9	79.9		17.7
Change Period (Y+Rc), s	3.0	5.4		4.6	3.0	5.4		4.6
Max Green Setting (Gmax), s	9.0	31.6		43.9	9.0	31.6		17.9
Max Q Clear Time (g_c+I1), s	5.5	33.4		4.9	2.7	15.5		5.5
Green Ext Time (p_c), s	0.1	0.0		0.2	0.0	8.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	20.2
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	0	132	0	0	0	0	1531	0	0	1464	1072
Future Volume (veh/h)	125	0	132	0	0	0	0	1531	0	0	1464	1072
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1900	1845	1900	0	1845	0	0	1845	1900
Adj Flow Rate, veh/h	133	0	140	0	0	0	0	1629	0	0	1557	1140
Adj No. of Lanes	2	1	0	0	1	0	0	3	0	0	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	0	3	0	0	3	3
Cap, veh/h	377	0	173	0	2	0	0	4101	0	0	2734	1277
Arrive On Green	0.11	0.00	0.11	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00
Sat Flow, veh/h	3408	0	1568	0	1845	0	0	5368	0	0	3523	1568
Grp Volume(v), veh/h	133	0	140	0	0	0	0	1629	0	0	1557	1140
Grp Sat Flow(s),veh/h/ln	1704	0	1568	0	1845	0	0	1679	0	0	1679	1568
Q Serve(g_s), s	4.3	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.3	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	0.00		0.00	0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	377	0	173	0	2	0	0	4101	0	0	2734	1277
V/C Ratio(X)	0.35	0.00	0.81	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.57	0.89
Avail Cap(c_a), veh/h	594	0	273	0	461	0	0	4101	0	0	2734	1277
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.94	0.00	0.00	0.75	0.75
Uniform Delay (d), s/veh	49.4	0.0	52.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	9.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.7	7.6
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	2.1	0.0	5.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	2.7
LnGrp Delay(d),s/veh	50.0	0.0	61.4	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.7	7.6
LnGrp LOS	D		E					A			A	A
Approach Vol, veh/h		273			0			1629			2697	
Approach Delay, s/veh		55.8			0.0			0.3			3.6	
Approach LOS		E						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		102.1		0.0		102.1		17.9
Change Period (Y+Rc), s		4.4		4.6		4.4		4.6
Max Green Setting (Gmax), s		55.5		30.0		55.5		20.9
Max Q Clear Time (g_c+I1), s		2.0		0.0		2.0		12.5
Green Ext Time (p_c), s		43.3		0.0		19.8		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	5.5
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	237	356	296	158	68	30	100	825	325	63	1522	228
Future Volume (veh/h)	237	356	296	158	68	30	100	825	325	63	1522	228
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	249	375	312	166	72	32	105	868	342	66	1602	240
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	818	842	377	252	260	116	158	2649	825	110	2557	796
Arrive On Green	0.24	0.24	0.24	0.07	0.07	0.07	0.03	0.35	0.35	0.03	0.50	0.50
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	249	375	312	166	72	32	105	868	342	66	1602	240
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	7.1	10.8	22.4	5.6	2.3	2.3	3.6	15.1	19.7	2.3	27.4	10.7
Cycle Q Clear(g_c), s	7.1	10.8	22.4	5.6	2.3	2.3	3.6	15.1	19.7	2.3	27.4	10.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	818	842	377	252	260	116	158	2649	825	110	2557	796
V/C Ratio(X)	0.30	0.45	0.83	0.66	0.28	0.28	0.66	0.33	0.41	0.60	0.63	0.30
Avail Cap(c_a), veh/h	1139	1171	524	252	260	116	258	2649	825	272	2557	796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	39.0	43.4	54.1	52.6	52.6	57.2	23.6	25.1	57.3	21.7	17.5
Incr Delay (d2), s/veh	0.2	0.3	5.9	6.1	0.6	1.3	4.5	0.3	1.5	5.1	1.2	1.0
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	3.4	5.3	10.4	2.9	1.2	1.0	1.8	7.1	9.0	1.2	13.0	4.9
LnGrp Delay(d),s/veh	37.7	39.3	49.3	60.2	53.2	53.9	61.7	23.9	26.6	62.4	22.8	18.5
LnGrp LOS	D	D	D	E	D	D	E	C	C	E	C	B
Approach Vol, veh/h		936			270			1315			1908	
Approach Delay, s/veh		42.2			57.6			27.6			23.6	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.5	64.7		32.7	7.3	66.9		13.0
Change Period (Y+Rc), s	4.0	4.4		* 4.2	3.5	4.4		4.2
Max Green Setting (Gmax), s	9.0	45.7		* 40	9.5	45.7		8.8
Max Q Clear Time (g_c+I1), s	5.6	29.4		24.4	4.3	21.7		7.6
Green Ext Time (p_c), s	0.1	11.1		4.1	0.1	8.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	30.8
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	168	26	32	1363	1163	407
Future Volume (veh/h)	168	26	32	1363	1163	407
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1845	1845	1845	1900
Adj Flow Rate, veh/h	194	0	32	1377	1175	411
Adj No. of Lanes	2	1	1	3	3	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	409	188	40	4114	2835	991
Arrive On Green	0.12	0.00	0.02	0.82	1.00	1.00
Sat Flow, veh/h	3514	1615	1757	5202	3852	1288
Grp Volume(v), veh/h	194	0	32	1377	1070	516
Grp Sat Flow(s),veh/h/ln	1757	1615	1757	1679	1679	1617
Q Serve(g_s), s	6.2	0.0	2.2	8.3	0.0	0.0
Cycle Q Clear(g_c), s	6.2	0.0	2.2	8.3	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.80
Lane Grp Cap(c), veh/h	409	188	40	4114	2582	1244
V/C Ratio(X)	0.47	0.00	0.80	0.33	0.41	0.41
Avail Cap(c_a), veh/h	1066	490	146	4114	2582	1244
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.79	0.79	0.54	0.54
Uniform Delay (d), s/veh	49.6	0.0	58.3	2.8	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	23.6	0.2	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	1.3	3.8	0.1	0.2
LnGrp Delay(d),s/veh	50.4	0.0	82.0	2.9	0.3	0.6
LnGrp LOS	D		F	A	A	A
Approach Vol, veh/h	194			1409	1586	
Approach Delay, s/veh	50.4			4.7	0.4	
Approach LOS	D			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	5.7	96.7				102.4		17.6
Change Period (Y+Rc), s	3.0	4.4				4.4		3.6
Max Green Setting (Gmax), s	10.0	62.6				75.6		36.4
Max Q Clear Time (g_c+I1), s	4.2	2.0				10.3		8.2
Green Ext Time (p_c), s	0.0	18.8				15.4		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	5.3
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	63	23	34	43	9	20	36	189	40	52	250	26
Future Vol, veh/h	63	23	34	43	9	20	36	189	40	52	250	26
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	9	9	9	37	37	37	9	9	9
Mvmt Flow	67	24	36	46	10	21	38	201	43	55	266	28
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	10.9	10.4	10.4	10.1
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	53%	60%	100%	0%	0%
Vol Thru, %	0%	100%	61%	19%	12%	0%	100%	76%
Vol Right, %	0%	0%	39%	28%	28%	0%	0%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	126	103	120	72	52	167	109
LT Vol	36	0	0	63	43	52	0	0
Through Vol	0	126	63	23	9	0	167	83
RT Vol	0	0	40	34	20	0	0	26
Lane Flow Rate	38	134	110	128	77	55	177	116
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.072	0.233	0.182	0.224	0.14	0.096	0.282	0.18
Departure Headway (Hd)	6.773	6.267	5.992	6.322	6.581	6.237	5.731	5.563
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	530	574	600	569	545	576	628	647
Service Time	4.498	3.991	3.716	4.051	4.312	3.959	3.453	3.285
HCM Lane V/C Ratio	0.072	0.233	0.183	0.225	0.141	0.095	0.282	0.179
HCM Control Delay	10	10.9	10	10.9	10.4	9.6	10.7	9.5
HCM Lane LOS	A	B	A	B	B	A	B	A
HCM 95th-tile Q	0.2	0.9	0.7	0.9	0.5	0.3	1.2	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	870	93	32	364	66	45
Future Volume (veh/h)	870	93	32	364	66	45
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1900	1810	1810	1863	1863
Adj Flow Rate, veh/h	916	98	34	383	69	47
Adj No. of Lanes	3	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	5	5	2	2
Cap, veh/h	1337	143	93	1437	835	746
Arrive On Green	0.31	0.31	0.05	0.42	0.47	0.47
Sat Flow, veh/h	4443	457	1723	3529	1774	1583
Grp Volume(v), veh/h	665	349	34	383	69	47
Grp Sat Flow(s),veh/h/ln	1558	1631	1723	1719	1774	1583
Q Serve(g_s), s	14.3	14.3	1.5	5.6	1.6	1.2
Cycle Q Clear(g_c), s	14.3	14.3	1.5	5.6	1.6	1.2
Prop In Lane		0.28	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	971	509	93	1437	835	746
V/C Ratio(X)	0.68	0.69	0.37	0.27	0.08	0.06
Avail Cap(c_a), veh/h	1243	651	248	2046	835	746
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.0	23.0	34.9	14.6	11.1	11.0
Incr Delay (d2), s/veh	1.4	2.7	2.4	0.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	6.8	0.8	2.6	0.8	0.6
LnGrp Delay(d),s/veh	24.4	25.8	37.3	14.7	11.3	11.2
LnGrp LOS	C	C	D	B	B	B
Approach Vol, veh/h	1014			417	116	
Approach Delay, s/veh	24.9			16.6	11.3	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.1	28.3				36.5		40.0
Change Period (Y+Rc), s	4.0	4.5				4.5		4.0
Max Green Setting (Gmax), s	11.0	30.5				45.5		36.0
Max Q Clear Time (g_c+I1), s	3.5	16.3				7.6		3.6
Green Ext Time (p_c), s	0.0	7.5				4.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.6
HCM 2010 LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Yield	Stop	
Traffic Volume (vph)	118	53	123	207	82	102
Future Volume (vph)	118	53	123	207	82	102
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	126	56	131	220	87	109

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	182	204	147	87	109
Volume Left (vph)	0	131	0	87	0
Volume Right (vph)	56	0	0	0	109
Hadj (s)	-0.15	0.35	0.03	0.53	-0.67
Departure Headway (s)	5.1	5.6	5.3	6.4	5.1
Degree Utilization, x	0.26	0.32	0.22	0.15	0.16
Capacity (veh/h)	668	619	657	533	649
Control Delay (s)	9.9	10.0	8.5	9.3	7.9
Approach Delay (s)	9.9	9.4		8.5	
Approach LOS	A	A		A	

Intersection Summary			
Delay	9.3		
Level of Service	A		
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	480	1212	1562	318	0	1658
Future Volume (vph)	480	1212	1562	318	0	1658
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	4.4	4.4		4.4
Lane Util. Factor	0.97	0.88	0.91	1.00		0.91
Frt	1.00	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3433	2787	5085	1583		5085
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3433	2787	5085	1583		5085
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	500	1262	1627	331	0	1727
RTOR Reduction (vph)	0	3	0	144	0	0
Lane Group Flow (vph)	500	1260	1627	187	0	1727
Turn Type	Prot	custom	NA	Perm		NA
Protected Phases	4	4 5	6			2
Permitted Phases				6		
Actuated Green, G (s)	67.6	80.5	61.5	61.5		73.4
Effective Green, g (s)	67.6	80.5	61.5	61.5		73.4
Actuated g/C Ratio	0.45	0.54	0.41	0.41		0.49
Clearance Time (s)	4.6		4.4	4.4		4.4
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	1547	1495	2084	649		2488
v/s Ratio Prot	0.15	c0.45	c0.32			0.34
v/s Ratio Perm				0.12		
v/c Ratio	0.32	0.84	0.78	0.29		0.69
Uniform Delay, d1	26.5	29.4	38.4	29.6		29.6
Progression Factor	1.00	1.00	0.80	0.65		0.43
Incremental Delay, d2	0.1	4.5	2.4	0.9		1.3
Delay (s)	26.6	33.9	33.0	20.1		14.1
Level of Service	C	C	C	C		B
Approach Delay (s)	31.8		30.8			14.1
Approach LOS	C		C			B

Intersection Summary			
HCM 2000 Control Delay	25.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.6
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	22	143	237	41	98	233	2114	427	72	1630	56
Future Volume (veh/h)	55	22	143	237	41	98	233	2114	427	72	1630	56
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	56	22	11	242	42	33	238	2157	338	73	1663	55
Adj No. of Lanes	0	1	1	1	1	0	2	4	1	2	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	118	46	144	274	149	117	283	4465	949	131	2820	93
Arrive On Green	0.09	0.09	0.09	0.15	0.15	0.15	0.16	1.00	1.00	0.08	1.00	1.00
Sat Flow, veh/h	1291	507	1583	1774	968	761	3548	7451	1583	3442	5056	167
Grp Volume(v), veh/h	78	0	11	242	0	75	238	2157	338	73	1115	603
Grp Sat Flow(s),veh/h/ln	1798	0	1583	1774	0	1729	1774	1863	1583	1721	1695	1833
Q Serve(g_s), s	6.2	0.0	1.0	20.0	0.0	5.8	9.8	0.0	0.0	3.1	0.0	0.0
Cycle Q Clear(g_c), s	6.2	0.0	1.0	20.0	0.0	5.8	9.8	0.0	0.0	3.1	0.0	0.0
Prop In Lane	0.72		1.00	1.00		0.44	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	164	0	144	274	0	267	283	4465	949	131	1891	1023
V/C Ratio(X)	0.48	0.00	0.08	0.88	0.00	0.28	0.84	0.48	0.36	0.56	0.59	0.59
Avail Cap(c_a), veh/h	249	0	220	513	0	500	331	4465	949	174	1891	1023
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.48	0.48	0.48	0.78	0.78	0.78
Uniform Delay (d), s/veh	64.8	0.0	62.4	62.1	0.0	56.1	62.1	0.0	0.0	68.1	0.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	0.2	9.2	0.0	0.6	8.2	0.2	0.5	2.9	1.1	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	3.2	0.0	0.4	10.5	0.0	2.8	5.1	0.1	0.1	1.5	0.3	0.6
LnGrp Delay(d),s/veh	66.9	0.0	62.6	71.4	0.0	56.7	70.3	0.2	0.5	70.9	1.1	2.0
LnGrp LOS	E		E	E		E	E	A	A	E	A	A
Approach Vol, veh/h		89			317			2733			1791	
Approach Delay, s/veh		66.4			67.9			6.3			4.2	
Approach LOS		E			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.9	89.1		27.7	8.7	95.3		18.3
Change Period (Y+Rc), s	3.0	5.4		4.6	3.0	5.4		4.6
Max Green Setting (Gmax), s	14.0	54.2		43.4	7.6	60.6		20.8
Max Q Clear Time (g_c+I1), s	11.8	2.0		22.0	5.1	2.0		8.2
Green Ext Time (p_c), s	0.2	20.0		1.1	0.0	36.6		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	278	0	376	0	0	0	0	2108	0	0	1435	703
Future Volume (veh/h)	278	0	376	0	0	0	0	2108	0	0	1435	703
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1900	0	1863	0	0	1863	1900
Adj Flow Rate, veh/h	293	0	396	0	0	0	0	2219	0	0	1511	740
Adj No. of Lanes	2	1	0	0	1	0	0	3	0	0	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	0	0	2	2
Cap, veh/h	629	0	289	0	1	0	0	3851	0	0	2568	1199
Arrive On Green	0.18	0.00	0.18	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00
Sat Flow, veh/h	3442	0	1583	0	1863	0	0	5421	0	0	3558	1583
Grp Volume(v), veh/h	293	0	396	0	0	0	0	2219	0	0	1511	740
Grp Sat Flow(s),veh/h/ln	1721	0	1583	0	1863	0	0	1695	0	0	1695	1583
Q Serve(g_s), s	11.4	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.4	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	0.00		0.00	0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	629	0	289	0	1	0	0	3851	0	0	2568	1199
V/C Ratio(X)	0.47	0.00	1.37	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.59	0.62
Avail Cap(c_a), veh/h	629	0	289	0	373	0	0	3851	0	0	2568	1199
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.76	0.76
Uniform Delay (d), s/veh	54.8	0.0	61.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	186.7	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.8	1.8
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	5.5	0.0	27.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.3	0.6
LnGrp Delay(d),s/veh	55.3	0.0	248.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.8	1.8
LnGrp LOS	E		F					A			A	A
Approach Vol, veh/h		689			0			2219			2251	
Approach Delay, s/veh		166.0			0.0			0.5			1.1	
Approach LOS		F						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		118.0		0.0		118.0		32.0
Change Period (Y+Rc), s		4.4		4.6		4.4		4.6
Max Green Setting (Gmax), s		79.0		30.0		79.0		27.4
Max Q Clear Time (g_c+I1), s		2.0		0.0		2.0		29.4
Green Ext Time (p_c), s		39.9		0.0		39.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	366	277	188	475	399	151	270	1673	340	103	1073	332
Future Volume (veh/h)	366	277	188	475	399	151	270	1673	340	103	1073	332
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	377	286	194	490	411	156	278	1725	351	106	1106	342
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	539	555	248	568	584	261	325	2651	825	150	2375	740
Arrive On Green	0.16	0.16	0.16	0.17	0.17	0.17	0.19	1.00	1.00	0.04	0.47	0.47
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	377	286	194	490	411	156	278	1725	351	106	1106	342
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	15.6	11.1	17.7	20.8	16.5	13.7	11.7	0.0	0.0	4.6	22.2	22.0
Cycle Q Clear(g_c), s	15.6	11.1	17.7	20.8	16.5	13.7	11.7	0.0	0.0	4.6	22.2	22.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	539	555	248	568	584	261	325	2651	825	150	2375	740
V/C Ratio(X)	0.70	0.52	0.78	0.86	0.70	0.60	0.86	0.65	0.43	0.71	0.47	0.46
Avail Cap(c_a), veh/h	895	920	412	615	632	283	436	2651	825	218	2375	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.9	58.0	60.8	61.0	59.2	58.0	59.8	0.0	0.0	70.8	27.2	27.2
Incr Delay (d2), s/veh	1.4	0.6	4.6	11.4	3.2	3.0	8.7	0.9	1.1	5.9	0.7	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	7.5	5.5	8.0	10.8	8.3	6.2	6.0	0.2	0.3	2.3	10.5	10.0
LnGrp Delay(d),s/veh	61.3	58.7	65.3	72.4	62.4	61.0	68.6	0.9	1.1	76.7	27.9	29.2
LnGrp LOS	E	E	E	E	E	E	E	A	A	E	C	C
Approach Vol, veh/h		857			1057			2354			1554	
Approach Delay, s/veh		61.3			66.8			8.9			31.5	
Approach LOS		E			E			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.2	74.5		28.4	10.0	82.6		29.0
Change Period (Y+Rc), s	4.0	4.4		4.9	3.5	4.4		4.2
Max Green Setting (Gmax), s	10.8	47.7		39.0	9.5	57.7		26.8
Max Q Clear Time (g_c+I1), s	13.7	24.2		19.7	6.6	2.0		22.8
Green Ext Time (p_c), s	0.4	10.2		3.8	0.1	25.6		2.0

Intersection Summary		
HCM 2010 Ctrl Delay	33.2	
HCM 2010 LOS	C	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	417	68	27	1670	1590	185
Future Volume (veh/h)	417	68	27	1670	1590	185
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	506	0	28	1758	1674	195
Adj No. of Lanes	2	1	1	3	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	583	265	36	3978	3430	398
Arrive On Green	0.16	0.00	0.02	0.78	1.00	1.00
Sat Flow, veh/h	3548	1615	1774	5253	4789	537
Grp Volume(v), veh/h	506	0	28	1758	1227	642
Grp Sat Flow(s),veh/h/ln	1774	1615	1774	1695	1695	1768
Q Serve(g_s), s	20.8	0.0	2.4	17.3	0.0	0.0
Cycle Q Clear(g_c), s	20.8	0.0	2.4	17.3	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.30
Lane Grp Cap(c), veh/h	583	265	36	3978	2516	1312
V/C Ratio(X)	0.87	0.00	0.79	0.44	0.49	0.49
Avail Cap(c_a), veh/h	1027	467	106	3978	2516	1312
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.79	0.79	0.72	0.72
Uniform Delay (d), s/veh	61.1	0.0	73.2	5.4	0.0	0.0
Incr Delay (d2), s/veh	4.1	0.0	25.3	0.3	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	0.0	1.4	8.1	0.2	0.3
LnGrp Delay(d),s/veh	65.2	0.0	98.5	5.7	0.5	0.9
LnGrp LOS	E		F	A	A	A
Approach Vol, veh/h	506			1786	1869	
Approach Delay, s/veh	65.2			7.2	0.6	
Approach LOS	E			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.0	115.7				121.7		28.3
Change Period (Y+Rc), s	3.0	4.4				4.4		3.6
Max Green Setting (Gmax), s	9.6	86.6				98.6		43.4
Max Q Clear Time (g_c+I1), s	4.4	2.0				19.3		22.8
Green Ext Time (p_c), s	0.0	26.9				25.1		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	7	17	50	20	26	45	199	32	28	191	54
Future Vol, veh/h	43	7	17	50	20	26	45	199	32	28	191	54
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	3	3	3
Mvmt Flow	46	8	18	54	22	28	48	214	34	30	205	58
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	9.8	10.1	9.2	9.3
HCM LOS	A	B	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	64%	52%	100%	0%	0%
Vol Thru, %	0%	100%	67%	10%	21%	0%	100%	54%
Vol Right, %	0%	0%	33%	25%	27%	0%	0%	46%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	133	98	67	96	28	127	118
LT Vol	45	0	0	43	50	28	0	0
Through Vol	0	133	66	7	20	0	127	64
RT Vol	0	0	32	17	26	0	0	54
Lane Flow Rate	48	143	106	72	103	30	137	127
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.079	0.213	0.151	0.123	0.173	0.049	0.205	0.178
Departure Headway (Hd)	5.873	5.368	5.139	6.136	6.047	5.898	5.394	5.07
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	606	663	693	579	587	603	661	702
Service Time	3.645	3.141	2.911	3.935	3.84	3.671	3.166	2.842
HCM Lane V/C Ratio	0.079	0.216	0.153	0.124	0.175	0.05	0.207	0.181
HCM Control Delay	9.2	9.6	8.8	9.8	10.1	9	9.6	9
HCM Lane LOS	A	A	A	A	B	A	A	A
HCM 95th-tile Q	0.3	0.8	0.5	0.4	0.6	0.2	0.8	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	786	72	50	951	65	45
Future Volume (veh/h)	786	72	50	951	65	45
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	845	77	54	1023	70	48
Adj No. of Lanes	3	0	1	2	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1369	124	127	1461	843	752
Arrive On Green	0.29	0.29	0.07	0.41	0.47	0.47
Sat Flow, veh/h	4914	431	1774	3632	1774	1583
Grp Volume(v), veh/h	603	319	54	1023	70	48
Grp Sat Flow(s),veh/h/ln	1695	1787	1774	1770	1774	1583
Q Serve(g_s), s	11.7	11.7	2.2	18.1	1.6	1.2
Cycle Q Clear(g_c), s	11.7	11.7	2.2	18.1	1.6	1.2
Prop In Lane		0.24	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	978	515	127	1461	843	752
V/C Ratio(X)	0.62	0.62	0.42	0.70	0.08	0.06
Avail Cap(c_a), veh/h	1364	719	257	2125	843	752
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.3	23.4	33.7	18.4	10.9	10.8
Incr Delay (d2), s/veh	0.9	1.7	2.2	0.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	6.0	1.2	9.0	0.8	0.6
LnGrp Delay(d),s/veh	24.2	25.1	35.9	19.3	11.1	10.9
LnGrp LOS	C	C	D	B	B	B
Approach Vol, veh/h	922			1077	118	
Approach Delay, s/veh	24.5			20.1	11.0	
Approach LOS	C			C	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.4	26.4				35.8		40.0
Change Period (Y+Rc), s	4.0	4.5				4.5		4.0
Max Green Setting (Gmax), s	11.6	30.5				45.5		36.0
Max Q Clear Time (g_c+I1), s	4.2	13.7				20.1		3.6
Green Ext Time (p_c), s	0.0	7.5				11.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Yield	Stop	
Traffic Volume (vph)	283	30	92	111	4	66
Future Volume (vph)	283	30	92	111	4	66
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	308	33	100	121	4	72

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	341	140	81	4	72
Volume Left (vph)	0	100	0	4	0
Volume Right (vph)	33	0	0	0	72
Hadj (s)	0.03	0.46	0.10	0.53	-0.67
Departure Headway (s)	4.8	5.4	5.1	6.4	5.2
Degree Utilization, x	0.45	0.21	0.11	0.01	0.10
Capacity (veh/h)	739	641	685	519	630
Control Delay (s)	11.7	8.7	7.5	8.2	7.6
Approach Delay (s)	11.7	8.3		7.6	
Approach LOS	B	A		A	

Intersection Summary			
Delay	10.0		
Level of Service	B		
Intersection Capacity Utilization	35.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	484	696	794	306	0	2063
Future Volume (vph)	484	696	794	306	0	2063
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	4.4	4.4		4.4
Lane Util. Factor	0.97	0.88	0.91	1.00		0.91
Frt	1.00	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3400	2760	5036	1568		5036
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3400	2760	5036	1568		5036
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	499	718	819	315	0	2127
RTOR Reduction (vph)	0	105	0	132	0	0
Lane Group Flow (vph)	499	613	819	183	0	2127
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	custom	NA	Perm		NA
Protected Phases	4	4 5	6			2
Permitted Phases				6		
Actuated Green, G (s)	30.2	42.1	69.9	69.9		80.8
Effective Green, g (s)	30.2	42.1	69.9	69.9		80.8
Actuated g/C Ratio	0.25	0.35	0.58	0.58		0.67
Clearance Time (s)	4.6		4.4	4.4		4.4
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	855	968	2933	913		3390
v/s Ratio Prot	0.15	c0.22	0.16			c0.42
v/s Ratio Perm				0.12		
v/c Ratio	0.58	0.63	0.28	0.20		0.63
Uniform Delay, d1	39.4	32.5	12.5	11.8		11.1
Progression Factor	1.00	1.00	0.49	0.76		0.39
Incremental Delay, d2	1.0	1.4	0.2	0.5		0.6
Delay (s)	40.4	33.9	6.3	9.4		5.0
Level of Service	D	C	A	A		A
Approach Delay (s)	36.6		7.2			5.0
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.6
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	29	292	46	9	18	141	1233	116	19	1966	37
Future Volume (veh/h)	28	29	292	46	9	18	141	1233	116	19	1966	37
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	29	30	29	47	9	1	145	1271	80	20	2027	37
Adj No. of Lanes	0	1	1	1	1	0	2	4	1	2	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	102	175	176	163	18	202	4615	981	84	3018	55
Arrive On Green	0.11	0.11	0.11	0.10	0.10	0.10	0.04	0.41	0.41	0.02	0.59	0.59
Sat Flow, veh/h	894	924	1583	1774	1647	183	3548	7451	1583	3442	5143	94
Grp Volume(v), veh/h	59	0	29	47	0	10	145	1271	80	20	1336	728
Grp Sat Flow(s),veh/h/ln	1818	0	1583	1774	0	1830	1774	1863	1583	1721	1695	1846
Q Serve(g_s), s	3.6	0.0	2.0	2.9	0.0	0.6	4.9	13.5	3.7	0.7	32.2	32.3
Cycle Q Clear(g_c), s	3.6	0.0	2.0	2.9	0.0	0.6	4.9	13.5	3.7	0.7	32.2	32.3
Prop In Lane	0.49		1.00	1.00		0.10	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	201	0	175	176	0	182	202	4615	981	84	1989	1083
V/C Ratio(X)	0.29	0.00	0.17	0.27	0.00	0.06	0.72	0.28	0.08	0.24	0.67	0.67
Avail Cap(c_a), veh/h	271	0	236	636	0	656	222	4615	981	215	1989	1083
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.88	0.88	0.88	0.72	0.72	0.72
Uniform Delay (d), s/veh	49.1	0.0	48.4	50.0	0.0	49.0	56.8	17.3	14.4	57.4	16.9	16.9
Incr Delay (d2), s/veh	0.8	0.0	0.4	0.8	0.0	0.1	8.6	0.1	0.1	1.1	1.3	2.4
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	1.8	0.0	0.9	1.5	0.0	0.3	2.6	7.0	1.6	0.3	15.4	17.1
LnGrp Delay(d),s/veh	49.9	0.0	48.8	50.8	0.0	49.1	65.4	17.4	14.6	58.5	18.2	19.3
LnGrp LOS	D		D	D		D	E	B	B	E	B	B
Approach Vol, veh/h		88			57			1496			2084	
Approach Delay, s/veh		49.5			50.5			21.9			19.0	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.8	75.8		16.5	5.9	79.7		17.9
Change Period (Y+Rc), s	3.0	5.4		4.6	3.0	5.4		4.6
Max Green Setting (Gmax), s	7.5	34.0		43.0	7.5	34.0		17.9
Max Q Clear Time (g_c+I1), s	6.9	34.3		4.9	2.7	15.5		5.6
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	9.2		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	21.4
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	0	132	0	0	0	0	1537	0	0	1466	1081
Future Volume (veh/h)	136	0	132	0	0	0	0	1537	0	0	1466	1081
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1900	1845	1900	0	1845	0	0	1845	1900
Adj Flow Rate, veh/h	145	0	140	0	0	0	0	1635	0	0	1560	1150
Adj No. of Lanes	2	1	0	0	1	0	0	3	0	0	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	0	3	0	0	3	3
Cap, veh/h	378	0	174	0	2	0	0	4100	0	0	2733	1277
Arrive On Green	0.11	0.00	0.11	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00
Sat Flow, veh/h	3408	0	1568	0	1845	0	0	5368	0	0	3523	1568
Grp Volume(v), veh/h	145	0	140	0	0	0	0	1635	0	0	1560	1150
Grp Sat Flow(s),veh/h/ln	1704	0	1568	0	1845	0	0	1679	0	0	1679	1568
Q Serve(g_s), s	4.7	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.7	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	0.00		0.00	0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	378	0	174	0	2	0	0	4100	0	0	2733	1277
V/C Ratio(X)	0.38	0.00	0.81	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.57	0.90
Avail Cap(c_a), veh/h	594	0	273	0	461	0	0	4100	0	0	2733	1277
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.94	0.00	0.00	0.75	0.75
Uniform Delay (d), s/veh	49.5	0.0	52.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	9.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.7	8.1
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	2.3	0.0	5.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	2.9
LnGrp Delay(d),s/veh	50.2	0.0	61.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.7	8.1
LnGrp LOS	D		E					A			A	A
Approach Vol, veh/h		285			0			1635			2710	
Approach Delay, s/veh		55.6			0.0			0.3			3.8	
Approach LOS		E						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		102.1		0.0		102.1		17.9
Change Period (Y+Rc), s		4.4		4.6		4.4		4.6
Max Green Setting (Gmax), s		55.5		30.0		55.5		20.9
Max Q Clear Time (g_c+I1), s		2.0		0.0		2.0		12.5
Green Ext Time (p_c), s		43.5		0.0		19.9		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	5.8
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	237	356	296	158	68	30	100	827	325	63	1528	228
Future Volume (veh/h)	237	356	296	158	68	30	100	827	325	63	1528	228
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	249	375	312	166	72	32	105	871	342	66	1608	240
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	818	842	377	252	260	116	158	2649	825	110	2557	796
Arrive On Green	0.24	0.24	0.24	0.07	0.07	0.07	0.03	0.35	0.35	0.03	0.50	0.50
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	249	375	312	166	72	32	105	871	342	66	1608	240
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	7.1	10.8	22.4	5.6	2.3	2.3	3.6	15.1	19.7	2.3	27.6	10.7
Cycle Q Clear(g_c), s	7.1	10.8	22.4	5.6	2.3	2.3	3.6	15.1	19.7	2.3	27.6	10.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	818	842	377	252	260	116	158	2649	825	110	2557	796
V/C Ratio(X)	0.30	0.45	0.83	0.66	0.28	0.28	0.66	0.33	0.41	0.60	0.63	0.30
Avail Cap(c_a), veh/h	1139	1171	524	252	260	116	258	2649	825	272	2557	796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	39.0	43.4	54.1	52.6	52.6	57.2	23.6	25.1	57.3	21.7	17.5
Incr Delay (d2), s/veh	0.2	0.3	5.8	6.1	0.6	1.3	4.5	0.3	1.5	5.1	1.2	1.0
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	3.4	5.3	10.4	2.9	1.2	1.0	1.8	7.2	9.0	1.2	13.1	4.9
LnGrp Delay(d),s/veh	37.7	39.3	49.2	60.2	53.2	53.9	61.7	23.9	26.6	62.4	22.9	18.5
LnGrp LOS	D	D	D	E	D	D	E	C	C	E	C	B
Approach Vol, veh/h		936			270			1318			1914	
Approach Delay, s/veh		42.2			57.6			27.6			23.7	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.5	64.7		32.7	7.3	66.9		13.0
Change Period (Y+Rc), s	4.0	4.4		* 4.2	3.5	4.4		4.2
Max Green Setting (Gmax), s	9.0	45.7		* 40	9.5	45.7		8.8
Max Q Clear Time (g_c+I1), s	5.6	29.6		24.4	4.3	21.7		7.6
Green Ext Time (p_c), s	0.1	11.0		4.1	0.1	8.1		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	30.8
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	168	26	32	1369	1165	407
Future Volume (veh/h)	168	26	32	1369	1165	407
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1845	1845	1845	1900
Adj Flow Rate, veh/h	194	0	32	1383	1177	411
Adj No. of Lanes	2	1	1	3	3	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	409	188	40	4114	2836	989
Arrive On Green	0.12	0.00	0.02	0.82	1.00	1.00
Sat Flow, veh/h	3514	1615	1757	5202	3854	1287
Grp Volume(v), veh/h	194	0	32	1383	1071	517
Grp Sat Flow(s),veh/h/ln	1757	1615	1757	1679	1679	1618
Q Serve(g_s), s	6.2	0.0	2.2	8.3	0.0	0.0
Cycle Q Clear(g_c), s	6.2	0.0	2.2	8.3	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.80
Lane Grp Cap(c), veh/h	409	188	40	4114	2582	1244
V/C Ratio(X)	0.47	0.00	0.80	0.34	0.41	0.42
Avail Cap(c_a), veh/h	1066	490	146	4114	2582	1244
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.79	0.79	0.53	0.53
Uniform Delay (d), s/veh	49.6	0.0	58.3	2.8	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	23.6	0.2	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	1.3	3.8	0.1	0.2
LnGrp Delay(d),s/veh	50.4	0.0	82.0	2.9	0.3	0.5
LnGrp LOS	D		F	A	A	A
Approach Vol, veh/h	194			1415	1588	
Approach Delay, s/veh	50.4			4.7	0.4	
Approach LOS	D			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	5.7	96.7				102.4		17.6
Change Period (Y+Rc), s	3.0	4.4				4.4		3.6
Max Green Setting (Gmax), s	10.0	62.6				75.6		36.4
Max Q Clear Time (g_c+I1), s	4.2	2.0				10.3		8.2
Green Ext Time (p_c), s	0.0	18.8				15.5		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	5.3
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	63	23	34	43	9	22	36	189	40	52	250	26
Future Vol, veh/h	63	23	34	43	9	22	36	189	40	52	250	26
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	9	9	9	37	37	37	9	9	9
Mvmt Flow	67	24	36	46	10	23	38	201	43	55	266	28
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	10.9	10.4	10.5	10.1
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	53%	58%	100%	0%	0%
Vol Thru, %	0%	100%	61%	19%	12%	0%	100%	76%
Vol Right, %	0%	0%	39%	28%	30%	0%	0%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	126	103	120	74	52	167	109
LT Vol	36	0	0	63	43	52	0	0
Through Vol	0	126	63	23	9	0	167	83
RT Vol	0	0	40	34	22	0	0	26
Lane Flow Rate	38	134	110	128	79	55	177	116
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.072	0.234	0.183	0.224	0.143	0.096	0.283	0.18
Departure Headway (Hd)	6.781	6.274	5.999	6.327	6.561	6.244	5.738	5.569
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	530	574	599	568	547	575	628	646
Service Time	4.505	3.999	3.724	4.059	4.295	3.967	3.461	3.293
HCM Lane V/C Ratio	0.072	0.233	0.184	0.225	0.144	0.096	0.282	0.18
HCM Control Delay	10	10.9	10.1	10.9	10.4	9.6	10.7	9.5
HCM Lane LOS	A	B	B	B	B	A	B	A
HCM 95th-tile Q	0.2	0.9	0.7	0.9	0.5	0.3	1.2	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	870	105	32	364	66	45
Future Volume (veh/h)	870	105	32	364	66	45
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1900	1810	1810	1863	1863
Adj Flow Rate, veh/h	916	111	34	383	69	47
Adj No. of Lanes	3	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	5	5	2	2
Cap, veh/h	1328	160	93	1444	832	743
Arrive On Green	0.31	0.31	0.05	0.42	0.47	0.47
Sat Flow, veh/h	4381	510	1723	3529	1774	1583
Grp Volume(v), veh/h	674	353	34	383	69	47
Grp Sat Flow(s),veh/h/ln	1558	1622	1723	1719	1774	1583
Q Serve(g_s), s	14.5	14.6	1.5	5.6	1.6	1.2
Cycle Q Clear(g_c), s	14.5	14.6	1.5	5.6	1.6	1.2
Prop In Lane		0.31	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	979	510	93	1444	832	743
V/C Ratio(X)	0.69	0.69	0.37	0.27	0.08	0.06
Avail Cap(c_a), veh/h	1238	645	247	2039	832	743
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.0	23.1	35.0	14.5	11.2	11.1
Incr Delay (d2), s/veh	1.5	2.9	2.4	0.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	7.0	0.8	2.6	0.9	0.6
LnGrp Delay(d),s/veh	24.5	26.0	37.5	14.7	11.4	11.3
LnGrp LOS	C	C	D	B	B	B
Approach Vol, veh/h	1027			417	116	
Approach Delay, s/veh	25.0			16.5	11.4	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.1	28.6				36.7		40.0
Change Period (Y+Rc), s	4.0	4.5				4.5		4.0
Max Green Setting (Gmax), s	11.0	30.5				45.5		36.0
Max Q Clear Time (g_c+I1), s	3.5	16.6				7.6		3.6
Green Ext Time (p_c), s	0.0	7.5				4.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.7
HCM 2010 LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Yield	Stop	
Traffic Volume (vph)	118	62	157	207	82	159
Future Volume (vph)	118	62	157	207	82	159
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	126	66	167	220	87	169

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	192	240	147	87	169
Volume Left (vph)	0	167	0	87	0
Volume Right (vph)	66	0	0	0	169
Hadj (s)	-0.17	0.38	0.03	0.53	-0.67
Departure Headway (s)	5.3	5.8	5.5	6.5	5.3
Degree Utilization, x	0.28	0.39	0.22	0.16	0.25
Capacity (veh/h)	640	595	631	521	634
Control Delay (s)	10.4	11.3	8.8	9.5	8.8
Approach Delay (s)	10.4	10.4		9.1	
Approach LOS	B	B		A	

Intersection Summary			
Delay	10.0		
Level of Service	A		
Intersection Capacity Utilization	34.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	480	1229	1575	318	0	1690
Future Volume (vph)	480	1229	1575	318	0	1690
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	4.4	4.4		4.4
Lane Util. Factor	0.97	0.88	0.91	1.00		0.91
Frt	1.00	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3433	2787	5085	1583		5085
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3433	2787	5085	1583		5085
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	500	1280	1641	331	0	1760
RTOR Reduction (vph)	0	3	0	143	0	0
Lane Group Flow (vph)	500	1277	1641	188	0	1760
Turn Type	Prot	custom	NA	Perm		NA
Protected Phases	4	4 5	6			2
Permitted Phases				6		
Actuated Green, G (s)	68.3	80.8	61.2	61.2		72.7
Effective Green, g (s)	68.3	80.8	61.2	61.2		72.7
Actuated g/C Ratio	0.46	0.54	0.41	0.41		0.48
Clearance Time (s)	4.6		4.4	4.4		4.4
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	1563	1501	2074	645		2464
v/s Ratio Prot	0.15	c0.46	c0.32			0.35
v/s Ratio Perm				0.12		
v/c Ratio	0.32	0.85	0.79	0.29		0.71
Uniform Delay, d1	26.0	29.5	38.8	29.8		30.5
Progression Factor	1.00	1.00	0.81	0.65		0.46
Incremental Delay, d2	0.1	4.9	2.5	0.9		1.4
Delay (s)	26.2	34.3	33.9	20.3		15.5
Level of Service	C	C	C	C		B
Approach Delay (s)	32.0		31.6			15.5
Approach LOS	C		C			B

Intersection Summary			
HCM 2000 Control Delay	26.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.6
Intersection Capacity Utilization	80.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	22	194	237	41	98	263	2114	427	72	1630	60
Future Volume (veh/h)	61	22	194	237	41	98	263	2114	427	72	1630	60
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	62	22	63	242	42	33	268	2157	338	73	1663	59
Adj No. of Lanes	0	1	1	1	1	0	2	4	1	2	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	44	147	274	149	117	310	4450	946	131	2763	98
Arrive On Green	0.09	0.09	0.09	0.15	0.15	0.15	0.17	1.00	1.00	0.08	1.00	1.00
Sat Flow, veh/h	1326	470	1583	1774	968	761	3548	7451	1583	3442	5043	179
Grp Volume(v), veh/h	84	0	63	242	0	75	268	2157	338	73	1118	604
Grp Sat Flow(s),veh/h/ln	1796	0	1583	1774	0	1729	1774	1863	1583	1721	1695	1831
Q Serve(g_s), s	6.7	0.0	5.6	20.0	0.0	5.8	11.0	0.0	0.0	3.1	0.0	0.0
Cycle Q Clear(g_c), s	6.7	0.0	5.6	20.0	0.0	5.8	11.0	0.0	0.0	3.1	0.0	0.0
Prop In Lane	0.74		1.00	1.00		0.44	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	167	0	147	274	0	267	310	4450	946	131	1858	1003
V/C Ratio(X)	0.50	0.00	0.43	0.88	0.00	0.28	0.86	0.48	0.36	0.56	0.60	0.60
Avail Cap(c_a), veh/h	249	0	220	513	0	500	331	4450	946	174	1858	1003
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.46	0.46	0.46	0.78	0.78	0.78
Uniform Delay (d), s/veh	64.7	0.0	64.2	62.1	0.0	56.1	61.0	0.0	0.0	68.1	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	2.0	9.2	0.0	0.6	10.2	0.2	0.5	2.9	1.1	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	3.4	0.0	2.5	10.5	0.0	2.8	5.8	0.1	0.1	1.5	0.3	0.6
LnGrp Delay(d),s/veh	67.0	0.0	66.2	71.4	0.0	56.7	71.3	0.2	0.5	70.9	1.1	2.1
LnGrp LOS	E		E	E		E	E	A	A	E	A	A
Approach Vol, veh/h		147			317			2763			1795	
Approach Delay, s/veh		66.7			67.9			7.1			4.3	
Approach LOS		E			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.1	87.6		27.7	8.7	95.0		18.6
Change Period (Y+Rc), s	3.0	5.4		4.6	3.0	5.4		4.6
Max Green Setting (Gmax), s	14.0	54.2		43.4	7.6	60.6		20.8
Max Q Clear Time (g_c+I1), s	13.0	2.0		22.0	5.1	2.0		8.7
Green Ext Time (p_c), s	0.1	20.1		1.1	0.0	36.6		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	11.7
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	287	0	376	0	0	0	0	2112	0	0	1441	729
Future Volume (veh/h)	287	0	376	0	0	0	0	2112	0	0	1441	729
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1900	0	1863	0	0	1863	1900
Adj Flow Rate, veh/h	302	0	396	0	0	0	0	2223	0	0	1517	767
Adj No. of Lanes	2	1	0	0	1	0	0	3	0	0	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	0	0	2	2
Cap, veh/h	606	0	279	0	1	0	0	3885	0	0	2590	1210
Arrive On Green	0.18	0.00	0.18	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00
Sat Flow, veh/h	3442	0	1583	0	1863	0	0	5421	0	0	3558	1583
Grp Volume(v), veh/h	302	0	396	0	0	0	0	2223	0	0	1517	767
Grp Sat Flow(s),veh/h/ln	1721	0	1583	0	1863	0	0	1695	0	0	1695	1583
Q Serve(g_s), s	11.9	0.0	26.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.9	0.0	26.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	0.00		0.00	0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	606	0	279	0	1	0	0	3885	0	0	2590	1210
V/C Ratio(X)	0.50	0.00	1.42	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.59	0.63
Avail Cap(c_a), veh/h	606	0	279	0	402	0	0	3885	0	0	2590	1210
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.74	0.74
Uniform Delay (d), s/veh	55.8	0.0	61.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	209.2	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.7	1.9
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	5.7	0.0	27.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.3	0.6
LnGrp Delay(d),s/veh	56.5	0.0	271.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.7	1.9
LnGrp LOS	E		F					A			A	A
Approach Vol, veh/h		698			0			2223			2284	
Approach Delay, s/veh		178.2			0.0			0.5			1.1	
Approach LOS		F						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		119.0		0.0		119.0		31.0
Change Period (Y+Rc), s		4.4		4.6		4.4		4.6
Max Green Setting (Gmax), s		77.6		32.4		77.6		26.4
Max Q Clear Time (g_c+I1), s		2.0		0.0		2.0		28.4
Green Ext Time (p_c), s		40.8		0.0		39.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.6
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	366	277	188	475	399	151	270	1679	340	103	1077	332
Future Volume (veh/h)	366	277	188	475	399	151	270	1679	340	103	1077	332
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	377	286	194	490	411	156	278	1731	351	106	1110	342
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	540	555	248	559	575	257	325	2663	829	150	2388	744
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.19	1.00	1.00	0.04	0.47	0.47
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	377	286	194	490	411	156	278	1731	351	106	1110	342
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	15.6	11.1	17.7	20.9	16.5	13.7	11.7	0.0	0.0	4.6	22.2	21.9
Cycle Q Clear(g_c), s	15.6	11.1	17.7	20.9	16.5	13.7	11.7	0.0	0.0	4.6	22.2	21.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	540	555	248	559	575	257	325	2663	829	150	2388	744
V/C Ratio(X)	0.70	0.52	0.78	0.88	0.71	0.61	0.86	0.65	0.42	0.71	0.46	0.46
Avail Cap(c_a), veh/h	897	923	413	592	609	272	436	2663	829	218	2388	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.9	58.0	60.8	61.3	59.5	58.4	59.8	0.0	0.0	70.8	27.0	26.9
Incr Delay (d2), s/veh	1.4	0.6	4.6	13.4	3.7	3.5	8.7	0.9	1.1	5.9	0.7	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	7.5	5.5	8.0	11.0	8.4	6.3	6.0	0.2	0.3	2.3	10.5	10.0
LnGrp Delay(d),s/veh	61.3	58.6	65.3	74.7	63.3	61.8	68.6	0.9	1.1	76.7	27.6	29.0
LnGrp LOS	E	E	E	E	E	E	E	A	A	E	C	C
Approach Vol, veh/h		857			1057			2360			1558	
Approach Delay, s/veh		61.3			68.4			8.9			31.3	
Approach LOS		E			E			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.2	74.8		28.4	10.0	83.0		28.6
Change Period (Y+Rc), s	4.0	4.4		4.9	3.5	4.4		4.2
Max Green Setting (Gmax), s	19.0	48.6		39.1	9.5	58.6		25.8
Max Q Clear Time (g_c+I1), s	13.7	24.2		19.7	6.6	2.0		22.9
Green Ext Time (p_c), s	0.4	10.4		3.9	0.1	25.9		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	33.4
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	417	68	27	1674	1596	185
Future Volume (veh/h)	417	68	27	1674	1596	185
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	506	0	28	1762	1680	195
Adj No. of Lanes	2	1	1	3	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	583	265	36	3978	3432	397
Arrive On Green	0.16	0.00	0.02	0.78	1.00	1.00
Sat Flow, veh/h	3548	1615	1774	5253	4791	535
Grp Volume(v), veh/h	506	0	28	1762	1231	644
Grp Sat Flow(s),veh/h/ln	1774	1615	1774	1695	1695	1768
Q Serve(g_s), s	20.8	0.0	2.4	17.3	0.0	0.0
Cycle Q Clear(g_c), s	20.8	0.0	2.4	17.3	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.30
Lane Grp Cap(c), veh/h	583	265	36	3978	2516	1313
V/C Ratio(X)	0.87	0.00	0.79	0.44	0.49	0.49
Avail Cap(c_a), veh/h	1027	467	106	3978	2516	1313
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.79	0.79	0.70	0.70
Uniform Delay (d), s/veh	61.1	0.0	73.2	5.4	0.0	0.0
Incr Delay (d2), s/veh	4.1	0.0	25.3	0.3	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	0.0	1.4	8.1	0.2	0.3
LnGrp Delay(d),s/veh	65.2	0.0	98.5	5.7	0.5	0.9
LnGrp LOS	E		F	A	A	A
Approach Vol, veh/h	506			1790	1875	
Approach Delay, s/veh	65.2			7.2	0.6	
Approach LOS	E			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.0	115.7				121.7		28.3
Change Period (Y+Rc), s	3.0	4.4				4.4		3.6
Max Green Setting (Gmax), s	9.0	86.6				98.6		43.4
Max Q Clear Time (g_c+I1), s	4.4	2.0				19.3		22.8
Green Ext Time (p_c), s	0.0	27.1				25.2		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	7	17	50	20	32	45	199	32	28	191	54
Future Vol, veh/h	43	7	17	50	20	32	45	199	32	28	191	54
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	3	3	3
Mvmt Flow	46	8	18	54	22	34	48	214	34	30	205	58
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	9.8	10.2	9.3	9.3
HCM LOS	A	B	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	64%	49%	100%	0%	0%
Vol Thru, %	0%	100%	67%	10%	20%	0%	100%	54%
Vol Right, %	0%	0%	33%	25%	31%	0%	0%	46%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	133	98	67	102	28	127	118
LT Vol	45	0	0	43	50	28	0	0
Through Vol	0	133	66	7	20	0	127	64
RT Vol	0	0	32	17	32	0	0	54
Lane Flow Rate	48	143	106	72	110	30	137	127
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.079	0.213	0.151	0.125	0.183	0.049	0.206	0.179
Departure Headway (Hd)	5.891	5.387	5.157	6.249	6.003	5.916	5.412	5.087
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	603	660	689	577	592	601	657	698
Service Time	3.673	3.168	2.938	3.949	3.8	3.698	3.193	2.868
HCM Lane V/C Ratio	0.08	0.217	0.154	0.125	0.186	0.05	0.209	0.182
HCM Control Delay	9.2	9.6	8.9	9.8	10.2	9	9.6	9
HCM Lane LOS	A	A	A	A	B	A	A	A
HCM 95th-tile Q	0.3	0.8	0.5	0.4	0.7	0.2	0.8	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	786	81	50	951	65	45
Future Volume (veh/h)	786	81	50	951	65	45
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	845	87	54	1023	70	48
Adj No. of Lanes	3	0	1	2	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1352	139	127	1461	843	752
Arrive On Green	0.29	0.29	0.07	0.41	0.47	0.47
Sat Flow, veh/h	4855	481	1774	3632	1774	1583
Grp Volume(v), veh/h	610	322	54	1023	70	48
Grp Sat Flow(s),veh/h/ln	1695	1778	1774	1770	1774	1583
Q Serve(g_s), s	11.8	11.9	2.2	18.1	1.6	1.2
Cycle Q Clear(g_c), s	11.8	11.9	2.2	18.1	1.6	1.2
Prop In Lane		0.27	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	978	513	127	1461	843	752
V/C Ratio(X)	0.62	0.63	0.42	0.70	0.08	0.06
Avail Cap(c_a), veh/h	1364	715	257	2125	843	752
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.4	23.4	33.7	18.4	10.9	10.8
Incr Delay (d2), s/veh	0.9	1.8	2.2	0.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	6.1	1.2	9.0	0.8	0.6
LnGrp Delay(d),s/veh	24.3	25.2	35.9	19.3	11.1	10.9
LnGrp LOS	C	C	D	B	B	B
Approach Vol, veh/h	932			1077	118	
Approach Delay, s/veh	24.6			20.1	11.0	
Approach LOS	C			C	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.4	26.4				35.8		40.0
Change Period (Y+Rc), s	4.0	4.5				4.5		4.0
Max Green Setting (Gmax), s	11.0	30.5				45.5		36.0
Max Q Clear Time (g_c+I1), s	4.2	13.9				20.1		3.6
Green Ext Time (p_c), s	0.0	7.6				11.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.6
HCM 2010 LOS	C

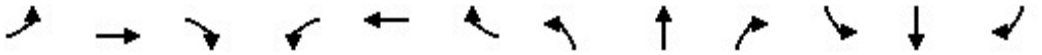
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Yield	Stop	
Traffic Volume (vph)	283	18	46	111	4	46
Future Volume (vph)	283	18	46	111	4	46
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	308	20	50	121	4	50

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	328	90	81	4	50
Volume Left (vph)	0	50	0	4	0
Volume Right (vph)	20	0	0	0	50
Hadj (s)	0.05	0.38	0.10	0.53	-0.67
Departure Headway (s)	4.7	5.3	5.0	6.2	5.0
Degree Utilization, x	0.43	0.13	0.11	0.01	0.07
Capacity (veh/h)	758	663	700	536	655
Control Delay (s)	11.1	7.9	7.4	8.1	7.2
Approach Delay (s)	11.1	7.7		7.2	
Approach LOS	B	A		A	

Intersection Summary			
Delay	9.7		
Level of Service	A		
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	941	756	895	378	0	2257
Future Volume (vph)	941	756	895	378	0	2257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	4.4	4.4		4.4
Lane Util. Factor	0.97	0.88	0.91	1.00		0.91
Frt	1.00	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3400	2760	5036	1568		5036
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3400	2760	5036	1568		5036
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	970	779	923	390	0	2327
RTOR Reduction (vph)	0	82	0	196	0	0
Lane Group Flow (vph)	970	697	923	194	0	2327
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	custom	NA	Perm		NA
Protected Phases	4	4 5	6			2
Permitted Phases				6		
Actuated Green, G (s)	41.3	52.3	59.7	59.7		69.7
Effective Green, g (s)	41.3	52.3	59.7	59.7		69.7
Actuated g/C Ratio	0.34	0.44	0.50	0.50		0.58
Clearance Time (s)	4.6		4.4	4.4		4.4
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	1170	1202	2505	780		2925
v/s Ratio Prot	c0.29	0.25	0.18			c0.46
v/s Ratio Perm				0.12		
v/c Ratio	0.83	0.58	0.37	0.25		0.80
Uniform Delay, d1	36.1	25.6	18.6	17.3		19.6
Progression Factor	1.00	1.00	0.65	1.43		0.20
Incremental Delay, d2	5.0	0.7	0.4	0.7		1.5
Delay (s)	41.1	26.3	12.3	25.4		5.3
Level of Service	D	C	B	C		A
Approach Delay (s)	34.5		16.2			5.3
Approach LOS	C		B			A

Intersection Summary			
HCM 2000 Control Delay	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.6
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	29	274	46	9	18	101	1434	116	19	2216	31
Future Volume (veh/h)	26	29	274	46	9	18	101	1434	116	19	2216	31
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	27	30	26	47	9	1	104	1478	87	20	2285	31
Adj No. of Lanes	0	1	1	1	1	0	2	4	1	2	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	105	173	176	163	18	172	1794	381	1322	3083	42
Arrive On Green	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.48	0.48	0.38	0.60	0.60
Sat Flow, veh/h	862	958	1583	1774	1647	183	3548	7451	1583	3442	5171	70
Grp Volume(v), veh/h	57	0	26	47	0	10	104	1478	87	20	1497	819
Grp Sat Flow(s),veh/h/ln	1820	0	1583	1774	0	1830	1774	1863	1583	1721	1695	1850
Q Serve(g_s), s	3.5	0.0	1.8	2.9	0.0	0.6	3.4	20.5	3.8	0.4	38.3	38.5
Cycle Q Clear(g_c), s	3.5	0.0	1.8	2.9	0.0	0.6	3.4	20.5	3.8	0.4	38.3	38.5
Prop In Lane	0.47		1.00	1.00		0.10	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	199	0	173	176	0	182	172	1794	381	1322	2022	1103
V/C Ratio(X)	0.29	0.00	0.15	0.27	0.00	0.06	0.61	0.82	0.23	0.02	0.74	0.74
Avail Cap(c_a), veh/h	271	0	236	649	0	670	266	1962	417	1322	2022	1103
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.87	0.87	0.87	0.58	0.58	0.58
Uniform Delay (d), s/veh	49.1	0.0	48.4	50.0	0.0	49.0	53.1	28.9	24.6	22.9	17.5	17.5
Incr Delay (d2), s/veh	0.8	0.0	0.4	0.8	0.0	0.1	3.0	3.9	1.2	0.0	1.4	2.6
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	1.8	0.0	0.8	1.5	0.0	0.3	1.7	10.9	1.8	0.2	18.3	20.4
LnGrp Delay(d),s/veh	49.9	0.0	48.8	50.8	0.0	49.1	56.1	32.8	25.8	22.9	19.0	20.2
LnGrp LOS	D		D	D		D	E	C	C	C	B	C
Approach Vol, veh/h		83			57			1669			2336	
Approach Delay, s/veh		49.6			50.5			33.9			19.4	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.8	77.0		16.5	51.5	34.3		17.7
Change Period (Y+Rc), s	3.0	5.4		4.6	5.4	* 5.4		4.6
Max Green Setting (Gmax), s	9.0	31.6		43.9	9.0	* 32		17.9
Max Q Clear Time (g_c+I1), s	5.4	40.5		4.9	2.4	22.5		5.5
Green Ext Time (p_c), s	0.1	0.0		0.2	0.0	6.4		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	26.3
HCM 2010 LOS	C

Notes

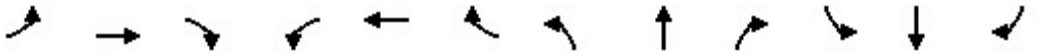
User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	0	287	0	0	0	0	1734	0	0	2072	1126
Future Volume (veh/h)	146	0	287	0	0	0	0	1734	0	0	2072	1126
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1900	1845	1900	0	1845	0	0	1845	1900
Adj Flow Rate, veh/h	155	0	305	0	0	0	0	1845	0	0	2204	1198
Adj No. of Lanes	2	1	0	0	1	0	0	3	0	0	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	0	3	0	0	3	3
Cap, veh/h	594	0	273	0	2	0	0	3781	0	0	2529	1170
Arrive On Green	0.17	0.00	0.17	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00
Sat Flow, veh/h	3408	0	1568	0	1845	0	0	5368	0	0	3534	1559
Grp Volume(v), veh/h	155	0	305	0	0	0	0	1845	0	0	2196	1206
Grp Sat Flow(s),veh/h/ln	1704	0	1568	0	1845	0	0	1679	0	0	1679	1570
Q Serve(g_s), s	4.7	0.0	20.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	90.1
Cycle Q Clear(g_c), s	4.7	0.0	20.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	90.1
Prop In Lane	1.00		1.00	0.00		0.00	0.00		0.00	0.00		0.99
Lane Grp Cap(c), veh/h	594	0	273	0	2	0	0	3781	0	0	2521	1179
V/C Ratio(X)	0.26	0.00	1.12	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.87	1.02
Avail Cap(c_a), veh/h	594	0	273	0	461	0	0	3781	0	0	2521	1179
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.92	0.00	0.00	0.49	0.49
Uniform Delay (d), s/veh	42.9	0.0	49.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	89.6	0.0	0.0	0.0	0.0	0.4	0.0	0.0	2.3	24.6
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	2.2	0.0	15.8	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.8	8.1
LnGrp Delay(d),s/veh	43.1	0.0	139.1	0.0	0.0	0.0	0.0	0.4	0.0	0.0	2.3	24.6
LnGrp LOS	D		F					A			A	F
Approach Vol, veh/h		460			0			1845			3402	
Approach Delay, s/veh		106.8			0.0			0.4			10.2	
Approach LOS		F						A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		94.5		0.0		94.5		25.5
Change Period (Y+Rc), s		4.4		4.6		4.4		4.6
Max Green Setting (Gmax), s		55.5		30.0		55.5		20.9
Max Q Clear Time (g_c+I1), s		92.1		0.0		2.1		22.9
Green Ext Time (p_c), s		0.0		0.0		24.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.8
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	356	297	249	68	30	159	955	337	63	1680	268
Future Volume (veh/h)	238	356	297	249	68	30	159	955	337	63	1680	268
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	251	375	313	262	72	32	167	1005	355	66	1768	282
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	821	844	377	252	260	116	224	2646	824	110	2457	765
Arrive On Green	0.24	0.24	0.24	0.07	0.07	0.07	0.02	0.17	0.17	0.03	0.48	0.48
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	251	375	313	262	72	32	167	1005	355	66	1768	282
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	7.2	10.8	22.5	8.8	2.3	2.3	5.8	21.0	24.1	2.3	33.1	13.4
Cycle Q Clear(g_c), s	7.2	10.8	22.5	8.8	2.3	2.3	5.8	21.0	24.1	2.3	33.1	13.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	821	844	377	252	260	116	224	2646	824	110	2457	765
V/C Ratio(X)	0.31	0.44	0.83	1.04	0.28	0.28	0.74	0.38	0.43	0.60	0.72	0.37
Avail Cap(c_a), veh/h	1139	1171	524	252	260	116	258	2646	824	272	2457	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	38.9	43.4	55.6	52.6	52.6	57.7	32.5	33.8	57.3	24.6	19.5
Incr Delay (d2), s/veh	0.2	0.3	5.9	66.9	0.6	1.3	9.0	0.4	1.5	5.1	1.9	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	3.4	5.3	10.5	6.5	1.2	1.0	3.0	10.0	10.9	1.2	15.8	6.2
LnGrp Delay(d),s/veh	37.7	39.2	49.2	122.5	53.2	53.9	66.7	32.9	35.3	62.4	26.4	20.9
LnGrp LOS	D	D	D	F	D	D	E	C	D	E	C	C
Approach Vol, veh/h		939			366			1527			2116	
Approach Delay, s/veh		42.1			102.9			37.2			26.8	
Approach LOS		D			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.8	62.4		32.8	7.3	66.8		13.0
Change Period (Y+Rc), s	4.0	4.4		* 4.2	3.5	4.4		4.2
Max Green Setting (Gmax), s	9.0	45.7		* 40	9.5	45.7		8.8
Max Q Clear Time (g_c+I1), s	7.8	35.1		24.5	4.3	26.1		10.8
Green Ext Time (p_c), s	0.1	8.5		4.1	0.1	8.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	38.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	174	26	52	1560	1484	849
Future Volume (veh/h)	174	26	52	1560	1484	849
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1845	1845	1845	1900
Adj Flow Rate, veh/h	200	0	53	1576	1499	858
Adj No. of Lanes	2	1	1	3	3	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	409	188	68	4113	2528	1181
Arrive On Green	0.12	0.00	0.04	0.82	0.50	0.50
Sat Flow, veh/h	3514	1615	1757	5202	3523	1568
Grp Volume(v), veh/h	200	0	53	1576	1499	858
Grp Sat Flow(s),veh/h/ln	1757	1615	1757	1679	1679	1568
Q Serve(g_s), s	6.4	0.0	3.6	10.0	37.9	51.4
Cycle Q Clear(g_c), s	6.4	0.0	3.6	10.0	37.9	51.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	409	188	68	4113	2528	1181
V/C Ratio(X)	0.49	0.00	0.78	0.38	0.59	0.73
Avail Cap(c_a), veh/h	1066	490	146	4113	2528	1181
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.67	0.67
Upstream Filter(I)	1.00	0.00	0.79	0.79	0.12	0.12
Uniform Delay (d), s/veh	49.7	0.0	57.2	2.9	16.7	20.1
Incr Delay (d2), s/veh	0.9	0.0	13.8	0.2	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	2.0	4.6	17.7	22.4
LnGrp Delay(d),s/veh	50.6	0.0	71.0	3.1	16.9	20.6
LnGrp LOS	D		E	A	B	C
Approach Vol, veh/h	200			1629	2357	
Approach Delay, s/veh	50.6			5.4	18.2	
Approach LOS	D			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.7	94.8				102.4		17.6
Change Period (Y+Rc), s	3.0	4.4				4.4		3.6
Max Green Setting (Gmax), s	10.0	62.6				75.6		36.4
Max Q Clear Time (g_c+I1), s	5.6	53.4				12.0		8.4
Green Ext Time (p_c), s	0.0	8.3				19.5		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	14.8
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	63	23	34	43	9	20	36	193	40	52	476	26
Future Vol, veh/h	63	23	34	43	9	20	36	193	40	52	476	26
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	9	9	9	37	37	37	9	9	9
Mvmt Flow	67	24	36	46	10	21	38	205	43	55	506	28
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	11.8	11.2	11.1	13.4
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	53%	60%	100%	0%	0%
Vol Thru, %	0%	100%	62%	19%	12%	0%	100%	86%
Vol Right, %	0%	0%	38%	28%	28%	0%	0%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	129	104	120	72	52	317	185
LT Vol	36	0	0	63	43	52	0	0
Through Vol	0	129	64	23	9	0	317	159
RT Vol	0	0	40	34	20	0	0	26
Lane Flow Rate	38	137	111	128	77	55	338	196
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.076	0.253	0.196	0.244	0.152	0.097	0.546	0.312
Departure Headway (Hd)	7.148	6.641	6.369	6.867	7.15	6.325	5.818	5.719
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	501	541	563	522	501	567	621	629
Service Time	4.892	4.384	4.112	4.614	4.903	4.06	3.554	3.454
HCM Lane V/C Ratio	0.076	0.253	0.197	0.245	0.154	0.097	0.544	0.312
HCM Control Delay	10.5	11.6	10.7	11.8	11.2	9.7	15.4	11
HCM Lane LOS	B	B	B	B	B	A	C	B
HCM 95th-tile Q	0.2	1	0.7	0.9	0.5	0.3	3.3	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	872	93	32	463	66	45
Future Volume (veh/h)	872	93	32	463	66	45
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1900	1810	1810	1863	1863
Adj Flow Rate, veh/h	918	98	34	487	69	47
Adj No. of Lanes	3	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	5	5	2	2
Cap, veh/h	1325	141	93	1428	839	749
Arrive On Green	0.31	0.31	0.05	0.42	0.47	0.47
Sat Flow, veh/h	4444	457	1723	3529	1774	1583
Grp Volume(v), veh/h	666	350	34	487	69	47
Grp Sat Flow(s),veh/h/ln	1558	1631	1723	1719	1774	1583
Q Serve(g_s), s	14.3	14.4	1.4	7.3	1.6	1.2
Cycle Q Clear(g_c), s	14.3	14.4	1.4	7.3	1.6	1.2
Prop In Lane		0.28	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	962	504	93	1428	839	749
V/C Ratio(X)	0.69	0.70	0.37	0.34	0.08	0.06
Avail Cap(c_a), veh/h	1208	632	272	2055	839	749
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.1	23.1	34.7	15.2	11.0	10.9
Incr Delay (d2), s/veh	1.6	3.0	2.4	0.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	6.8	0.8	3.5	0.8	0.6
LnGrp Delay(d),s/veh	24.7	26.2	37.1	15.4	11.2	11.1
LnGrp LOS	C	C	D	B	B	B
Approach Vol, veh/h	1016			521	116	
Approach Delay, s/veh	25.2			16.8	11.1	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.1	28.0				36.1		40.0
Change Period (Y+Rc), s	4.0	4.5				4.5		4.0
Max Green Setting (Gmax), s	12.0	29.5				45.5		36.0
Max Q Clear Time (g_c+I1), s	3.4	16.4				9.3		3.6
Green Ext Time (p_c), s	0.0	7.1				5.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.6
HCM 2010 LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Yield	Stop	
Traffic Volume (vph)	118	53	123	207	82	102
Future Volume (vph)	118	53	123	207	82	102
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	126	56	131	220	87	109

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	182	204	147	87	109
Volume Left (vph)	0	131	0	87	0
Volume Right (vph)	56	0	0	0	109
Hadj (s)	-0.15	0.35	0.03	0.53	-0.67
Departure Headway (s)	5.1	5.6	5.3	6.4	5.1
Degree Utilization, x	0.26	0.32	0.22	0.15	0.16
Capacity (veh/h)	668	619	657	533	649
Control Delay (s)	9.9	10.0	8.5	9.3	7.9
Approach Delay (s)	9.9	9.4		8.5	
Approach LOS	A	A		A	

Intersection Summary			
Delay	9.3		
Level of Service	A		
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	538	1260	1761	493	0	1873
Future Volume (vph)	538	1260	1761	493	0	1873
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	4.4	4.4		4.4
Lane Util. Factor	0.97	0.88	0.91	1.00		0.91
Frt	1.00	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3433	2787	5085	1583		5085
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3433	2787	5085	1583		5085
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	560	1312	1834	514	0	1951
RTOR Reduction (vph)	0	1	0	201	0	0
Lane Group Flow (vph)	560	1312	1834	313	0	1951
Turn Type	Prot	custom	NA	Perm		NA
Protected Phases	4	4 5	6			2
Permitted Phases				6		
Actuated Green, G (s)	69.0	81.5	60.5	60.5		72.0
Effective Green, g (s)	69.0	81.5	60.5	60.5		72.0
Actuated g/C Ratio	0.46	0.54	0.40	0.40		0.48
Clearance Time (s)	4.6		4.4	4.4		4.4
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	1579	1514	2050	638		2440
v/s Ratio Prot	0.16	c0.47	c0.36			0.38
v/s Ratio Perm				0.20		
v/c Ratio	0.35	0.87	0.89	0.49		0.80
Uniform Delay, d1	26.1	29.6	41.8	33.3		32.9
Progression Factor	1.00	1.00	0.80	0.52		0.48
Incremental Delay, d2	0.1	5.5	3.8	1.5		1.9
Delay (s)	26.3	35.0	37.2	18.8		17.8
Level of Service	C	D	D	B		B
Approach Delay (s)	32.4		33.2			17.8
Approach LOS	C		C			B

Intersection Summary			
HCM 2000 Control Delay	28.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.6
Intersection Capacity Utilization	85.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

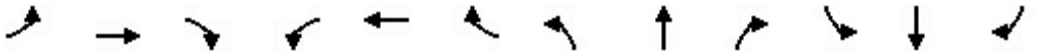
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	22	143	237	41	98	233	2361	427	72	1875	56
Future Volume (veh/h)	55	22	143	237	41	98	233	2361	427	72	1875	56
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	56	22	11	242	42	33	238	2409	338	73	1913	55
Adj No. of Lanes	0	1	1	1	1	0	2	4	1	2	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	118	46	144	274	149	117	279	3154	670	682	2839	82
Arrive On Green	0.09	0.09	0.09	0.15	0.15	0.15	0.16	0.85	0.85	0.40	1.00	1.00
Sat Flow, veh/h	1291	507	1583	1774	968	761	3548	7451	1583	3442	5081	146
Grp Volume(v), veh/h	78	0	11	242	0	75	238	2409	338	73	1276	692
Grp Sat Flow(s),veh/h/ln	1798	0	1583	1774	0	1729	1774	1863	1583	1721	1695	1837
Q Serve(g_s), s	6.2	0.0	1.0	20.0	0.0	5.8	9.8	21.0	8.6	2.0	0.0	0.0
Cycle Q Clear(g_c), s	6.2	0.0	1.0	20.0	0.0	5.8	9.8	21.0	8.6	2.0	0.0	0.0
Prop In Lane	0.72		1.00	1.00		0.44	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	164	0	144	274	0	267	279	3154	670	682	1894	1026
V/C Ratio(X)	0.48	0.00	0.08	0.88	0.00	0.28	0.85	0.76	0.50	0.11	0.67	0.67
Avail Cap(c_a), veh/h	216	0	190	512	0	499	284	3154	670	682	1894	1026
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.34	0.34	0.34	0.68	0.68	0.68
Uniform Delay (d), s/veh	64.8	0.0	62.4	62.1	0.0	56.1	62.3	8.2	7.3	36.9	0.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	0.2	9.2	0.0	0.6	8.4	0.6	0.9	0.0	1.3	2.4
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	3.2	0.0	0.4	10.5	0.0	2.8	5.1	10.2	3.7	1.0	0.3	0.7
LnGrp Delay(d),s/veh	66.9	0.0	62.6	71.4	0.0	56.7	70.7	8.9	8.2	37.0	1.3	2.4
LnGrp LOS	E		E	E		E	E	A	A	D	A	A
Approach Vol, veh/h		89			317			2985			2041	
Approach Delay, s/veh		66.4			67.9			13.7			3.0	
Approach LOS		E			E			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.8	89.2		27.7	35.1	68.9		18.3
Change Period (Y+Rc), s	3.0	5.4		4.6	5.4	* 5.4		4.6
Max Green Setting (Gmax), s	12.0	59.1		43.3	7.6	* 64		18.0
Max Q Clear Time (g_c+I1), s	11.8	2.0		22.0	4.0	23.0		8.2
Green Ext Time (p_c), s	0.0	26.2		1.1	0.0	32.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.7
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	0	425	0	0	0	0	2836	0	0	1592	819
Future Volume (veh/h)	319	0	425	0	0	0	0	2836	0	0	1592	819
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1900	0	1863	0	0	1863	1900
Adj Flow Rate, veh/h	336	0	447	0	0	0	0	2985	0	0	1676	862
Adj No. of Lanes	2	1	0	0	1	0	0	3	0	0	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	0	0	2	2
Cap, veh/h	629	0	289	0	1	0	0	3851	0	0	2568	1199
Arrive On Green	0.18	0.00	0.18	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00
Sat Flow, veh/h	3442	0	1583	0	1863	0	0	5421	0	0	3558	1583
Grp Volume(v), veh/h	336	0	447	0	0	0	0	2985	0	0	1676	862
Grp Sat Flow(s),veh/h/ln	1721	0	1583	0	1863	0	0	1695	0	0	1695	1583
Q Serve(g_s), s	13.3	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.3	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	0.00		0.00	0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	629	0	289	0	1	0	0	3851	0	0	2568	1199
V/C Ratio(X)	0.53	0.00	1.55	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.65	0.72
Avail Cap(c_a), veh/h	629	0	289	0	373	0	0	3851	0	0	2568	1199
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.65	0.65
Uniform Delay (d), s/veh	55.5	0.0	61.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	262.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.9	2.4
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	6.4	0.0	33.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.3	0.8
LnGrp Delay(d),s/veh	56.4	0.0	323.3	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.9	2.4
LnGrp LOS	E		F					A			A	A
Approach Vol, veh/h		783			0			2985			2538	
Approach Delay, s/veh		208.8			0.0			1.0			1.4	
Approach LOS		F						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		118.0		0.0		118.0		32.0
Change Period (Y+Rc), s		4.4		4.6		4.4		4.6
Max Green Setting (Gmax), s		79.0		30.0		79.0		27.4
Max Q Clear Time (g_c+I1), s		2.0		0.0		2.0		29.4
Green Ext Time (p_c), s		49.8		0.0		63.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	408	277	270	523	399	151	271	1874	385	103	1188	333
Future Volume (veh/h)	408	277	270	523	399	151	271	1874	385	103	1188	333
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	421	286	278	539	411	156	279	1932	397	106	1225	343
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	710	730	327	597	614	275	329	2356	733	150	2075	646
Arrive On Green	0.21	0.21	0.21	0.17	0.17	0.17	0.13	0.62	0.62	0.04	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	421	286	278	539	411	156	279	1932	397	106	1225	343
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	16.6	10.5	25.4	23.0	16.3	13.5	11.9	44.2	21.7	4.6	28.2	24.6
Cycle Q Clear(g_c), s	16.6	10.5	25.4	23.0	16.3	13.5	11.9	44.2	21.7	4.6	28.2	24.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	710	730	327	597	614	275	329	2356	733	150	2075	646
V/C Ratio(X)	0.59	0.39	0.85	0.90	0.67	0.57	0.85	0.82	0.54	0.71	0.59	0.53
Avail Cap(c_a), veh/h	895	920	412	615	632	283	436	2356	733	218	2075	646
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	51.4	57.3	60.7	58.0	56.8	64.4	23.9	19.6	70.8	34.6	33.6
Incr Delay (d2), s/veh	0.6	0.3	10.7	16.4	2.6	2.5	7.4	2.1	1.8	5.9	1.2	3.1
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	8.0	5.2	12.1	12.3	8.2	6.1	6.0	20.9	9.7	2.3	13.4	11.3
LnGrp Delay(d),s/veh	54.5	51.7	68.0	77.1	60.6	59.4	71.8	26.0	21.4	76.7	35.9	36.7
LnGrp LOS	D	D	E	E	E	E	E	C	C	E	D	D
Approach Vol, veh/h		985			1106			2608			1674	
Approach Delay, s/veh		57.5			68.5			30.2			38.6	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.3	65.6		35.8	10.0	73.9		30.2
Change Period (Y+Rc), s	4.0	4.4		4.9	3.5	4.4		4.2
Max Green Setting (Gmax), s	19.0	47.7		39.0	9.5	57.7		26.8
Max Q Clear Time (g_c+I1), s	13.9	30.2		27.4	6.6	46.2		25.0
Green Ext Time (p_c), s	0.4	9.6		3.6	0.1	9.7		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.3
HCM 2010 LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	767	83	27	2048	1787	194
Future Volume (veh/h)	767	83	27	2048	1787	194
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	888	0	28	2156	1881	204
Adj No. of Lanes	2	1	1	3	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	954	434	36	3447	2974	320
Arrive On Green	0.27	0.00	0.02	0.68	1.00	1.00
Sat Flow, veh/h	3548	1615	1774	5253	4830	502
Grp Volume(v), veh/h	888	0	28	2156	1365	720
Grp Sat Flow(s),veh/h/ln	1774	1615	1774	1695	1695	1774
Q Serve(g_s), s	36.6	0.0	2.4	35.6	0.0	0.0
Cycle Q Clear(g_c), s	36.6	0.0	2.4	35.6	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.28
Lane Grp Cap(c), veh/h	954	434	36	3447	2162	1132
V/C Ratio(X)	0.93	0.00	0.79	0.63	0.63	0.64
Avail Cap(c_a), veh/h	1027	467	106	3447	2162	1132
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.79	0.79	0.58	0.58
Uniform Delay (d), s/veh	53.5	0.0	73.2	13.5	0.0	0.0
Incr Delay (d2), s/veh	13.9	0.0	25.3	0.7	0.8	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.7	0.0	1.4	16.8	0.2	0.5
LnGrp Delay(d),s/veh	67.4	0.0	98.5	14.2	0.8	1.6
LnGrp LOS	E		F	B	A	A
Approach Vol, veh/h	888			2184	2085	
Approach Delay, s/veh	67.4			15.3	1.1	
Approach LOS	E			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.0	100.1				106.1		43.9
Change Period (Y+Rc), s	3.0	4.4				4.4		3.6
Max Green Setting (Gmax), s	9.0	86.6				98.6		43.4
Max Q Clear Time (g_c+I1), s	4.4	2.0				37.6		38.6
Green Ext Time (p_c), s	0.0	34.1				33.8		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	7	17	50	20	26	45	448	32	28	196	54
Future Vol, veh/h	43	7	17	50	20	26	45	448	32	28	196	54
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	3	3	3
Mvmt Flow	46	8	18	54	22	28	48	482	34	30	211	58
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	10.7	11.1	12.1	9.9
HCM LOS	B	B	B	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	64%	52%	100%	0%	0%
Vol Thru, %	0%	100%	82%	10%	21%	0%	100%	55%
Vol Right, %	0%	0%	18%	25%	27%	0%	0%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	299	181	67	96	28	131	119
LT Vol	45	0	0	43	50	28	0	0
Through Vol	0	299	149	7	20	0	131	65
RT Vol	0	0	32	17	26	0	0	54
Lane Flow Rate	48	321	195	72	103	30	141	128
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.081	0.493	0.293	0.137	0.193	0.053	0.228	0.197
Departure Headway (Hd)	6.032	5.527	5.402	6.852	6.74	6.352	5.846	5.525
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	595	652	667	524	533	565	615	651
Service Time	3.756	3.251	3.126	4.591	4.477	4.081	3.575	3.254
HCM Lane V/C Ratio	0.081	0.492	0.292	0.137	0.193	0.053	0.229	0.197
HCM Control Delay	9.3	13.5	10.4	10.7	11.1	9.4	10.3	9.6
HCM Lane LOS	A	B	B	B	B	A	B	A
HCM 95th-tile Q	0.3	2.7	1.2	0.5	0.7	0.2	0.9	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	910	72	50	953	65	45
Future Volume (veh/h)	910	72	50	953	65	45
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	978	77	54	1025	70	48
Adj No. of Lanes	3	0	1	2	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1467	115	126	1513	822	733
Arrive On Green	0.31	0.31	0.07	0.43	0.46	0.46
Sat Flow, veh/h	4976	378	1774	3632	1774	1583
Grp Volume(v), veh/h	689	366	54	1025	70	48
Grp Sat Flow(s),veh/h/ln	1695	1796	1774	1770	1774	1583
Q Serve(g_s), s	13.8	13.8	2.3	18.1	1.7	1.3
Cycle Q Clear(g_c), s	13.8	13.8	2.3	18.1	1.7	1.3
Prop In Lane		0.21	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1035	548	126	1513	822	733
V/C Ratio(X)	0.67	0.67	0.43	0.68	0.09	0.07
Avail Cap(c_a), veh/h	1330	705	251	2072	822	733
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.5	23.6	34.6	17.9	11.7	11.5
Incr Delay (d2), s/veh	1.1	2.2	2.3	0.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	7.1	1.2	9.0	0.9	0.6
LnGrp Delay(d),s/veh	24.7	25.7	36.9	18.7	11.9	11.7
LnGrp LOS	C	C	D	B	B	B
Approach Vol, veh/h	1055			1079	118	
Approach Delay, s/veh	25.1			19.6	11.8	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.5	28.2				37.7		40.0
Change Period (Y+Rc), s	4.0	4.5				4.5		4.0
Max Green Setting (Gmax), s	11.0	30.5				45.5		36.0
Max Q Clear Time (g_c+I1), s	4.3	15.8				20.1		3.7
Green Ext Time (p_c), s	0.0	7.9				11.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Yield	Stop	
Traffic Volume (vph)	283	30	92	111	4	66
Future Volume (vph)	283	30	92	111	4	66
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	308	33	100	121	4	72

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	341	140	81	4	72
Volume Left (vph)	0	100	0	4	0
Volume Right (vph)	33	0	0	0	72
Hadj (s)	0.03	0.46	0.10	0.53	-0.67
Departure Headway (s)	4.8	5.4	5.1	6.4	5.2
Degree Utilization, x	0.45	0.21	0.11	0.01	0.10
Capacity (veh/h)	739	641	685	519	630
Control Delay (s)	11.7	8.7	7.5	8.2	7.6
Approach Delay (s)	11.7	8.3		7.6	
Approach LOS	B	A		A	

Intersection Summary			
Delay	10.0		
Level of Service	B		
Intersection Capacity Utilization	35.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	941	779	912	378	0	2268
Future Volume (vph)	941	779	912	378	0	2268
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	4.4	4.4		4.4
Lane Util. Factor	0.97	0.88	0.91	1.00		0.91
Frt	1.00	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3400	2760	5036	1568		5036
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3400	2760	5036	1568		5036
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	970	803	940	390	0	2338
RTOR Reduction (vph)	0	78	0	197	0	0
Lane Group Flow (vph)	970	725	940	193	0	2338
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	custom	NA	Perm		NA
Protected Phases	4	4 5	6			2
Permitted Phases				6		
Actuated Green, G (s)	41.3	52.6	59.4	59.4		69.7
Effective Green, g (s)	41.3	52.6	59.4	59.4		69.7
Actuated g/C Ratio	0.34	0.44	0.49	0.49		0.58
Clearance Time (s)	4.6		4.4	4.4		4.4
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	1170	1209	2492	776		2925
v/s Ratio Prot	c0.29	0.26	0.19			c0.46
v/s Ratio Perm				0.12		
v/c Ratio	0.83	0.60	0.38	0.25		0.80
Uniform Delay, d1	36.1	25.7	18.8	17.5		19.7
Progression Factor	1.00	1.00	0.66	1.41		0.21
Incremental Delay, d2	5.0	0.8	0.4	0.7		1.4
Delay (s)	41.1	26.5	12.7	25.3		5.7
Level of Service	D	C	B	C		A
Approach Delay (s)	34.5		16.4			5.7
Approach LOS	C		B			A

Intersection Summary			
HCM 2000 Control Delay	17.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.6
Intersection Capacity Utilization	78.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	29	292	46	9	18	141	1434	116	19	2216	37
Future Volume (veh/h)	28	29	292	46	9	18	141	1434	116	19	2216	37
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	29	30	45	47	9	1	145	1478	87	20	2285	37
Adj No. of Lanes	0	1	1	1	1	0	2	4	1	2	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	104	179	176	163	18	200	1794	381	1309	3014	49
Arrive On Green	0.11	0.11	0.11	0.10	0.10	0.10	0.11	0.48	0.48	0.38	0.58	0.58
Sat Flow, veh/h	894	924	1583	1774	1647	183	3548	7451	1583	3442	5155	83
Grp Volume(v), veh/h	59	0	45	47	0	10	145	1478	87	20	1501	821
Grp Sat Flow(s),veh/h/ln	1818	0	1583	1774	0	1830	1774	1863	1583	1721	1695	1848
Q Serve(g_s), s	3.6	0.0	3.1	2.9	0.0	0.6	4.7	20.5	3.8	0.4	39.6	39.8
Cycle Q Clear(g_c), s	3.6	0.0	3.1	2.9	0.0	0.6	4.7	20.5	3.8	0.4	39.6	39.8
Prop In Lane	0.49		1.00	1.00		0.10	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	205	0	179	176	0	182	200	1794	381	1309	1982	1080
V/C Ratio(X)	0.29	0.00	0.25	0.27	0.00	0.06	0.72	0.82	0.23	0.02	0.76	0.76
Avail Cap(c_a), veh/h	271	0	236	649	0	670	266	1962	417	1309	1982	1080
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.86	0.86	0.86	0.57	0.57	0.57
Uniform Delay (d), s/veh	48.8	0.0	48.6	50.0	0.0	49.0	52.3	28.9	24.6	23.2	18.6	18.6
Incr Delay (d2), s/veh	0.8	0.0	0.7	0.8	0.0	0.1	5.6	3.9	1.2	0.0	1.6	2.9
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	1.8	0.0	1.4	1.5	0.0	0.3	2.4	10.9	1.8	0.2	18.8	20.9
LnGrp Delay(d),s/veh	49.5	0.0	49.3	50.8	0.0	49.1	57.9	32.8	25.8	23.2	20.2	21.5
LnGrp LOS	D		D	D		D	E	C	C	C	C	C
Approach Vol, veh/h		104			57			1710			2342	
Approach Delay, s/veh		49.4			50.5			34.6			20.7	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.8	75.6		16.5	51.0	34.3		18.2
Change Period (Y+Rc), s	3.0	5.4		4.6	5.4	* 5.4		4.6
Max Green Setting (Gmax), s	9.0	31.6		43.9	9.0	* 32		17.9
Max Q Clear Time (g_c+I1), s	6.7	41.8		4.9	2.4	22.5		5.6
Green Ext Time (p_c), s	0.1	0.0		0.2	0.0	6.4		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	27.4
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	0	287	0	0	0	0	1740	0	0	2074	1135
Future Volume (veh/h)	157	0	287	0	0	0	0	1740	0	0	2074	1135
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1900	1845	1900	0	1845	0	0	1845	1900
Adj Flow Rate, veh/h	167	0	305	0	0	0	0	1851	0	0	2206	1207
Adj No. of Lanes	2	1	0	0	1	0	0	3	0	0	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	0	3	0	0	3	3
Cap, veh/h	594	0	273	0	2	0	0	3781	0	0	2524	1175
Arrive On Green	0.17	0.00	0.17	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00
Sat Flow, veh/h	3408	0	1568	0	1845	0	0	5368	0	0	3528	1564
Grp Volume(v), veh/h	167	0	305	0	0	0	0	1851	0	0	2203	1210
Grp Sat Flow(s),veh/h/ln	1704	0	1568	0	1845	0	0	1679	0	0	1679	1569
Q Serve(g_s), s	5.1	0.0	20.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	90.1
Cycle Q Clear(g_c), s	5.1	0.0	20.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	90.1
Prop In Lane	1.00		1.00	0.00		0.00	0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	594	0	273	0	2	0	0	3781	0	0	2521	1178
V/C Ratio(X)	0.28	0.00	1.12	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.87	1.03
Avail Cap(c_a), veh/h	594	0	273	0	461	0	0	3781	0	0	2521	1178
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.92	0.00	0.00	0.49	0.49
Uniform Delay (d), s/veh	43.0	0.0	49.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	89.6	0.0	0.0	0.0	0.0	0.4	0.0	0.0	2.3	25.8
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	2.4	0.0	15.8	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.8	8.4
LnGrp Delay(d),s/veh	43.3	0.0	139.1	0.0	0.0	0.0	0.0	0.4	0.0	0.0	2.3	25.8
LnGrp LOS	D		F					A			A	F
Approach Vol, veh/h		472			0			1851			3413	
Approach Delay, s/veh		105.2			0.0			0.4			10.6	
Approach LOS		F						A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		94.5		0.0		94.5		25.5
Change Period (Y+Rc), s		4.4		4.6		4.4		4.6
Max Green Setting (Gmax), s		55.5		30.0		55.5		20.9
Max Q Clear Time (g_c+I1), s		92.1		0.0		2.1		22.9
Green Ext Time (p_c), s		0.0		0.0		24.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	356	297	249	68	30	159	957	337	63	1686	268
Future Volume (veh/h)	238	356	297	249	68	30	159	957	337	63	1686	268
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	251	375	313	262	72	32	167	1007	355	66	1775	282
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	821	844	377	252	260	116	224	2646	824	110	2457	765
Arrive On Green	0.24	0.24	0.24	0.07	0.07	0.07	0.02	0.17	0.17	0.03	0.48	0.48
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	251	375	313	262	72	32	167	1007	355	66	1775	282
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	7.2	10.8	22.5	8.8	2.3	2.3	5.8	21.1	24.1	2.3	33.3	13.4
Cycle Q Clear(g_c), s	7.2	10.8	22.5	8.8	2.3	2.3	5.8	21.1	24.1	2.3	33.3	13.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	821	844	377	252	260	116	224	2646	824	110	2457	765
V/C Ratio(X)	0.31	0.44	0.83	1.04	0.28	0.28	0.74	0.38	0.43	0.60	0.72	0.37
Avail Cap(c_a), veh/h	1139	1171	524	252	260	116	258	2646	824	272	2457	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	38.9	43.4	55.6	52.6	52.6	57.7	32.6	33.8	57.3	24.6	19.5
Incr Delay (d2), s/veh	0.2	0.3	5.8	66.9	0.6	1.3	9.0	0.4	1.5	5.1	1.9	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	3.4	5.3	10.5	6.5	1.2	1.0	3.0	10.0	10.9	1.2	15.9	6.2
LnGrp Delay(d),s/veh	37.7	39.2	49.2	122.5	53.2	53.9	66.7	32.9	35.3	62.4	26.5	20.9
LnGrp LOS	D	D	D	F	D	D	E	C	D	E	C	C
Approach Vol, veh/h		939			366			1529			2123	
Approach Delay, s/veh		42.1			102.9			37.2			26.9	
Approach LOS		D			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.8	62.4		32.8	7.3	66.8		13.0
Change Period (Y+Rc), s	4.0	4.4		* 4.2	3.5	4.4		4.2
Max Green Setting (Gmax), s	9.0	45.7		* 40	9.5	45.7		8.8
Max Q Clear Time (g_c+I1), s	7.8	35.3		24.5	4.3	26.1		10.8
Green Ext Time (p_c), s	0.1	8.4		4.1	0.1	8.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	38.6
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	174	26	52	1566	1486	849
Future Volume (veh/h)	174	26	52	1566	1486	849
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1845	1845	1845	1900
Adj Flow Rate, veh/h	200	0	53	1582	1501	858
Adj No. of Lanes	2	1	1	3	3	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	409	188	68	4113	2528	1181
Arrive On Green	0.12	0.00	0.04	0.82	0.50	0.50
Sat Flow, veh/h	3514	1615	1757	5202	3523	1568
Grp Volume(v), veh/h	200	0	53	1582	1501	858
Grp Sat Flow(s),veh/h/ln	1757	1615	1757	1679	1679	1568
Q Serve(g_s), s	6.4	0.0	3.6	10.1	38.0	51.4
Cycle Q Clear(g_c), s	6.4	0.0	3.6	10.1	38.0	51.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	409	188	68	4113	2528	1181
V/C Ratio(X)	0.49	0.00	0.78	0.38	0.59	0.73
Avail Cap(c_a), veh/h	1066	490	146	4113	2528	1181
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.67	0.67
Upstream Filter(I)	1.00	0.00	0.79	0.79	0.10	0.10
Uniform Delay (d), s/veh	49.7	0.0	57.2	2.9	16.7	20.1
Incr Delay (d2), s/veh	0.9	0.0	13.8	0.2	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	2.0	4.6	17.7	22.4
LnGrp Delay(d),s/veh	50.6	0.0	71.0	3.2	16.9	20.5
LnGrp LOS	D		E	A	B	C
Approach Vol, veh/h	200			1635	2359	
Approach Delay, s/veh	50.6			5.4	18.2	
Approach LOS	D			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.7	94.8				102.4		17.6
Change Period (Y+Rc), s	3.0	4.4				4.4		3.6
Max Green Setting (Gmax), s	10.0	62.6				75.6		36.4
Max Q Clear Time (g_c+I1), s	5.6	53.4				12.1		8.4
Green Ext Time (p_c), s	0.0	8.3				19.6		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	63	23	34	43	9	22	36	193	40	52	476	26
Future Vol, veh/h	63	23	34	43	9	22	36	193	40	52	476	26
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	9	9	9	37	37	37	9	9	9
Mvmt Flow	67	24	36	46	10	23	38	205	43	55	506	28
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	11.8	11.2	11.1	13.4
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	53%	58%	100%	0%	0%
Vol Thru, %	0%	100%	62%	19%	12%	0%	100%	86%
Vol Right, %	0%	0%	38%	28%	30%	0%	0%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	129	104	120	74	52	317	185
LT Vol	36	0	0	63	43	52	0	0
Through Vol	0	129	64	23	9	0	317	159
RT Vol	0	0	40	34	22	0	0	26
Lane Flow Rate	38	137	111	128	79	55	338	196
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.076	0.253	0.197	0.244	0.156	0.097	0.546	0.313
Departure Headway (Hd)	7.158	6.65	6.378	6.872	7.128	6.333	5.827	5.727
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	501	539	563	522	502	566	618	627
Service Time	4.902	4.394	4.122	4.622	4.883	4.07	3.563	3.463
HCM Lane V/C Ratio	0.076	0.254	0.197	0.245	0.157	0.097	0.547	0.313
HCM Control Delay	10.5	11.6	10.7	11.8	11.2	9.8	15.4	11.1
HCM Lane LOS	B	B	B	B	B	A	C	B
HCM 95th-tile Q	0.2	1	0.7	0.9	0.5	0.3	3.3	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	872	105	32	463	66	45
Future Volume (veh/h)	872	105	32	463	66	45
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1900	1810	1810	1863	1863
Adj Flow Rate, veh/h	918	111	34	487	69	47
Adj No. of Lanes	3	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	5	5	2	2
Cap, veh/h	1315	159	93	1435	836	746
Arrive On Green	0.31	0.31	0.05	0.42	0.47	0.47
Sat Flow, veh/h	4382	509	1723	3529	1774	1583
Grp Volume(v), veh/h	676	353	34	487	69	47
Grp Sat Flow(s),veh/h/ln	1558	1622	1723	1719	1774	1583
Q Serve(g_s), s	14.6	14.7	1.5	7.3	1.6	1.2
Cycle Q Clear(g_c), s	14.6	14.7	1.5	7.3	1.6	1.2
Prop In Lane		0.31	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	969	505	93	1435	836	746
V/C Ratio(X)	0.70	0.70	0.37	0.34	0.08	0.06
Avail Cap(c_a), veh/h	1203	626	271	2048	836	746
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.1	23.2	34.9	15.1	11.1	11.0
Incr Delay (d2), s/veh	1.7	3.2	2.4	0.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	7.0	0.8	3.5	0.8	0.6
LnGrp Delay(d),s/veh	24.8	26.4	37.3	15.3	11.3	11.2
LnGrp LOS	C	C	D	B	B	B
Approach Vol, veh/h	1029			521	116	
Approach Delay, s/veh	25.3			16.7	11.2	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.1	28.3				36.4		40.0
Change Period (Y+Rc), s	4.0	4.5				4.5		4.0
Max Green Setting (Gmax), s	12.0	29.5				45.5		36.0
Max Q Clear Time (g_c+I1), s	3.5	16.7				9.3		3.6
Green Ext Time (p_c), s	0.0	7.1				5.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.7
HCM 2010 LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Yield	Stop	
Traffic Volume (vph)	118	62	157	207	82	159
Future Volume (vph)	118	62	157	207	82	159
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	126	66	167	220	87	169

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	192	240	147	87	169
Volume Left (vph)	0	167	0	87	0
Volume Right (vph)	66	0	0	0	169
Hadj (s)	-0.17	0.38	0.03	0.53	-0.67
Departure Headway (s)	5.3	5.8	5.5	6.5	5.3
Degree Utilization, x	0.28	0.39	0.22	0.16	0.25
Capacity (veh/h)	640	595	631	521	634
Control Delay (s)	10.4	11.3	8.8	9.5	8.8
Approach Delay (s)	10.4	10.4		9.1	
Approach LOS	B	B		A	

Intersection Summary			
Delay	10.0		
Level of Service	A		
Intersection Capacity Utilization	34.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	538	1277	1774	493	0	1905
Future Volume (vph)	538	1277	1774	493	0	1905
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	4.4	4.4		4.4
Lane Util. Factor	0.97	0.88	0.91	1.00		0.91
Frt	1.00	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3433	2787	5085	1583		5085
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3433	2787	5085	1583		5085
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	560	1330	1848	514	0	1984
RTOR Reduction (vph)	0	1	0	200	0	0
Lane Group Flow (vph)	560	1329	1848	314	0	1984
Turn Type	Prot	custom	NA	Perm		NA
Protected Phases	4	4 5	6			2
Permitted Phases				6		
Actuated Green, G (s)	69.2	81.7	60.3	60.3		71.8
Effective Green, g (s)	69.2	81.7	60.3	60.3		71.8
Actuated g/C Ratio	0.46	0.54	0.40	0.40		0.48
Clearance Time (s)	4.6		4.4	4.4		4.4
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	1583	1517	2044	636		2434
v/s Ratio Prot	0.16	c0.48	c0.36			0.39
v/s Ratio Perm				0.20		
v/c Ratio	0.35	0.88	0.90	0.49		0.82
Uniform Delay, d1	26.0	29.7	42.1	33.5		33.4
Progression Factor	1.00	1.00	0.84	0.55		0.50
Incremental Delay, d2	0.1	6.0	3.6	1.3		2.1
Delay (s)	26.1	35.7	38.9	19.7		18.8
Level of Service	C	D	D	B		B
Approach Delay (s)	32.9		34.7			18.8
Approach LOS	C		C			B

Intersection Summary			
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.6
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	22	194	237	41	98	263	2361	427	72	1875	60
Future Volume (veh/h)	61	22	194	237	41	98	263	2361	427	72	1875	60
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	62	22	63	242	42	33	268	2409	338	73	1913	59
Adj No. of Lanes	0	1	1	1	1	0	2	4	1	2	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	44	147	274	149	117	284	3154	670	675	2815	87
Arrive On Green	0.09	0.09	0.09	0.15	0.15	0.15	0.16	0.85	0.85	0.39	1.00	1.00
Sat Flow, veh/h	1326	470	1583	1774	968	761	3548	7451	1583	3442	5069	156
Grp Volume(v), veh/h	84	0	63	242	0	75	268	2409	338	73	1279	693
Grp Sat Flow(s),veh/h/ln	1796	0	1583	1774	0	1729	1774	1863	1583	1721	1695	1835
Q Serve(g_s), s	6.7	0.0	5.6	20.0	0.0	5.8	11.2	21.0	8.6	2.0	0.0	0.0
Cycle Q Clear(g_c), s	6.7	0.0	5.6	20.0	0.0	5.8	11.2	21.0	8.6	2.0	0.0	0.0
Prop In Lane	0.74		1.00	1.00		0.44	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	167	0	147	274	0	267	284	3154	670	675	1883	1019
V/C Ratio(X)	0.50	0.00	0.43	0.88	0.00	0.28	0.94	0.76	0.50	0.11	0.68	0.68
Avail Cap(c_a), veh/h	216	0	190	512	0	499	284	3154	670	675	1883	1019
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.32	0.32	0.32	0.67	0.67	0.67
Uniform Delay (d), s/veh	64.7	0.0	64.2	62.1	0.0	56.1	62.7	8.2	7.3	37.3	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	2.0	9.2	0.0	0.6	18.2	0.6	0.9	0.0	1.4	2.5
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	3.4	0.0	2.5	10.5	0.0	2.8	6.2	10.2	3.7	1.0	0.4	0.7
LnGrp Delay(d),s/veh	67.0	0.0	66.2	71.4	0.0	56.7	80.9	8.8	8.2	37.3	1.4	2.5
LnGrp LOS	E		E	E		E	F	A	A	D	A	A
Approach Vol, veh/h		147			317			3015			2045	
Approach Delay, s/veh		66.7			67.9			15.2			3.0	
Approach LOS		E			E			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.0	88.7		27.7	34.8	68.9		18.6
Change Period (Y+Rc), s	3.0	5.4		4.6	5.4	* 5.4		4.6
Max Green Setting (Gmax), s	12.0	59.1		43.3	7.6	* 64		18.0
Max Q Clear Time (g_c+I1), s	13.2	2.0		22.0	4.0	23.0		8.7
Green Ext Time (p_c), s	0.0	26.3		1.1	0.0	32.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	328	0	425	0	0	0	0	2840	0	0	1598	845
Future Volume (veh/h)	328	0	425	0	0	0	0	2840	0	0	1598	845
Number	3	8	18	7	4	14	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1900	0	1863	0	0	1863	1900
Adj Flow Rate, veh/h	345	0	447	0	0	0	0	2989	0	0	1682	889
Adj No. of Lanes	2	1	0	0	1	0	0	3	0	0	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	0	0	2	2
Cap, veh/h	597	0	274	0	1	0	0	3899	0	0	2599	1214
Arrive On Green	0.17	0.00	0.17	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00
Sat Flow, veh/h	3442	0	1583	0	1863	0	0	5421	0	0	3558	1583
Grp Volume(v), veh/h	345	0	447	0	0	0	0	2989	0	0	1682	889
Grp Sat Flow(s),veh/h/ln	1721	0	1583	0	1863	0	0	1695	0	0	1695	1583
Q Serve(g_s), s	13.8	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.8	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	0.00		0.00	0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	597	0	274	0	1	0	0	3899	0	0	2599	1214
V/C Ratio(X)	0.58	0.00	1.63	0.00	0.00	0.00	0.00	0.77	0.00	0.00	0.65	0.73
Avail Cap(c_a), veh/h	597	0	274	0	390	0	0	3899	0	0	2599	1214
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.63	0.63
Uniform Delay (d), s/veh	57.0	0.0	62.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	299.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	2.5
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	6.7	0.0	34.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.8
LnGrp Delay(d),s/veh	58.4	0.0	361.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	2.5
LnGrp LOS	E		F					A			A	A
Approach Vol, veh/h		792			0			2989			2571	
Approach Delay, s/veh		229.2			0.0			0.9			1.4	
Approach LOS		F						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		119.4		0.0		119.4		30.6
Change Period (Y+Rc), s		4.4		4.6		4.4		4.6
Max Green Setting (Gmax), s		79.0		31.4		79.0		26.0
Max Q Clear Time (g_c+I1), s		2.0		0.0		2.0		28.0
Green Ext Time (p_c), s		50.9		0.0		63.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	29.6
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	408	277	270	523	399	151	271	1880	385	103	1192	333
Future Volume (veh/h)	408	277	270	523	399	151	271	1880	385	103	1192	333
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	421	286	278	539	411	156	279	1938	397	106	1229	343
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	710	730	327	597	614	275	329	2356	733	150	2075	646
Arrive On Green	0.21	0.21	0.21	0.17	0.17	0.17	0.13	0.62	0.62	0.04	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	421	286	278	539	411	156	279	1938	397	106	1229	343
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	16.6	10.5	25.4	23.0	16.3	13.5	11.9	44.5	21.7	4.6	28.3	24.6
Cycle Q Clear(g_c), s	16.6	10.5	25.4	23.0	16.3	13.5	11.9	44.5	21.7	4.6	28.3	24.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	710	730	327	597	614	275	329	2356	733	150	2075	646
V/C Ratio(X)	0.59	0.39	0.85	0.90	0.67	0.57	0.85	0.82	0.54	0.71	0.59	0.53
Avail Cap(c_a), veh/h	895	920	412	615	632	283	436	2356	733	218	2075	646
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	51.4	57.3	60.7	58.0	56.8	64.4	24.0	19.6	70.8	34.7	33.6
Incr Delay (d2), s/veh	0.6	0.3	10.6	16.4	2.6	2.5	7.4	2.1	1.8	5.9	1.3	3.1
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	8.0	5.2	12.1	12.3	8.2	6.1	6.0	21.2	9.7	2.3	13.4	11.3
LnGrp Delay(d),s/veh	54.5	51.7	67.9	77.1	60.6	59.4	71.8	26.1	21.4	76.7	35.9	36.7
LnGrp LOS	D	D	E	E	E	E	E	C	C	E	D	D
Approach Vol, veh/h		985			1106			2614			1678	
Approach Delay, s/veh		57.5			68.5			30.3			38.6	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.3	65.6		35.8	10.0	73.9		30.2
Change Period (Y+Rc), s	4.0	4.4		4.9	3.5	4.4		4.2
Max Green Setting (Gmax), s	19.0	47.7		39.0	9.5	57.7		26.8
Max Q Clear Time (g_c+I1), s	13.9	30.3		27.4	6.6	46.5		25.0
Green Ext Time (p_c), s	0.4	9.6		3.6	0.1	9.5		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.3
HCM 2010 LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	767	83	27	2052	1793	194
Future Volume (veh/h)	767	83	27	2052	1793	194
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	888	0	28	2160	1887	204
Adj No. of Lanes	2	1	1	3	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	954	434	36	3447	2975	320
Arrive On Green	0.27	0.00	0.02	0.68	1.00	1.00
Sat Flow, veh/h	3548	1615	1774	5253	4831	501
Grp Volume(v), veh/h	888	0	28	2160	1368	723
Grp Sat Flow(s),veh/h/ln	1774	1615	1774	1695	1695	1774
Q Serve(g_s), s	36.6	0.0	2.4	35.7	0.0	0.0
Cycle Q Clear(g_c), s	36.6	0.0	2.4	35.7	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.28
Lane Grp Cap(c), veh/h	954	434	36	3447	2162	1132
V/C Ratio(X)	0.93	0.00	0.79	0.63	0.63	0.64
Avail Cap(c_a), veh/h	1027	467	106	3447	2162	1132
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.79	0.79	0.56	0.56
Uniform Delay (d), s/veh	53.5	0.0	73.2	13.5	0.0	0.0
Incr Delay (d2), s/veh	13.9	0.0	25.3	0.7	0.8	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.7	0.0	1.4	16.8	0.2	0.5
LnGrp Delay(d),s/veh	67.4	0.0	98.5	14.2	0.8	1.6
LnGrp LOS	E		F	B	A	A
Approach Vol, veh/h	888			2188	2091	
Approach Delay, s/veh	67.4			15.3	1.1	
Approach LOS	E			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.0	100.1				106.1		43.9
Change Period (Y+Rc), s	3.0	4.4				4.4		3.6
Max Green Setting (Gmax), s	9.0	86.6				98.6		43.4
Max Q Clear Time (g_c+I1), s	4.4	2.0				37.7		38.6
Green Ext Time (p_c), s	0.0	34.3				33.8		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	7	17	50	20	32	45	448	32	28	196	54
Future Vol, veh/h	43	7	17	50	20	32	45	448	32	28	196	54
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	3	3	3
Mvmt Flow	46	8	18	54	22	34	48	482	34	30	211	58
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	10.7	11.2	12.1	10
HCM LOS	B	B	B	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	64%	49%	100%	0%	0%
Vol Thru, %	0%	100%	82%	10%	20%	0%	100%	55%
Vol Right, %	0%	0%	18%	25%	31%	0%	0%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	299	181	67	102	28	131	119
LT Vol	45	0	0	43	50	28	0	0
Through Vol	0	299	149	7	20	0	131	65
RT Vol	0	0	32	17	32	0	0	54
Lane Flow Rate	48	321	195	72	110	30	141	128
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.081	0.495	0.294	0.138	0.204	0.053	0.229	0.198
Departure Headway (Hd)	6.056	5.55	5.426	6.871	6.7	6.377	5.871	5.55
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	592	649	663	522	536	562	611	647
Service Time	3.784	3.279	3.154	4.612	4.439	4.112	3.605	3.284
HCM Lane V/C Ratio	0.081	0.495	0.294	0.138	0.205	0.053	0.231	0.198
HCM Control Delay	9.3	13.6	10.4	10.7	11.2	9.5	10.4	9.7
HCM Lane LOS	A	B	B	B	B	A	B	A
HCM 95th-tile Q	0.3	2.8	1.2	0.5	0.8	0.2	0.9	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	910	81	50	953	65	45
Future Volume (veh/h)	910	81	50	953	65	45
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	978	87	54	1025	70	48
Adj No. of Lanes	3	0	1	2	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1460	130	126	1518	820	731
Arrive On Green	0.31	0.31	0.07	0.43	0.46	0.46
Sat Flow, veh/h	4924	422	1774	3632	1774	1583
Grp Volume(v), veh/h	697	368	54	1025	70	48
Grp Sat Flow(s),veh/h/ln	1695	1788	1774	1770	1774	1583
Q Serve(g_s), s	14.0	14.0	2.3	18.1	1.7	1.3
Cycle Q Clear(g_c), s	14.0	14.0	2.3	18.1	1.7	1.3
Prop In Lane		0.24	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1040	549	126	1518	820	731
V/C Ratio(X)	0.67	0.67	0.43	0.68	0.09	0.07
Avail Cap(c_a), veh/h	1327	700	250	2066	820	731
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.6	23.6	34.7	17.9	11.7	11.6
Incr Delay (d2), s/veh	1.2	2.3	2.3	0.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	7.2	1.2	9.0	0.9	0.6
LnGrp Delay(d),s/veh	24.7	25.9	37.0	18.6	11.9	11.8
LnGrp LOS	C	C	D	B	B	B
Approach Vol, veh/h	1065			1079	118	
Approach Delay, s/veh	25.1			19.6	11.9	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.5	28.4				37.9		40.0
Change Period (Y+Rc), s	4.0	4.5				4.5		4.0
Max Green Setting (Gmax), s	11.0	30.5				45.5		36.0
Max Q Clear Time (g_c+I1), s	4.3	16.0				20.1		3.7
Green Ext Time (p_c), s	0.0	7.9				11.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	57	282	47	28	104	1283	108	20	2059
v/c Ratio	0.26	0.64	0.23	0.13	0.41	0.33	0.13	0.11	0.71
Control Delay	50.7	12.7	51.3	26.7	58.1	12.3	4.7	74.9	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	50.7	12.7	51.3	26.7	58.1	12.5	4.7	74.9	19.7
Queue Length 50th (ft)	41	0	34	6	42	131	13	6	540
Queue Length 95th (ft)	81	81	72	35	72	169	33	m13	623
Internal Link Dist (ft)	192			204		342			595
Turn Bay Length (ft)					185		190	120	
Base Capacity (vph)	271	476	647	624	277	3846	854	257	2899
Starvation Cap Reductn	0	0	0	0	0	1221	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.59	0.07	0.04	0.38	0.49	0.13	0.08	0.71

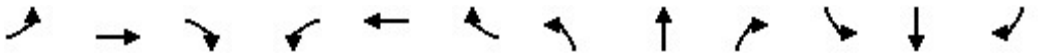
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	SBT
Lane Group Flow (vph)	133	140	1629	2697
v/c Ratio	0.47	0.29	0.45	0.94dr
Control Delay	57.4	1.5	11.5	23.2
Queue Delay	0.0	0.0	0.3	0.1
Total Delay	57.4	1.5	11.8	23.3
Queue Length 50th (ft)	51	0	69	513
Queue Length 95th (ft)	82	0	400	#869
Internal Link Dist (ft)		427	323	829
Turn Bay Length (ft)				
Base Capacity (vph)	592	595	3656	3482
Starvation Cap Reductn	0	0	1146	0
Spillback Cap Reductn	0	24	0	62
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.22	0.25	0.65	0.79

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	249	375	312	166	72	32	105	868	342	66	1602	240
v/c Ratio	0.36	0.53	0.72	0.53	0.22	0.14	0.43	0.33	0.34	0.30	0.63	0.27
Control Delay	41.3	44.4	32.8	58.3	51.8	1.4	58.1	19.3	9.2	56.7	25.4	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	44.4	32.8	58.3	51.8	1.4	58.1	19.3	9.2	56.7	25.4	7.3
Queue Length 50th (ft)	87	139	126	64	27	0	41	77	4	25	321	24
Queue Length 95th (ft)	109	163	201	99	51	0	76	202	156	48	470	90
Internal Link Dist (ft)		714			439			595			583	
Turn Bay Length (ft)	150		25	260			310		651	225		200
Base Capacity (vph)	1135	1170	618	312	322	223	263	2663	992	271	2528	876
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.32	0.50	0.53	0.22	0.14	0.40	0.33	0.34	0.24	0.63	0.27

Intersection Summary

Lane Group	EBL	NBL	NBT	SBT
Lane Group Flow (vph)	196	32	1377	1586
v/c Ratio	0.48	0.29	0.34	0.43
Control Delay	49.6	59.2	3.1	10.3
Queue Delay	0.0	0.0	0.0	0.5
Total Delay	49.6	59.2	3.1	10.8
Queue Length 50th (ft)	68	24	77	100
Queue Length 95th (ft)	106	56	97	349
Internal Link Dist (ft)	167		751	323
Turn Bay Length (ft)				
Base Capacity (vph)	1029	147	4101	3681
Starvation Cap Reductn	0	0	0	1497
Spillback Cap Reductn	0	0	316	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.19	0.22	0.36	0.73

Intersection Summary

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1014	34	383	69	47
v/c Ratio	0.65	0.19	0.26	0.08	0.06
Control Delay	24.2	38.4	14.3	15.4	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	38.4	14.3	15.4	5.4
Queue Length 50th (ft)	163	17	60	22	0
Queue Length 95th (ft)	213	46	87	49	20
Internal Link Dist (ft)	678		714	222	
Turn Bay Length (ft)		150		100	
Base Capacity (vph)	1831	244	2024	824	762
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.55	0.14	0.19	0.08	0.06

Intersection Summary

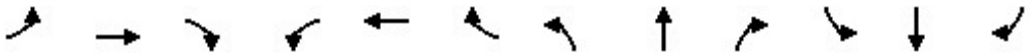
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	78	146	242	142	238	2201	392	73	1720
v/c Ratio	0.45	0.51	0.79	0.40	0.66	0.66	0.49	0.37	0.67
Control Delay	72.6	15.7	76.5	26.4	73.1	18.6	7.1	77.5	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.0	0.1
Total Delay	72.6	15.7	76.5	26.4	73.1	19.3	7.8	77.5	22.0
Queue Length 50th (ft)	74	0	230	53	119	313	82	38	235
Queue Length 95th (ft)	128	68	307	113	m145	454	m134	m63	653
Internal Link Dist (ft)	192			204		342			595
Turn Bay Length (ft)					185		190	120	
Base Capacity (vph)	249	345	512	538	371	3339	807	202	2567
Starvation Cap Reductn	0	0	0	0	0	692	167	0	120
Spillback Cap Reductn	0	0	0	0	0	29	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.42	0.47	0.26	0.64	0.83	0.61	0.36	0.70

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	SBT
Lane Group Flow (vph)	293	396	2219	2251
v/c Ratio	0.63	0.81	0.61	0.65
Control Delay	67.0	27.3	22.2	15.6
Queue Delay	0.0	17.2	0.3	0.0
Total Delay	67.0	44.5	22.5	15.7
Queue Length 50th (ft)	142	74	389	216
Queue Length 95th (ft)	182	199	781	426
Internal Link Dist (ft)		427	323	829
Turn Bay Length (ft)				
Base Capacity (vph)	627	547	3624	3482
Starvation Cap Reductn	0	0	635	125
Spillback Cap Reductn	0	142	0	115
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.47	0.98	0.74	0.67

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	377	286	194	490	411	156	278	1725	351	106	1106	342
v/c Ratio	0.66	0.49	0.57	0.72	0.59	0.36	0.72	0.74	0.38	0.50	0.53	0.43
Control Delay	64.0	58.9	34.6	62.5	57.8	9.0	95.1	27.2	5.5	76.1	36.7	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Total Delay	64.0	58.9	34.6	62.5	57.8	9.0	95.1	27.3	5.5	76.1	36.7	10.4
Queue Length 50th (ft)	181	135	89	231	192	0	148	228	28	52	302	46
Queue Length 95th (ft)	221	172	163	290	246	61	198	323	101	86	400	147
Internal Link Dist (ft)		714			439			595			583	
Turn Bay Length (ft)	150		25	260			310		651	225		200
Base Capacity (vph)	892	920	481	698	720	446	435	2346	919	227	2076	804
Starvation Cap Reductn	0	0	0	0	0	0	0	71	0	0	0	0
Spillback Cap Reductn	0	0	2	0	0	0	0	0	0	0	111	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.31	0.41	0.70	0.57	0.35	0.64	0.76	0.38	0.47	0.56	0.43

Intersection Summary

Lane Group	EBL	NBL	NBT	SBT
Lane Group Flow (vph)	511	28	1758	1869
v/c Ratio	0.81	0.30	0.45	0.52
Control Delay	67.2	76.1	7.2	13.8
Queue Delay	0.0	0.0	0.2	0.3
Total Delay	67.2	76.1	7.4	14.1
Queue Length 50th (ft)	243	27	202	405
Queue Length 95th (ft)	294	62	274	290
Internal Link Dist (ft)	167		751	323
Turn Bay Length (ft)				
Base Capacity (vph)	990	109	3879	3582
Starvation Cap Reductn	0	0	0	961
Spillback Cap Reductn	2	0	925	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.52	0.26	0.60	0.71

Intersection Summary

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	922	54	1023	70	48
v/c Ratio	0.53	0.28	0.66	0.09	0.06
Control Delay	22.7	39.0	19.7	15.4	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	39.0	19.7	15.4	5.4
Queue Length 50th (ft)	142	26	202	20	0
Queue Length 95th (ft)	191	64	262	51	21
Internal Link Dist (ft)	678		714	222	
Turn Bay Length (ft)		150		100	
Base Capacity (vph)	1947	246	2037	806	747
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.47	0.22	0.50	0.09	0.06

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	59	301	47	28	145	1283	108	20	2065
v/c Ratio	0.26	0.66	0.23	0.13	0.48	0.33	0.13	0.11	0.73
Control Delay	50.7	12.8	51.3	26.7	59.0	12.8	4.8	71.3	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	50.7	12.8	51.3	26.7	59.0	12.9	4.8	71.3	22.9
Queue Length 50th (ft)	42	0	34	6	59	130	12	6	567
Queue Length 95th (ft)	82	83	72	35	93	170	33	m13	635
Internal Link Dist (ft)	192			204		342			595
Turn Bay Length (ft)					185		190	120	
Base Capacity (vph)	271	492	634	611	299	3841	854	214	2829
Starvation Cap Reductn	0	0	0	0	0	1193	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.61	0.07	0.05	0.48	0.48	0.13	0.09	0.73

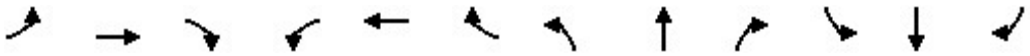
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	SBT
Lane Group Flow (vph)	145	140	1635	2710
v/c Ratio	0.49	0.28	0.45	0.95dr
Control Delay	57.5	1.4	11.7	24.9
Queue Delay	0.0	0.0	0.3	0.1
Total Delay	57.5	1.5	12.0	25.0
Queue Length 50th (ft)	56	0	72	628
Queue Length 95th (ft)	88	0	405	#936
Internal Link Dist (ft)		427	323	829
Turn Bay Length (ft)				
Base Capacity (vph)	592	595	3637	3462
Starvation Cap Reductn	0	0	1134	0
Spillback Cap Reductn	0	24	0	68
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.24	0.25	0.65	0.80

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	249	375	312	166	72	32	105	871	342	66	1608	240
v/c Ratio	0.36	0.53	0.72	0.53	0.22	0.14	0.43	0.33	0.34	0.30	0.64	0.27
Control Delay	41.3	44.4	32.8	58.3	51.8	1.4	56.3	23.0	11.6	56.7	25.5	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	44.4	32.8	58.3	51.8	1.4	56.3	23.0	11.6	56.7	25.5	7.3
Queue Length 50th (ft)	87	139	126	64	27	0	41	97	4	25	323	24
Queue Length 95th (ft)	109	163	201	99	51	0	75	231	193	48	472	90
Internal Link Dist (ft)		714			439			595			583	
Turn Bay Length (ft)	150		25	260			310		651	225		200
Base Capacity (vph)	1135	1170	618	312	322	223	263	2663	992	271	2528	876
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.32	0.50	0.53	0.22	0.14	0.40	0.33	0.34	0.24	0.64	0.27

Intersection Summary

Lane Group	EBL	NBL	NBT	SBT
Lane Group Flow (vph)	196	32	1383	1588
v/c Ratio	0.48	0.29	0.34	0.43
Control Delay	49.6	59.2	3.1	10.8
Queue Delay	0.0	0.0	0.0	0.6
Total Delay	49.6	59.2	3.1	11.4
Queue Length 50th (ft)	68	24	77	129
Queue Length 95th (ft)	106	56	98	352
Internal Link Dist (ft)	167		751	323
Turn Bay Length (ft)				
Base Capacity (vph)	1029	147	4101	3681
Starvation Cap Reductn	0	0	0	1509
Spillback Cap Reductn	0	0	328	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.19	0.22	0.37	0.73

Intersection Summary

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1027	34	383	69	47
v/c Ratio	0.65	0.19	0.26	0.08	0.06
Control Delay	24.2	38.4	14.3	15.5	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	38.4	14.3	15.5	5.4
Queue Length 50th (ft)	165	18	60	22	0
Queue Length 95th (ft)	216	46	87	49	20
Internal Link Dist (ft)	678		714	222	
Turn Bay Length (ft)		150		100	
Base Capacity (vph)	1826	244	2020	823	761
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.56	0.14	0.19	0.08	0.06

Intersection Summary

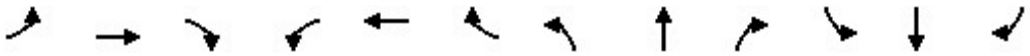
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	84	198	242	142	268	2201	392	73	1724
v/c Ratio	0.48	0.59	0.79	0.40	0.68	0.66	0.49	0.37	0.69
Control Delay	73.4	15.5	76.5	26.4	72.3	18.9	7.0	77.1	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.0	0.1
Total Delay	73.4	15.5	76.5	26.4	72.3	19.7	7.7	77.1	23.1
Queue Length 50th (ft)	80	0	230	53	134	314	80	38	236
Queue Length 95th (ft)	136	78	307	113	m161	466	m129	m63	673
Internal Link Dist (ft)	192			204		342			595
Turn Bay Length (ft)					185		190	120	
Base Capacity (vph)	249	390	512	538	401	3331	805	202	2507
Starvation Cap Reductn	0	0	0	0	0	702	169	0	90
Spillback Cap Reductn	0	0	0	0	0	21	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.51	0.47	0.26	0.67	0.84	0.62	0.36	0.71

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	SBT
Lane Group Flow (vph)	302	396	2223	2284
v/c Ratio	0.64	0.78	0.62	0.66
Control Delay	66.8	22.0	22.3	16.4
Queue Delay	0.0	9.3	0.3	0.1
Total Delay	66.8	31.3	22.6	16.5
Queue Length 50th (ft)	146	54	410	246
Queue Length 95th (ft)	185	172	800	439
Internal Link Dist (ft)		427	323	829
Turn Bay Length (ft)				
Base Capacity (vph)	615	559	3609	3465
Starvation Cap Reductn	0	0	669	99
Spillback Cap Reductn	0	131	0	150
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.49	0.93	0.76	0.69

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	377	286	194	490	411	156	278	1731	351	106	1110	342
v/c Ratio	0.66	0.49	0.57	0.72	0.59	0.36	0.72	0.74	0.38	0.50	0.53	0.42
Control Delay	64.0	58.9	34.6	62.6	57.9	9.0	95.4	26.8	5.2	76.1	36.6	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Total Delay	64.0	58.9	34.6	62.6	57.9	9.0	95.4	26.9	5.2	76.1	36.7	10.3
Queue Length 50th (ft)	181	135	89	231	192	0	148	224	27	52	305	46
Queue Length 95th (ft)	221	172	163	292	248	61	197	323	101	86	398	145
Internal Link Dist (ft)		714			439			595			583	
Turn Bay Length (ft)	150		25	260			310		651	225		200
Base Capacity (vph)	894	922	482	693	714	444	435	2346	919	227	2076	805
Starvation Cap Reductn	0	0	0	0	0	0	0	71	0	0	0	0
Spillback Cap Reductn	0	0	2	0	0	0	0	0	0	0	136	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.31	0.40	0.71	0.58	0.35	0.64	0.76	0.38	0.47	0.57	0.42

Intersection Summary

Lane Group	EBL	NBL	NBT	SBT
Lane Group Flow (vph)	511	28	1762	1875
v/c Ratio	0.81	0.30	0.45	0.52
Control Delay	67.2	76.1	7.2	13.6
Queue Delay	0.0	0.0	0.2	0.4
Total Delay	67.2	76.1	7.4	13.9
Queue Length 50th (ft)	243	27	203	420
Queue Length 95th (ft)	294	62	274	294
Internal Link Dist (ft)	167		751	323
Turn Bay Length (ft)				
Base Capacity (vph)	990	109	3879	3582
Starvation Cap Reductn	0	0	0	986
Spillback Cap Reductn	2	0	996	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.52	0.26	0.61	0.72

Intersection Summary

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	932	54	1023	70	48
v/c Ratio	0.53	0.28	0.66	0.09	0.06
Control Delay	22.6	39.2	19.6	15.6	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.6	39.2	19.6	15.6	5.4
Queue Length 50th (ft)	143	26	202	20	0
Queue Length 95th (ft)	193	64	262	51	21
Internal Link Dist (ft)	678		714	222	
Turn Bay Length (ft)		150		100	
Base Capacity (vph)	1941	245	2031	804	745
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.48	0.22	0.50	0.09	0.06

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	57	282	47	28	104	1490	108	20	2317
v/c Ratio	0.26	0.64	0.23	0.13	0.41	0.39	0.13	0.10	0.80
Control Delay	50.7	12.7	51.3	26.7	58.2	11.6	3.2	47.5	19.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	50.7	12.7	51.3	26.7	58.2	11.7	3.2	47.5	19.3
Queue Length 50th (ft)	41	0	34	6	42	143	9	8	650
Queue Length 95th (ft)	81	81	72	35	m69	225	m33	m11	726
Internal Link Dist (ft)	192			204		342			595
Turn Bay Length (ft)					185		190	120	
Base Capacity (vph)	271	476	647	624	277	3804	848	257	2899
Starvation Cap Reductn	0	0	0	0	0	901	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.59	0.07	0.04	0.38	0.51	0.13	0.08	0.80

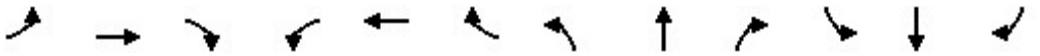
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	SBT
Lane Group Flow (vph)	155	305	1845	3402
v/c Ratio	0.48	0.61	0.51	1.01dr
Control Delay	55.9	7.0	10.6	31.9
Queue Delay	0.0	0.3	0.3	41.2
Total Delay	55.9	7.3	10.8	73.1
Queue Length 50th (ft)	59	0	88	714
Queue Length 95th (ft)	90	22	373	#1335
Internal Link Dist (ft)		427	323	829
Turn Bay Length (ft)				
Base Capacity (vph)	592	590	3599	3452
Starvation Cap Reductn	0	0	906	0
Spillback Cap Reductn	0	50	0	443
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.56	0.69	1.13

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	251	375	313	262	72	32	167	1005	355	66	1768	282
v/c Ratio	0.36	0.52	0.72	0.59	0.16	0.11	0.59	0.41	0.37	0.30	0.78	0.35
Control Delay	40.9	43.9	32.3	55.8	48.1	0.8	65.9	22.7	7.8	56.7	32.8	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.9	43.9	32.3	55.8	48.1	0.8	65.9	22.7	7.8	56.7	32.8	9.6
Queue Length 50th (ft)	88	138	127	98	26	0	71	167	61	25	424	42
Queue Length 95th (ft)	109	162	199	#165	51	0	110	156	95	48	541	115
Internal Link Dist (ft)		714			439			595			583	
Turn Bay Length (ft)	150		25	260			310		651	225		200
Base Capacity (vph)	1135	1170	618	442	455	279	289	2456	948	271	2261	809
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.32	0.51	0.59	0.16	0.11	0.58	0.41	0.37	0.24	0.78	0.35

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	NBL	NBT	SBT
Lane Group Flow (vph)	202	53	1576	2357
v/c Ratio	0.49	0.40	0.38	0.67
Control Delay	50.1	61.2	3.4	17.9
Queue Delay	0.0	0.0	0.0	27.1
Total Delay	50.1	61.2	3.4	45.0
Queue Length 50th (ft)	71	40	93	301
Queue Length 95th (ft)	108	80	120	m648
Internal Link Dist (ft)	167		751	323
Turn Bay Length (ft)				
Base Capacity (vph)	1029	154	4098	3514
Starvation Cap Reductn	0	0	0	1273
Spillback Cap Reductn	3	0	194	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.34	0.40	1.05

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1016	34	487	69	47
v/c Ratio	0.65	0.18	0.34	0.08	0.06
Control Delay	24.4	38.0	15.2	15.1	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.4	38.0	15.2	15.1	5.2
Queue Length 50th (ft)	163	17	80	22	0
Queue Length 95th (ft)	214	45	112	48	20
Internal Link Dist (ft)	678		714	222	
Turn Bay Length (ft)		150		100	
Base Capacity (vph)	1780	268	2033	828	765
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.57	0.13	0.24	0.08	0.06

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	78	146	242	142	238	2453	392	73	1970
v/c Ratio	0.45	0.51	0.79	0.40	0.64	0.73	0.49	0.42	0.77
Control Delay	72.7	15.7	76.5	26.4	72.1	19.1	7.6	66.1	25.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	2.7	0.9	0.0	0.6
Total Delay	72.7	15.7	76.5	26.4	72.1	21.8	8.5	66.1	25.6
Queue Length 50th (ft)	74	0	230	53	119	357	69	37	661
Queue Length 95th (ft)	128	68	307	113	m132	496	m130	m58	#796
Internal Link Dist (ft)	192			204		342			595
Turn Bay Length (ft)					185		190	120	
Base Capacity (vph)	215	318	510	537	373	3379	806	173	2551
Starvation Cap Reductn	0	0	0	0	0	779	191	0	240
Spillback Cap Reductn	0	0	0	1	0	159	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.46	0.47	0.26	0.64	0.94	0.64	0.42	0.85

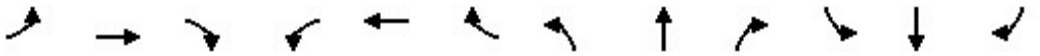
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	SBT
Lane Group Flow (vph)	336	447	2985	2538
v/c Ratio	0.64	0.88	0.85	0.75
Control Delay	64.7	38.0	27.2	18.1
Queue Delay	0.0	13.1	0.6	1.3
Total Delay	64.7	51.2	27.9	19.4
Queue Length 50th (ft)	158	140	829	368
Queue Length 95th (ft)	208	#312	#1304	#490
Internal Link Dist (ft)		427	323	829
Turn Bay Length (ft)				
Base Capacity (vph)	627	542	3527	3387
Starvation Cap Reductn	0	0	221	3
Spillback Cap Reductn	0	83	0	584
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.54	0.97	0.90	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	421	286	278	539	411	156	279	1932	397	106	1225	343
v/c Ratio	0.65	0.43	0.70	0.78	0.58	0.36	0.73	0.87	0.43	0.51	0.63	0.45
Control Delay	60.4	54.6	41.1	65.2	57.7	10.4	100.5	33.6	4.2	77.3	41.2	13.4
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.7	0.0
Total Delay	60.4	54.6	41.1	65.2	57.7	10.4	100.5	33.9	4.2	77.3	41.9	13.4
Queue Length 50th (ft)	200	132	150	251	186	4	149	587	38	52	370	68
Queue Length 95th (ft)	234	163	234	#362	259	69	197	#781	90	86	452	173
Internal Link Dist (ft)		714			439			595			583	
Turn Bay Length (ft)	150		25	260			310		651	225		200
Base Capacity (vph)	892	920	499	699	720	442	434	2222	915	219	1942	754
Starvation Cap Reductn	0	0	0	0	0	0	0	47	0	0	0	0
Spillback Cap Reductn	0	0	8	0	0	0	0	0	0	0	352	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.31	0.57	0.77	0.57	0.35	0.64	0.89	0.43	0.48	0.77	0.45

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	NBL	NBT	SBT
Lane Group Flow (vph)	894	28	2156	2085
v/c Ratio	0.93	0.31	0.64	0.67
Control Delay	67.6	77.5	15.9	23.0
Queue Delay	0.0	0.0	0.9	1.0
Total Delay	67.6	77.5	16.8	24.0
Queue Length 50th (ft)	425	27	447	601
Queue Length 95th (ft)	#547	62	476	335
Internal Link Dist (ft)	167		751	323
Turn Bay Length (ft)				
Base Capacity (vph)	998	106	3392	3109
Starvation Cap Reductn	0	0	638	682
Spillback Cap Reductn	0	0	848	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.90	0.26	0.85	0.86

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1055	54	1025	70	48
v/c Ratio	0.59	0.28	0.65	0.09	0.07
Control Delay	23.4	39.8	19.3	16.1	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	39.8	19.3	16.1	5.5
Queue Length 50th (ft)	168	28	203	22	0
Queue Length 95th (ft)	224	64	262	51	21
Internal Link Dist (ft)	678		714	222	
Turn Bay Length (ft)		150		100	
Base Capacity (vph)	1922	242	2008	795	737
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.55	0.22	0.51	0.09	0.07

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	59	301	47	28	145	1490	108	20	2323
v/c Ratio	0.26	0.66	0.23	0.13	0.49	0.39	0.13	0.10	0.82
Control Delay	50.7	12.8	51.3	26.7	58.5	11.5	3.1	47.4	21.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	50.7	12.8	51.3	26.7	58.5	11.7	3.1	47.4	21.2
Queue Length 50th (ft)	42	0	34	6	59	145	9	8	653
Queue Length 95th (ft)	82	83	72	35	m92	227	m29	m11	#759
Internal Link Dist (ft)	192			204		342			595
Turn Bay Length (ft)					185		190	120	
Base Capacity (vph)	271	492	647	624	306	3799	847	257	2835
Starvation Cap Reductn	0	0	0	0	0	906	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.61	0.07	0.04	0.47	0.52	0.13	0.08	0.82

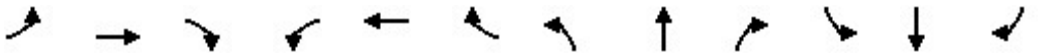
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	SBT
Lane Group Flow (vph)	167	305	1851	3413
v/c Ratio	0.49	0.61	0.52	1.03dr
Control Delay	55.6	6.8	10.8	34.8
Queue Delay	0.0	0.3	0.3	39.6
Total Delay	55.6	7.1	11.1	74.3
Queue Length 50th (ft)	63	0	98	824
Queue Length 95th (ft)	96	22	375	#1364
Internal Link Dist (ft)		427	323	829
Turn Bay Length (ft)				
Base Capacity (vph)	592	590	3575	3430
Starvation Cap Reductn	0	0	889	0
Spillback Cap Reductn	0	53	0	487
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.28	0.57	0.69	1.16

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	251	375	313	262	72	32	167	1007	355	66	1775	282
v/c Ratio	0.36	0.52	0.72	0.59	0.16	0.11	0.59	0.41	0.37	0.30	0.79	0.35
Control Delay	40.9	43.9	32.3	55.8	48.1	0.8	65.9	22.5	7.7	56.7	32.9	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.9	43.9	32.3	55.8	48.1	0.8	65.9	22.5	7.7	56.7	32.9	9.7
Queue Length 50th (ft)	88	138	127	98	26	0	71	165	60	25	427	42
Queue Length 95th (ft)	109	162	199	#165	51	0	109	154	92	48	#546	116
Internal Link Dist (ft)		714			439			595			583	
Turn Bay Length (ft)	150		25	260			310		651	225		200
Base Capacity (vph)	1135	1170	618	442	455	279	289	2456	948	271	2261	808
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.32	0.51	0.59	0.16	0.11	0.58	0.41	0.37	0.24	0.79	0.35

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	NBL	NBT	SBT
Lane Group Flow (vph)	202	53	1582	2359
v/c Ratio	0.49	0.40	0.39	0.67
Control Delay	50.1	61.2	3.4	18.3
Queue Delay	0.0	0.0	0.0	30.9
Total Delay	50.1	61.2	3.4	49.2
Queue Length 50th (ft)	71	40	94	334
Queue Length 95th (ft)	108	80	120	m648
Internal Link Dist (ft)	167		751	323
Turn Bay Length (ft)				
Base Capacity (vph)	1029	154	4098	3513
Starvation Cap Reductn	0	0	0	1290
Spillback Cap Reductn	8	0	198	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.34	0.41	1.06

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1029	34	487	69	47
v/c Ratio	0.66	0.19	0.34	0.08	0.06
Control Delay	24.5	38.0	15.2	15.1	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	38.0	15.2	15.1	5.2
Queue Length 50th (ft)	165	17	80	22	0
Queue Length 95th (ft)	216	45	112	48	20
Internal Link Dist (ft)	678		714	222	
Turn Bay Length (ft)		150		100	
Base Capacity (vph)	1776	267	2030	827	764
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.13	0.24	0.08	0.06

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	84	198	242	142	268	2453	392	73	1974
v/c Ratio	0.48	0.59	0.79	0.40	0.63	0.73	0.49	0.42	0.80
Control Delay	73.4	15.5	76.5	26.4	71.0	19.4	7.7	66.0	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	3.0	0.9	0.0	1.0
Total Delay	73.4	15.5	76.5	26.4	71.0	22.5	8.7	66.0	28.7
Queue Length 50th (ft)	80	0	230	53	134	362	70	37	673
Queue Length 95th (ft)	136	78	307	113	m148	514	m128	m58	#829
Internal Link Dist (ft)	192			204		342			595
Turn Bay Length (ft)					185		190	120	
Base Capacity (vph)	215	364	510	537	428	3370	805	173	2460
Starvation Cap Reductn	0	0	0	0	0	788	192	0	238
Spillback Cap Reductn	0	1	0	1	0	172	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.55	0.47	0.26	0.63	0.95	0.64	0.42	0.89

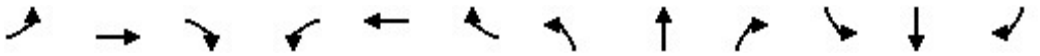
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	SBT
Lane Group Flow (vph)	345	447	2989	2571
v/c Ratio	0.65	0.87	0.85	0.76
Control Delay	65.4	35.1	27.2	18.7
Queue Delay	0.0	13.6	0.6	1.4
Total Delay	65.4	48.7	27.8	20.0
Queue Length 50th (ft)	164	129	823	397
Queue Length 95th (ft)	213	#280	#1306	#986
Internal Link Dist (ft)		427	323	829
Turn Bay Length (ft)				
Base Capacity (vph)	608	543	3529	3386
Starvation Cap Reductn	0	0	220	3
Spillback Cap Reductn	0	85	0	567
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.57	0.98	0.90	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	421	286	278	539	411	156	279	1938	397	106	1229	343
v/c Ratio	0.65	0.43	0.70	0.78	0.58	0.36	0.73	0.87	0.43	0.51	0.63	0.46
Control Delay	60.4	54.6	41.1	65.2	57.7	10.4	100.2	33.9	4.3	77.3	41.3	13.5
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.0	1.1	0.0
Total Delay	60.4	54.6	41.2	65.2	57.7	10.4	100.2	34.2	4.3	77.3	42.4	13.5
Queue Length 50th (ft)	200	132	150	251	186	4	148	591	36	52	372	69
Queue Length 95th (ft)	234	163	234	#362	259	69	197	#786	96	86	454	174
Internal Link Dist (ft)		714			439			595			583	
Turn Bay Length (ft)	150		25	260			310		651	225		200
Base Capacity (vph)	892	920	499	699	720	442	434	2222	915	219	1942	753
Starvation Cap Reductn	0	0	0	0	0	0	0	47	0	0	0	0
Spillback Cap Reductn	0	0	10	0	0	0	0	0	0	0	433	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.31	0.57	0.77	0.57	0.35	0.64	0.89	0.43	0.48	0.81	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	NBL	NBT	SBT
Lane Group Flow (vph)	894	28	2160	2091
v/c Ratio	0.93	0.31	0.64	0.67
Control Delay	67.6	77.5	15.9	22.6
Queue Delay	0.0	0.0	0.8	1.0
Total Delay	67.6	77.5	16.8	23.7
Queue Length 50th (ft)	425	27	447	614
Queue Length 95th (ft)	#547	62	478	335
Internal Link Dist (ft)	167		751	323
Turn Bay Length (ft)				
Base Capacity (vph)	998	106	3392	3109
Starvation Cap Reductn	0	0	639	691
Spillback Cap Reductn	0	0	830	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.90	0.26	0.84	0.86

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1065	54	1025	70	48
v/c Ratio	0.59	0.28	0.65	0.09	0.07
Control Delay	23.4	39.8	19.3	16.1	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	39.8	19.3	16.1	5.5
Queue Length 50th (ft)	170	28	203	23	0
Queue Length 95th (ft)	226	64	262	51	21
Internal Link Dist (ft)	678		714	222	
Turn Bay Length (ft)		150		100	
Base Capacity (vph)	1921	242	2007	794	737
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.55	0.22	0.51	0.09	0.07

Intersection Summary

Appendix D
Signal Warrant Analysis

Admiral Court and Commodore Drive

TRAFFIC SIGNAL WARRANTS WORKSHEET

Analyst: SS date: 10/3/22

Major Street: Commodore Drive — Critical Approach Speed* (mph) 25

Minor Street: Admiral Court — Critical Approach Speed* (mph) 25

**Posted Speed.*

Critical speed of major street traffic > 50 mph (64 km/h)…… ☐

In built up area of isolated community of < 10,000 population…… ☐pr **Rural (R)**

☑ **Urban (U)**

AM PEAK PERIOD

Warrant 3 - Peak Hour

PART A

(All parts 1, 2, and 3 below must be satisfied)

AM PEAK PERIOD

	Existing	Background	Existing + Proj	Background + Proj				
Minor Street Approach Direction w/ Highest Delay	NB	NB	NB	NB				
Highest Minor Street Average Delay (sec/veh)	7.2	7.2	7.6	7.6				
Corresponding Minor Street Approach Volume (veh/hr)	50	50	70	70				
Minor Street Total Delay (veh-hrs)	0.1	0.1	0.1	0.1				
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; AND	NO	NO	NO	NO				
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; AND	NO	NO	NO	NO				
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	NO	NO	NO	NO				
Signal Warranted based on Part A?	**No**	**No**	**No**	**No**				

PART B

AM PEAK PERIOD

		Approach Lanes: One	Approach Lanes: 2 or More	Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Commodore Drive	X		458	458	516	516				
Minor Street - Highest Approach	Admiral Court		X	50	50	70	70				
Signal Warranted based on Part B?				**No**	**No**	**No**	**No**				

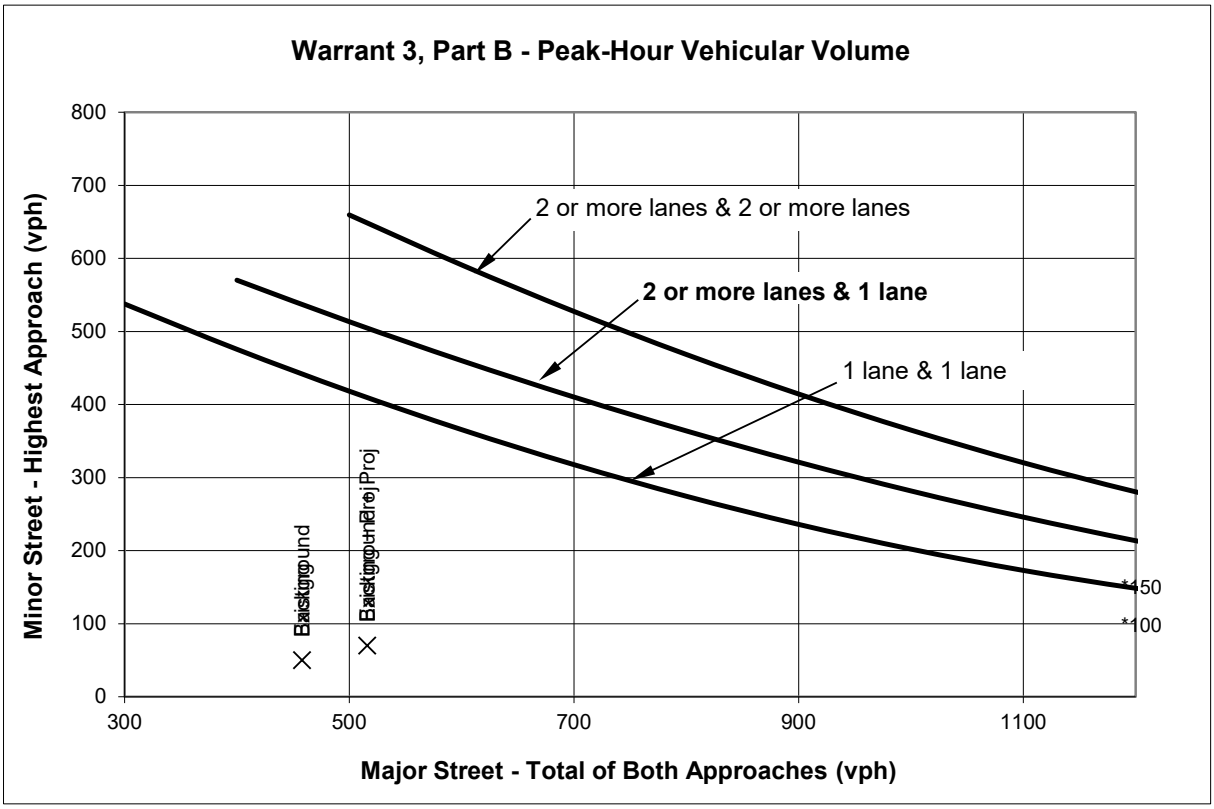
The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

Notes:

Admiral Court and Commodore Drive

Admiral Court and Commodore Drive **AM PEAK PERIOD**



Source: Figure 4C-3 *California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California)* .

* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3, Part B - Peak-Hour Vehicular Volume

		Approach Lanes		AM PEAK PERIOD							
		One	2 or More	Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Commodore Drive	X		458	458	516	516				
Minor Street - Highest Approach	Admiral Court		X	50	50	70	70				
Signal Warranted Based on Part B - Peak-Hour Volumes?				**No**	**No**	**No**	**No**				

*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

Admiral Court and Commodore Drive

TRAFFIC SIGNAL WARRANTS WORKSHEET

Analyst: SS date: 10/3/22

Major Street: Commodore Drive — Critical Approach Speed* (mph) 25

Minor Street: Admiral Court — Critical Approach Speed* (mph) 25

**Posted Speed.*

Critical speed of major street traffic > 50 mph (64 km/h)…… ☐

In built up area of isolated community of < 10,000 population…… ☐pr **Rural (R)**

☑ **Urban (U)**

PM PEAK HOUR

Warrant 3 - Peak Hour

PART A

(All parts 1, 2, and 3 below must be satisfied)

PM PEAK HOUR

	Existing	Background	Existing + Proj	Background + Proj				
Minor Street Approach Direction w/ Highest Delay	NB	NB	NB	NB				
Highest Minor Street Average Delay (sec/veh)	8.5	8.5	9.1	9.1				
Corresponding Minor Street Approach Volume (veh/hr)	184	184	241	241				
Minor Street Total Delay (veh-hrs)	0.4	0.4	0.6	0.6				
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; AND	NO	NO	NO	NO				
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; AND	YES	YES	YES	YES				
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	YES	YES	YES	YES				
Signal Warranted based on Part A?	**No**	**No**	**No**	**No**				

PART B

PM PEAK HOUR

		Approach Lanes: One	Approach Lanes: 2 or More	Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Commodore Drive	X		501	501	544	544				
Minor Street - Highest Approach	Admiral Court		X	184	184	241	241				
Signal Warranted based on Part B?				**No**	**No**	**No**	**No**				

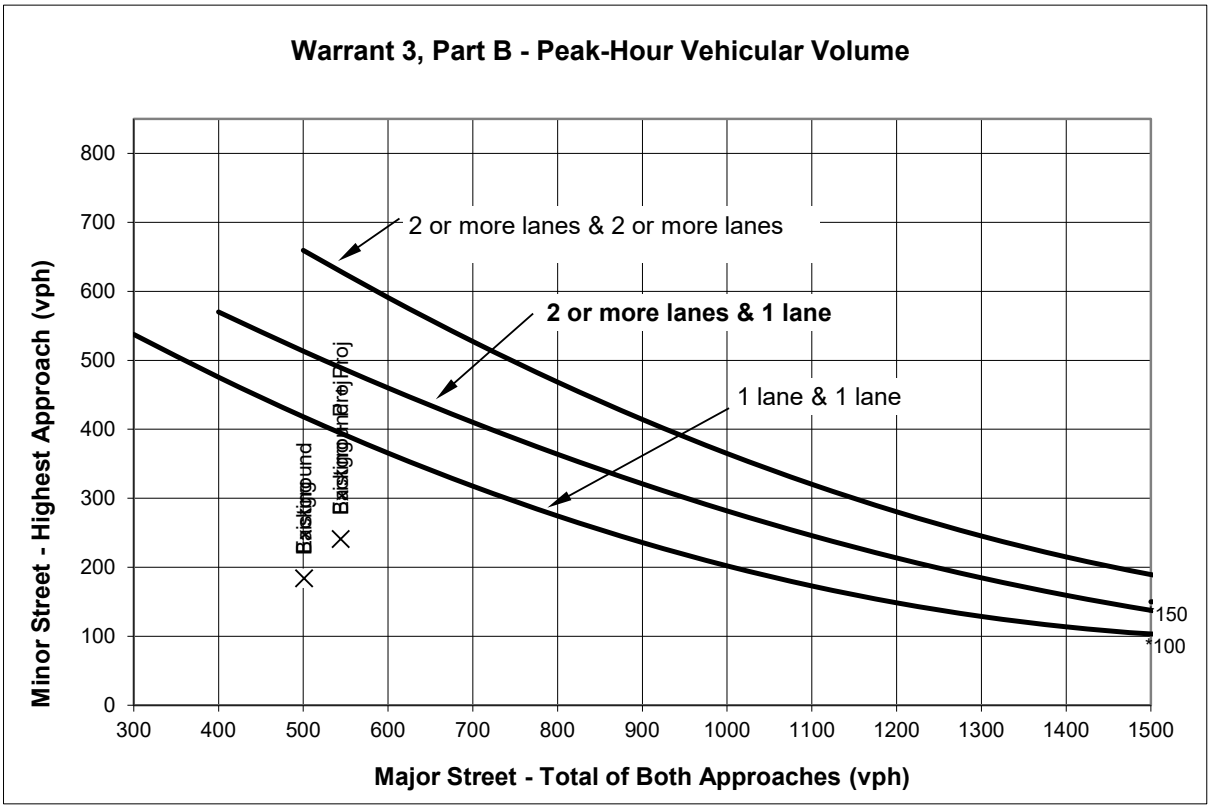
The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

Notes:

Admiral Court and Commodore Drive

Admiral Court and Commodore Drive **PM PEAK HOUR**



Source: Figure 4C-3 *California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California)* .

* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3, Part B - Peak-Hour Vehicular Volume

		Approach Lanes		PM PEAK HOUR							
		One	2 or More	Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Commodore Drive	X		501	501	544	544				
Minor Street - Highest Approach	Admiral Court		X	184	184	241	241				
Signal Warranted Based on Part B - Peak-Hour Volumes?				**No**	**No**	**No**	**No**				

*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

Cherry Avenue and Commodore Drive

TRAFFIC SIGNAL WARRANTS WORKSHEET

Analyst: SS date: 10/3/22

Major Street: Cherry Avenue — Critical Approach Speed* (mph) 35

Minor Street: Commodore Drive — Critical Approach Speed* (mph) 25

**Posted Speed.*

Critical speed of major street traffic > 50 mph (64 km/h)………………………. ☐

In built up area of isolated community of < 10,000 population………………….. ☐ or — **Rural (R)**

☑ **Urban (U)**

AM PEAK PERIOD

Warrant 3 - Peak Hour

PART A

(All parts 1, 2, and 3 below must be satisfied)

AM PEAK PERIOD

	Existing	Background	Existing + Proj	Background + Proj				
Minor Street Approach Direction w/ Highest Delay	EB	EB	EB	EB				
Highest Minor Street Average Delay (sec/veh)	10.9	11.8	10.9	11.8				
Corresponding Minor Street Approach Volume (veh/hr)	120	120	120	120				
Minor Street Total Delay (veh-hrs)	0.4	0.4	0.4	0.4				
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; AND	NO	NO	NO	NO				
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; AND	YES	YES	YES	YES				
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	NO	YES	NO	YES				
Signal Warranted based on Part A?	**No**	**No**	**No**	**No**				

PART B

AM PEAK PERIOD

		Approach Lanes: One	Approach Lanes: 2 or More	Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Cherry Avenue		X	593	823	593	823				
Minor Street - Highest Approach	Commodore Drive	X		120	120	120	120				
Signal Warranted based on Part B?				**No**	**No**	**No**	**No**				

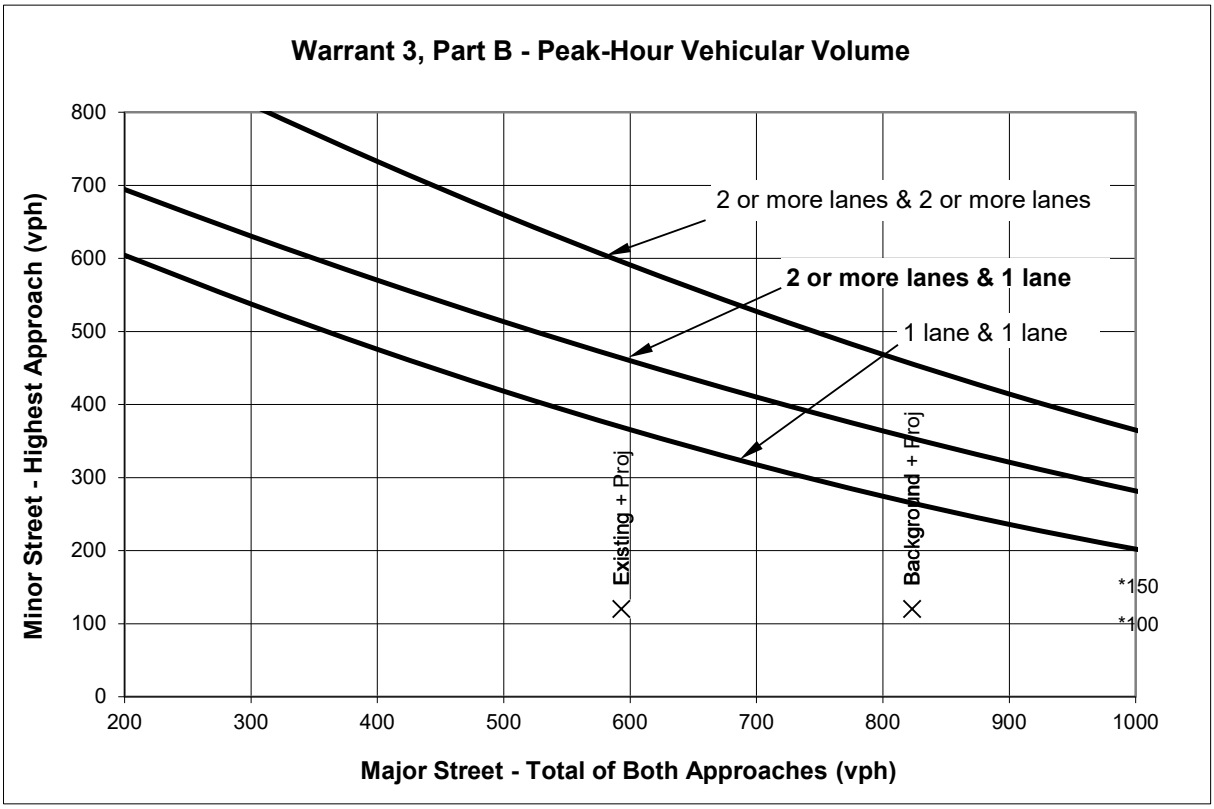
The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

Notes:

Cherry Avenue and Commodore Drive

Cherry Avenue and Commodore Drive **AM PEAK PERIOD**



Source: Figure 4C-3 *California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California)* .

* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3, Part B - Peak-Hour Vehicular Volume

		Approach Lanes		AM PEAK PERIOD							
		One	2 or More	Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Cherry Avenue		X	593	823	593	823				
Minor Street - Highest Approach	Commodore Drive	X		120	120	120	120				
Signal Warranted Based on Part B - Peak-Hour Volumes?				**No**	**No**	**No**	**No**				

*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

Cherry Avenue and Commodore Drive

TRAFFIC SIGNAL WARRANTS WORKSHEET

Analyst: SS date: 10/3/22

Major Street: Cherry Avenue — Critical Approach Speed* (mph): 35

Minor Street: Commodore Drive — Critical Approach Speed* (mph): 25

**Posted Speed.*

Critical speed of major street traffic > 50 mph (64 km/h)…… ☐

In built up area of isolated community of < 10,000 population…… ☐[r] **Rural (R)**

☑ **Urban (U)**

PM PEAK HOUR

Warrant 3 - Peak Hour

PART A

(All parts 1, 2, and 3 below must be satisfied)

	PM PEAK HOUR							
	Existing	Background	Existing + Proj	Background + Proj				
Minor Street Approach Direction w/ Highest Delay	WB	WB	WB	WB				
Highest Minor Street Average Delay (sec/veh)	10.1	11.1	10.2	11.2				
Corresponding Minor Street Approach Volume (veh/hr)	96	102	96	102				
Minor Street Total Delay (veh-hrs)	0.3	0.3	0.3	0.3				
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; AND	NO	NO	NO	NO				
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; AND	NO	YES	NO	YES				
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	NO	YES	NO	YES				
Signal Warranted based on Part A?	**No**	**No**	**No**	**No**				

PART B

		Approach Lanes		PM PEAK HOUR							
		One	2 or More	Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Cherry Avenue		X	549	803	549	803				
Minor Street - Highest Approach	Commodore Drive	X		96	96	102	102				
Signal Warranted based on Part B?				**No**	**No**	**No**	**No**				

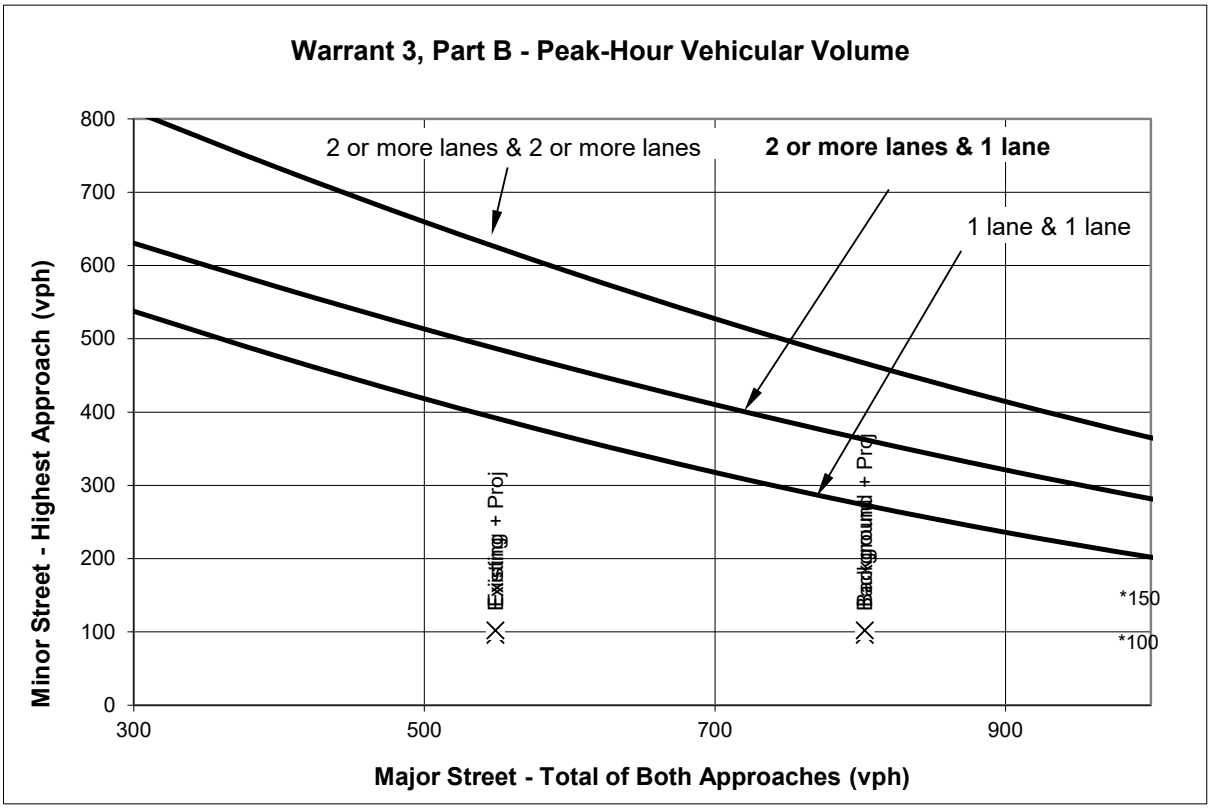
The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

Notes:

Cherry Avenue and Commodore Drive

Cherry Avenue and Commodore Drive **PM PEAK HOUR**



Source: Figure 4C-3 *California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California)* .

* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3, Part B - Peak-Hour Vehicular Volume

		Approach Lanes		PM PEAK HOUR							
		One	2 or More	Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Cherry Avenue		X	549	803	549	803				
Minor Street - Highest Approach	Commodore Drive	X		96	96	102	102				
Signal Warranted Based on Part B - Peak-Hour Volumes?				**No**	**No**	**No**	**No**				

*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

Appendix E
Trip Generation for Approved Projects

1400 - 1450 Bayhill Drive Trip Generation

			Daily		AM Peak Hour						PM Peak Hour					
						Split		Trip				Split		Trip		
Land Use	Size		Rate	Trip	Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total
Proposed Land Uses																
#710 - General Office Building	**287,000**	Square Feet	10.840	3,111	1.520	88%	12%	384	52	436	1.440	17%	83%	70	343	413
TDM redution (15%)				*(467)*				*(58)*	*(8)*	*(66)*				*(11)*	*(51)*	*(62)*
Total Project Trips				2,644				326	44	370				59	292	351

Source: ITE Trip Generation Manual, 11th Edition 2021.