



HEXAGON TRANSPORTATION CONSULTANTS, INC.

# 280 Capistrano Road Princeton Harbor RV Park

Draft Traffic Impact Analysis

Prepared for:

**Point Pillar Project Developers, LLC**

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## Executive Summary

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This report presents the results of the Traffic Impact Analysis (TIA) conducted for the proposed RV Park located at 280 Capistrano Road in the Princeton Harbor area of San Mateo County, California. The project proposes to construct a 50-space RV park with 7 tent spaces and a supporting 832 square-foot laundry and restroom facility. The proposed RV park site is located on the northwest corner of the Cabrillo Highway (State Route 1) and Capistrano Road intersection, just north of Pillar Point Harbor. The project site is currently vacant. Access to the project site would be provided via a driveway operating as the north leg of the Pillar Point Harbor Boulevard/Capistrano Road intersection. The driveway access would be shared with the existing Shoppes at Harbor Village.

This study was conducted for the purpose of identifying the potential transportation impacts related to the proposed development. The potential impacts of the project were evaluated in accordance with the standards set forth by the County of San Mateo and the City/County Association of Governments (C/CAG) of San Mateo County CMP. The study included the analysis of traffic conditions at one signalized intersection and one unsignalized intersection during the weekday AM, PM, and Saturday midday peak hours. The analysis focuses on the weekday peak commute periods between 7:00 AM and 9:00 AM and 4:00 PM and 6:00 PM, and the Saturday midday peak hour is typically between 11:00 AM and 3:00 PM. It is during these hours that traffic conditions on the surrounding roadways are generally the most congested and the impact on the roadway system by traffic from the proposed RV park would be greatest.

### Project Trip Generation

Trip generation for the proposed RV park was estimated by applying to the size and use of the development the appropriate trip generation rates obtained from the ITE *Trip Generation Manual, 9th Edition* (2012). The trip generation rates for Campground/Recreational Vehicle Park (ITE Land Use 416) were applied to the project. In consultation with County staff, the upper-range trip rate during each peak hour was used to present a conservative estimate. Given that the ITE trip generation rates do not include Saturday peak hours, the Saturday midday peak hour was derived from trip generation surveys Hexagon Transportation Consultants, Inc. conducted in March 2017 at comparable RV parks within the Bay Area. The magnitude of traffic generated by the proposed RV park was estimated by multiplying the ITE and the observed RV parks' trip generation rates by the proposed development.

Based on a size of 50 spaces, the proposed development would generate a total of 18 trips (5 incoming and 13 outgoing) during the AM peak hour, 22 trips (14 incoming and 8 outgoing) during the PM peak hour, and 26 trips (12 incoming and 14 outgoing) during the Saturday midday peak hour.

## Project Impacts

The results of the intersection level of service analysis are shown in Table ES-1. The analysis determined that under all scenarios with and without the project, the signalized study intersection, Cabrillo Highway (SR 1)/Capistrano Road, would operate at an acceptable level of service (LOS C or better, with each individual movement operating at LOS D or better) during the AM, PM, and Saturday midday peak hours. In addition, the analysis results show that the two-way stop-controlled study intersection would operate at LOS C or better during all peak hours. The analysis indicates that vehicles on the stop-controlled approaches (the Pillar Point Harbor Boulevard and the Shoppes at Harbor Village private driveway) would experience moderate delays.

## Other Transportation Issues

Based on a review of the project site plan, there would be no issues regarding site access along Capistrano Road; and no issues are expected to arise regarding on-site circulation. The driveway design of the proposed shared-access driveway would provide adequate clearance for large vehicles to perform turn movements. Furthermore, the proposed project would not have an adverse effect on the existing transit, pedestrian, or bicycle facilities in the study area. Thus, no project sponsored improvements would be necessary.

**Table ES-1  
Intersection Level of Service Summary**

Study Number	Intersection	Peak Hour	Count Date	Control Type	Existing		Background				Cumulative					
					No Project		with Project		No Project		with Project		No Project		with Project	
					Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS
1	Capistrano Road and Cabrillo Highway (SR 1)	AM	3/2/17	Signal	17.9	B	17.9	B	19.6	B	19.7	B	20.1	C	20.2	C
		PM	3/2/17		15.9	B	16.0	B	16.9	B	17.1	B	17.4	B	17.6	B
		Sat Midday	3/4/17		16.2	B	16.4	B	18.6	B	18.8	B	18.6	B	19.5	B
2	Capistrano Road and Pillar Point Harbor Boulevard	AM	5/4/17	TWSC <sup>1</sup>	12.7	B	13.0	B	14.1	B	14.6	B	14.5	B	15.1	C
		PM	5/4/17		17.5	C	17.9	C	20.3	C	20.8	C	21.6	C	22.4	C
		Sat Midday	5/6/17		20.4	C	22.1	C	20.4	C	22.1	C	20.4	C	24.1	C

Note:  
 TWSC = Two-Way Stop Control  
<sup>1</sup> For TWSC intersections, the worst approach's delay and level of service are reported.  
**Bold** indicates a substandard level of service.  
**Bold** indicates a significant project impact.

# 1. Introduction

---

This report presents the results of the Traffic Impact Analysis (TIA) conducted for the proposed RV Park located at 280 Capistrano Road in the Princeton Harbor area of San Mateo County, California. The project proposes to construct a 50-space RV park with 7 tent spaces and a supporting 832 square-foot laundry and restroom facility. The proposed RV park site is located on the northwest corner of the Cabrillo Highway (State Route 1) and Capistrano Road intersection, just north of Pillar Point Harbor (see Figure 1). The project site is currently vacant. Access to the project site would be provided via a driveway operating as the north leg of the Pillar Point Harbor Boulevard/Capistrano Road intersection (see Figure 2). The driveway access would be shared with the existing Shoppes at Harbor Village.

## Scope of Study

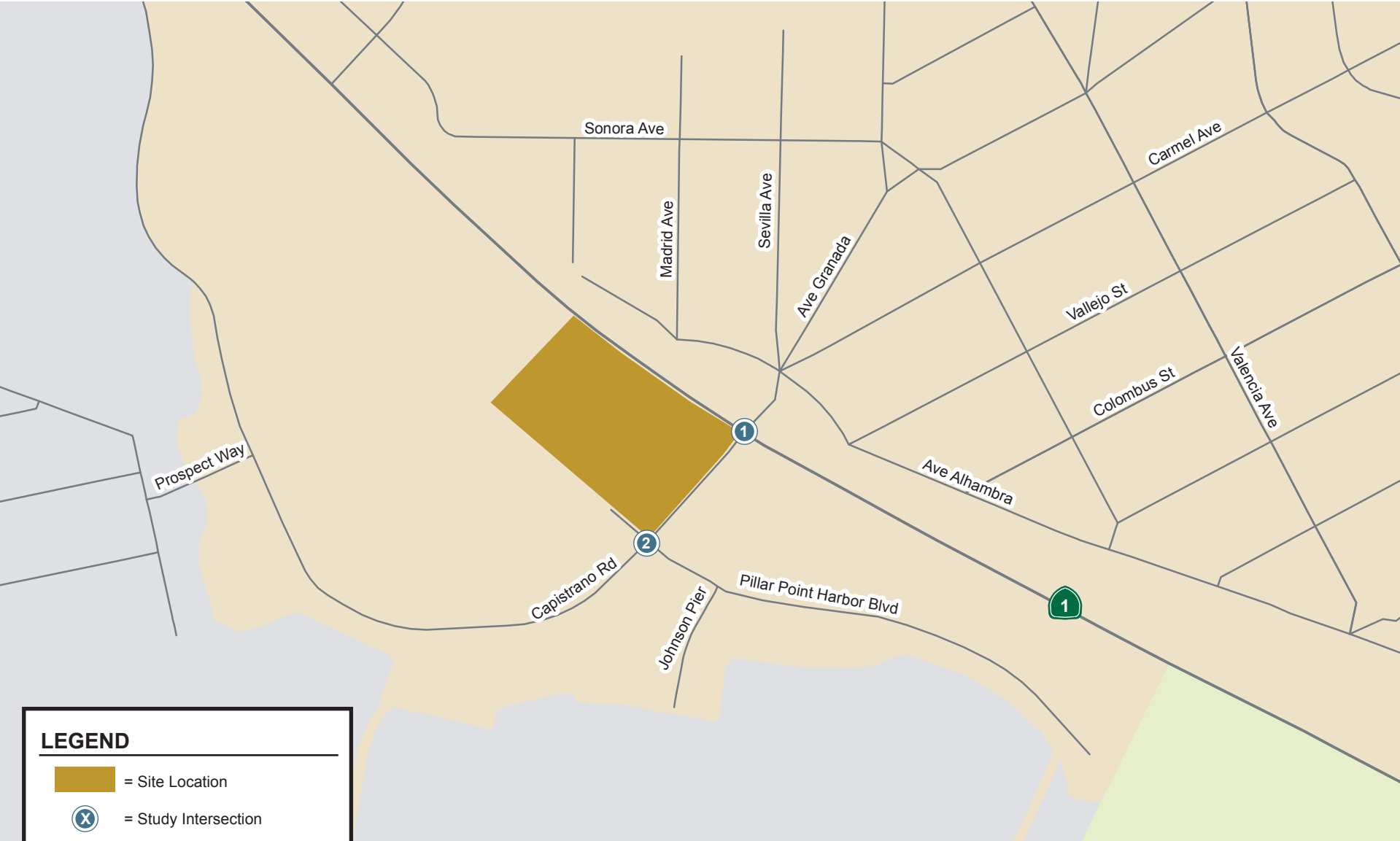
This study was conducted for the purpose of identifying the potential transportation impacts related to the proposed development. The potential impacts of the project were evaluated in accordance with the standards set forth by the County of San Mateo and the City/County Association of Governments (C/CAG) of San Mateo County CMP. A County Congestion Management Program (CMP) analysis was not required because the project would add fewer than 100 peak hour trips to any CMP roadways (SR 1) designated by the C/CAG. The traffic study includes an analysis of AM, PM, and Saturday midday peak hour traffic conditions for one signalized intersection and one unsignalized intersection in the vicinity of the project site. The study also includes an analysis of the project driveway design, and transit, bicycle, and pedestrian access.

## Study Intersections




1. Cabrillo Highway (State Route 1) and Capistrano Road
2. Pillar Point Harbor Boulevard and Capistrano Road (unsignalized)

## Analysis Time Periods

Traffic conditions at the study intersections were analyzed for the weekday AM, PM, and Saturday midday peak hours of adjacent street traffic. The AM and PM peak hours are expected to occur between 7:00 AM and 9:00 AM and 4:00 PM and 6:00 PM, respectively, on a regular weekday, and the Saturday midday peak hour is expected to occur between 11:00 AM and 3:00 PM. It is during these peak travel periods that traffic is busiest, and the impact on the roadway system by traffic from the proposed RV park would be greatest.



**LEGEND**

-  = Site Location
-  = Study Intersection
-  = El Granada

**Figure 1**  
**Site Location and Study Intersections**

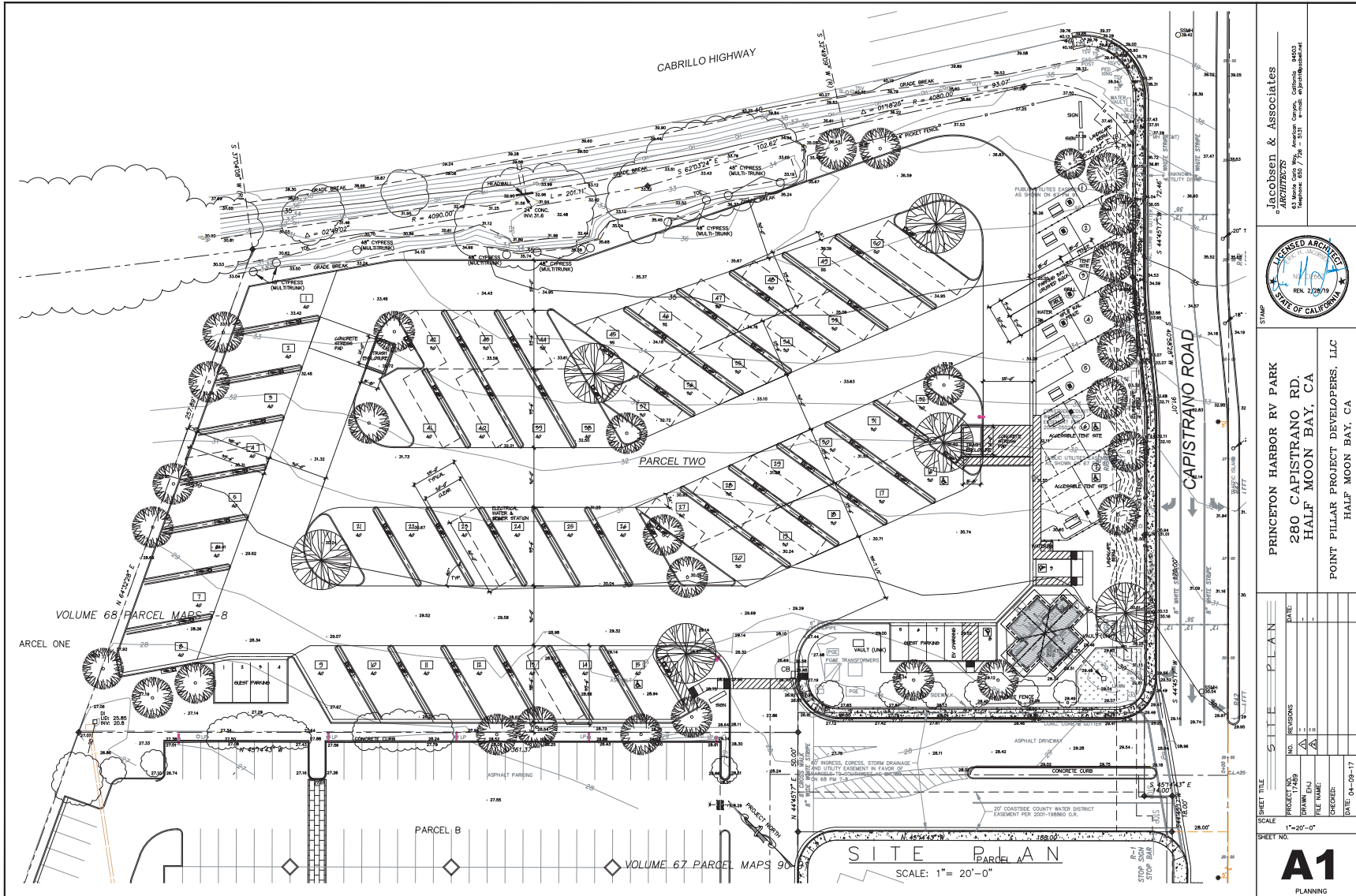


Figure 2  
Project Site Plan



Traffic conditions were evaluated for the following scenarios:

- Scenario 1: *Existing Conditions.*** Existing traffic volumes at study intersections were based on traffic counts conducted in March and May of 2017. 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 reflect traffic added by projected volumes from approved but not yet completed developments in the project area. The approved project trips and/or approved project information was provided by the County of San Mateo. The County of San Mateo approved project information is included in Appendix B.
- 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 traffic volumes with the project were estimated by adding to background traffic volumes the additional traffic generated by the project. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts.
- Scenario 5: *Cumulative Conditions.*** Cumulative traffic volumes represent traffic growth through the year 2022 (five years of growth). Cumulative traffic volumes were estimated by applying a 1% annual growth rate to the existing traffic counts and adding the traffic from approved developments. Cumulative plus project conditions were estimated by adding to the cumulative traffic volumes the additional traffic estimated to be generated by the proposed project. Cumulative plus project conditions were evaluated relative to cumulative conditions to determine potential project impacts.

## 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 new traffic counts, the County of San Mateo, and field observations. The following data were collected from these sources:

- existing peak-hour intersection turning-movement volumes
- lane configurations
- intersection signal timing and phasing
- list of approved but not yet completed 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.

### **County of San Mateo Signalized Intersections**

The County of San Mateo level of service standards were used to evaluate the signalized study intersections. The County of San Mateo evaluates intersection level of service based on the *Highway Capacity Manual* (HCM) 2010 method using the Synchro software. The 2010 HCM method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. This average delay can then be correlated to a level of service. The County of San Mateo level of service standard for signalized intersections is LOS C or better, with each individual movement operating at LOS D or better. The correlation between delay and level of service is shown in Table 1.

**Table 1**  
**Signalized Intersection Level of Service Definitions Based on Control Delay**

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

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000), p.10-16.

### **Unsignalized Intersections**

Level of service at unsignalized intersections was 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. The one unsignalized study intersection operates with two-way stop control. For two-way stop-controlled intersections, the reported levels of service are based on the worst approach delay at the intersection. The County of San Mateo does not have a level of service standard for unsignalized intersections. Therefore, intersection levels of service for unsignalized intersections are reported for informational purposes only. The correlation between average control delay and LOS for unsignalized intersections is shown in Table 2.

**Table 2**  
**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, 2000 Highway Capacity Manual (Washington, D.C., 2000) p17.2

### **CMP Roadway System**

Per CMP technical guidelines, a roadway system level of service analysis is required when a project is expected to add trips greater than one percent of a segment's capacity. Given that new SR 1 trips generated by the project are expected to be considerably less than the one percent threshold of roadway capacity to all segments in the area. Therefore, a detailed analysis of roadway system levels of service was not performed. A simple roadway segment capacity evaluation to substantiate this determination is presented in Table 3.

**Table 3**  
**Roadway Segment Capacity Evaluation**

Roadway	Segment	Dir	Peak Hour	Existing Conditions <sup>1</sup>			Project Conditions		
				# of Lanes	Capacity	LOS	Project Trips <sup>2</sup>	% Capacity Impact	
SR 1	Linda Mar Boulevard to French Mans Creek Road	NB	AM	<b>2</b>	<b>4,400</b>	<b>E</b>	8	0.18%	NO
			PM	<b>2</b>	<b>4,400</b>	<b>E</b>	12	0.27%	NO
SR 1	Linda Mar Boulevard to French Mans Creek Road	SB	AM	<b>2</b>	<b>4,400</b>	<b>E</b>	9	0.20%	NO
			PM	<b>2</b>	<b>4,400</b>	<b>E</b>	14	0.32%	NO

**Notes:**

<sup>1</sup> Existing freeway conditions referenced the Level of Service and Performance Measure Monitoring Report - 2015.

<sup>2</sup> Project trips are estimated via manual trip assignment.

**BOLD** indicates a substandard level of service.

## **Intersection Operations**

The analysis of intersection level of service was supplemented with an analysis of traffic operations for intersections where the project would add a significant number of left turns. The operations analysis is based on vehicle queuing for high demand left-turn movements at intersections. Vehicle queues were estimated 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

$\lambda$  = average # of vehicles in the queue per lane (vehicles per hr per lane/signal cycles per hr)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95<sup>th</sup> 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. This analysis thus provides a basis for estimating future turn pocket storage requirements at signalized intersections.

The 95<sup>th</sup> 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. Or, a queue length larger than the 95<sup>th</sup> percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Therefore, left-turn storage pocket designs based on the 95<sup>th</sup> percentile queue length would ensure that storage space would be exceeded only 5 percent of the time. The 95<sup>th</sup> percentile queue length is also known as the “design queue length.”

## **Report Organization**

The remainder of this report is divided into six chapters. Chapter 2 describes the existing roadway network, transit services, and pedestrian facilities. Chapter 3 presents the intersection operations under the background scenario conditions, including the approved projects in the County of San Mateo. Chapter 4 describes the methods used to estimate project traffic and its impact on the transportation system. Chapter 5 describes cumulative traffic conditions. Chapter 6 presents the analysis of other transportation issues including site access and circulation, transit services, bicycle and pedestrian facilities, and vehicle queuing. Chapter 7 includes a summary of project impacts, any proposed mitigation measures, and recommended improvements.

## 2. Existing Conditions

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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 Cabrillo Highway (SR 1). Local access to the site is provided on Capistrano Road. These roadways are described below.

**Cabrillo Highway (SR 1)** is a two-lane, north-south highway in the vicinity of the site. Cabrillo Highway extends along the Pacific coastline, northward through San Francisco and southward through the San Mateo and Santa Cruz Counties. Access to and from the project study area is provided via Capistrano Road.

**Capistrano Road** is a local roadway that extends in an east-west direction. In the vicinity of the project site, Capistrano Road is a two-lane roadway and runs along the southern boundary of the project site. Capistrano Road provides direct access to the proposed Princeton Harbor RV Park site via the existing Shoppes at Harbor Village driveway at the Pillar Point Harbor Boulevard intersection.

### Existing Pedestrian and Bicycle Facilities, and Transit Services

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. In the project vicinity, sidewalks exist along both sides of Capistrano Road and along the west side of Pillar Point Harbor Boulevard, providing pedestrian access to and from the project site. Marked crosswalks with pedestrian signal heads and push buttons are provided on three legs of the signalized study intersection of Cabrillo Highway and Capistrano Road. The north leg of the intersection does not have a crosswalk. At the unsignalized study intersection of Pillar Point Harbor Boulevard and Capistrano Road, crosswalks are provided on two legs of the intersection. Although some crosswalk connections are missing on Capistrano Road and Cabrillo Highway, the overall network of sidewalks and crosswalks in the study area has good connectivity and provides pedestrians with safe routes to transit services and other points of interest in the vicinity of the project site.

The existing bicycle facilities within the study area comprise the Coastal Trail along the Cabrillo Highway corridor. The Coastal Trail is part of a larger network of public trails along the entire California coastline, extending northward through San Francisco and southward through San Mateo and Santa Cruz Counties. The trail consists of Class I Bike Paths, Class II Bike Lanes, Class III Bike Routes, and unpaved gravel trails. In the vicinity of the project, the Coastal Trail consists of a Class I multi-use path south of the project site and accessible via Pillar Point Harbor Boulevard, which is designated as a

Class III bike route (see Figure 3). According to the *2011 San Mateo County Comprehensive Bicycle and Pedestrian Plan*, the County of San Mateo plans to provide the Parallel Trail (consisting of Class I Bike Paths and Class II Bike Lanes), which would run on the east side of the SR 1 from Montara to Half Moon Bay. This trail would provide enhanced bicycle connections to the project site.

### Existing Transit Services

Existing transit services near the project site are provided by the San Mateo County Transit District (SamTrans) (See Figure 3). The study area is served directly by two local bus routes. Bus lines that run through the study area are listed in Table 4, including their route description and commute hour headways.

**Local Route 17** operates on Cabrillo Highway in the vicinity of the project. The closest bus stop is within walking distance, located on the southern boundary of the project site. Route 17 operates between the Linda Mar Park & Ride lot and the Stage Road/Pescadero Creek Road intersection. Weekday service is from approximately 6:00 AM to 9:10 PM with 60-minute headways during commute hours.

**Local Route 18** operates on Cabrillo Highway in the vicinity of the project. The closest bus stop is within walking distance, located on the southern boundary of the project site. Route 18 operates between the Moonridge Apartments southeast of Half Moon Bay and the Main Street/7<sup>th</sup> Street intersection in Montara. Service is provided only on school days with three runs in the morning and two runs in the afternoon.

### Existing Intersection Lane Configurations

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 4.

### Existing Traffic Volumes

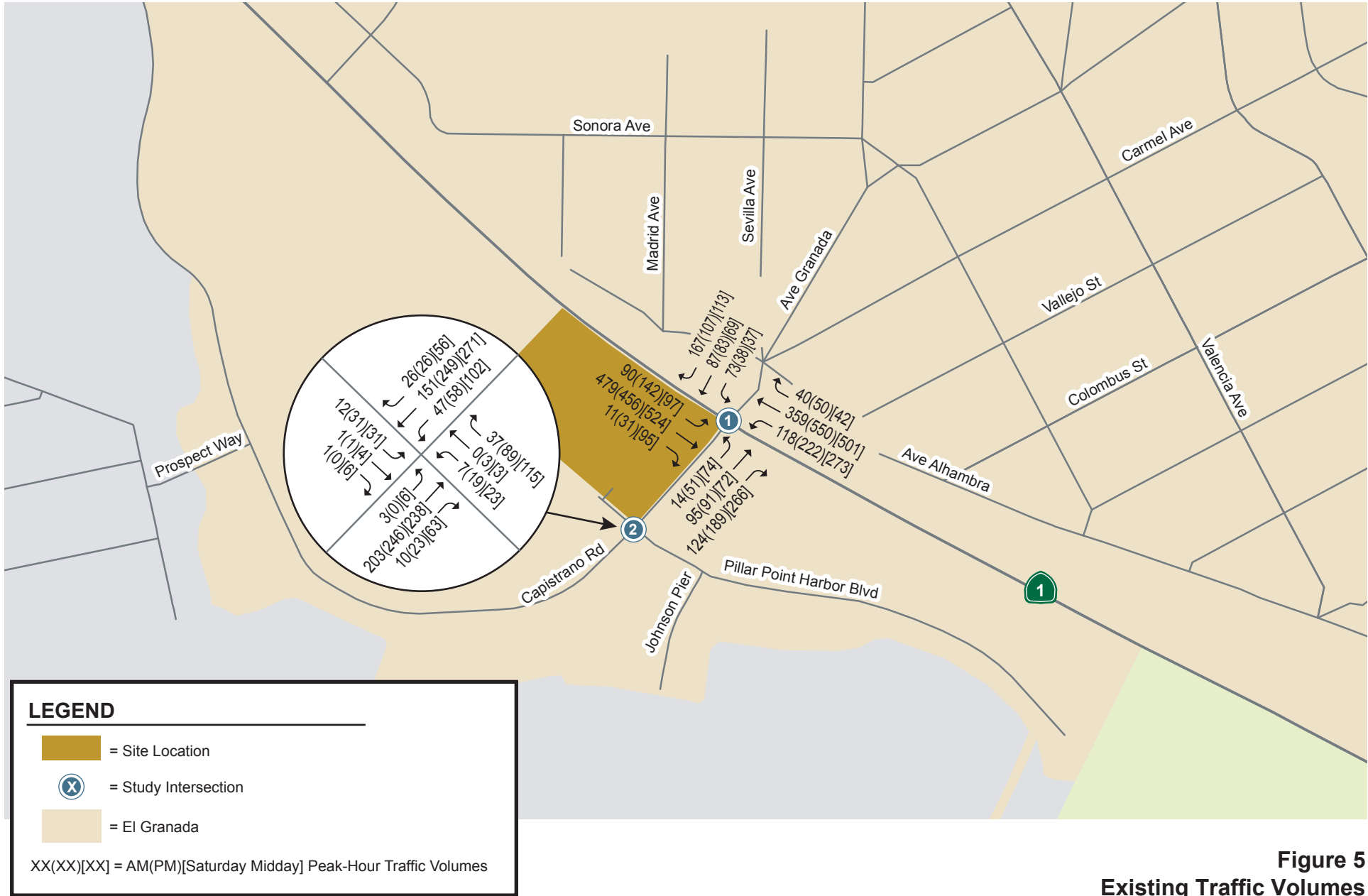
Existing traffic volumes were obtained from new peak-hour turning movement counts collected in March and May of 2017. The existing peak-hour intersection volumes are shown in Figure 5. Intersection turning-movement counts conducted for this analysis are presented in Appendix A.



**Figure 3**  
**Existing Bicycle Facilities and Transit Services**







**Figure 5**  
Existing Traffic Volumes

## Existing Intersection Levels of Service

Intersection levels of service were evaluated against County of San Mateo standards. The results of the analysis show that the signalized study intersection currently operates at acceptable levels of service (LOS C or better, with each individual movement operating at LOS D or better) during the AM, PM, and Saturday midday peak hours (see Table 4). The intersection levels of service calculation sheets are included in Appendix D.

The analysis results show that the stop-controlled study intersection currently operates at LOS C or better during all peak hours. The level of service analysis indicates that vehicles on the stop-controlled approaches (Pillar Point Harbor Boulevard and the Shoppes at Harbor Village private driveway) would experience moderate delays.

**Table 4**  
**Existing Intersection Levels of Service**

Study Number	Intersection	Peak Hour	Count Date	Control Type	Existing Conditions	
					Average Delay (sec.)	LOS
1	Capistrano Road and Cabrillo Highway (SR 1)	AM	3/2/17	Signal	17.9	B
		Midday	3/2/17		15.9	B
		PM	3/4/17		16.2	B
2	Capistrano Road and Pillar Point Harbor Boulevard	AM	5/4/17	TWSC <sup>1</sup>	12.7	B
		Midday	5/4/17		17.5	C
		PM	5/6/17		20.4	C

**Notes:**  
 TWSC = Two-Way Stop Control  
<sup>1</sup> For TWSC intersections, the worst approach's delay and level of service are reported.  
**Bold** indicates a substandard level of service.  
**Bold** indicates a significant project impact.

## Observed Existing Traffic Conditions

Traffic conditions were observed in the field in order to identify existing operational deficiencies and to confirm the accuracy of calculated intersection levels of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to level of service, and (2) to identify any locations where the level of service analysis does not accurately reflect existing traffic conditions.

Overall, both study intersections operated adequately during the AM, PM, and Saturday midday peak hours of traffic, and the level of service analysis appears to accurately reflect actual existing traffic conditions. It should be noted that during the AM and Saturday midday peak hours congestion exists in the southbound direction, and in the northbound direction during the PM peak hour, along SR 1. However, the congestion does not spillback or cause any operational issues at the Cabrillo Highway (SR 1)/Capistrano intersection.

## 3. Background Conditions

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This chapter presents a summary of the traffic conditions that would occur under background conditions. Background conditions are defined as conditions just prior to completion of the proposed development. Traffic volumes for background conditions comprise volumes from existing traffic counts plus traffic generated by other approved developments in the vicinity of the site.

### Roadway Network and Traffic Volumes

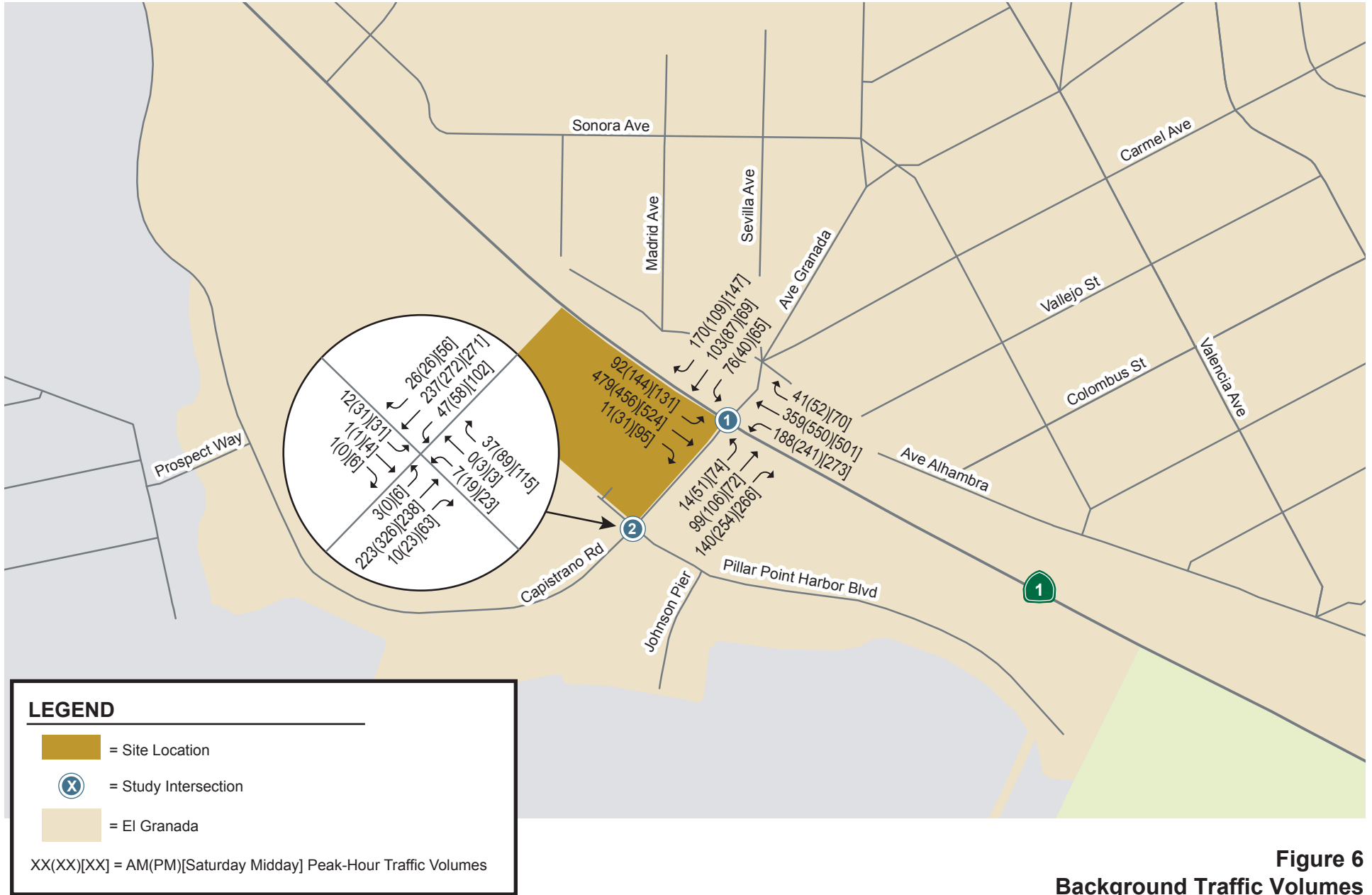
The roadway network under background conditions is assumed to be the same as under existing conditions.

Background traffic volumes for the study intersections were estimated by adding to existing traffic volumes the trips generated by nearby approved developments that have not yet been constructed or occupied. Approved project trips and/or approved project information was obtained from the County of San Mateo. The list of nearby projects that are included in the background scenario can be found in Appendix B. The approved projects that would add traffic to the study area of Princeton Harbor include a motel expansion at 11 Avenue Alhambra and the Big Wave North Parcel development. Traffic volumes for all components of traffic are tabulated in Appendix C. Figure 6 shows the intersection turning-movement volumes under background conditions.

### Intersection Level of Service Analysis

The results of the level of service analysis under background conditions are summarized in Table 5. The results show that, when measured against the County of San Mateo level of service standards, the Cabrillo Highway/Capistrano Road study intersection is expected to operate at an acceptable LOS B or better during the AM, PM, and Saturday midday peak hours of traffic. Level of service calculation sheets are included in Appendix D.

The analysis results also show that, under background conditions, the stop-controlled study intersection would continue to operate at LOS C or better during all peak hours. The level of service analysis indicates that vehicles on the stop-controlled approaches (Pillar Point Harbor Boulevard and the Shoppes at Harbor Village private driveway) would experience moderate delays.



**Figure 6**  
**Background Traffic Volumes**

**Table 5**  
**Background Intersection Levels of Service**

Study Number	Intersection	Peak Hour	Control Type	Background Conditions	
				Average Delay (sec.)	LOS
1	Capistrano Road and Cabrillo Highway (SR 1)	AM	Signal	19.6	B
		Midday		16.9	B
		PM		18.6	B
2	Capistrano Road and Pillar Point Harbor Boulevard	AM	TWSC <sup>1</sup>	14.1	B
		Midday		20.3	C
		PM		20.4	C

**Notes:**  
 TWSC = Two-Way Stop Control  
<sup>1</sup> For TWSC intersections, the worst approach's delay and level of service are reported.  
**Bold** indicates a substandard level of service.  
**Bold** indicates a significant project impact.

## 4. Project Conditions

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This chapter describes traffic conditions with the project. It begins with a description of the transportation system under project conditions and the method by which project traffic is estimated. Project traffic is added to both existing conditions and background conditions.

### Significant Impact Criteria

Significance criteria are used to establish what constitutes an impact. For this analysis, the criteria used to determine impacts on intersections are based on the thresholds established by the County of San Mateo.

#### County of San Mateo Definition of Significant Intersection Impacts

The project is said to create a significant adverse impact on traffic conditions at a signalized intersection in San Mateo County if for either peak hour:

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

A significant impact by the County of San Mateo standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection level of service to background conditions or better.

### Transportation Network under Project Conditions

It is assumed in this analysis that the transportation network under project conditions would be the same as the background 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 RV park was estimated for the AM, PM, and Saturday midday 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 indicate the amount of traffic that can be expected to be generated by common land uses. The standard trip generation rates can be applied to help predict the future traffic increases that would result from a new development. The standard trip generation rates are published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*.

Project trip generation was estimated by applying to the size and use of the development the appropriate trip generation rates obtained from the ITE *Trip Generation Manual, 9th Edition* (2012). The trip generation rates for Campground/Recreational Vehicle Park (ITE Land Use 416) were applied to the project. In consultation with County staff, the upper-range trip rate during each peak hour was used to present a conservative estimate. Given that the ITE trip generation rates do not include Saturday peak hours, the Saturday midday peak hour was derived from trip generation surveys Hexagon Transportation Consultants, Inc. conducted in March 2017 at comparable RV parks within the Bay Area. The observed trip generation rates are presented in Table 6. The magnitude of traffic generated by the proposed RV park was estimated by multiplying the ITE and the observed RV parks' trip generation rates by the proposed development (see Table 7). Trip generation survey sheets of comparable RV parks are included in Appendix A.

**Table 6**  
**Trip Generation Rate Surveys**

Count Location	Size	Saturday Peak Hour <sup>1</sup>			
		In	Out	Total	Rate
Pillar Point RV Park	49 spaces	12	17	29	0.59
Pelican Point RV Park	74 spaces	8	10	18	0.24
Maple Leaf RV Park	272 spaces	61	62	123	0.45
<b>RV Park Average<sup>2</sup></b>		<b>37</b>	<b>40</b>	<b>76</b>	<b>0.52</b>

**Notes:**

<sup>1</sup> The Saturday peak hour is the highest hour between 12 PM - 3 PM.

<sup>2</sup> RV park average excludes the Pelican Point RV Park because the surveyed counts were significantly lower than the other surveyed parks.

Based on a size of 50 spaces, the proposed development would generate a total of 18 trips (5 incoming and 13 outgoing) during the AM peak hour, 22 trips (14 incoming and 8 outgoing) during the PM peak hour, and 26 trips (12 incoming and 14 outgoing) during the Saturday midday peak hour.

**Table 7**  
**Project Trip Generation Estimates**

Land Use	Size	AM Peak Hour			PM Peak Hour			Saturday Peak Hour					
		Rate <sup>1</sup>	In	Out	Total	Rate <sup>1</sup>	In	Out	Total	Rate <sup>2</sup>	In	Out	Total
<b>Proposed Project</b>													
Princeton Harbor RV Park	50 spaces	0.35	5	13	18	0.43	14	8	22	0.52	12	14	26

Notes:

<sup>1</sup> Campground/Recreational Vehicle Park (Land Use 416) upper-range of rates published in ITE's *Trip Generation Manual, 9th Edition, 2012*.

<sup>2</sup> The observed peak hour trip rate (per space) was based on surveys conducted by Hexagon Transportation Consultants in March 2017 at comparable RV parks.

### Trip Distribution and Assignment

The trip distribution pattern for the project was estimated based on existing travel patterns on the surrounding roadway network and major destinations in the area (see Figure 7). Project trips were assigned based on the directions of approach and departure, as well as the roadway network connections in accordance with the project trip distribution pattern.

### Existing Plus Project Traffic Volumes

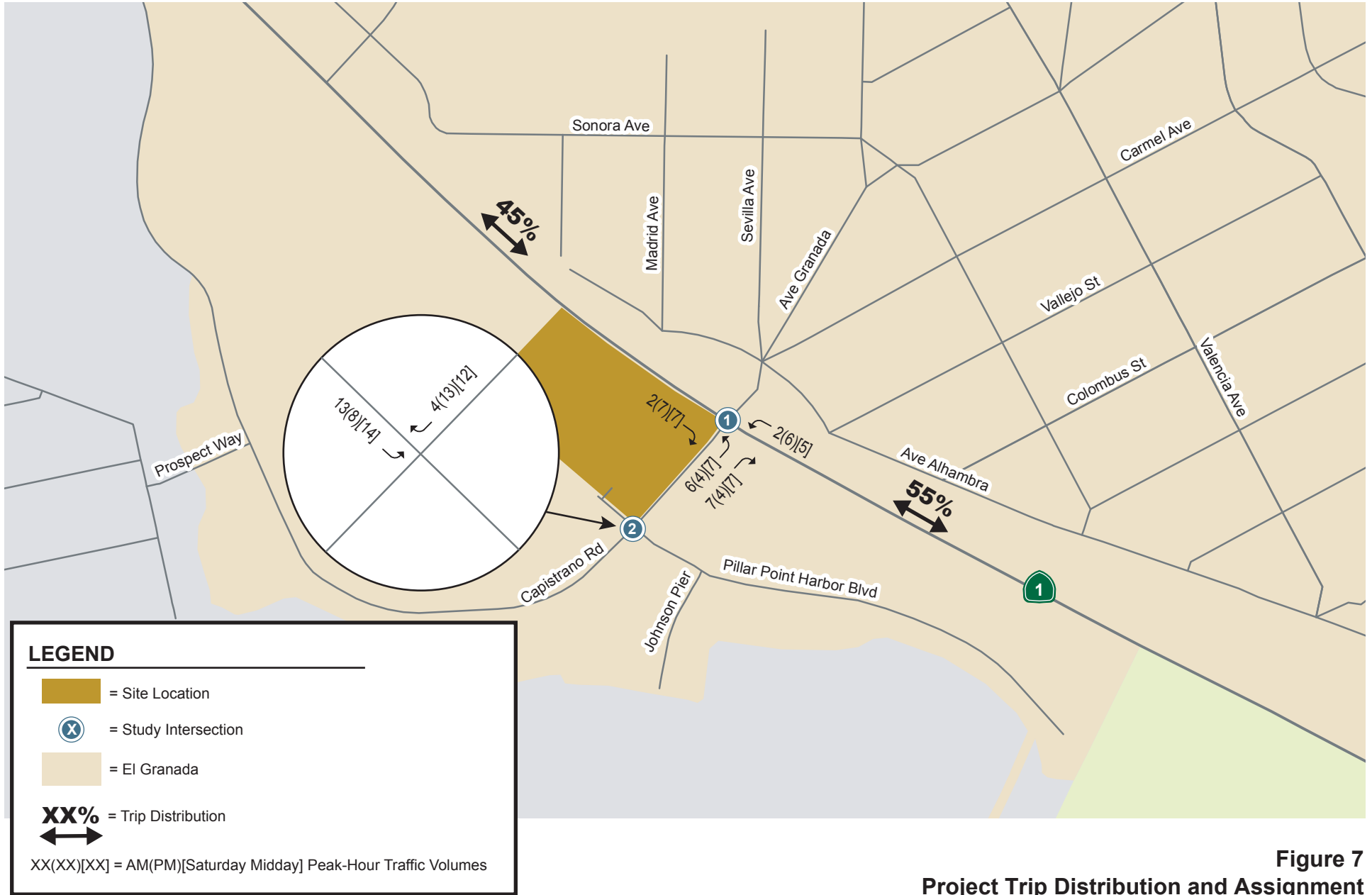
Project trips, as represented in the previously mentioned project trip assignment, were added to existing traffic volumes to obtain existing plus project traffic volumes. The existing plus project traffic volumes are shown on Figure 8.

### Existing Plus Project Intersection Analysis

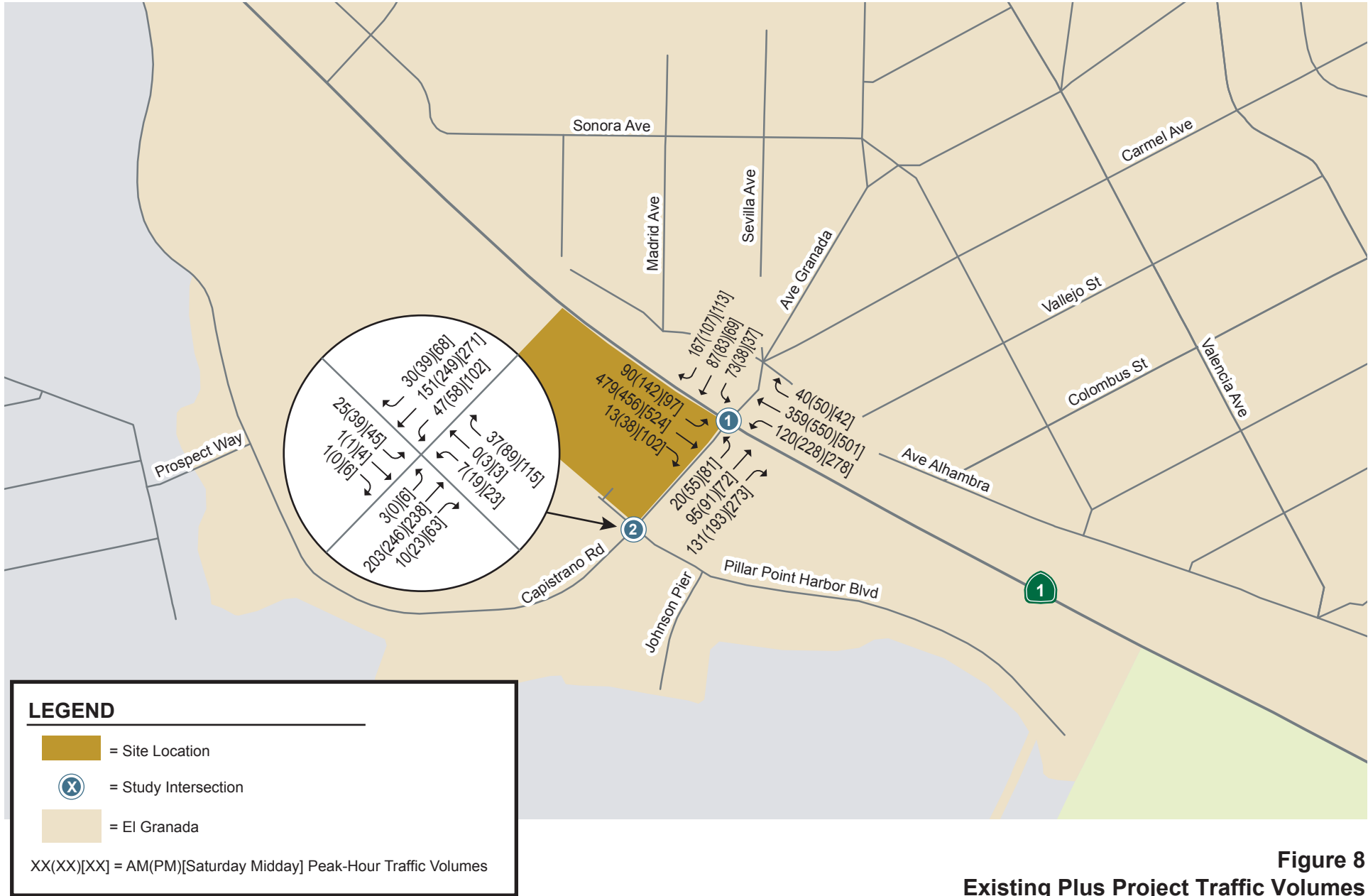
The results of the level of service analysis under existing plus project conditions show that the signalized study intersection would continue to operate at acceptable levels of service (LOS C or better, with each individual movement operating at LOS D or better) during all peak hours (see Table 8). The intersection levels of service calculation sheets are included in Appendix D.

The analysis results also show that the stop-controlled study intersection would operate at LOS C or better during all peak hours. The level of service analysis indicates that vehicles on the stop-controlled approaches (Pillar Point Harbor Boulevard and the Shoppes at Harbor Village private driveway) would experience moderate delays.





**Figure 7**  
Project Trip Distribution and Assignment



**Figure 8**  
Existing Plus Project Traffic Volumes

**Table 8**  
**Existing Plus Project Level of Service Summary**

Study Number	Intersection	Peak Hour	Control Type	Existing Conditions			
				No Project		With Project	
				Average Delay (sec.)	LOS	Average Delay (sec.)	LOS
1	Capistrano Road and Cabrillo Highway (SR 1)	AM	Signal	17.9	B	17.9	B
		Midday		15.9	B	16.0	B
		PM		16.2	B	16.4	B
2	Capistrano Road and Pillar Point Harbor Boulevard	AM	TWSC <sup>1</sup>	12.7	B	13.0	B
		Midday		17.5	C	17.9	C
		PM		20.4	C	22.1	C

Notes:

TWSC = Two-Way Stop Control

<sup>1</sup> For TWSC intersections, the worst approach's delay and level of service are reported.

**Bold** indicates a substandard level of service.

**Bold** indicates a significant project impact.

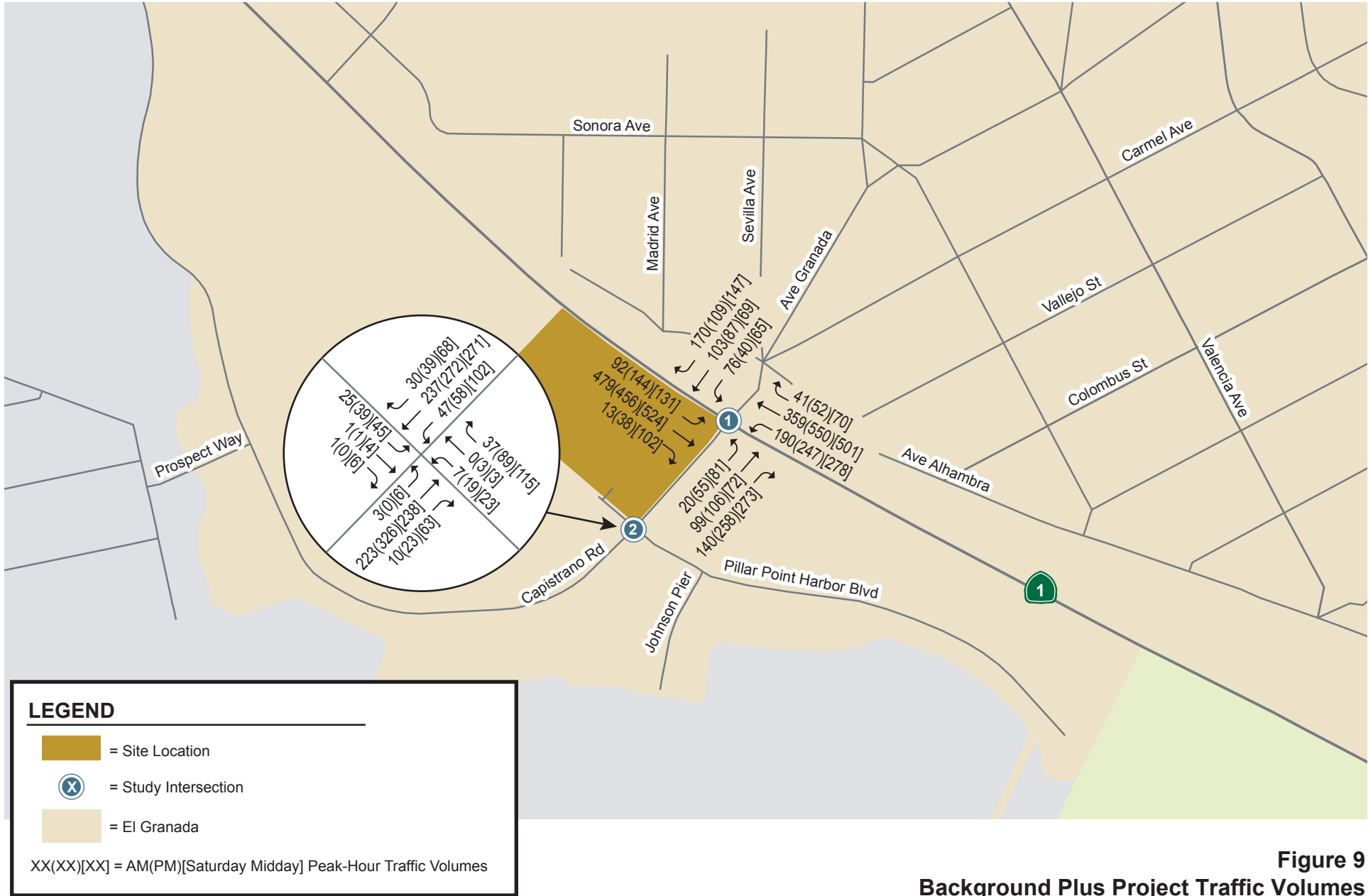
## Background Plus Project Traffic Volumes

Peak hour traffic volumes with the project were estimated by adding to background traffic volumes the additional traffic generated by the project. Project conditions were evaluated relative to background conditions in order to determine potential project impacts. The project traffic volumes are shown graphically on Figure 9 for background plus project conditions. Traffic volumes for all components of traffic are tabulated in Appendix B.

## Background Plus Project Intersection Analysis

The results of the level of service analysis under background plus project conditions show that, when measured against the San Mateo County standards, the signalized study intersection would operate at acceptable levels of service (LOS C or better, with each individual movement operating at LOS D or better) during the AM, PM, and Saturday midday peak hours (see Table 9). The intersection levels of service calculation sheets are included in Appendix D.

The analysis results also show that, under background plus project conditions, the two-way stop-controlled study intersection would operate at LOS C or better during all peak hours. The analysis indicates that vehicles on the stop-controlled approaches (the Pillar Point Harbor Boulevard and the Shoppes at Harbor Village private driveway) would experience moderate delays.



**Table 9**  
**Background Plus Project Level of Service Summary**

Study Number	Intersection	Peak Hour	Control Type	Background Conditions			
				No Project		With Project	
				Average Delay (sec.)	LOS	Average Delay (sec.)	LOS
1	Capistrano Road and Cabrillo Highway (SR 1)	AM	Signal	19.6	B	19.7	B
		Midday		16.9	B	17.1	B
		PM		18.6	B	18.8	B
2	Capistrano Road and Pillar Point Harbor Boulevard	AM	TWSC <sup>1</sup>	14.1	B	14.6	B
		Midday		20.3	C	20.8	C
		PM		20.4	C	22.1	C

Notes:

TWSC = Two-Way Stop Control

<sup>1</sup> For TWSC intersections, the worst approach's delay and level of service are reported.

**Bold** indicates a substandard level of service.

**Bold** indicates a significant project impact.

## 5. Cumulative Conditions

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This chapter presents a summary of the traffic conditions that would occur under cumulative conditions with the proposed project. Cumulative conditions represent future traffic conditions with expected growth in the area. The expected future traffic growth conditions are estimated by applying an annual growth factor to the existing counts. Cumulative conditions reflect a horizon year of 2022, five years of growth.

### Roadway Network and Traffic Volumes

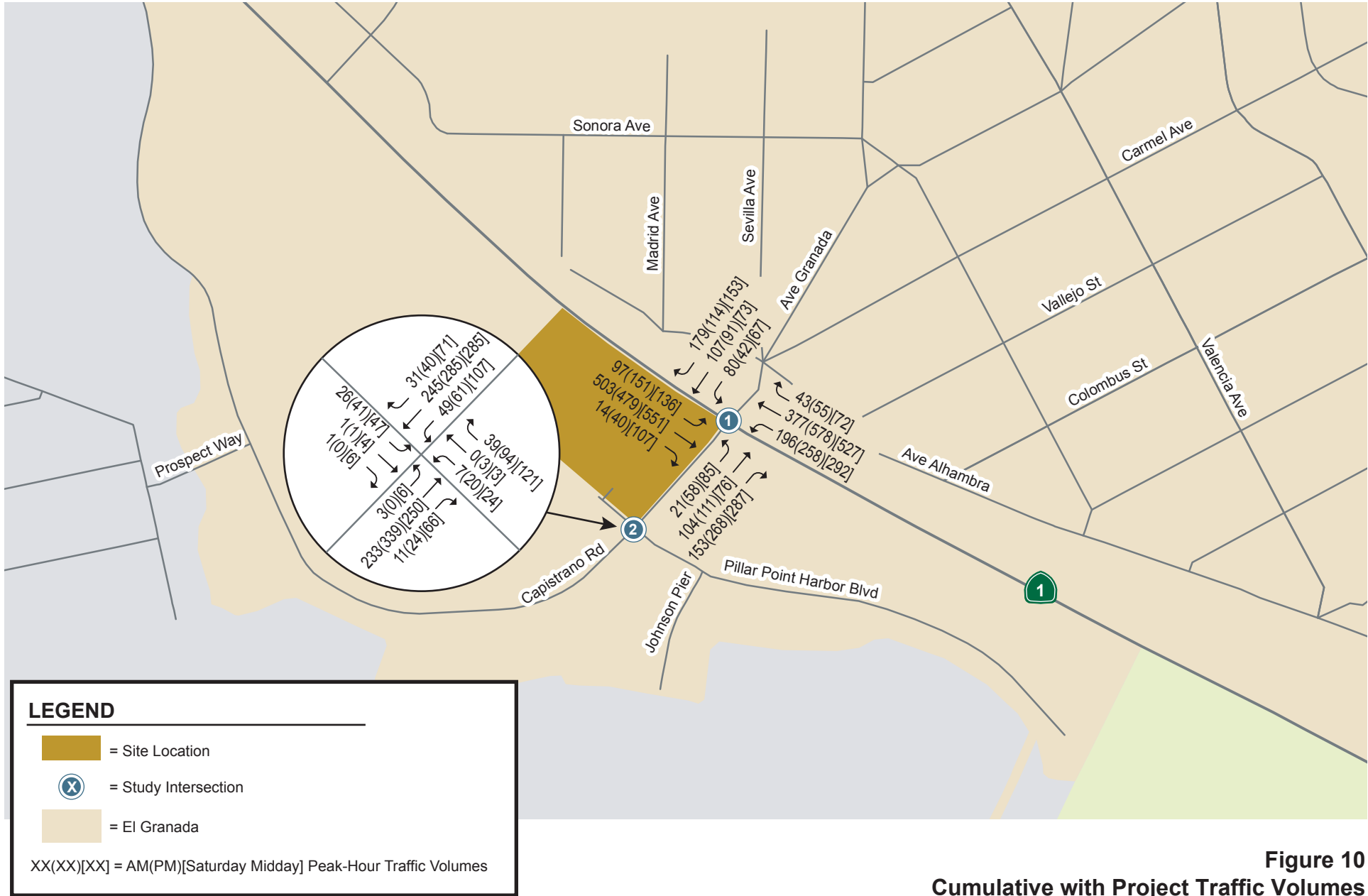
The intersection lane configurations under cumulative conditions were assumed to be the same as described under background conditions.

Cumulative volume for the study intersections was estimated by applying a 1% annual growth rate to the existing traffic counts and adding traffic from approved developments. The growth rate, which has been approved by the County of San Mateo, was applied to the study intersections through the year 2022. Project trips were then added to the growth estimates to create the cumulative conditions volumes (see Figure 10).

### Intersection Levels of Service Analysis

The results of the level of service analysis under cumulative conditions show that, measured against the San Mateo County standards, the signalized study intersection would operate at an acceptable level of service (LOS C or better, with each individual movement operating at LOS D or better) during the AM, PM, and Saturday midday peak hours (see Table 10). The intersection levels of service calculation sheets are included in Appendix D.

The analysis results also show that, under cumulative plus project conditions, the two-way stop-controlled study intersection would operate at LOS C or better during all peak hours. The analysis indicates that vehicles on the stop-controlled approaches (the Pillar Point Harbor Boulevard and the Shoppes at Harbor Village private driveway) would experience moderate delays.



**Figure 10**  
Cumulative with Project Traffic Volumes

**Table 10**  
**Cumulative Level of Service Summary**

Study Number	Intersection	Peak Hour	Control Type	Cumulative Conditions			
				No Project		With Project	
				Average Delay (sec.)	LOS	Average Delay (sec.)	LOS
1	Capistrano Road and Cabrillo Highway (SR 1)	AM	Signal	20.1	C	20.2	C
		Midday		17.4	B	17.6	B
		PM		18.6	B	19.5	B
2	Capistrano Road and Pillar Point Harbor Boulevard	AM	TWSC <sup>1</sup>	14.5	B	15.1	C
		Midday		21.6	C	22.4	C
		PM		20.4	C	24.1	C

**Notes:**  
 TWSC = Two-Way Stop Control  
<sup>1</sup> For TWSC intersections, the worst approach's delay and level of service are reported.  
**Bold** indicates a substandard level of service.  
**Bold** indicates a significant project impact.



## 6. Other Transportation Issues

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

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

The analyses in this chapter are based on professional judgement in accordance with the standards and methods employed by the traffic engineering community.

### Queuing Analysis

The operations analysis is based on vehicle queuing for high-demand movements at intersections. Vehicle queues were estimated 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

$\lambda$  = average number of vehicles in the queue per lane (vehicles per hour per lane/signal cycles per hour)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95<sup>th</sup> 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.

The following three left-turn movements were examined as part of the queuing analysis for this project:

- Northbound left turn at Cabrillo Highway (SR 1) and Capistrano Road
- Eastbound left/through/right turn at Cabrillo Highway (SR 1) and Capistrano Road
- Southbound left turn at Pillar Point Harbor Boulevard and Capistrano Road

The estimated queue lengths based on the Poisson numerical calculations show no queuing deficiencies at the three locations (see Table 11).

**Table 11**  
**Queuing Analysis Summary**

Measurement	Cabrillo Highway (SR 1) and Capistrano Road						Capistrano Road and Pillar Point Harbor Boulevard		
	NBL			EBL/EBT/EBR			SBL		
	AM	PM	Sat Mid	AM	PM	Sat Mid	AM	PM	Sat Mid
<b>Existing</b>									
Cycle/Delay <sup>1</sup> (sec)	120	90	90	120	90	90	12.7	17.5	20.4
Total Volume	90	142	97	233	331	412	12	31	31
Total Avg. Queue (veh.)	3.0	4.0	2.0	8.0	8.0	10.0	0.0	1.0	1.0
Total Avg. Queue <sup>2</sup> (ft.)	75	100	50	200	200	250	0	25	25
Total 95th % Queue (veh.)	6	8	5	13	13	15	0	3	3
Total 95th % Queue (ft.)	150	200	125	325	325	375	0	75	75
Total Storage (ft.)	1000	1000	1000	525	525	525	175	175	175
Adequate (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y
<b>Existing Plus Project</b>									
Cycle/Delay <sup>1</sup> (sec)	120	90	90	120	90	90	13	17.9	22.1
Total Volume	92	149	102	246	339	426	25	39	45
Total Avg. Queue (veh.)	3.0	4.0	3.0	8.0	8.0	11.0	1.0	1.0	1.0
Total Avg. Queue <sup>2</sup> (ft.)	75	100	75	200	200	275	25	25	25
Total 95th % Queue (veh.)	6	8	6	13	13	17	3	3	3
Total 95th % Queue (ft.)	150	200	150	325	325	425	75	75	75
Total Storage (ft.)	1000	1000	1000	525	525	525	175	175	175
Adequate (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y
<b>Background</b>									
Cycle/Delay <sup>1</sup> (sec)	120	90	90	120	90	90	14.1	20.3	20.4
Total Volume	162	163	131	253	411	412	12	31	31
Total Avg. Queue (veh.)	5.0	4.0	3.0	8.0	10.0	10.0	0.0	1.0	1.0
Total Avg. Queue <sup>2</sup> (ft.)	125	100	75	200	250	250	0	25	25
Total 95th % Queue (veh.)	9	8	6	0	3	0	0	3	3
Total 95th % Queue (ft.)	225	200	150	0	75	0	0	75	75
Total Storage (ft.)	1000	1000	1000	525	525	525	175	175	175
Adequate (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y
<b>Background Plus Project</b>									
Cycle/Delay <sup>1</sup> (sec)	120	90	90	120	90	90	14.6	20.8	22.1
Total Volume	164	170	136	266	419	426	25	39	45
Total Avg. Queue (veh.)	5.0	4.0	3.0	9.0	10.0	11.0	1.0	1.0	1.0
Total Avg. Queue <sup>2</sup> (ft.)	125	100	75	225	250	275	25	25	25
Total 95th % Queue (veh.)	9	8	6	14	3	17	3	3	3
Total 95th % Queue (ft.)	225	200	150	350	75	425	75	75	75
Total Storage (ft.)	1000	1000	1000	525	525	525	175	175	175
Adequate (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y
<b>Cumulative</b>									
Cycle/Delay <sup>1</sup> (sec)	120	90	90	120	90	90	14.5	21.6	20.4
Total Volume	167	170	136	265	428	433	13	33	33
Total Avg. Queue (veh.)	6.0	4.0	3.0	9.0	11.0	11.0	0.0	1.0	1.0
Total Avg. Queue <sup>2</sup> (ft.)	150	100	75	225	275	275	0	25	25
Total 95th % Queue (veh.)	10	8	6	14	17	17	0	3	3
Total 95th % Queue (ft.)	250	200	150	350	425	425	0	75	75
Total Storage (ft.)	1000	1000	1000	525	525	525	175	175	175
Adequate (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y
<b>Cumulative Plus Project</b>									
Cycle/Delay <sup>1</sup> (sec)	120	90	90	120	90	90	15.1	22.4	24.1
Total Volume	169	177	141	278	437	448	26	41	47
Total Avg. Queue (veh.)	6.0	4.0	4.0	9.0	11.0	11.0	1.0	1.0	1.0
Total Avg. Queue <sup>2</sup> (ft.)	150	100	100	225	275	275	25	25	25
Total 95th % Queue (veh.)	10	8	8	14	17	17	3	3	3
Total 95th % Queue (ft.)	250	200	200	350	425	425	75	75	75
Total Storage (ft.)	1000	1000	1000	525	525	525	175	175	175
Adequate (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y

**Notes:**  
<sup>1</sup> Vehicle queue calculations based on cycle length for signalized intersections.  
<sup>2</sup> Assumes 25 Feet Per Vehicle Queued.

## Site Access and On-Site Circulation

The site access and circulation evaluation is based on the April 9, 2017 site plan prepared by Jacobsen & Associates Architects, LLC (see Figure 2). On-site vehicular circulation was reviewed in accordance with generally accepted traffic engineering standards.

### Project Driveway Operations

Site access was evaluated to determine the adequacy of the site's proposed driveway with regard to the following: traffic volume, delays, vehicle queues, geometric design, and corner sight distance. Vehicular access to the project site would be provided via a driveway adjacent to the Shoppes at Harbor Village shopping center parking lot. The project site driveway would measure 34 feet wide at the throat. Access to the project site driveway would be shared with the existing shopping center traffic via a shared full-access driveway located as the north leg of the Pillar Point Harbor Boulevard/Capistrano Road intersection. The shared-access driveway is 24 feet wide for the entrance lane and 26 feet wide for the exit lane with a 6-foot wide median. The County of San Mateo does not specify standards for a two-way driveway. However, based on AASHTO's *Geometric Design of Highways and Streets, 6<sup>th</sup> Edition* (2011), a two-way driveway where large vehicles are expected should be a minimum of 18 feet wide.

### Driveway Design

Based on the project description, the project would accommodate recreational vehicles and vehicles with attached trailers, thus requiring a larger turning radius within the driveway design to accommodate large vehicles. The shared-access driveway located at the Pillar Point Harbor Boulevard/Capistrano Road intersection includes a 6-foot wide raised median that would create challenges for large vehicles turning into the driveway. Therefore, vehicle turning paths for a smaller single-unit truck (WB 30), a larger motor home vehicle, and a passenger car with a camper trailer were reviewed at the shared-access driveway. The review of vehicle turning paths indicates that the approximately 24-foot width of the driveway entrance would be adequate for all three vehicle types to perform the right-turn movement into the shared-access driveway. A motor home vehicle with an attached boat may not be applicable to the project site given that it will not fit within any of the provided parking spaces. However, the review indicates that a motor home vehicle with an attached boat also would be able to complete the right-turn movement into the shared-access driveway, but would need to use some of the through-lane on Capistrano Road. Figure 11 shows that the proposed shared-access driveway design would accommodate a smaller single-unit trucks, larger motor home vehicles, and cars with a camper trailer.

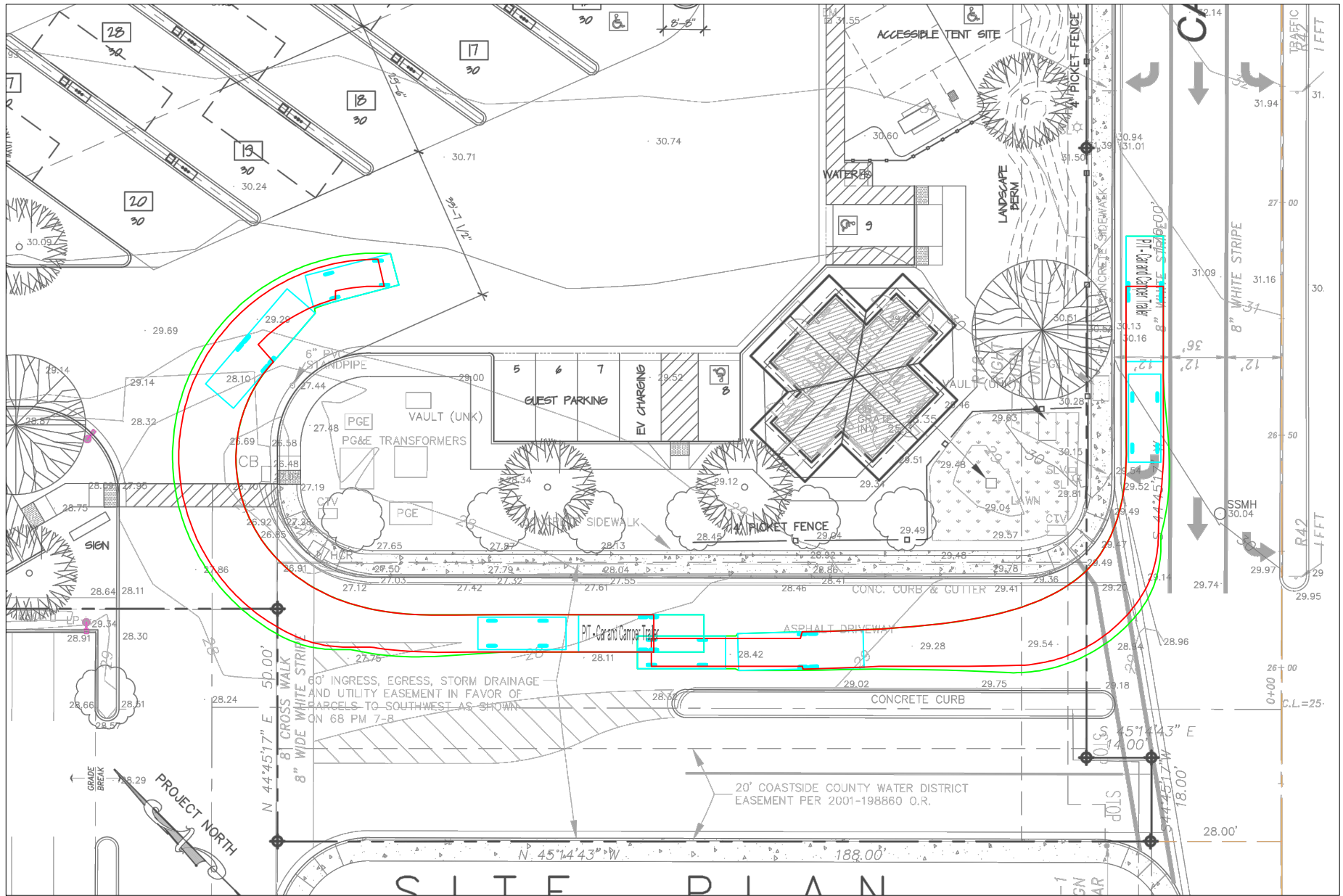


Figure 11  
Shared-Access Driveway Turning Paths

### **Sight Distance at the Project Driveway**

There are no existing trees or visual obstructions along the project frontage to obscure sight distance at the project driveway. There are also no curves in the roadway along the project frontage on Capistrano Road. Clear sight distance triangles should be provided at the project driveways to optimize sight distance. Any landscaping and signage should be located in such a way to ensure an unobstructed view for drivers exiting the site.

### **On-Site Circulation**

The on-site circulation was reviewed in accordance with generally accepted traffic engineering standards. Generally, the proposed plan would provide vehicle traffic with adequate connectivity through the parking areas. The project would provide 60-degree parking throughout the project site, adjacent to 25-foot and 30-foot wide drive aisles accommodating two-way traffic flow. Typically, two-way drive aisles adjacent to 60-degree parking are required to be a minimum of 24 feet wide, to provide sufficient room for vehicles to back out of the parking stalls. The aisle widths are adequate for recreational vehicles and trailers. The RV parking stalls are shown to be 20 feet wide with varying lengths to accommodate various sizes of RVs.

### **Transit, Pedestrian and Bicycle Analysis**

Pedestrian facilities in the study area consist of sidewalks located on both sides of Capistrano Road and along the west side of Pillar Point Harbor Boulevard in the vicinity of the project. Marked crosswalks are provided at the Cabrillo Highway/Capistrano Road and Pillar Point Harbor Boulevard/Capistrano Road intersections (see Chapter 2 for detailed discussion). The overall network of sidewalks and crosswalks in the study area has good connectivity and provides pedestrians with safe routes to transit services and other points of interest in the vicinity of the project site.

Bicycle facilities within the study area consist of a multi-use path as part of the Coastal Trail, south of the project site and accessible via Pillar Point Harbor Boulevard, which is designated as a Class III bike route (see Chapter 2 for detailed discussion). The County of San Mateo plans to develop the Parallel Trail, which would run on the east side of SR 1 from Montara to Half Moon Bay. The sidewalks and bikeways in the vicinity of the project site are adequate to serve the proposed RV park.

Transit services in the study area are provided by SamTrans. The study area is served directly by two local bus routes. It is expected that there would be an insignificant number of people that would use transit to and from the project site. The traffic volumes added to Capistrano Road and Cabrillo Highway would have a less than significant impact on bus travel times.

## 7. Conclusions

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The potential impacts of the project were evaluated in accordance with the standards set forth by the County of San Mateo and the City/County Association of Governments (C/CAG) of San Mateo County CMP. The study included the analysis of traffic conditions at one signalized intersection and one unsignalized intersection during the weekday AM, PM, and Saturday midday peak hours. The analysis focuses on the weekday peak commute periods between 7:00 AM and 9:00 AM and 4:00 PM and 6:00 PM, and the Saturday midday peak hour is typically between 11:00 AM and 3:00 PM. It is during these hours that traffic conditions on the surrounding roadways are generally the most congested and the impact on the roadway system by traffic from the proposed RV park would be greatest.

### Intersection Level of Service Analysis

The results of the intersection level of service analysis determined that under all scenarios with and without the project, the signalized study intersection, Cabrillo Highway (SR 1)/Capistrano Road, would operate at an acceptable level of service (LOS C or better, with each individual movement operating at LOS D or better) during the AM, PM, and Saturday midday peak hours. In addition, the analysis results show that the two-way stop-controlled study intersection would operate at LOS C or better during all peak hours. The analysis indicates that vehicles on the stop-controlled approaches (the Pillar Point Harbor Boulevard and the Shoppes at Harbor Village private driveway) would experience moderate delays.

### Other Transportation Issues

Based on a review of the project site plan, there would be no issues regarding site access along Capistrano Road; and no issues are expected to arise regarding on-site circulation. The driveway design of the proposed shared-access driveway would provide adequate clearance for large vehicles to perform turn movements. Furthermore, the proposed project would not have an adverse effect on the existing transit, pedestrian, or bicycle facilities in the study area. Thus, no project sponsored improvements would be necessary.

**280 Capistrano Road  
Princeton Harbor RV Park TIA  
Technical Appendices**

June 7, 2017

# **Appendix A**

## **Traffic Counts**





(303) 216-2439  
www.alltrafficdata.net

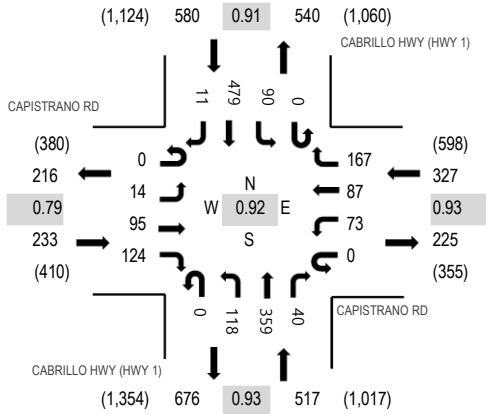
Location: 1 CABRILLO HWY (HWY 1) & CAPISTRANO RD AM

Date and Start Time: Thursday, March 2, 2017

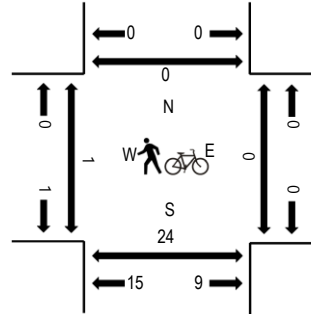
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	CAPISTRANO RD Eastbound				CAPISTRANO RD Westbound				CABRILLO HWY (HWY 1) Northbound				CABRILLO HWY (HWY 1) Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	3	10	23	0	12	12	40	0	19	95	2	0	7	111	1	335	1,559	0	0	5	0
7:15 AM	0	0	5	43	0	20	11	41	0	16	96	6	0	6	120	2	366	1,626	0	0	4	0
7:30 AM	0	5	27	35	0	25	15	43	0	23	83	6	0	17	126	2	407	1,657	0	0	4	0
7:45 AM	0	1	43	31	0	13	26	49	0	38	73	17	0	34	122	4	451	1,624	0	0	5	0
8:00 AM	0	3	12	31	0	17	29	43	0	27	103	8	0	16	112	1	402	1,590	1	0	11	0
8:15 AM	0	5	13	27	0	18	17	32	0	30	100	9	0	23	119	4	397		0	0	3	0
8:30 AM	0	2	7	30	0	18	19	28	0	23	84	13	0	25	123	2	374		0	0	4	0
8:45 AM	0	3	19	32	0	18	16	36	0	40	92	14	0	16	128	3	417		0	0	2	0

**Peak Rolling Hour Flow Rates**

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	5
Lights	0	13	91	116	0	69	83	167	0	111	330	39	0	89	463	11	1,582
Mediums	0	1	4	8	0	4	4	0	0	7	28	1	0	1	12	0	70
Total	0	14	95	124	0	73	87	167	0	118	359	40	0	90	479	11	1,657



(303) 216-2439  
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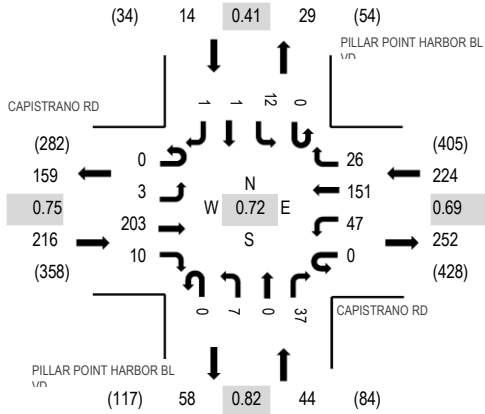
Location: 1 PILLAR POINT HARBOR BLVD & CAPISTRANO RD AM

Date and Start Time: Thursday, May 04, 2017

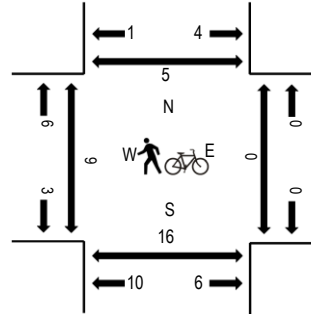
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	CAPISTRANO RD Eastbound				CAPISTRANO RD Westbound				PILLAR POINT HARBOR Northbound				PILLAR POINT HARBOR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	29	3	0	11	20	3	0	1	0	6	0	0	3	0	76	451	2	0	1	0
7:15 AM	0	1	44	4	0	18	18	8	0	2	0	4	0	4	0	0	103	498	1	0	5	2
7:30 AM	0	1	47	2	0	6	24	3	0	3	0	12	0	2	0	0	100	495	2	0	2	2
7:45 AM	0	1	69	2	0	10	67	9	0	0	0	12	0	1	0	1	172	481	1	0	2	1
8:00 AM	0	0	43	2	0	13	42	6	0	2	0	9	0	5	1	0	123	430	4	0	5	0
8:15 AM	0	0	37	4	0	8	30	10	0	1	1	9	0	0	0	0	100		6	0	1	1
8:30 AM	0	0	25	3	0	13	25	4	0	3	0	10	0	2	0	1	86		2	0	1	0
8:45 AM	0	1	35	5	0	12	39	6	0	3	0	6	0	14	0	0	121		3	0	2	0

**Peak Rolling Hour Flow Rates**

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	3	194	10	0	45	146	23	0	6	0	37	0	11	1	1	477
Mediums	0	0	9	0	0	2	5	3	0	1	0	0	0	1	0	0	21
Total	0	3	203	10	0	47	151	26	0	7	0	37	0	12	1	1	498



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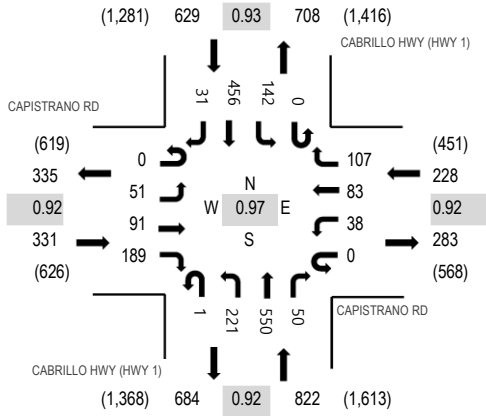
Location: 1 CABRILLO HWY (HWY 1) & CAPISTRANO RD PM

Date and Start Time: Thursday, March 2, 2017

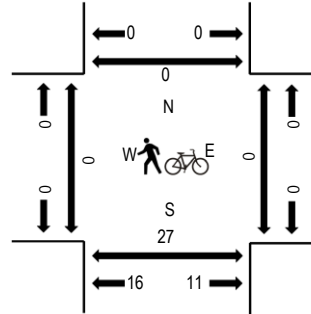
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	CAPISTRANO RD Eastbound				CAPISTRANO RD Westbound				CABRILLO HWY (HWY 1) Northbound				CABRILLO HWY (HWY 1) Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	14	14	51	0	5	27	24	0	46	161	18	0	26	135	2	523	1,976	0	0	4	0
4:15 PM	0	10	18	45	0	8	18	26	0	29	147	14	0	27	122	7	471	1,972	0	1	8	0
4:30 PM	0	15	16	47	0	12	18	29	1	49	146	19	0	34	111	8	505	2,010	0	0	7	0
4:45 PM	0	12	22	41	0	4	21	24	0	57	135	8	0	37	111	5	477	1,981	0	0	3	0
5:00 PM	0	10	23	55	0	10	26	28	0	55	139	9	0	33	121	10	519	1,995	0	0	6	0
5:15 PM	0	14	30	46	0	12	18	26	0	60	130	14	0	38	113	8	509		0	0	7	0
5:30 PM	0	10	23	37	0	11	21	24	0	45	134	14	0	41	106	10	476		2	0	4	0
5:45 PM	0	10	24	39	0	11	31	17	0	41	131	11	0	55	114	7	491		0	2	16	0

**Peak Rolling Hour Flow Rates**

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Lights	0	51	89	183	0	36	82	106	1	217	545	50	0	141	441	30	1,972
Mediums	0	0	2	5	0	2	1	1	0	4	5	0	0	1	15	1	37
Total	0	51	91	189	0	38	83	107	1	221	550	50	0	142	456	31	2,010



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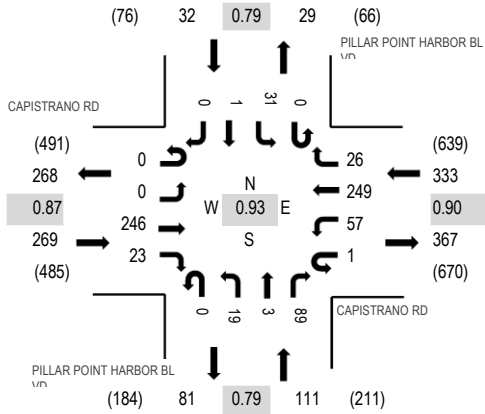
Location: 1 PILLAR POINT HARBOR BLVD & CAPISTRANO RD PM

Date and Start Time: Thursday, May 04, 2017

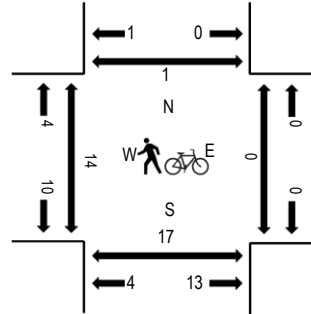
Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	CAPISTRANO RD Eastbound				CAPISTRANO RD Westbound				PILLAR POINT HARBOR Northbound				PILLAR POINT HARBOR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	2	37	5	0	18	47	5	0	3	0	28	0	8	2	0	155	666	0	0	3	0
4:15 PM	0	1	51	7	0	18	49	9	0	4	0	13	0	8	0	1	161	712	1	0	6	0
4:30 PM	0	0	48	4	0	19	41	13	0	6	0	20	0	11	3	0	165	744	8	0	5	0
4:45 PM	0	0	54	7	0	20	61	6	0	9	1	16	0	9	0	2	185	736	0	0	3	2
5:00 PM	0	0	74	6	0	12	68	5	0	7	0	22	0	6	1	0	201	745	5	0	3	1
5:15 PM	0	0	70	10	1	17	64	2	0	1	2	17	0	9	0	0	193		1	0	2	0
5:30 PM	0	0	51	5	0	13	53	5	0	7	1	19	0	3	0	0	157		1	0	3	0
5:45 PM	0	0	51	2	0	15	64	14	0	4	0	31	0	13	0	0	194		5	0	9	0

**Peak Rolling Hour Flow Rates**

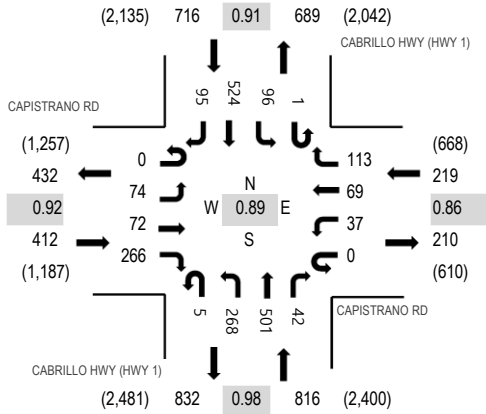
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lights	0	0	243	23	1	56	247	25	0	18	3	89	0	31	1	0	737
Mediums	0	0	2	0	0	1	2	1	0	1	0	0	0	0	0	0	7
Total	0	0	246	23	1	57	249	26	0	19	3	89	0	31	1	0	745



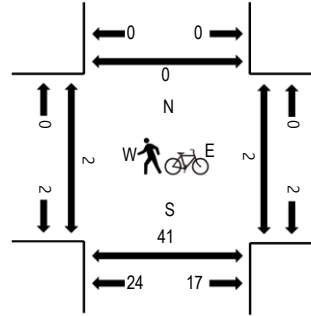
(303) 216-2439  
www.alltrafficdata.net

**Location:** 1 CABRILLO HWY (HWY 1) & CAPISTRANO RD Noon  
**Date and Start Time:** Saturday, March 4, 2017  
**Peak Hour:** 01:45 PM - 02:45 PM  
**Peak 15-Minutes:** 02:30 PM - 02:45 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	CAPISTRANO RD Eastbound				CAPISTRANO RD Westbound				CABRILLO HWY (HWY 1) Northbound				CABRILLO HWY (HWY 1) Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
12:00 PM	0	7	12	56	0	11	22	27	1	66	124	12	0	15	147	27	527	2,101	0	0	10	0
12:15 PM	0	19	24	67	0	12	18	29	0	61	115	14	0	29	121	17	526	2,095	0	0	7	0
12:30 PM	0	19	15	53	0	14	19	29	0	54	126	14	1	25	145	20	534	2,120	0	0	3	0
12:45 PM	0	19	23	64	0	7	12	31	2	71	100	12	0	18	134	21	514	2,132	0	0	11	0
1:00 PM	0	14	22	55	0	10	15	22	0	61	128	9	0	24	141	20	521	2,135	0	0	7	0
1:15 PM	0	30	18	65	0	14	17	32	0	68	130	7	1	13	133	23	551	2,158	0	4	6	0
1:30 PM	0	19	9	79	0	5	16	20	0	68	133	7	0	26	143	21	546	2,099	0	1	5	0
1:45 PM	0	12	15	66	0	12	14	27	1	75	116	15	0	20	126	18	517	2,163	1	0	9	0
2:00 PM	0	19	13	60	0	9	13	20	2	69	134	7	0	29	149	20	544	2,154	0	2	14	0
2:15 PM	0	12	17	62	0	10	23	35	1	60	103	8	1	21	129	10	492		0	0	5	0
2:30 PM	0	31	27	78	0	6	19	31	1	64	148	12	0	26	120	47	610		1	0	8	0
2:45 PM	0	20	15	51	0	12	26	29	1	62	129	9	0	28	106	20	508		3	0	5	0

**Peak Rolling Hour Flow Rates**

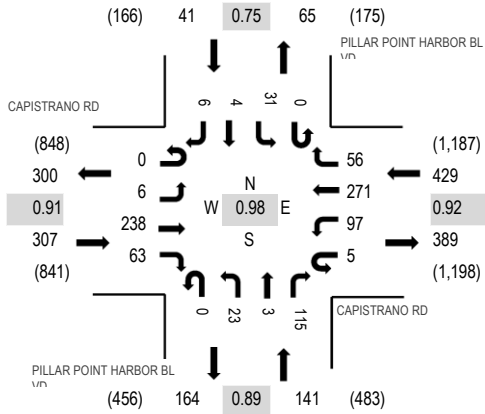
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	73	72	263	0	36	68	109	5	265	491	42	1	96	516	94	2,131
Mediums	0	1	0	3	0	1	1	4	0	3	10	0	0	0	8	1	32
<b>Total</b>	0	74	72	266	0	37	69	113	5	268	501	42	1	96	524	95	2,163



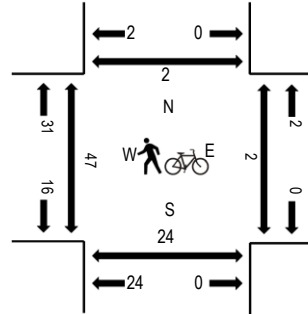
(303) 216-2439  
www.alltrafficdata.net

Location: 1 PILLAR POINT HARBOR BLVD & CAPISTRANO RD Noon  
Date and Start Time: Saturday, May 06, 2017  
Peak Hour: 01:00 PM - 02:00 PM  
Peak 15-Minutes: 01:15 PM - 01:30 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	CAPISTRANO RD Eastbound				CAPISTRANO RD Westbound				PILLAR POINT HARBOR Northbound				PILLAR POINT HARBOR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
12:00 PM	0	1	62	7	0	26	53	10	0	5	1	35	0	15	2	1	218	869	9	0	0	0
12:15 PM	0	0	57	14	1	21	65	8	0	3	1	39	0	20	0	3	232	882	5	0	3	0
12:30 PM	0	4	43	16	1	21	63	11	0	7	2	33	0	10	1	6	218	885	9	0	0	0
12:45 PM	0	2	43	7	0	23	66	9	0	4	1	35	0	8	2	1	201	896	10	0	1	1
1:00 PM	0	1	71	12	1	25	79	8	0	4	0	23	0	5	0	2	231	918	9	0	7	2
1:15 PM	0	2	56	18	2	28	66	21	0	2	1	28	0	7	1	3	235	907	9	0	0	0
1:30 PM	0	3	55	21	2	16	64	15	0	10	1	31	0	9	1	1	229	881	12	0	2	0
1:45 PM	0	0	56	12	0	28	62	12	0	7	1	33	0	10	2	0	223	905	16	2	14	0
2:00 PM	0	2	57	10	0	22	63	4	1	6	3	40	0	11	0	1	220	890	8	0	1	0
2:15 PM	0	0	53	18	0	27	52	9	0	9	1	28	0	10	1	1	209		10	0	4	0
2:30 PM	0	2	62	19	2	24	61	21	0	7	2	40	0	9	1	3	253		13	0	2	2
2:45 PM	0	3	45	7	0	21	62	12	0	5	1	33	0	17	1	1	208		12	0	1	0

**Peak Rolling Hour Flow Rates**

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	6	235	63	5	96	269	55	0	23	3	115	0	30	4	6	910
Mediums	0	0	3	0	0	1	2	1	0	0	0	0	0	1	0	0	8
Total	0	6	238	63	5	97	271	56	0	23	3	115	0	31	4	6	918

**AM Peak-Hour Volume Count Worksheet**

**AUTO-CENSUS**

**Traffic Monitoring and Analysis**

Date: 8/16/2016  
 Counter: Patti Iwanciov  
 Intersection Name: Maple Leaf RV Park  
 Weather: Clear Morgan Hill

870 Castlewood Dr. #1  
 Los Gatos, CA 95032  
 Phone 408-826-9673 Fax 408-877-1625

**Tuesday August 16, 2016**

**Wednesday August 17, 2016**

Start Time	North Dwy		South Dwy	
	IN	OUT	IN	OUT
7:00	0	0	0	0
7:15	0	2	4	14
7:30	1	5	10	32
7:45	4	10	17	52
8:00	5	15	22	70
8:15	5	16	26	77
8:30	5	16	33	84
8:45	6	17	40	96
9:00	6	17	42	101

Start Time	North Dwy		South Dwy	
	IN	OUT	IN	OUT
7:00	0	0	0	0
7:15	0	1	3	10
7:30	0	5	7	31
7:45	1	9	17	51
8:00	2	13	24	67
8:15	3	14	27	78
8:30	4	16	28	84
8:45	4	19	39	93
9:00	4	19	45	106

Peak Hour	IN	OUT	IN	OUT	Hourly Totals
7:00 - 8:00	5	15	22	70	218
7:15 - 8:15	5	14	22	63	212
7:30 - 8:30	4	11	23	52	179
7:45 - 8:45	2	7	23	44	153
8:00 - 9:00	1	2	20	31	122

**Peak Volumes:            5            15            22            70            2            13            24            67            218**

Average In    average out            total trips            Spaces            rate

                  26.5            82.5            109            272            0.401

                  24%            76%

**PM Peak-Hour Volume Count Worksheet**

Date: 8/16/2016  
 Counter: Patti Iwanciov  
 Intersection Name: Maple Leaf RV Park  
 Weather: Clear Morgan Hill

**AUTO-CENSUS**  
**Traffic Monitoring and Analysis**  
 870 Castlewood Dr. #1  
 Los Gatos, CA 95032  
 Phone 408-826-9673 Fax 408-877-1625

**Tuesday August 16, 2016**

**Wednesday August 17, 2016**

Start Time	North Dwy		South Dwy		
	IN	OUT	IN	OUT	
4:00	0	0	0	0	0
4:15	1	4	10	9	1
4:30	3	4	17	16	2
4:45	3	6	32	22	0
5:00	3	9	53	29	0
5:15	3	9	70	40	0
5:30	6	13	95	57	3
5:45	7	14	105	64	1
6:00	8	15	122	72	1

Peak Hour	North Dwy		South Dwy		Hourly Totals
4:00 - 5:00	3	9	53	29	199
4:15 - 5:15	2	5	60	31	196
4:30 - 5:30	3	9	78	41	241
4:45 - 5:45	4	8	73	42	219
5:00 - 6:00	5	6	69	43	230

**Peak Volumes:                    3                    9                    78                    41                    4                    7                    67                    32                    241**

Average In   average out                    total trips                    Spaces                    rate

76                    44.5                    121                    272                    0.443

63%                    37%



**PM Peak-Hour Volume Count Worksheet**

Date: Thursday March 2  
 Counter: Patti, Jo, Huy  
 Intersection Name: RV Trip Gen  
 Weather: Clear Half Moon Bay and Morgan Hill

**AUTO-CENSUS**

**Traffic Monitoring and Analysis**

870 Castlewood Dr. #1  
 Los Gatos, CA 95032  
 Phone 408-826-9673 Fax 408-877-1625

Start Time	Maple Leaf		Pelican Point	
	In	Out	In	Out
7:00	0	0	0	0
7:15	0	0	0	1
7:30	0	0	0	1
7:45	0	0	5	1
8:00	0	0	6	2
8:15	0	0	6	3
8:30	0	0	6	6
8:45	0	0	8	6
9:00	0	0	10	9

	Pillar Point		Pillar Point - Pay Lot	
	In	Out	In	Out
	0	0	0	0
	0	1	0	1
	0	2	0	1
	0	2	0	1
	0	2	0	1
	2	3	2	2
	3	5	2	2
	4	7	2	2
	4	7	2	2

Peak Hour	In	Out	In	Out
7:00 - 8:00	0	0	6	2
7:15 - 8:15	0	0	6	2
7:30 - 8:30	0	0	6	5
7:45 - 8:45	0	0	3	5
8:00 - 9:00	0	0	4	7

	0	2	0	1
	2	2	2	1
	3	3	2	1
	4	5	2	1
	4	5	2	1

Hourly  
Totals

11  
15  
20  
20  
23

**Peak Volumes:            0            0            4            7**

**4            5            2            1**

**23**

**PM Peak-Hour Volume Count Worksheet**

Date: Thursday March 2  
 Counter: Patti, Jo, Huy  
 Intersection Name: RV Trip Gen  
 Weather: Clear Half Moon Bay and Morgan Hill

**AUTO-CENSUS**

**Traffic Monitoring and Analysis**

870 Castlewood Dr. #1  
 Los Gatos, CA 95032  
 Phone 408-826-9673 Fax 408-877-1625

Start Time	Maple Leaf		Pelican Point	
	In	Out	In	Out
4:00	0	0	0	0
4:15	0	0	2	0
4:30	0	0	4	1
4:45	0	0	7	1
5:00	0	0	8	2
5:15	0	0	9	5
5:30	0	0	9	6
5:45	0	0	10	7
6:00	0	0	12	9

Pillar Point - All		Pillar Point - Pay Lot	
In	Out	In	Out
0	0	0	0
3	1	2	1
8	1	3	1
15	5	8	5
16	8	9	8
16	9	9	9
16	14	9	14
19	15	11	15
22	19	13	18

Peak Hour	In	Out	In	Out
4:00 - 5:00	0	0	8	2
4:15 - 5:15	0	0	7	5
4:30 - 5:30	0	0	5	5
4:45 - 5:45	0	0	3	6
5:00 - 6:00	0	0	4	7

16	8	9	8
13	8	7	8
8	13	6	13
4	10	3	10
6	11	4	10

Hourly Totals
51
48
50
36
42
<b>51</b>

**Peak Volumes:            0            0            8            2**

**16            8            9            8**

**51**

**PM Peak-Hour Volume Count Worksheet**

Date: March 4th, 2017  
 Counter: Patti, Jo, Huy  
 Intersection Name: RV Trip Gen  
 Weather: Clear Half Moon Bay and Morgan Hill

**AUTO-CENSUS**

**Traffic Monitoring and Analysis**

870 Castlewood Dr. #1  
 Los Gatos, CA 95032  
 Phone 408-826-9673 Fax 408-877-1625

Start Time	Maple Leaf		Pelican Point		Pillar Point		Pillar Point - Pay Lot		Hourly Totals
	In	Out	In	Out	In	Out	In	Out	
12:00 PM	0	0	0	0	0	0	0	0	
12:15 PM	12	16	1	1	4	6	2	3	
12:30 PM	22	31	1	3	5	11	2	5	
12:45 PM	34	40	3	4	9	13	4	5	
1:00 PM	42	46	6	7	10	15	4	7	
1:15 PM	56	54	6	10	15	17	8	8	
1:30 PM	66	59	8	13	19	19	10	9	
1:45 PM	77	71	11	14	22	20	10	10	
2:00 PM	90	82	13	17	24	22	11	10	
2:15 PM	104	99	14	17	29	28	13	11	
2:30 PM	111	110	15	18	31	31	14	12	
2:45 PM	134	122	17	21	33	34	15	14	
3:00 PM	151	144	19	23	36	39	17	17	
<b>Peak Hour</b>									
12:00 - 1:00	42	46	6	7	10	15	4	7	137
12:15 - 1:15	44	38	5	9	11	11	6	5	129
12:30 - 1:30	44	28	7	10	14	8	8	4	123
12:45 - 1:45	43	31	8	10	13	7	6	5	123
1:00 - 2:00	48	36	7	10	14	7	7	3	132
1:15 - 2:15	48	45	8	7	14	11	5	3	141
1:30 - 2:30	45	51	7	5	12	12	4	3	139
1:45 - 2:45	57	51	6	7	11	14	5	4	155
2:00 - 3:00	61	62	6	6	12	17	6	7	177
<b>Peak Volumes:</b>	<b>42</b>	<b>46</b>	<b>6</b>	<b>7</b>	<b>10</b>	<b>15</b>	<b>4</b>	<b>7</b>	<b>137</b>

**Appendix B**  
**Volume Summary**

Princeton Harbor RV Park TIA AM Conditions

Intersection Number:	1													
Traffic Node Number:	1													
Intersection Name:	Cabrillo Highway (SR 1) & Capistrano Road											Date of Analysis: 05/19/17		
Peak Hour:	AM													
Count Date:	03/02/17													
Scenario:	Princeton Harbor RV Park													
											Future Growth % Per Year:	1%		
											Number of Years to Cumulative Horizon:	5		
Movements														
Scenario:	North Approach			East Approach			South Approach			West Approach			Total	
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
	INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
	PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
	User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions		11	479	90	167	87	73	40	359	118	124	95	14	1657
<b>Approved Project Trips</b>														
	11 Avenue Alhambra	0	0	2	3	0	3	1	0	0	0	0	0	9
	Big Wave North Parcel	0	0	0	0	16	0	0	0	70	16	4	0	106
	Total Approved Trips	0	0	2	3	16	3	1	0	70	16	4	0	115
Background Conditions		11	479	92	170	103	76	41	359	188	140	99	14	1772
<b>Project Trips</b>		2	0	0	0	0	0	0	0	2	7	0	6	17
Existing + Project		13	479	90	167	87	73	40	359	120	131	95	20	1674
Background + Project		13	479	92	170	103	76	41	359	190	147	99	20	1789
Cumulative Baseline Conditions		12	503	97	179	107	80	43	377	194	146	104	15	1857
Cumulative + Proj Conditions		14	503	97	179	107	80	43	377	196	153	104	21	1874

Intersection Number:	2													
Traffic Node Number:	2													
Intersection Name:	Pillar Point Harbor Boulevard & Capistrano Road											Date of Analysis: 05/19/17		
Peak Hour:	AM													
Count Date:	05/04/17													
Scenario:	Princeton Harbor RV Park													
											Future Growth % Per Year:	1%		
											Number of Years to Cumulative Horizon:	5		
Movements														
Scenario:	North Approach			East Approach			South Approach			West Approach			Total	
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
	INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
	PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
	User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions		1	1	12	26	151	47	37	0	7	10	203	3	498
<b>Approved Project Trips</b>														
	11 Avenue Alhambra	0	0	0	0	0	0	0	0	0	0	0	0	0
	Big Wave North Parcel	0	0	0	0	86	0	0	0	0	0	20	0	106
	Total Approved Trips	0	0	0	0	86	0	0	0	0	0	20	0	106
Background Conditions		1	1	12	26	237	47	37	0	7	10	223	3	604
<b>Project Trips</b>		0	0	13	4	0	0	0	0	0	0	0	0	17
Existing + Project		1	1	25	30	151	47	37	0	7	10	203	3	515
Background + Project		1	1	25	30	237	47	37	0	7	10	223	3	621
Cumulative Baseline Conditions		1	1	13	27	245	49	39	0	7	11	233	3	629
Cumulative + Proj Conditions		1	1	26	31	245	49	39	0	7	11	233	3	646

Princeton Harbor RV Park TIA PM Conditions

Intersection Number:	1													
Traffic Node Number:	1													
Intersection Name:	Cabrillo Highway (SR 1) & Capistrano Road											Date of Analysis: 05/19/17		
Peak Hour:	PM													
Count Date:	03/02/17													
Scenario:	Princeton Harbor RV Park													
												Future Growth % Per Year:	1%	
												Number of Years to Cumulative Horizon:	5	
<b>Movements</b>														
Scenario:	North Approach			East Approach			South Approach			West Approach			Total	
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
	INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
	PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
	User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions		31	456	142	107	83	38	50	550	222	189	91	51	2010
<b>Approved Project Trips</b>														
	11 Avenue Alhambra	0	0	2	2	0	2	2	0	0	0	0	0	8
	Big Wave North Parcel	0	0	0	0	4	0	0	0	19	65	15	0	103
	Total Approved Trips	0	0	2	2	4	2	2	0	19	65	15	0	111
Background Conditions		31	456	144	109	87	40	52	550	241	254	106	51	2121
<b>Project Trips</b>		7	0	0	0	0	0	0	0	6	4	0	4	21
Existing + Project		38	456	142	107	83	38	50	550	228	193	91	55	2031
Background + Project		38	456	144	109	87	40	52	550	247	258	106	55	2142
Cumulative Baseline Volumes		33	479	151	114	91	42	55	578	252	264	111	54	2224
Cumulative + Proj Conditions		40	479	151	114	91	42	55	578	258	268	111	58	2245

Intersection Number:	2													
Traffic Node Number:	2													
Intersection Name:	Pillar Point Harbor Boulevard & Capistrano Road											Date of Analysis: 05/19/17		
Peak Hour:	PM													
Count Date:	05/04/17													
Scenario:	Princeton Harbor RV Park													
												Future Growth % Per Year:	1%	
												Number of Years to Cumulative Horizon:	5	
<b>Movements</b>														
Scenario:	North Approach			East Approach			South Approach			West Approach			Total	
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
	INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
	PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
	User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions		0	1	31	26	249	58	89	3	19	23	246	0	745
<b>Approved Project Trips</b>														
	11 Avenue Alhambra	0	0	0	0	0	0	0	0	0	0	0	0	0
	Big Wave North Parcel	0	0	0	0	23	0	0	0	0	0	80	0	103
	Total Approved Trips	0	0	0	0	23	0	0	0	0	0	80	0	103
Background Conditions		0	1	31	26	272	58	89	3	19	23	326	0	848
<b>Project Trips</b>		0	0	8	13	0	0	0	0	0	0	0	0	21
Existing + Project		0	1	39	39	249	58	89	3	19	23	246	0	766
Background + Project		0	1	39	39	272	58	89	3	19	23	326	0	869
Cumulative Baseline Volumes		0	1	33	27	285	61	94	3	20	24	339	0	886
Cumulative + Proj Conditions		0	1	41	40	285	61	94	3	20	24	339	0	908

Princeton Harbor RV Park TIA Saturday Midday Conditions

Intersection Number:	1													
Traffic Node Number:	1													
Intersection Name:	Cabrillo Highway (SR 1) & Capistrano Road											Date of Analysis: 05/19/17		
Peak Hour:	Saturday Midday													
Count Date:	03/04/17													
Scenario:	Princeton Harbor RV Park													
												Future Growth % Per Year:	1%	
												Number of Years to Cumulative Horizon:	5	
<b>Movements</b>														
Scenario:	North Approach			East Approach			South Approach			West Approach			Total	
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
	INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
	PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
	User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions		95	524	97	113	69	37	42	501	273	266	72	74	2163
<b>Approved Project Trips</b>														
	11 Avenue Alhambra	0	0	34	34	0	28	28	0	0	0	0	0	124
	Big Wave North Parcel	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Approved Trips	0	0	34	34	0	28	28	0	0	0	0	0	124
Background Conditions		95	524	131	147	69	65	70	501	273	266	72	74	2287
<b>Project Trips</b>		7	0	0	0	0	0	0	0	5	7	0	7	26
Existing + Project		102	524	97	113	69	37	42	501	278	273	72	81	2189
Background + Project		102	524	131	147	69	65	70	501	278	273	72	81	2313
Cumulative Baseline Volumes		100	551	136	153	73	67	72	527	287	280	76	78	2397
Cumulative + Proj Conditions		107	551	136	153	73	67	72	527	292	287	76	85	2426

Intersection Number:	2													
Traffic Node Number:	2													
Intersection Name:	Pillar Point Harbor Boulevard & Capistrano Road											Date of Analysis: 05/19/17		
Peak Hour:	Saturday Midday													
Count Date:	05/06/17													
Scenario:	Princeton Harbor RV Park													
												Future Growth % Per Year:	1%	
												Number of Years to Cumulative Horizon:	5	
<b>Movements</b>														
Scenario:	North Approach			East Approach			South Approach			West Approach			Total	
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
	INDEX	7	6	5	13	12	11	4	3	2	10	9	8	
	PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
	User Adjustment	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Existing Conditions		6	4	31	56	271	102	115	3	23	63	238	6	918
<b>Approved Project Trips</b>														
	11 Avenue Alhambra	0	0	0	0	0	0	0	0	0	0	0	0	0
	Big Wave North Parcel	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		6	4	31	56	271	102	115	3	23	63	238	6	918
<b>Project Trips</b>		0	0	14	12	0	0	0	0	0	0	0	0	26
Existing + Project		6	4	45	68	271	102	115	3	23	63	238	6	944
Background + Project		6	4	45	68	271	102	115	3	23	63	238	6	944
Cumulative Baseline Volumes		6	4	33	59	285	107	121	3	24	66	250	6	965
Cumulative + Proj Conditions		6	4	47	71	285	107	121	3	24	66	250	6	990

**Appendix C**  
**List of Approved Projects**



RECORD ID	APN	RECORD STATUS	RECORD STATUS DATE	ADDR FULL LINE#	COMMUNITY AREA	DESCRIPTION
PLN2011-00164	4.7E+07	Approved	8/22/2011	345 SAN PEDRO RD, EL GRANADA, CA 94018	EL GRANADA	Coastside Design Review & CDX for a new 2,597 sq/ft single family residence with an attached 684 sq/ft 3-car garage on a 6,938 sq/ft parcel.
PLN2012-00132	4.7E+07	Approved	1/15/2015	280 CAPISTRANO RD, PRINCETON, CA 94018	PRINCETON	4/2014 AMENDMENT- Use Permit Amendment and Coastal Development Permit to replace existing use of a 3,831 sq ft season tent structure with a 4,000 sq ft permanent building for the purpose of hosting wedding events.  Use Permit & 'After-the-Fact' CDP to legalize an existing 3,831 s/f tent (to be up for 6 months), a permanent 10'x10' gazebo & permanent 360 lineal ft. long, 6' high fence.
PLN2013-00451	4.7E+07	Agency Referrals	2/28/2017	AIRPORT RD, PRINCETON	PRINCETON	12/28/16 CML - Major Modification to a 2015 Project Approval of a CDP (appealable to the California Coastal Commission) and Use Permit for the Wellness Center for requested changes to 1) Project Phasing as regulated by Condition No. 73, 2) Change to the Wellness Center type of construction from Type 1 (steel and concrete) to Type 5. The proposed modification requires the amendment of an executed Development Agreement. NOTE: On 1/17/17, the applicant withdrew proposed changes to Mitigation Measure TRANS-1.Consideration of: Certification of an Addendum to the Certified 2010 Big Wave Wellness Center and Office Park Project Draft Environmental Impact Report; the proposed Use Permit, Minor and Major Subdivisions, Coastal Development Permit (appealable to the California Coastal Commission), Design Review Permit, and Grading Permit; Adoption of an Ordinance approving the execution of a Development Agreement to allow project construction over 15 years; and Approve the execution of an Affordable Housing Agreement, for the Big Wave North Parcel Alternative (NPA) Project consisting of a 5-building Office Park and a 3-building Wellness Center (consisting of affordable housing for 50 developmentally disabled (DD) adults and 20 staff) on the north parcel and a boat storage lot and 92 coastal access public parking spaces on the south parcel, on two undeveloped parcels along Airport Street in the unincorporated Princeton-by-the-Sea area of San Mateo County.Consideration of: Certification of an Addendum to the Certified 2010 Big Wave Wellness Center and Office Park Project Draft Environmental Impact Report; the proposed Use Permit, Minor and Major Subdivisions, Coastal Development Permit (appealable to the California Coastal Commission), Design Review Permit, and Grading Permit; Adoption of an Ordinance approving the execution of a Development Agreement to allow project construction over 15 years; and Approve the execution of an Affordable Housing Agreement, for the Big Wave North Parcel Alternative (NPA) Project consisting of a 5-building Office Park and a 3-building Wellness Center (consisting of affordable housing for 50 developmentally disabled (DD) adults and 20 staff) on the north parcel and a boat storage lot and 92 coastal access public parking spaces on the south parcel, on two undeveloped parcels along Airport Street in the unincorporated Princeton-by-the-Sea area of San Mateo County. <a href="http://planning.smcgov.org/big-wave-north-parcel-alternative-project">http://planning.smcgov.org/big-wave-north-parcel-alternative-project</a>
PLN2014-00007	3.7E+07	Approved	12/27/2016	123 BERNAL AVE, MOSS BEACH, CA	MOSS BEACH	Coastside Design Review Permit & CDP (appealable to the Coastal Commission) to construct a new 2,900 sq/ft single family residence with a 400 sq/ft garage. No tree removals or grading.
PLN2014-00126	4.7E+07	Approved	9/25/2014	101 AVENUE PORTOLA, EL GRANADA, CA 94019	EL GRANADA	Coastside Design Review, CDP, Grading Permit & Negative Declaration for a new 12-unit apartment building. Pre-application workshop was held (PRE2104-00002).
PLN2014-00273	4.7E+07	Approved	1/21/2016	923 COLUMBUS ST, EL GRANADA	EL GRANADA	CDP & Subdivision to split a 16,292 sq/ft parcel into 2 lots (8,146 sq/ft each). Requires an Initial Study/Neg. Dec. because the slope of the parcel is over 20% (does not qualify for Cat. Exempt. Sec 15315)
PLN2014-00310	3.7E+07	Agency Referrals	10/15/2014	520 MARINE BLVD, MOSS BEACH, CA 94038	MOSS BEACH	Coastside Design Review & CDX for a new 2,443 sq/ft 2-story single family residence with an attached 503 sq/ft garage on a 7,666 sq/ft parcel; includes removal of 1 tree.
PLN2014-00350	4.7E+07	Agency Referrals	10/15/2014	224 DEL MONTE RD, EL GRANADA 94019	EL GRANADA	Coastside Design Review, CDP & Grading Permit for a new 2,658 s/f single family residence with 506 s/f attached garage. Grading includes 1,300 cubic yards of cut (no fill) & removal of one 48" Monterey pine tree.
PLN2014-00435	4.7E+07	Agency Referrals	11/20/2014	435 AVENUE DEL ORO, EL GRANADA, CA 94018	EL GRANADA	Coastside Design Review, CDX & Certificate of Compliance (to confirm parcel legality) for new 2,320 s/f single-family residence with attached 410 s/f garage & 154 s/f rear yard deck; includes 5 trees proposed for removal (12" pine, 36" pine, 24" pine, 28" pine, 52" pine) & Grading of 215 cu/yds of cut.
PLN2014-00453	4.8E+07	CEQA Preparation	5/27/2016	412 LEE AVE, MIRAMAR, CA 94019	MIRAMAR	Coastside Design Review & Staff-level CDP for a new 1,819 s/f 2-story single family residence, plus an attached 396 s/f garage on a legal 4,800 s/f parcel (COC recorded PLN2014-00138); no trees proposed for removal. Associated with BLD2015-00603.
PLN2014-00490	3.7E+07	Agency Referrals	2/18/2015	1900 EAST AVE, MONTARA, CA	MONTARA	Coastside Design Review & CDX for new 3,152 sq/ft residence (includes 625 s/f garage & 60 s/f covered porch) & COC/Type A to confirm parcel legality of APN 037-015-090 (lots 39 & 40 separately conveyed on 9/20/1915) on a 6,000 s/f parcel; includes removal of 6 trees.  (7/5/16 TBD: Waiting for CCC to determine whether a CDP is required; waiting for civil engineer to estimate grading for house to see if Grading Permit is required).
PLN2015-00007	3.6E+07	Approved	5/19/2015	1160 CEDAR ST, MONTARA, CA	MONTARA	Admin Review & CDX for new 2nd Unit - involving the conversion of 654 sq/ft of an existing lower level residence into a 2nd unit; associated with BLD2015-00763.

PLN2015-00152	4.8E+07	Approved	4/27/2017	3260 N CABRILLO HWY, MIRAMAR, CA	MIRAMAR	Certification of a Re-circulated Initial Study/Mitigated Negative Declaration (IS/MND) and consideration of a Coastal Development Permit and Design Review to allow construction of a new 1,724 sq. ft., two-story, single-family residence, plus a 400 sq. ft. attached two-car garage, and a 551 sq. ft. Second Unit, on an existing 5,080 sq. ft. legal parcel. The Second Unit requires a staff-level ministerial permit. Arroyo de en Medio Creek is located on a southeast portion of the parcel. The project is appealable to the California Coastal Commission.
PLN2015-00376	4.7E+07	Approved	6/9/2016	Coronado Ave. @ Ave. Portola, El Granada, CA	EL GRANADA	Design Review & staff-level CDP for a triplex, consisting of three 1-BR units each with a 1-car garage on APN 047-233-360. No tree removal & only minor grading. Project is not appealable to the CA Coastal Commission. (Associated with similar & concurrent triplex proposal, PLN2015-00377 on adjacent parcel).
PLN2015-00404	4.7E+07	Approved	6/9/2016	401 PALOMA AVE, EL GRANADA, CA	EL GRANADA	Coastside Design Review, Certificate of Compliance (Type A), & CDX for construction of a new 2,280 s.f. single family residence, with a 510 s.f. attached garage on a corner parcel (7,818 s.f.) in El Granada. No trees to be removed & 233 c.y. of grading.
PLN2015-00412	4.7E+07	Approved	3/28/2017	265 EL GRANADA BLVD, EL GRANADA, CA	EL GRANADA	MAJOR REVISION of a previous approval - rotatftn of home, expansion of roof deck & a new 507 sf 2nd dwelling unit.  Coastside Design Review & CDX for a new 2-story 2308 s/f single-family residence with attached 436 s/f garage. No grading; 8 eucalyptus trees proposed for removal.
PLN2016-00011	4.7E+07	Approved	12/13/2016	755 SAN CARLOS AVE, EL GRANADA, CA	EL GRANADA	Certification of an Initial Study/Mitigated Negative Declaration and approval of a Coastal Development Permit, a Design Review, and a Certificate of Compliance (Type B) to legalize a 6,350 sq. ft. undeveloped parcel and to allow construction of a 2,200 sq. ft. single-family residence located on San Carlos Avenue in the El Granada area of San Mateo County. The project is appealable to the California Coastal Commission.
PLN2016-00016	4.7E+07	Approved	6/29/2016	640 FERDINAND AVE, EL GRANADA, CA	EL GRANADA	Coastside Design Review, CDX and Grading Permit involving 400 cu yds. of cut and 0 cu. yds. of fill for a new single-family dwelling on an existing legal lot (COC recorded; PLN2013-00159)
PLN2016-00024	4.7E+07	Approved	3/10/2016	847 FRANCISCO ST, UNIT 2ND, EL GRANADA, CA 94019	EL GRANADA	2nd Unit Admin Review & CDX for conversion of 2 BRs on lower floor of existing 4-BR house (no expansion of footprint) to a 403 s/f 2nd unit, with a compliant single car parking space to side of house; associated with BLD2016-00004
PLN2016-00054	4.7E+07	Approved	7/8/2016	917 PALMA ST, EL GRANADA, CA	EL GRANADA	Coastside Design Review & CDX for a new 2337 s/f 2-story with attached 527 s/f garage on a 6000 s/f legal parcel. Grading includes 90 cu/yds of cut; no tree removal; parcel legality previously confirmed by Merger (MIS94-0015).
PLN2016-00136	4.7E+07	Agency Referrals	4/14/2016	11 AVENUE ALHAMBRA, EL GRANADA, CA 94019	EL GRANADA	CDP, Design Review, & Use Permit Amendment (original UP USE84-52) to allow for the addition of 14 guest rooms, one manager's apartment, a conference room, a storage room, & a new reception area to an existing 18-room motel. Will require an Initial Study/Neg Dec. This project is appealable to the California Coastal Commission.
PLN2016-00160	3.6E+07	Project Decision	9/1/2016	1060 DATE ST, MONTARA, CA	MONTARA	Coastside Design Review & CDX for a new 1,682 sq/ft single family residence with an attached 440 sq/ft garage on a 4,998 sq/ft parcel. LLA in 1993 established the parcel as legal (LLA93-0011)
PLN2016-00283	4.7E+07	Approved	3/28/2017	910 MALAGA ST, EL GRANADA, CA	EL GRANADA	Coastside DR & CDX for a 480 SF addition of 1st floor living room & 2nd floor enclosed "sun room" to existing 1511 SF single family residence.
PLN2016-00317	3.7E+07	Agency Referrals	9/15/2016	146 LA GRANDE AVE, MOSS BEACH, CA	MOSS BEACH	Coastside Design Review & CDP (hearing level) for a new 2-story single family house (includes demolition of existing house) located at 147 La Grande Ave., Moss Beach (037-258-260; zoning: R-1/S-17/DR/GH); parcel legality not applicable since this replaces existing house. Project is appealable to the California Coastal Commission.
PLN2016-00337	4.8E+07	Staff Decision - Hearings	2/10/2017	Terrace Ave @ Miramar Dr., Miramar	MIRAMAR	Coastside Design Review to allow construction of a new 2-story 3,546 sq. ft. single-family residence with an attached 487 sq. ft. 2-car garage, including a 1,152 sq. ft. 2nd Unit with a detached 400 sq. ft. carport, on an existing 22,337 sq. ft. legal parcel (COC PLN2015-00444) and "After-the-Fact" staff level Coastal Development Permit (CDP) for removal of 17 significant trees, in order to resolve VIO2016-00141. Only minor grading is proposed. Seventeen (17) existing significant trees are proposed for removal. The project is not appealable to the California Coastal Commission.
PLN2016-00346	4.7E+07	Agency Referrals	8/24/2016	0 OBISPO RD, EL GRANADA, CA 94019	EL GRANADA	CDP, Design Review, Use Permit, Variance & Grading Permit to construct a new 12,340 SF fire station on a vacant legal parcel (PLN2015-00019), along with a Subdivision to split the 2.5-acre parcel along the C-1 & EG zoning boundary line. Project includes for 10,310 cy of grading (10,150 cy of cut & 160 cy of fill) & removal of 7 trees. Coastside Fire Protection District is acting as lead agency for the EIR. This project relocates existing fire station at 531 Obispo Rd.
PLN2016-00429	3.7E+07	Project Analysis	2/10/2017	Marine BLVD, Moss Beach, CA	MOSS BEACH	Coastside Design Review & CDP for new 1824 sq/ft SFD on a 3,800 sq/ft parcel. Project does not require a non-conforming use permit because the parcel exceeds the 3,500 sq/ft threshold as stipulated by Sect. 6133(3)(b)(1)(a). Parcel is legal pursuant to recorded COC (PLN2014-00140).
PLN2016-00525	4.7E+07	Agency Referrals	4/21/2017	155 BROADWAY, EL GRANADA, CA	PRINCETON	CDP & Use Permit for the HMB Distillery. The Distillery already has a UP to operate at a different location, but they are proposing to move to another location in Princeton. This is a change of use for this new location & an intensification of use, thus requiring a new UP & CDP. Project qualifies for a Use Permit in the CCR zoning district because they do limited indoor sales during tasting tours.
PLN2017-00154	3.6E+07	Submitted	4/20/2017	George St @ Birch St., Montara	MONTARA	Coastside Design Review & CDX for a new 3,300 sq/ft SFD with attached garage on a legal 6,249 sq/ft parcel (COC recorded; PLN2017-00020).




















RECORD ID	APN	RECORD STATUS	RECORD STATUS DATE	ADDR FULL LINE#	COMMUNITY AREA	DESCRIPTION
PLN2011-00164	4.7E+07	Approved	8/22/2011	345 SAN PEDRO RD, EL GRANADA, CA 94018	EL GRANADA	Coastside Design Review & CDX for a new 2,597 sq/ft single family residence with an attached 684 sq/ft 3-car garage on a 6,938 sq/ft parcel.
PLN2012-00132	4.7E+07	Approved	1/15/2015	280 CAPISTRANO RD, PRINCETON, CA 94018	PRINCETON	4/2014 AMENDMENT- Use Permit Amendment and Coastal Development Permit to replace existing use of a 3,831 sq ft season tent structure with a 4,000 sq ft permanent building for the purpose of hosting wedding events.  Use Permit & 'After-the-Fact' CDP to legalize an existing 3,831 s/f tent (to be up for 6 months), a permanent 10'x10' gazebo & permanent 360 lineal ft. long, 6' high fence.
PLN2013-00451	4.7E+07	Agency Referrals	2/28/2017	AIRPORT RD, PRINCETON	PRINCETON	12/28/16 CML - Major Modification to a 2015 Project Approval of a CDP (appealable to the California Coastal Commission) and Use Permit for the Wellness Center for requested changes to 1) Project Phasing as regulated by Condition No. 73, 2) Change to the Wellness Center type of construction from Type 1 (steel and concrete) to Type 5. The proposed modification requires the amendment of an executed Development Agreement.  NOTE: On 1/17/17, the applicant withdrew proposed changes to Mitigation Measure TRANS-1.Consideration of: Certification of an Addendum to the Certified 2010 Big Wave Wellness Center and Office Park Project Draft Environmental Impact Report; the proposed Use Permit, Minor and Major Subdivisions, Coastal Development Permit (appealable to the California Coastal Commission), Design Review Permit, and Grading Permit; Adoption of an Ordinance approving the execution of a Development Agreement to allow project construction over 15 years; and Approve the execution of an Affordable Housing Agreement, for the Big Wave North Parcel Alternative (NPA) Project consisting of a 5-building Office Park and a 3-building Wellness Center (consisting of affordable housing for 50 developmentally disabled (DD) adults and 20 staff) on the north parcel and a boat storage lot and 92 coastal access public parking spaces on the south parcel, on two undeveloped parcels along Airport Street in the unincorporated Princeton-by-the-Sea area of San Mateo County.Consideration of: Certification of an Addendum to the Certified 2010 Big Wave Wellness Center and Office Park Project Draft Environmental Impact Report; the proposed Use Permit, Minor and Major Subdivisions, Coastal Development Permit (appealable to the California Coastal Commission), Design Review Permit, and Grading Permit; Adoption of an Ordinance approving the execution of a Development Agreement to allow project construction over 15 years; and Approve the execution of an Affordable Housing Agreement, for the Big Wave North Parcel Alternative (NPA) Project consisting of a 5-building Office Park and a 3-building Wellness Center (consisting of affordable housing for 50 developmentally disabled (DD) adults and 20 staff) on the north parcel and a boat storage lot and 92 coastal access public parking spaces on the south parcel, on two undeveloped parcels along Airport Street in the unincorporated Princeton-by-the-Sea area of San Mateo County. <a href="http://planning.smcgov.org/big-wave-north-parcel-alternative-project">http://planning.smcgov.org/big-wave-north-parcel-alternative-project</a>
PLN2014-00007	3.7E+07	Approved	12/27/2016	123 BERNAL AVE, MOSS BEACH, CA	MOSS BEACH	Coastside Design Review Permit & CDP (appealable to the Coastal Commission) to construct a new 2,900 sq/ft single family residence with a 400 sq/ft garage. No tree removals or grading.
PLN2014-00126	4.7E+07	Approved	9/25/2014	101 AVENUE PORTOLA, EL GRANADA, CA 94019	EL GRANADA	Coastside Design Review, CDP, Grading Permit & Negative Declaration for a new 12-unit apartment building. Pre-application workshop was held (PRE2104-00002).
PLN2014-00273	4.7E+07	Approved	1/21/2016	923 COLUMBUS ST, EL GRANADA	EL GRANADA	CDP & Subdivision to split a 16,292 sq/ft parcel into 2 lots (8,146 sq/ft each). Requires an Initial Study/Neg. Dec. because the slope of the parcel is over 20% (does not qualify for Cat. Exempt. Sec 15315)
PLN2014-00310	3.7E+07	Agency Referrals	10/15/2014	520 MARINE BLVD, MOSS BEACH, CA 94038	MOSS BEACH	Coastside Design Review & CDX for a new 2,443 sq/ft 2-story single family residence with an attached 503 sq/ft garage on a 7,666 sq/ft parcel; includes removal of 1 tree.
PLN2014-00350	4.7E+07	Agency Referrals	10/15/2014	224 DEL MONTE RD, EL GRANADA 94019	EL GRANADA	Coastside Design Review, CDP & Grading Permit for a new 2,658 s/f single family residence with 506 s/f attached garage. Grading includes 1,300 cubic yards of cut (no fill) & removal of one 48" Monterey pine tree.
PLN2014-00435	4.7E+07	Agency Referrals	11/20/2014	435 AVENUE DEL ORO, EL GRANADA, CA 94018	EL GRANADA	Coastside Design Review, CDX & Certificate of Compliance (to confirm parcel legality) for new 2,320 s/f single-family residence with attached 410 s/f garage & 154 s/f rear yard deck; includes 5 trees proposed for removal (12" pine, 36" pine, 24" pine, 28" pine, 52" pine) & Grading of 215 cu/yds of cut.
PLN2014-00453	4.8E+07	CEQA Preparation	5/27/2016	412 LEE AVE, MIRAMAR, CA 94019	MIRAMAR	Coastside Design Review & Staff-level CDP for a new 1,819 s/f 2-story single family residence, plus an attached 396 s/f garage on a legal 4,800 s/f parcel (COC recorded PLN2014-00138); no trees proposed for removal. Associated with BLD2015-00603.
PLN2014-00490	3.7E+07	Agency Referrals	2/18/2015	1900 EAST AVE, MONTARA, CA	MONTARA	Coastside Design Review & CDX for new 3,152 sq/ft residence (includes 625 s/f garage & 60 s/f covered porch) & COC/Type A to confirm parcel legality of APN 037-015-090 (lots 39 & 40 separately conveyed on 9/20/1915) on a 6,000 s/f parcel; includes removal of 6 trees.  (7/5/16 TBD: Waiting for CCC to determine whether a CDP is required; waiting for civil engineer to estimate grading for house to see if Grading Permit is required).
PLN2015-00007	3.6E+07	Approved	5/19/2015	1160 CEDAR ST, MONTARA, CA	MONTARA	Admin Review & CDX for new 2nd Unit - involving the conversion of 654 sq/ft of an existing lower level residence into a 2nd unit; associated with BLD2015-00763.

PLN2015-00152	4.8E+07	Approved	4/27/2017	3260 N CABRILLO HWY, MIRAMAR, CA	MIRAMAR	Certification of a Re-circulated Initial Study/Mitigated Negative Declaration (IS/MND) and consideration of a Coastal Development Permit and Design Review to allow construction of a new 1,724 sq. ft., two-story, single-family residence, plus a 400 sq. ft. attached two-car garage, and a 551 sq. ft. Second Unit, on an existing 5,080 sq. ft. legal parcel. The Second Unit requires a staff-level ministerial permit. Arroyo de en Medio Creek is located on a southeast portion of the parcel. The project is appealable to the California Coastal Commission.
PLN2015-00376	4.7E+07	Approved	6/9/2016	Coronado Ave. @ Ave. Portola, El Granada, CA	EL GRANADA	Design Review & staff-level CDP for a triplex, consisting of three 1-BR units each with a 1-car garage on APN 047-233-360. No tree removal & only minor grading. Project is not appealable to the CA Coastal Commission. (Associated with similar & concurrent triplex proposal, PLN2015-00377 on adjacent parcel).
PLN2015-00404	4.7E+07	Approved	6/9/2016	401 PALOMA AVE, EL GRANADA, CA	EL GRANADA	Coastside Design Review, Certificate of Compliance (Type A), & CDX for construction of a new 2,280 s.f. single family residence, with a 510 s.f. attached garage on a corner parcel (7,818 s.f.) in El Granada. No trees to be removed & 233 c.y. of grading.
PLN2015-00412	4.7E+07	Approved	3/28/2017	265 EL GRANADA BLVD, EL GRANADA, CA	EL GRANADA	MAJOR REVISION of a previous approval - rotafton of home, expansion of roof deck & a new 507 sf 2nd dwelling unit. Coastside Design Review & CDX for a new 2-story 2308 s/f single-family residence with attached 436 s/f garage. No grading; 8 eucalyptus trees proposed for removal.
PLN2016-00011	4.7E+07	Approved	12/13/2016	755 SAN CARLOS AVE, EL GRANADA, CA	EL GRANADA	Certification of an Initial Study/Mitigated Negative Declaration and approval of a Coastal Development Permit, a Design Review, and a Certificate of Compliance (Type B) to legalize a 6,350 sq. ft. undeveloped parcel and to allow construction of a 2,200 sq. ft. single-family residence located on San Carlos Avenue in the El Granada area of San Mateo County. The project is appealable to the California Coastal Commission.
PLN2016-00016	4.7E+07	Approved	6/29/2016	640 FERDINAND AVE, EL GRANADA, CA	EL GRANADA	Coastside Design Review, CDX and Grading Permit involving 400 cu yds. of cut and 0 cu. yds. of fill for a new single-family dwelling on an existing legal lot (COC recorded; PLN2013-00159)
PLN2016-00024	4.7E+07	Approved	3/10/2016	847 FRANCISCO ST, UNIT 2ND, EL GRANADA, CA 94019	EL GRANADA	2nd Unit Admin Review & CDX for conversion of 2 BRs on lower floor of existing 4-BR house (no expansion of footprint) to a 403 s/f 2nd unit, with a compliant single car parking space to side of house; associated with BLD2016-00004
PLN2016-00054	4.7E+07	Approved	7/8/2016	917 PALMA ST, EL GRANADA, CA	EL GRANADA	Coastside Design Review & CDX for a new 2337 s/f 2-story with attached 527 s/f garage on a 6000 s/f legal parcel. Grading includes 90 cu/yds of cut; no tree removal; parcel legality previously confirmed by Merger (MIS94-0015).
PLN2016-00136	4.7E+07	Agency Referrals	4/14/2016	11 AVENUE ALHAMBRA, EL GRANADA, CA 94019	EL GRANADA	CDP, Design Review, & Use Permit Amendment (original UP USE84-52) to allow for the addition of 14 guest rooms, one manager's apartment, a conference room, a storage room, & a new reception area to an existing 18-room motel. Will require an Initial Study/Neg Dec. This project is appealable to the California Coastal Commission.
PLN2016-00160	3.6E+07	Project Decision	9/1/2016	1060 DATE ST, MONTARA, CA	MONTARA	Coastside Design Review & CDX for a new 1,682 sq/ft single family residence with an attached 440 sq/ft garage on a 4,998 sq/ft parcel. LLA in 1993 established the parcel as legal (LLA93-0011)
PLN2016-00283	4.7E+07	Approved	3/28/2017	910 MALAGA ST, EL GRANADA, CA	EL GRANADA	Coastside DR & CDX for a 480 SF addition of 1st floor living room & 2nd floor enclosed "sun room" to existing 1511 SF single family residence.
PLN2016-00317	3.7E+07	Agency Referrals	9/15/2016	146 LA GRANDE AVE, MOSS BEACH, CA	MOSS BEACH	Coastside Design Review & CDP (hearing level) for a new 2-story single family house (includes demolition of existing house) located at 147 La Grande Ave., Moss Beach (037-258-260; zoning: R-1/S-17/DR/GH); parcel legality not applicable since this replaces existing house. Project is appealable to the California Coastal Commission.
PLN2016-00337	4.8E+07	Staff Decision - Hearing	2/10/2017	Terrace Ave @ Miramar Dr., Miramar	MIRAMAR	Coastside Design Review to allow construction of a new 2-story 3,546 sq. ft. single-family residence with an attached 487 sq. ft. 2-car garage, including a 1,152 sq. ft. 2nd Unit with a detached 400 sq. ft. carport, on an existing 22,337 sq. ft. legal parcel (COC PLN2015-00444) and "After-the-Fact" staff level Coastal Development Permit (CDP) for removal of 17 significant trees, in order to resolve VIO2016-00141. Only minor grading is proposed. Seventeen (17) existing significant trees are proposed for removal. The project is not appealable to the California Coastal Commission.
PLN2016-00346	4.7E+07	Agency Referrals	8/24/2016	0 OBISPO RD, EL GRANADA, CA 94019	EL GRANADA	CDP, Design Review, Use Permit, Variance & Grading Permit to construct a new 12,340 SF fire station on a vacant legal parcel (PLN2015-00019), along with a Subdivision to split the 2.5-acre parcel along the C-1 & EG zoning boundary line. Project includes for 10,310 cy of grading (10,150 cy of cut & 160 cy of fill) & removal of 7 trees. Coastside Fire Protection District is acting as lead agency for the EIR. This project relocates existing fire station at 531 Obispo Rd.
PLN2016-00429	3.7E+07	Project Analysis	2/10/2017	Marine BLVD, Moss Beach, CA	MOSS BEACH	Coastside Design Review & CDP for new 1824 sq/ft SFD on a 3,800 sq/ft parcel. Project does not require a non-conforming use permit because the parcel exceeds the 3,500 sq/ft threshold as stipulated by Sect. 61333(b)(1)(a). Parcel is legal pursuant to recorded COC (PLN2014-00140).
PLN2016-00525	4.7E+07	Agency Referrals	4/21/2017	155 BROADWAY, EL GRANADA, CA	PRINCETON	CDP & Use Permit for the HMB Distillery. The Distillery already has a UP to operate at a different location, but they are proposing to move to another location in Princeton. This is a change of use for this new location & an intensification of use, thus requiring a new UP & CDP. Project qualifies for a Use Permit in the CCR zoning district because they do limited indoor sales during tasting tours.
PLN2017-00154	3.6E+07	Submitted	4/20/2017	George St @ Birch St., Montara	MONTARA	Coastside Design Review & CDX for a new 3,300 sq/ft SFD with attached garage on a legal 6,249 sq/ft parcel (COC recorded; PLN2017-00020).

**Appendix D**  
**Level of Service Calculations**

HCM 2010 Signalized Intersection Summary  
 1: Highway 1 & Capistrano Road




















Existing AM Conditions  
 05/15/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	95	124	73	87	167	118	359	40	90	479	11
Future Volume (veh/h)	14	95	124	73	87	167	118	359	40	90	479	11
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	14	95	66	73	87	140	118	359	38	90	479	-19
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	495	306	140	141	187	230	1538	162	119	1684	753
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.07	0.48	0.48	0.07	0.48	0.00
Sat Flow, veh/h	129	1954	1208	286	558	738	3442	3232	340	1774	3539	1583
Grp Volume(v), veh/h	94	0	81	300	0	0	118	196	201	90	479	-19
Grp Sat Flow(s),veh/h/ln	1810	0	1482	1582	0	0	1721	1770	1803	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	2.9	7.4	0.0	0.0	2.2	4.3	4.4	3.3	5.4	0.0
Cycle Q Clear(g_c), s	2.6	0.0	2.9	11.4	0.0	0.0	2.2	4.3	4.4	3.3	5.4	0.0
Prop In Lane	0.15		0.82	0.24		0.47	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	521	0	375	468	0	0	230	842	858	119	1684	753
V/C Ratio(X)	0.18	0.00	0.22	0.64	0.00	0.00	0.51	0.23	0.23	0.76	0.28	-0.03
Avail Cap(c_a), veh/h	1441	0	1175	1299	0	0	1066	842	858	603	1684	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.4	0.0	19.5	22.6	0.0	0.0	29.8	10.2	10.2	30.4	10.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.3	1.5	0.0	0.0	1.8	0.6	0.6	9.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	1.2	5.2	0.0	0.0	1.1	2.2	2.3	1.9	2.8	0.0
LnGrp Delay(d),s/veh	19.6	0.0	19.8	24.0	0.0	0.0	31.6	10.9	10.9	39.8	10.9	0.0
LnGrp LOS	B		B	C			C	B	B	D	B	
Approach Vol, veh/h		175			300			515			550	
Approach Delay, s/veh		19.7			24.0			15.6			16.0	
Approach LOS		B			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.3	8.9	36.0		21.3	8.9	36.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		52.5	20.5	31.5		52.5	22.5	29.5				
Max Q Clear Time (g_c+I1), s		4.9	4.2	7.4		13.4	5.3	6.4				
Green Ext Time (p_c), s		3.4	0.3	6.0		3.4	0.2	5.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			17.9									
HCM 2010 LOS			B									

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	3	203	10	47	151	26	7	0	37	12	1	1
Future Vol, veh/h	3	203	10	47	151	26	7	0	37	12	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	203	10	47	151	26	7	0	37	12	1	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	151	0	0	213	0	0	460	459	208	478	464	151
Stage 1	-	-	-	-	-	-	214	214	-	245	245	-
Stage 2	-	-	-	-	-	-	246	245	-	233	219	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1430	-	-	1357	-	-	512	499	832	498	495	895
Stage 1	-	-	-	-	-	-	788	725	-	759	703	-
Stage 2	-	-	-	-	-	-	758	703	-	770	722	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1430	-	-	1357	-	-	496	481	832	463	477	895
Mov Cap-2 Maneuver	-	-	-	-	-	-	496	481	-	463	477	-
Stage 1	-	-	-	-	-	-	786	724	-	757	679	-
Stage 2	-	-	-	-	-	-	730	679	-	734	721	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			1.6			10			12.7		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	496	832	1430	-	-	1357	-	-	463	622		
HCM Lane V/C Ratio	0.014	0.044	0.002	-	-	0.035	-	-	0.026	0.003		
HCM Control Delay (s)	12.4	9.5	7.5	0	-	7.7	-	-	13	10.8		
HCM Lane LOS	B	A	A	A	-	A	-	-	B	B		
HCM 95th %tile Q(veh)	0	0.1	0	-	-	0.1	-	-	0.1	0		

HCM 2010 Signalized Intersection Summary  
 1: Highway 1 & Capistrano Road

Existing PM Conditions  
 05/15/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	91	189	38	83	107	222	550	50	142	456	31
Future Volume (veh/h)	51	91	189	38	83	107	222	550	50	142	456	31
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	51	91	38	38	83	65	222	550	46	142	456	5
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	213	318	130	114	150	101	360	1595	133	188	1711	765
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.10	0.48	0.48	0.11	0.48	0.48
Sat Flow, veh/h	674	1820	744	218	859	578	3442	3308	276	1774	3539	1583
Grp Volume(v), veh/h	100	0	80	186	0	0	222	294	302	142	456	5
Grp Sat Flow(s),veh/h/ln	1674	0	1564	1655	0	0	1721	1770	1814	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	2.5	2.5	0.0	0.0	3.5	5.9	5.9	4.4	4.3	0.1
Cycle Q Clear(g_c), s	2.7	0.0	2.5	5.8	0.0	0.0	3.5	5.9	5.9	4.4	4.3	0.1
Prop In Lane	0.51		0.48	0.20		0.35	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	388	0	273	365	0	0	360	854	875	188	1711	765
V/C Ratio(X)	0.26	0.00	0.29	0.51	0.00	0.00	0.62	0.34	0.35	0.76	0.27	0.01
Avail Cap(c_a), veh/h	871	0	783	889	0	0	1240	854	875	671	1711	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	0.0	20.4	21.7	0.0	0.0	24.4	9.1	9.1	24.7	8.7	7.6
Incr Delay (d2), s/veh	0.3	0.0	0.6	1.1	0.0	0.0	1.7	1.1	1.1	6.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	1.1	2.8	0.0	0.0	1.8	3.1	3.2	2.5	2.2	0.0
LnGrp Delay(d),s/veh	20.8	0.0	21.0	22.8	0.0	0.0	26.1	10.2	10.2	30.8	9.1	7.6
LnGrp LOS	C		C	C			C	B	B	C	A	A
Approach Vol, veh/h		180			186			818			603	
Approach Delay, s/veh		20.9			22.8			14.5			14.2	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.4	10.5	32.0		14.4	10.5	31.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	20.5	27.5		28.5	21.5	26.5				
Max Q Clear Time (g_c+I1), s		4.7	5.5	6.3		7.8	6.4	7.9				
Green Ext Time (p_c), s		2.2	0.6	7.0		2.2	0.3	6.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			15.9									
HCM 2010 LOS			B									



**Intersection**

Int Delay, s/veh 3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↗	↖	↗		↖	↗	
Traffic Vol, veh/h	0	246	23	58	249	26	19	3	89	31	1	0
Future Vol, veh/h	0	246	23	58	249	26	19	3	89	31	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	246	23	58	249	26	19	3	89	31	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	249	0	0	269	0	0	624	623	258	669	634	249
Stage 1	-	-	-	-	-	-	258	258	-	365	365	-
Stage 2	-	-	-	-	-	-	366	365	-	304	269	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1317	-	-	1295	-	-	398	402	781	371	397	790
Stage 1	-	-	-	-	-	-	747	694	-	654	623	-
Stage 2	-	-	-	-	-	-	653	623	-	705	687	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1317	-	-	1295	-	-	384	384	781	316	379	790
Mov Cap-2 Maneuver	-	-	-	-	-	-	384	384	-	316	379	-
Stage 1	-	-	-	-	-	-	747	694	-	654	595	-
Stage 2	-	-	-	-	-	-	623	595	-	622	687	-




















Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.4	11.2	17.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	384	756	1317	-	-	1295	-	-	316	379
HCM Lane V/C Ratio	0.049	0.122	-	-	-	0.045	-	-	0.098	0.003
HCM Control Delay (s)	14.9	10.4	0	-	-	7.9	-	-	17.6	14.5
HCM Lane LOS	B	B	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.2	0.4	0	-	-	0.1	-	-	0.3	0

HCM 2010 Signalized Intersection Summary  
 1: Highway 1 & Capistrano Road

Existing Saturday Midday Conditions

05/15/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	72	266	37	69	113	273	501	42	97	524	95
Future Volume (veh/h)	74	72	266	37	69	113	273	501	42	97	524	95
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	74	72	50	37	69	64	273	501	28	97	524	75
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	240	203	145	108	127	100	412	1881	105	127	1782	797
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.12	0.55	0.55	0.07	0.50	0.50
Sat Flow, veh/h	892	1261	900	235	789	618	3442	3409	190	1774	3539	1583
Grp Volume(v), veh/h	111	0	85	170	0	0	273	260	269	97	524	75
Grp Sat Flow(s),veh/h/ln	1516	0	1536	1642	0	0	1721	1770	1829	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	3.1	2.7	0.0	0.0	4.7	4.8	4.8	3.4	5.4	1.5
Cycle Q Clear(g_c), s	3.8	0.0	3.1	5.9	0.0	0.0	4.7	4.8	4.8	3.4	5.4	1.5
Prop In Lane	0.67		0.59	0.22		0.38	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	340	0	247	335	0	0	412	976	1009	127	1782	797
V/C Ratio(X)	0.33	0.00	0.35	0.51	0.00	0.00	0.66	0.27	0.27	0.77	0.29	0.09
Avail Cap(c_a), veh/h	754	0	700	804	0	0	1183	976	1009	383	1782	797
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	0.0	23.3	24.4	0.0	0.0	26.3	7.4	7.4	28.5	9.0	8.1
Incr Delay (d2), s/veh	0.5	0.0	0.8	1.2	0.0	0.0	1.8	0.7	0.6	9.3	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	1.4	2.8	0.0	0.0	2.3	2.5	2.6	2.0	2.7	0.7
LnGrp Delay(d),s/veh	24.1	0.0	24.1	25.6	0.0	0.0	28.2	8.0	8.0	37.8	9.5	8.3
LnGrp LOS	C		C	C			C	A	A	D	A	A
Approach Vol, veh/h		196			170			802			696	
Approach Delay, s/veh		24.1			25.6			14.9			13.3	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.6	12.0	36.0		14.6	9.0	39.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	21.5	26.5		28.5	13.5	34.5				
Max Q Clear Time (g_c+I1), s		5.8	6.7	7.4		7.9	5.4	6.8				
Green Ext Time (p_c), s		2.2	0.8	7.0		2.2	0.1	8.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			16.2									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	6	238	63	102	271	56	23	3	115	31	4	6
Future Vol, veh/h	6	238	63	102	271	56	23	3	115	31	4	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	238	63	102	271	56	23	3	115	31	4	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	271	0	0	301	0	0	762	757	270	816	788	271
Stage 1	-	-	-	-	-	-	282	282	-	475	475	-
Stage 2	-	-	-	-	-	-	480	475	-	341	313	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1292	-	-	1260	-	-	322	337	769	296	323	768
Stage 1	-	-	-	-	-	-	725	678	-	570	557	-
Stage 2	-	-	-	-	-	-	567	557	-	674	657	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1292	-	-	1260	-	-	295	308	769	233	295	768
Mov Cap-2 Maneuver	-	-	-	-	-	-	295	308	-	233	295	-
Stage 1	-	-	-	-	-	-	721	674	-	567	512	-
Stage 2	-	-	-	-	-	-	513	512	-	567	653	-




















Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.9	12	20.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	295	741	1292	-	-	1260	-	-	233	468
HCM Lane V/C Ratio	0.078	0.159	0.005	-	-	0.081	-	-	0.133	0.021
HCM Control Delay (s)	18.2	10.8	7.8	0	-	8.1	-	-	22.8	12.9
HCM Lane LOS	C	B	A	A	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.3	0.6	0	-	-	0.3	-	-	0.5	0.1

HCM 2010 Signalized Intersection Summary  
 1: Highway 1 & Capistrano Road

Existing+Project AM Conditions

05/15/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	95	131	73	87	167	120	359	40	90	479	13
Future Volume (veh/h)	20	95	131	73	87	167	120	359	40	90	479	13
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	20	95	73	73	87	140	120	359	38	90	479	-17
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	461	316	140	142	188	231	1535	161	119	1680	752
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.07	0.47	0.47	0.07	0.47	0.00
Sat Flow, veh/h	201	1808	1242	285	557	737	3442	3232	340	1774	3539	1583
Grp Volume(v), veh/h	101	0	87	300	0	0	120	196	201	90	479	-17
Grp Sat Flow(s),veh/h/ln	1776	0	1476	1580	0	0	1721	1770	1803	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	3.1	7.4	0.0	0.0	2.2	4.3	4.4	3.3	5.5	0.0
Cycle Q Clear(g_c), s	2.8	0.0	3.1	11.4	0.0	0.0	2.2	4.3	4.4	3.3	5.5	0.0
Prop In Lane	0.20		0.84	0.24		0.47	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	517	0	376	470	0	0	231	840	856	119	1680	752
V/C Ratio(X)	0.20	0.00	0.23	0.64	0.00	0.00	0.52	0.23	0.24	0.76	0.29	-0.02
Avail Cap(c_a), veh/h	1407	0	1168	1294	0	0	1063	840	856	602	1680	752
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.5	0.0	19.6	22.5	0.0	0.0	29.9	10.3	10.3	30.4	10.6	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.3	1.4	0.0	0.0	1.8	0.6	0.6	9.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	1.3	5.2	0.0	0.0	1.1	2.3	2.3	1.9	2.8	0.0
LnGrp Delay(d),s/veh	19.7	0.0	19.9	24.0	0.0	0.0	31.7	10.9	10.9	39.9	11.0	0.0
LnGrp LOS	B		B	C			C	B	B	D	B	
Approach Vol, veh/h		188			300			517			552	
Approach Delay, s/veh		19.8			24.0			15.8			16.1	
Approach LOS		B			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.4	9.0	36.0		21.4	8.9	36.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		52.5	20.5	31.5		52.5	22.5	29.5				
Max Q Clear Time (g_c+I1), s		5.1	4.2	7.5		13.4	5.3	6.4				
Green Ext Time (p_c), s		3.5	0.3	6.0		3.5	0.2	5.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			17.9									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	3	203	10	47	151	30	7	0	37	25	1	1
Future Vol, veh/h	3	203	10	47	151	30	7	0	37	25	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	203	10	47	151	30	7	0	37	25	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	151	0	0	213	0	0	460	459	208	478	464	151
Stage 1	-	-	-	-	-	-	214	214	-	245	245	-
Stage 2	-	-	-	-	-	-	246	245	-	233	219	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1430	-	-	1357	-	-	512	499	832	498	495	895
Stage 1	-	-	-	-	-	-	788	725	-	759	703	-
Stage 2	-	-	-	-	-	-	758	703	-	770	722	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1430	-	-	1357	-	-	496	481	832	463	477	895
Mov Cap-2 Maneuver	-	-	-	-	-	-	496	481	-	463	477	-
Stage 1	-	-	-	-	-	-	786	724	-	757	679	-
Stage 2	-	-	-	-	-	-	730	679	-	734	721	-




















Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.6	10	13
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	496	832	1430	-	-	1357	-	-	463	622
HCM Lane V/C Ratio	0.014	0.044	0.002	-	-	0.035	-	-	0.054	0.003
HCM Control Delay (s)	12.4	9.5	7.5	0	-	7.7	-	-	13.2	10.8
HCM Lane LOS	B	A	A	A	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0	0.1	0	-	-	0.1	-	-	0.2	0

HCM 2010 Signalized Intersection Summary  
 1: Highway 1 & Capistrano Road

Existing+Project PM Conditions

05/15/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	91	193	38	83	107	228	550	50	142	456	38
Future Volume (veh/h)	55	91	193	38	83	107	228	550	50	142	456	38
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	55	91	42	38	83	65	228	550	46	142	456	12
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	303	138	114	150	101	367	1596	133	188	1704	763
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.11	0.48	0.48	0.11	0.48	0.48
Sat Flow, veh/h	697	1731	785	218	858	578	3442	3308	276	1774	3539	1583
Grp Volume(v), veh/h	105	0	83	186	0	0	228	294	302	142	456	12
Grp Sat Flow(s),veh/h/ln	1657	0	1556	1654	0	0	1721	1770	1814	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	2.7	2.5	0.0	0.0	3.6	5.9	5.9	4.4	4.4	0.2
Cycle Q Clear(g_c), s	2.9	0.0	2.7	5.8	0.0	0.0	3.6	5.9	5.9	4.4	4.4	0.2
Prop In Lane	0.52		0.50	0.20		0.35	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	387	0	273	366	0	0	367	854	876	188	1704	763
V/C Ratio(X)	0.27	0.00	0.31	0.51	0.00	0.00	0.62	0.34	0.35	0.76	0.27	0.02
Avail Cap(c_a), veh/h	863	0	777	885	0	0	1236	854	876	668	1704	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	20.5	21.8	0.0	0.0	24.4	9.2	9.2	24.8	8.8	7.7
Incr Delay (d2), s/veh	0.4	0.0	0.6	1.1	0.0	0.0	1.7	1.1	1.1	6.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	1.2	2.8	0.0	0.0	1.8	3.1	3.2	2.5	2.2	0.1
LnGrp Delay(d),s/veh	21.0	0.0	21.1	22.9	0.0	0.0	26.1	10.3	10.3	30.9	9.2	7.8
LnGrp LOS	C		C	C			C	B	B	C	A	A
Approach Vol, veh/h		188			186			824			610	
Approach Delay, s/veh		21.0			22.9			14.6			14.2	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.5	10.6	32.0		14.5	10.5	32.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	20.5	27.5		28.5	21.5	26.5				
Max Q Clear Time (g_c+I1), s		4.9	5.6	6.4		7.8	6.4	7.9				
Green Ext Time (p_c), s		2.3	0.6	7.1		2.2	0.3	6.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			16.0									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↗	↖	↗		↖	↗	
Traffic Vol, veh/h	0	246	23	58	249	39	19	3	89	39	1	0
Future Vol, veh/h	0	246	23	58	249	39	19	3	89	39	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	246	23	58	249	39	19	3	89	39	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	249	0	0	269	0	0	624	623	258	669	634	249
Stage 1	-	-	-	-	-	-	258	258	-	365	365	-
Stage 2	-	-	-	-	-	-	366	365	-	304	269	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1317	-	-	1295	-	-	398	402	781	371	397	790
Stage 1	-	-	-	-	-	-	747	694	-	654	623	-
Stage 2	-	-	-	-	-	-	653	623	-	705	687	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1317	-	-	1295	-	-	384	384	781	316	379	790
Mov Cap-2 Maneuver	-	-	-	-	-	-	384	384	-	316	379	-
Stage 1	-	-	-	-	-	-	747	694	-	654	595	-
Stage 2	-	-	-	-	-	-	623	595	-	622	687	-




















Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.3	11.2	17.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	384	756	1317	-	-	1295	-	-	316	379
HCM Lane V/C Ratio	0.049	0.122	-	-	-	0.045	-	-	0.123	0.003
HCM Control Delay (s)	14.9	10.4	0	-	-	7.9	-	-	18	14.5
HCM Lane LOS	B	B	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.2	0.4	0	-	-	0.1	-	-	0.4	0

HCM 2010 Signalized Intersection Summary  
1: Highway 1 & Capistrano Road

Existing+Project Saturday Midday Conditions

05/15/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	72	273	37	69	113	278	501	42	97	524	102
Future Volume (veh/h)	81	72	273	37	69	113	278	501	42	97	524	102
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	81	72	57	37	69	64	278	501	28	97	524	82
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	190	155	108	128	100	417	1876	105	127	1772	793
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.12	0.55	0.55	0.07	0.50	0.50
Sat Flow, veh/h	909	1165	951	233	788	616	3442	3409	190	1774	3539	1583
Grp Volume(v), veh/h	119	0	91	170	0	0	278	260	269	97	524	82
Grp Sat Flow(s),veh/h/ln	1498	0	1527	1636	0	0	1721	1770	1829	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	3.3	2.6	0.0	0.0	4.8	4.8	4.9	3.4	5.4	1.7
Cycle Q Clear(g_c), s	4.2	0.0	3.3	6.0	0.0	0.0	4.8	4.8	4.9	3.4	5.4	1.7
Prop In Lane	0.68		0.62	0.22		0.38	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	341	0	249	336	0	0	417	974	1007	127	1772	793
V/C Ratio(X)	0.35	0.00	0.37	0.51	0.00	0.00	0.67	0.27	0.27	0.77	0.30	0.10
Avail Cap(c_a), veh/h	748	0	694	801	0	0	1181	974	1007	382	1772	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	0.0	23.4	24.4	0.0	0.0	26.3	7.4	7.4	28.6	9.2	8.2
Incr Delay (d2), s/veh	0.6	0.0	0.9	1.2	0.0	0.0	1.8	0.7	0.7	9.3	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	1.5	2.8	0.0	0.0	2.4	2.5	2.6	2.0	2.7	0.8
LnGrp Delay(d),s/veh	24.3	0.0	24.3	25.6	0.0	0.0	28.2	8.1	8.1	37.8	9.6	8.5
LnGrp LOS	C		C	C			C	A	A	D	A	A
Approach Vol, veh/h		210			170			807			703	
Approach Delay, s/veh		24.3			25.6			15.0			13.4	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.7	12.1	35.9		14.7	9.0	39.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	21.5	26.5		28.5	13.5	34.5				
Max Q Clear Time (g_c+I1), s		6.2	6.8	7.4		8.0	5.4	6.9				
Green Ext Time (p_c), s		2.3	0.8	7.0		2.3	0.1	8.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			16.4									
HCM 2010 LOS			B									



**Intersection**

Int Delay, s/veh 4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	6	238	63	102	271	68	23	3	115	45	4	6
Future Vol, veh/h	6	238	63	102	271	68	23	3	115	45	4	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	238	63	102	271	68	23	3	115	45	4	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	271	0	0	301	0	0	762	757	270	816	788	271
Stage 1	-	-	-	-	-	-	282	282	-	475	475	-
Stage 2	-	-	-	-	-	-	480	475	-	341	313	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1292	-	-	1260	-	-	322	337	769	296	323	768
Stage 1	-	-	-	-	-	-	725	678	-	570	557	-
Stage 2	-	-	-	-	-	-	567	557	-	674	657	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1292	-	-	1260	-	-	295	308	769	233	295	768
Mov Cap-2 Maneuver	-	-	-	-	-	-	295	308	-	233	295	-
Stage 1	-	-	-	-	-	-	721	674	-	567	512	-
Stage 2	-	-	-	-	-	-	513	512	-	567	653	-




















Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.9	12	22.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	295	741	1292	-	-	1260	-	-	233	468
HCM Lane V/C Ratio	0.078	0.159	0.005	-	-	0.081	-	-	0.193	0.021
HCM Control Delay (s)	18.2	10.8	7.8	0	-	8.1	-	-	24.1	12.9
HCM Lane LOS	C	B	A	A	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.3	0.6	0	-	-	0.3	-	-	0.7	0.1

HCM 2010 Signalized Intersection Summary  
 1: Highway 1 & Capistrano Road

Background AM Conditions

05/15/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	99	140	76	103	170	188	359	41	92	479	11
Future Volume (veh/h)	14	99	140	76	103	170	188	359	41	92	479	11
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	14	99	82	76	103	143	188	359	39	92	479	-19
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	89	488	355	139	160	188	298	1517	164	121	1602	717
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.09	0.47	0.47	0.07	0.45	0.00
Sat Flow, veh/h	114	1829	1332	281	599	703	3442	3223	348	1774	3539	1583
Grp Volume(v), veh/h	105	0	90	322	0	0	188	196	202	92	479	-19
Grp Sat Flow(s),veh/h/ln	1815	0	1460	1583	0	0	1721	1770	1801	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	3.3	8.6	0.0	0.0	3.7	4.6	4.6	3.5	6.0	0.0
Cycle Q Clear(g_c), s	3.1	0.0	3.3	12.8	0.0	0.0	3.7	4.6	4.6	3.5	6.0	0.0
Prop In Lane	0.13		0.91	0.24		0.44	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	543	0	390	486	0	0	298	833	848	121	1602	717
V/C Ratio(X)	0.19	0.00	0.23	0.66	0.00	0.00	0.63	0.24	0.24	0.76	0.30	-0.03
Avail Cap(c_a), veh/h	1379	0	1102	1237	0	0	1014	833	848	574	1602	717
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.8	0.0	19.9	23.3	0.0	0.0	30.7	11.0	11.0	31.8	12.1	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.3	1.6	0.0	0.0	2.2	0.7	0.7	9.3	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	1.4	5.8	0.0	0.0	1.8	2.4	2.5	2.1	3.0	0.0
LnGrp Delay(d),s/veh	20.0	0.0	20.2	24.8	0.0	0.0	32.9	11.6	11.6	41.1	12.5	0.0
LnGrp LOS	B		C	C			C	B	B	D	B	
Approach Vol, veh/h		195			322			586			552	
Approach Delay, s/veh		20.1			24.8			18.5			17.7	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.1	10.5	36.0		23.1	9.3	37.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		52.5	20.5	31.5		52.5	22.5	29.5				
Max Q Clear Time (g_c+I1), s		5.3	5.7	8.0		14.8	5.5	6.6				
Green Ext Time (p_c), s		3.8	0.5	6.0		3.7	0.2	5.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			19.6									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	3	223	10	47	237	26	7	0	37	12	1	1
Future Vol, veh/h	3	223	10	47	237	26	7	0	37	12	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	223	10	47	237	26	7	0	37	12	1	1




















Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	237	0	0	233	0	0	566	565	228	584	570	237
Stage 1	-	-	-	-	-	-	234	234	-	331	331	-
Stage 2	-	-	-	-	-	-	332	331	-	253	239	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1330	-	-	1335	-	-	435	434	811	423	431	802
Stage 1	-	-	-	-	-	-	769	711	-	682	645	-
Stage 2	-	-	-	-	-	-	681	645	-	751	708	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1330	-	-	1335	-	-	421	417	811	392	415	802
Mov Cap-2 Maneuver	-	-	-	-	-	-	421	417	-	392	415	-
Stage 1	-	-	-	-	-	-	767	709	-	680	622	-
Stage 2	-	-	-	-	-	-	655	622	-	715	706	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.2	10.3	14.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	421	811	1330	-	-	1335	-	-	392	547
HCM Lane V/C Ratio	0.017	0.046	0.002	-	-	0.035	-	-	0.031	0.004
HCM Control Delay (s)	13.7	9.7	7.7	0	-	7.8	-	-	14.5	11.6
HCM Lane LOS	B	A	A	A	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.1	0.1	0	-	-	0.1	-	-	0.1	0

HCM 2010 Signalized Intersection Summary  
1: Highway 1 & Capistrano Road

Background PM Conditions  
05/15/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	106	254	40	87	109	241	550	52	144	456	31
Future Volume (veh/h)	51	106	254	40	87	109	241	550	52	144	456	31
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	51	106	103	40	87	67	241	550	48	144	456	5
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	282	248	113	161	105	380	1555	135	190	1658	742
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.11	0.47	0.47	0.11	0.47	0.47
Sat Flow, veh/h	427	1473	1298	206	839	552	3442	3295	287	1774	3539	1583
Grp Volume(v), veh/h	144	0	116	194	0	0	241	295	303	144	456	5
Grp Sat Flow(s),veh/h/ln	1731	0	1466	1597	0	0	1721	1770	1812	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	4.1	2.4	0.0	0.0	3.9	6.2	6.2	4.6	4.6	0.1
Cycle Q Clear(g_c), s	4.0	0.0	4.1	6.5	0.0	0.0	3.9	6.2	6.2	4.6	4.6	0.1
Prop In Lane	0.36		0.89	0.21		0.35	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	414	0	280	379	0	0	380	835	855	190	1658	742
V/C Ratio(X)	0.35	0.00	0.42	0.51	0.00	0.00	0.63	0.35	0.35	0.76	0.28	0.01
Avail Cap(c_a), veh/h	877	0	712	842	0	0	1202	835	855	650	1658	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	0.0	20.9	21.7	0.0	0.0	25.0	9.8	9.8	25.5	9.5	8.3
Incr Delay (d2), s/veh	0.5	0.0	1.0	1.1	0.0	0.0	1.8	1.2	1.2	6.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	1.7	3.0	0.0	0.0	2.0	3.3	3.4	2.6	2.3	0.0
LnGrp Delay(d),s/veh	21.3	0.0	21.8	22.8	0.0	0.0	26.7	11.0	11.0	31.6	9.9	8.3
LnGrp LOS	C		C	C			C	B	B	C	A	A
Approach Vol, veh/h		260			194			839			605	
Approach Delay, s/veh		21.5			22.8			15.5			15.1	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.7	11.0	32.0		15.7	10.8	32.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	20.5	27.5		28.5	21.5	26.5				
Max Q Clear Time (g_c+I1), s		6.1	5.9	6.6		8.5	6.6	8.2				
Green Ext Time (p_c), s		2.8	0.7	7.0		2.7	0.3	6.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			16.9									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	0	326	23	58	272	26	19	3	89	31	1	0
Future Vol, veh/h	0	326	23	58	272	26	19	3	89	31	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	326	23	58	272	26	19	3	89	31	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	272	0	0	349	0	0	727	726	338	772	737	272
Stage 1	-	-	-	-	-	-	338	338	-	388	388	-
Stage 2	-	-	-	-	-	-	389	388	-	384	349	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1291	-	-	1210	-	-	339	351	704	317	346	767
Stage 1	-	-	-	-	-	-	676	641	-	636	609	-
Stage 2	-	-	-	-	-	-	635	609	-	639	633	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1291	-	-	1210	-	-	326	334	704	265	329	767
Mov Cap-2 Maneuver	-	-	-	-	-	-	326	334	-	265	329	-
Stage 1	-	-	-	-	-	-	676	641	-	636	580	-
Stage 2	-	-	-	-	-	-	604	580	-	556	633	-




















Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.3	12.1	20.3
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	326	679	1291	-	-	1210	-	-	265	329
HCM Lane V/C Ratio	0.058	0.135	-	-	-	0.048	-	-	0.117	0.003
HCM Control Delay (s)	16.7	11.1	0	-	-	8.1	-	-	20.4	16
HCM Lane LOS	C	B	A	-	-	A	-	-	C	C
HCM 95th %tile Q(veh)	0.2	0.5	0	-	-	0.2	-	-	0.4	0

HCM 2010 Signalized Intersection Summary  
 1: Highway 1 & Capistrano Road

Background Saturday Midday Conditions

05/15/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	72	266	65	69	147	273	501	70	131	524	95
Future Volume (veh/h)	74	72	266	65	69	147	273	501	70	131	524	95
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	74	72	50	65	69	98	273	501	56	131	524	75
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	232	172	134	117	134	400	1620	180	169	1710	765
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.12	0.50	0.50	0.10	0.48	0.48
Sat Flow, veh/h	796	1141	847	326	577	660	3442	3211	358	1774	3539	1583
Grp Volume(v), veh/h	105	0	91	232	0	0	273	275	282	131	524	75
Grp Sat Flow(s),veh/h/ln	1237	0	1546	1563	0	0	1721	1770	1800	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	3.4	6.0	0.0	0.0	5.2	6.2	6.3	4.9	6.1	1.8
Cycle Q Clear(g_c), s	5.0	0.0	3.4	9.4	0.0	0.0	5.2	6.2	6.3	4.9	6.1	1.8
Prop In Lane	0.71		0.55	0.28		0.42	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	341	0	314	385	0	0	400	893	908	169	1710	765
V/C Ratio(X)	0.31	0.00	0.29	0.60	0.00	0.00	0.68	0.31	0.31	0.78	0.31	0.10
Avail Cap(c_a), veh/h	630	0	644	714	0	0	1082	893	908	350	1710	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	23.1	25.4	0.0	0.0	29.0	9.9	10.0	30.2	10.7	9.6
Incr Delay (d2), s/veh	0.5	0.0	0.5	1.5	0.0	0.0	2.1	0.9	0.9	7.5	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	1.5	4.2	0.0	0.0	2.6	3.2	3.4	2.8	3.1	0.8
LnGrp Delay(d),s/veh	24.0	0.0	23.6	26.9	0.0	0.0	31.1	10.8	10.8	37.7	11.2	9.8
LnGrp LOS	C		C	C			C	B	B	D	B	A
Approach Vol, veh/h		196			232			830			730	
Approach Delay, s/veh		23.8			26.9			17.5			15.8	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.4	12.5	37.6		18.4	11.0	39.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	21.5	26.5		28.5	13.5	34.5				
Max Q Clear Time (g_c+I1), s		7.0	7.2	8.1		11.4	6.9	8.3				
Green Ext Time (p_c), s		2.7	0.8	7.1		2.5	0.2	8.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			18.6									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	6	238	63	102	271	56	23	3	115	31	4	6
Future Vol, veh/h	6	238	63	102	271	56	23	3	115	31	4	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	238	63	102	271	56	23	3	115	31	4	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	271	0	0	301	0	0	762	757	270	816	788	271
Stage 1	-	-	-	-	-	-	282	282	-	475	475	-
Stage 2	-	-	-	-	-	-	480	475	-	341	313	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1292	-	-	1260	-	-	322	337	769	296	323	768
Stage 1	-	-	-	-	-	-	725	678	-	570	557	-
Stage 2	-	-	-	-	-	-	567	557	-	674	657	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1292	-	-	1260	-	-	295	308	769	233	295	768
Mov Cap-2 Maneuver	-	-	-	-	-	-	295	308	-	233	295	-
Stage 1	-	-	-	-	-	-	721	674	-	567	512	-
Stage 2	-	-	-	-	-	-	513	512	-	567	653	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.9	12	20.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	295	741	1292	-	-	1260	-	-	233	468
HCM Lane V/C Ratio	0.078	0.159	0.005	-	-	0.081	-	-	0.133	0.021
HCM Control Delay (s)	18.2	10.8	7.8	0	-	8.1	-	-	22.8	12.9
HCM Lane LOS	C	B	A	A	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.3	0.6	0	-	-	0.3	-	-	0.5	0.1

HCM 2010 Signalized Intersection Summary  
 1: Highway 1 & Capistrano Road

Background+Project AM Conditions

05/15/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	99	147	76	103	170	190	359	41	92	479	13
Future Volume (veh/h)	20	99	147	76	103	170	190	359	41	92	479	13
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	20	99	89	76	103	143	190	359	39	92	479	-17
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	109	455	363	139	160	188	300	1515	164	121	1597	715
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.09	0.47	0.47	0.07	0.45	0.00
Sat Flow, veh/h	179	1698	1352	281	598	702	3442	3223	348	1774	3539	1583
Grp Volume(v), veh/h	112	0	96	322	0	0	190	196	202	92	479	-17
Grp Sat Flow(s),veh/h/ln	1773	0	1456	1580	0	0	1721	1770	1801	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	3.6	8.6	0.0	0.0	3.7	4.6	4.7	3.6	6.0	0.0
Cycle Q Clear(g_c), s	3.3	0.0	3.6	12.9	0.0	0.0	3.7	4.6	4.7	3.6	6.0	0.0
Prop In Lane	0.18		0.93	0.24		0.44	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	536	0	390	488	0	0	300	832	847	121	1597	715
V/C Ratio(X)	0.21	0.00	0.25	0.66	0.00	0.00	0.63	0.24	0.24	0.76	0.30	-0.02
Avail Cap(c_a), veh/h	1344	0	1096	1232	0	0	1011	832	847	572	1597	715
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.9	0.0	20.0	23.2	0.0	0.0	30.8	11.0	11.0	31.9	12.1	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.3	1.5	0.0	0.0	2.2	0.7	0.7	9.3	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	1.5	5.8	0.0	0.0	1.9	2.4	2.5	2.1	3.0	0.0
LnGrp Delay(d),s/veh	20.1	0.0	20.3	24.8	0.0	0.0	33.0	11.7	11.7	41.2	12.6	0.0
LnGrp LOS	C		C	C			C	B	B	D	B	
Approach Vol, veh/h		208			322			588			554	
Approach Delay, s/veh		20.2			24.8			18.6			17.8	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.2	10.6	36.0		23.2	9.3	37.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		52.5	20.5	31.5		52.5	22.5	29.5				
Max Q Clear Time (g_c+I1), s		5.6	5.7	8.0		14.9	5.6	6.7				
Green Ext Time (p_c), s		3.9	0.5	6.0		3.8	0.2	5.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			19.7									
HCM 2010 LOS			B									



**Intersection**

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	3	223	10	47	237	30	7	0	37	25	1	1
Future Vol, veh/h	3	223	10	47	237	30	7	0	37	25	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	223	10	47	237	30	7	0	37	25	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	237	0	0	233	0	0	566	565	228	584	570	237
Stage 1	-	-	-	-	-	-	234	234	-	331	331	-
Stage 2	-	-	-	-	-	-	332	331	-	253	239	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1330	-	-	1335	-	-	435	434	811	423	431	802
Stage 1	-	-	-	-	-	-	769	711	-	682	645	-
Stage 2	-	-	-	-	-	-	681	645	-	751	708	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1330	-	-	1335	-	-	421	417	811	392	415	802
Mov Cap-2 Maneuver	-	-	-	-	-	-	421	417	-	392	415	-
Stage 1	-	-	-	-	-	-	767	709	-	680	622	-
Stage 2	-	-	-	-	-	-	655	622	-	715	706	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.2	10.3	14.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	421	811	1330	-	-	1335	-	-	392	547
HCM Lane V/C Ratio	0.017	0.046	0.002	-	-	0.035	-	-	0.064	0.004
HCM Control Delay (s)	13.7	9.7	7.7	0	-	7.8	-	-	14.8	11.6
HCM Lane LOS	B	A	A	A	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.1	0.1	0	-	-	0.1	-	-	0.2	0

HCM 2010 Signalized Intersection Summary  
1: Highway 1 & Capistrano Road

Background+Project PM Conditions




















05/15/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	106	258	40	87	109	247	550	52	144	456	38
Future Volume (veh/h)	55	106	258	40	87	109	247	550	52	144	456	38
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	55	106	107	40	87	67	247	550	48	144	456	12
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	172	275	252	113	161	106	387	1554	135	190	1649	738
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.11	0.47	0.47	0.11	0.47	0.47
Sat Flow, veh/h	457	1425	1309	203	835	548	3442	3295	287	1774	3539	1583
Grp Volume(v), veh/h	148	0	120	194	0	0	247	295	303	144	456	12
Grp Sat Flow(s),veh/h/ln	1726	0	1464	1586	0	0	1721	1770	1812	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	4.2	2.3	0.0	0.0	4.1	6.2	6.3	4.7	4.7	0.2
Cycle Q Clear(g_c), s	4.1	0.0	4.2	6.6	0.0	0.0	4.1	6.2	6.3	4.7	4.7	0.2
Prop In Lane	0.37		0.89	0.21		0.35	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	417	0	282	380	0	0	387	834	854	190	1649	738
V/C Ratio(X)	0.36	0.00	0.42	0.51	0.00	0.00	0.64	0.35	0.35	0.76	0.28	0.02
Avail Cap(c_a), veh/h	870	0	707	835	0	0	1195	834	854	646	1649	738
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.9	0.0	20.9	21.8	0.0	0.0	25.0	9.9	9.9	25.6	9.7	8.5
Incr Delay (d2), s/veh	0.5	0.0	1.0	1.1	0.0	0.0	1.8	1.2	1.2	6.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	1.8	3.0	0.0	0.0	2.0	3.3	3.4	2.6	2.4	0.1
LnGrp Delay(d),s/veh	21.4	0.0	21.9	22.8	0.0	0.0	26.8	11.1	11.1	31.8	10.1	8.5
LnGrp LOS	C		C	C			C	B	B	C	B	A
Approach Vol, veh/h		268			194			845			612	
Approach Delay, s/veh		21.6			22.8			15.7			15.2	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.9	11.1	32.0		15.9	10.8	32.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	20.5	27.5		28.5	21.5	26.5				
Max Q Clear Time (g_c+I1), s		6.2	6.1	6.7		8.6	6.7	8.3				
Green Ext Time (p_c), s		2.9	0.7	7.0		2.8	0.3	6.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			17.1									
HCM 2010 LOS			B									

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕	↕	↕	↕	↕	↕	↕
Traffic Vol, veh/h	0	326	23	58	272	39	19	3	89	39	1	0
Future Vol, veh/h	0	326	23	58	272	39	19	3	89	39	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	326	23	58	272	39	19	3	89	39	1	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	272	0	0	349	0	0	727	726	338	772	737	272
Stage 1	-	-	-	-	-	-	338	338	-	388	388	-
Stage 2	-	-	-	-	-	-	389	388	-	384	349	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1291	-	-	1210	-	-	339	351	704	317	346	767
Stage 1	-	-	-	-	-	-	676	641	-	636	609	-
Stage 2	-	-	-	-	-	-	635	609	-	639	633	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1291	-	-	1210	-	-	326	334	704	265	329	767
Mov Cap-2 Maneuver	-	-	-	-	-	-	326	334	-	265	329	-
Stage 1	-	-	-	-	-	-	676	641	-	636	580	-
Stage 2	-	-	-	-	-	-	604	580	-	556	633	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.3			12.1			20.8		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	326	679	1291	-	-	1210	-	-	265	329		
HCM Lane V/C Ratio	0.058	0.135	-	-	-	0.048	-	-	0.147	0.003		
HCM Control Delay (s)	16.7	11.1	0	-	-	8.1	-	-	20.9	16		
HCM Lane LOS	C	B	A	-	-	A	-	-	C	C		
HCM 95th %tile Q(veh)	0.2	0.5	0	-	-	0.2	-	-	0.5	0		

HCM 2010 Signalized Intersection Summary Background+Project Saturday Midday Conditions  
 1: Highway 1 & Capistrano Road

05/15/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	72	273	65	69	147	278	501	70	131	524	102
Future Volume (veh/h)	81	72	273	65	69	147	278	501	70	131	524	102
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	81	72	57	65	69	98	278	501	56	131	524	82
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	257	217	184	133	118	134	405	1612	180	169	1696	759
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.12	0.50	0.50	0.10	0.48	0.48
Sat Flow, veh/h	805	1050	891	318	571	650	3442	3211	358	1774	3539	1583
Grp Volume(v), veh/h	112	0	98	232	0	0	278	275	282	131	524	82
Grp Sat Flow(s),veh/h/ln	1208	0	1538	1539	0	0	1721	1770	1800	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	3.7	6.0	0.0	0.0	5.3	6.3	6.4	5.0	6.2	2.0
Cycle Q Clear(g_c), s	5.7	0.0	3.7	9.7	0.0	0.0	5.3	6.3	6.4	5.0	6.2	2.0
Prop In Lane	0.73		0.58	0.28		0.42	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	340	0	318	385	0	0	405	888	903	169	1696	759
V/C Ratio(X)	0.33	0.00	0.31	0.60	0.00	0.00	0.69	0.31	0.31	0.78	0.31	0.11
Avail Cap(c_a), veh/h	619	0	638	705	0	0	1076	888	903	348	1696	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	0.0	23.1	25.4	0.0	0.0	29.1	10.1	10.1	30.4	10.9	9.8
Incr Delay (d2), s/veh	0.6	0.0	0.5	1.5	0.0	0.0	2.1	0.9	0.9	7.5	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	1.6	4.3	0.0	0.0	2.6	3.3	3.4	2.8	3.1	0.9
LnGrp Delay(d),s/veh	24.2	0.0	23.7	26.9	0.0	0.0	31.2	11.0	11.0	37.9	11.4	10.1
LnGrp LOS	C		C	C			C	B	B	D	B	B
Approach Vol, veh/h		210			232			835			737	
Approach Delay, s/veh		24.0			26.9			17.7			16.0	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.7	12.6	37.4		18.7	11.0	39.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	21.5	26.5		28.5	13.5	34.5				
Max Q Clear Time (g_c+I1), s		7.7	7.3	8.2		11.7	7.0	8.4				
Green Ext Time (p_c), s		2.7	0.8	7.1		2.5	0.2	8.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			18.8									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	6	238	63	102	271	68	23	3	115	45	4	6
Future Vol, veh/h	6	238	63	102	271	68	23	3	115	45	4	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	238	63	102	271	68	23	3	115	45	4	6




















Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	271	0	0	301	0	0	762	757	270	816	788	271
Stage 1	-	-	-	-	-	-	282	282	-	475	475	-
Stage 2	-	-	-	-	-	-	480	475	-	341	313	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1292	-	-	1260	-	-	322	337	769	296	323	768
Stage 1	-	-	-	-	-	-	725	678	-	570	557	-
Stage 2	-	-	-	-	-	-	567	557	-	674	657	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1292	-	-	1260	-	-	295	308	769	233	295	768
Mov Cap-2 Maneuver	-	-	-	-	-	-	295	308	-	233	295	-
Stage 1	-	-	-	-	-	-	721	674	-	567	512	-
Stage 2	-	-	-	-	-	-	513	512	-	567	653	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.9	12	22.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	295	741	1292	-	-	1260	-	-	233	468
HCM Lane V/C Ratio	0.078	0.159	0.005	-	-	0.081	-	-	0.193	0.021
HCM Control Delay (s)	18.2	10.8	7.8	0	-	8.1	-	-	24.1	12.9
HCM Lane LOS	C	B	A	A	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.3	0.6	0	-	-	0.3	-	-	0.7	0.1

HCM 2010 Signalized Intersection Summary  
 1: Highway 1 & Capistrano Road

Cumulative AM Conditions  
 05/15/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	104	146	80	107	179	194	377	43	97	503	12
Future Volume (veh/h)	15	104	146	80	107	179	194	377	43	97	503	12
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	15	104	88	80	107	152	194	377	41	97	503	-18
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	503	375	142	163	197	303	1480	160	128	1569	702
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.09	0.46	0.46	0.07	0.44	0.00
Sat Flow, veh/h	120	1804	1346	284	586	707	3442	3222	348	1774	3539	1583
Grp Volume(v), veh/h	112	0	95	339	0	0	194	206	212	97	503	-18
Grp Sat Flow(s),veh/h/ln	1811	0	1458	1576	0	0	1721	1770	1801	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	3.6	9.5	0.0	0.0	3.9	5.1	5.1	3.8	6.6	0.0
Cycle Q Clear(g_c), s	3.3	0.0	3.6	13.8	0.0	0.0	3.9	5.1	5.1	3.8	6.6	0.0
Prop In Lane	0.13		0.92	0.24		0.45	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	562	0	406	502	0	0	303	813	827	128	1569	702
V/C Ratio(X)	0.20	0.00	0.23	0.68	0.00	0.00	0.64	0.25	0.26	0.76	0.32	-0.03
Avail Cap(c_a), veh/h	1348	0	1077	1208	0	0	993	813	827	562	1569	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.7	0.0	19.8	23.3	0.0	0.0	31.3	11.8	11.8	32.4	12.8	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.3	1.6	0.0	0.0	2.3	0.8	0.7	8.9	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	1.5	6.2	0.0	0.0	1.9	2.6	2.7	2.2	3.3	0.0
LnGrp Delay(d),s/veh	19.8	0.0	20.1	24.9	0.0	0.0	33.6	12.5	12.5	41.2	13.4	0.0
LnGrp LOS	B		C	C			C	B	B	D	B	
Approach Vol, veh/h		207			339			612			582	
Approach Delay, s/veh		19.9			24.9			19.2			18.4	
Approach LOS		B			C			B			B	
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.3	10.8	36.0		24.3	9.6	37.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		52.5	20.5	31.5		52.5	22.5	29.5				
Max Q Clear Time (g_c+I1), s		5.6	5.9	8.6		15.8	5.8	7.1				
Green Ext Time (p_c), s		4.1	0.5	6.3		4.0	0.2	6.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			20.1									
HCM 2010 LOS			C									

**Intersection**

Int Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↑	↗	↕	↗		↕	↗	
Traffic Vol, veh/h	3	233	11	49	245	27	7	0	39	13	1	1
Future Vol, veh/h	3	233	11	49	245	27	7	0	39	13	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	233	11	49	245	27	7	0	39	13	1	1



















Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	245	0	0	244	0	0	589	588	239	607	593	245
Stage 1	-	-	-	-	-	-	245	245	-	343	343	-
Stage 2	-	-	-	-	-	-	344	343	-	264	250	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1321	-	-	1322	-	-	420	421	800	408	418	794
Stage 1	-	-	-	-	-	-	759	703	-	672	637	-
Stage 2	-	-	-	-	-	-	671	637	-	741	700	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1321	-	-	1322	-	-	406	404	800	376	401	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	406	404	-	376	401	-
Stage 1	-	-	-	-	-	-	757	701	-	670	613	-
Stage 2	-	-	-	-	-	-	644	613	-	703	698	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.2	10.4	14.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	406	800	1321	-	-	1322	-	-	376	533
HCM Lane V/C Ratio	0.017	0.049	0.002	-	-	0.037	-	-	0.035	0.004
HCM Control Delay (s)	14	9.7	7.7	0	-	7.8	-	-	14.9	11.8
HCM Lane LOS	B	A	A	A	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.1	0.2	0	-	-	0.1	-	-	0.1	0

HCM 2010 Signalized Intersection Summary  
 1: Highway 1 & Capistrano Road

Cumulative PM Conditions  
 05/15/2017

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	54	111	264	42	91	114	252	578	55	151	479	33	
Future Volume (veh/h)	54	111	264	42	91	114	252	578	55	151	479	33	
Number	5	2	12	1	6	16	3	8	18	7	4	14	
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863	
Adj Flow Rate, veh/h	54	111	113	42	91	72	252	578	51	151	479	7	
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	168	289	266	113	165	111	391	1520	134	198	1627	728	
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.11	0.46	0.46	0.11	0.46	0.46	
Sat Flow, veh/h	429	1439	1326	202	822	554	3442	3291	290	1774	3539	1583	
Grp Volume(v), veh/h	153	0	125	205	0	0	252	310	319	151	479	7	
Grp Sat Flow(s),veh/h/ln	1733	0	1461	1578	0	0	1721	1770	1812	1774	1770	1583	
Q Serve(g_s), s	0.0	0.0	4.5	2.6	0.0	0.0	4.2	6.8	6.9	4.9	5.1	0.1	
Cycle Q Clear(g_c), s	4.3	0.0	4.5	7.1	0.0	0.0	4.2	6.8	6.9	4.9	5.1	0.1	
Prop In Lane	0.35		0.91	0.20		0.35	1.00		0.16	1.00		1.00	
Lane Grp Cap(c), veh/h	430	0	294	390	0	0	391	817	837	198	1627	728	
V/C Ratio(X)	0.36	0.00	0.42	0.53	0.00	0.00	0.64	0.38	0.38	0.76	0.29	0.01	
Avail Cap(c_a), veh/h	862	0	696	821	0	0	1179	817	837	638	1627	728	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	20.8	0.0	20.9	21.8	0.0	0.0	25.4	10.5	10.5	25.8	10.1	8.8	
Incr Delay (d2), s/veh	0.5	0.0	1.0	1.1	0.0	0.0	1.8	1.3	1.3	6.0	0.5	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.3	0.0	1.9	3.2	0.0	0.0	2.1	3.6	3.7	2.8	2.6	0.1	
LnGrp Delay(d),s/veh	21.3	0.0	21.8	22.9	0.0	0.0	27.1	11.8	11.8	31.8	10.6	8.8	
LnGrp LOS	C		C	C			C	B	B	C	B	A	
Approach Vol, veh/h		278			205			881			637		
Approach Delay, s/veh		21.6			22.9			16.2			15.6		
Approach LOS		C			C			B			B		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs		2	3	4		6	7	8					
Phs Duration (G+Y+Rc), s		16.5	11.3	32.0		16.5	11.2	32.1					
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5					
Max Green Setting (Gmax), s		28.5	20.5	27.5		28.5	21.5	26.5					
Max Q Clear Time (g_c+I1), s		6.5	6.2	7.1		9.1	6.9	8.9					
Green Ext Time (p_c), s		3.0	0.7	7.4		2.9	0.3	6.9					
<b>Intersection Summary</b>													
HCM 2010 Ctrl Delay			17.4										
HCM 2010 LOS			B										



**Intersection**

Int Delay, s/veh 3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	0	339	24	61	285	27	20	3	94	33	1	0
Future Vol, veh/h	0	339	24	61	285	27	20	3	94	33	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	339	24	61	285	27	20	3	94	33	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	285	0	0	363	0	0	759	758	351	807	770	285
Stage 1	-	-	-	-	-	-	351	351	-	407	407	-
Stage 2	-	-	-	-	-	-	408	407	-	400	363	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1277	-	-	1196	-	-	323	336	692	300	331	754
Stage 1	-	-	-	-	-	-	666	632	-	621	597	-
Stage 2	-	-	-	-	-	-	620	597	-	626	625	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1277	-	-	1196	-	-	310	319	692	247	314	754
Mov Cap-2 Maneuver	-	-	-	-	-	-	310	319	-	247	314	-
Stage 1	-	-	-	-	-	-	666	632	-	621	567	-
Stage 2	-	-	-	-	-	-	587	567	-	538	625	-




















Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.3	12.3	21.6
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	310	668	1277	-	-	1196	-	-	247	314
HCM Lane V/C Ratio	0.065	0.145	-	-	-	0.051	-	-	0.134	0.003
HCM Control Delay (s)	17.4	11.3	0	-	-	8.2	-	-	21.8	16.5
HCM Lane LOS	C	B	A	-	-	A	-	-	C	C
HCM 95th %tile Q(veh)	0.2	0.5	0	-	-	0.2	-	-	0.5	0

HCM 2010 Signalized Intersection Summary  
1: Highway 1 & Capistrano Road

Cumulative Saturday Midday Conditions

05/15/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	72	266	65	69	147	273	501	70	131	524	95
Future Volume (veh/h)	74	72	266	65	69	147	273	501	70	131	524	95
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	74	72	50	65	69	98	273	501	56	131	524	75
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	232	172	134	117	134	400	1620	180	169	1710	765
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.12	0.50	0.50	0.10	0.48	0.48
Sat Flow, veh/h	796	1141	847	326	577	660	3442	3211	358	1774	3539	1583
Grp Volume(v), veh/h	105	0	91	232	0	0	273	275	282	131	524	75
Grp Sat Flow(s),veh/h/ln	1237	0	1546	1563	0	0	1721	1770	1800	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	3.4	6.0	0.0	0.0	5.2	6.2	6.3	4.9	6.1	1.8
Cycle Q Clear(g_c), s	5.0	0.0	3.4	9.4	0.0	0.0	5.2	6.2	6.3	4.9	6.1	1.8
Prop In Lane	0.71		0.55	0.28		0.42	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	341	0	314	385	0	0	400	893	908	169	1710	765
V/C Ratio(X)	0.31	0.00	0.29	0.60	0.00	0.00	0.68	0.31	0.31	0.78	0.31	0.10
Avail Cap(c_a), veh/h	630	0	644	714	0	0	1082	893	908	350	1710	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	23.1	25.4	0.0	0.0	29.0	9.9	10.0	30.2	10.7	9.6
Incr Delay (d2), s/veh	0.5	0.0	0.5	1.5	0.0	0.0	2.1	0.9	0.9	7.5	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	1.5	4.2	0.0	0.0	2.6	3.2	3.4	2.8	3.1	0.8
LnGrp Delay(d),s/veh	24.0	0.0	23.6	26.9	0.0	0.0	31.1	10.8	10.8	37.7	11.2	9.8
LnGrp LOS	C		C	C			C	B	B	D	B	A
Approach Vol, veh/h		196			232			830			730	
Approach Delay, s/veh		23.8			26.9			17.5			15.8	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.4	12.5	37.6		18.4	11.0	39.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	21.5	26.5		28.5	13.5	34.5				
Max Q Clear Time (g_c+I1), s		7.0	7.2	8.1		11.4	6.9	8.3				
Green Ext Time (p_c), s		2.7	0.8	7.1		2.5	0.2	8.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			18.6									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	6	238	63	102	271	56	23	3	115	31	4	6
Future Vol, veh/h	6	238	63	102	271	56	23	3	115	31	4	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	238	63	102	271	56	23	3	115	31	4	6




















Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	271	0	0	301	0	0	762	757	270	816	788	271
Stage 1	-	-	-	-	-	-	282	282	-	475	475	-
Stage 2	-	-	-	-	-	-	480	475	-	341	313	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1292	-	-	1260	-	-	322	337	769	296	323	768
Stage 1	-	-	-	-	-	-	725	678	-	570	557	-
Stage 2	-	-	-	-	-	-	567	557	-	674	657	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1292	-	-	1260	-	-	295	308	769	233	295	768
Mov Cap-2 Maneuver	-	-	-	-	-	-	295	308	-	233	295	-
Stage 1	-	-	-	-	-	-	721	674	-	567	512	-
Stage 2	-	-	-	-	-	-	513	512	-	567	653	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.9	12	20.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	295	741	1292	-	-	1260	-	-	233	468
HCM Lane V/C Ratio	0.078	0.159	0.005	-	-	0.081	-	-	0.133	0.021
HCM Control Delay (s)	18.2	10.8	7.8	0	-	8.1	-	-	22.8	12.9
HCM Lane LOS	C	B	A	A	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.3	0.6	0	-	-	0.3	-	-	0.5	0.1

HCM 2010 Signalized Intersection Summary  
 1: Highway 1 & Capistrano Road

Cumulative+Project AM Conditions  
 05/15/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	104	153	80	107	179	196	377	43	97	503	14
Future Volume (veh/h)	21	104	153	80	107	179	196	377	43	97	503	14
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	21	104	95	80	107	152	196	377	41	97	503	-16
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	468	381	142	164	198	305	1477	160	128	1564	700
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.09	0.46	0.46	0.07	0.44	0.00
Sat Flow, veh/h	180	1670	1361	283	585	706	3442	3222	348	1774	3539	1583
Grp Volume(v), veh/h	118	0	102	339	0	0	196	206	212	97	503	-16
Grp Sat Flow(s),veh/h/ln	1756	0	1455	1574	0	0	1721	1770	1801	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	3.9	9.5	0.0	0.0	3.9	5.1	5.1	3.8	6.6	0.0
Cycle Q Clear(g_c), s	3.5	0.0	3.9	13.9	0.0	0.0	3.9	5.1	5.1	3.8	6.6	0.0
Prop In Lane	0.18		0.94	0.24		0.45	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	551	0	408	503	0	0	305	811	826	128	1564	700
V/C Ratio(X)	0.21	0.00	0.25	0.67	0.00	0.00	0.64	0.25	0.26	0.76	0.32	-0.02
Avail Cap(c_a), veh/h	1311	0	1071	1202	0	0	990	811	826	560	1564	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.7	0.0	19.9	23.3	0.0	0.0	31.4	11.8	11.8	32.5	12.9	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.3	1.6	0.0	0.0	2.3	0.8	0.8	8.9	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	1.6	6.3	0.0	0.0	1.9	2.6	2.7	2.2	3.3	0.0
LnGrp Delay(d),s/veh	19.9	0.0	20.2	24.9	0.0	0.0	33.7	12.6	12.6	41.3	13.5	0.0
LnGrp LOS	B		C	C			C	B	B	D	B	
Approach Vol, veh/h		220			339			614			584	
Approach Delay, s/veh		20.0			24.9			19.3			18.5	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.5	10.8	36.0		24.5	9.6	37.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		52.5	20.5	31.5		52.5	22.5	29.5				
Max Q Clear Time (g_c+I1), s		5.9	5.9	8.6		15.9	5.8	7.1				
Green Ext Time (p_c), s		4.2	0.5	6.3		4.1	0.2	6.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			20.2									
HCM 2010 LOS			C									

**Intersection**

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	3	233	11	49	245	31	7	0	39	26	1	1
Future Vol, veh/h	3	233	11	49	245	31	7	0	39	26	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	233	11	49	245	31	7	0	39	26	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	245	0	0	244	0	0	589	588	239	607	593	245
Stage 1	-	-	-	-	-	-	245	245	-	343	343	-
Stage 2	-	-	-	-	-	-	344	343	-	264	250	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1321	-	-	1322	-	-	420	421	800	408	418	794
Stage 1	-	-	-	-	-	-	759	703	-	672	637	-
Stage 2	-	-	-	-	-	-	671	637	-	741	700	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1321	-	-	1322	-	-	406	404	800	376	401	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	406	404	-	376	401	-
Stage 1	-	-	-	-	-	-	757	701	-	670	613	-
Stage 2	-	-	-	-	-	-	644	613	-	703	698	-




















Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.2	10.4	15.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	406	800	1321	-	-	1322	-	-	376	533
HCM Lane V/C Ratio	0.017	0.049	0.002	-	-	0.037	-	-	0.069	0.004
HCM Control Delay (s)	14	9.7	7.7	0	-	7.8	-	-	15.3	11.8
HCM Lane LOS	B	A	A	A	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.1	0.2	0	-	-	0.1	-	-	0.2	0

HCM 2010 Signalized Intersection Summary  
 1: Highway 1 & Capistrano Road

Cumulative+Project PM Conditions

05/15/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	111	268	42	91	114	258	578	55	151	479	40
Future Volume (veh/h)	58	111	268	42	91	114	258	578	55	151	479	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	58	111	117	42	91	72	258	578	51	151	479	14
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	281	270	113	166	112	398	1518	134	198	1618	724
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.12	0.46	0.46	0.11	0.46	0.46
Sat Flow, veh/h	453	1388	1332	199	817	550	3442	3291	290	1774	3539	1583
Grp Volume(v), veh/h	158	0	128	205	0	0	258	310	319	151	479	14
Grp Sat Flow(s),veh/h/ln	1714	0	1460	1567	0	0	1721	1770	1812	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	4.6	2.6	0.0	0.0	4.3	6.9	6.9	5.0	5.1	0.3
Cycle Q Clear(g_c), s	4.5	0.0	4.6	7.2	0.0	0.0	4.3	6.9	6.9	5.0	5.1	0.3
Prop In Lane	0.37		0.91	0.20		0.35	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	429	0	296	390	0	0	398	816	836	198	1618	724
V/C Ratio(X)	0.37	0.00	0.43	0.53	0.00	0.00	0.65	0.38	0.38	0.76	0.30	0.02
Avail Cap(c_a), veh/h	852	0	692	814	0	0	1173	816	836	634	1618	724
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.9	0.0	21.0	21.8	0.0	0.0	25.4	10.6	10.6	25.9	10.2	8.9
Incr Delay (d2), s/veh	0.5	0.0	1.0	1.1	0.0	0.0	1.8	1.3	1.3	6.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	1.9	3.3	0.0	0.0	2.1	3.7	3.8	2.8	2.6	0.1
LnGrp Delay(d),s/veh	21.4	0.0	22.0	22.9	0.0	0.0	27.2	11.9	11.9	31.9	10.7	9.0
LnGrp LOS	C		C	C			C	B	B	C	B	A
Approach Vol, veh/h		286			205			887			644	
Approach Delay, s/veh		21.7			22.9			16.4			15.7	
Approach LOS		C			C			B			B	
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.7	11.5	32.0		16.7	11.2	32.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	20.5	27.5		28.5	21.5	26.5				
Max Q Clear Time (g_c+I1), s		6.6	6.3	7.1		9.2	7.0	8.9				
Green Ext Time (p_c), s		3.1	0.7	7.4		3.0	0.3	6.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			17.6									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	0	339	24	61	285	40	20	3	94	41	1	0
Future Vol, veh/h	0	339	24	61	285	40	20	3	94	41	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	339	24	61	285	40	20	3	94	41	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	285	0	0	363	0	0	759	758	351	807	770	285
Stage 1	-	-	-	-	-	-	351	351	-	407	407	-
Stage 2	-	-	-	-	-	-	408	407	-	400	363	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1277	-	-	1196	-	-	323	336	692	300	331	754
Stage 1	-	-	-	-	-	-	666	632	-	621	597	-
Stage 2	-	-	-	-	-	-	620	597	-	626	625	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1277	-	-	1196	-	-	310	319	692	247	314	754
Mov Cap-2 Maneuver	-	-	-	-	-	-	310	319	-	247	314	-
Stage 1	-	-	-	-	-	-	666	632	-	621	567	-
Stage 2	-	-	-	-	-	-	587	567	-	538	625	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.3	12.3	22.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	310	668	1277	-	-	1196	-	-	247	314
HCM Lane V/C Ratio	0.065	0.145	-	-	-	0.051	-	-	0.166	0.003
HCM Control Delay (s)	17.4	11.3	0	-	-	8.2	-	-	22.5	16.5
HCM Lane LOS	C	B	A	-	-	A	-	-	C	C
HCM 95th %tile Q(veh)	0.2	0.5	0	-	-	0.2	-	-	0.6	0

HCM 2010 Signalized Intersection Summary Cumulative+Project Saturday Midday Conditions  
 1: Highway 1 & Capistrano Road 05/15/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	76	287	67	73	153	292	527	72	136	551	107
Future Volume (veh/h)	85	76	287	67	73	153	292	527	72	136	551	107
Number	5	2	12	1	6	16	3	8	18	7	4	14
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	1900	1900	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	85	76	71	67	73	104	292	527	58	136	551	87
Adj No. of Lanes	0	2	0	0	1	0	2	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	253	213	214	132	123	141	418	1578	173	174	1654	740
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.12	0.49	0.49	0.10	0.47	0.47
Sat Flow, veh/h	754	971	974	303	560	642	3442	3217	353	1774	3539	1583
Grp Volume(v), veh/h	121	0	111	244	0	0	292	289	296	136	551	87
Grp Sat Flow(s),veh/h/ln	1176	0	1523	1505	0	0	1721	1770	1800	1774	1770	1583
Q Serve(g_s), s	0.0	0.0	4.3	6.4	0.0	0.0	5.7	7.0	7.0	5.3	6.9	2.2
Cycle Q Clear(g_c), s	6.5	0.0	4.3	10.7	0.0	0.0	5.7	7.0	7.0	5.3	6.9	2.2
Prop In Lane	0.70		0.64	0.27		0.43	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	345	0	334	395	0	0	418	868	883	174	1654	740
V/C Ratio(X)	0.35	0.00	0.33	0.62	0.00	0.00	0.70	0.33	0.33	0.78	0.33	0.12
Avail Cap(c_a), veh/h	595	0	617	681	0	0	1052	868	883	341	1654	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	0.0	23.1	25.6	0.0	0.0	29.7	10.9	10.9	31.0	11.8	10.6
Incr Delay (d2), s/veh	0.6	0.0	0.6	1.6	0.0	0.0	2.1	1.0	1.0	7.4	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	1.9	4.6	0.0	0.0	2.8	3.6	3.7	2.9	3.5	1.0
LnGrp Delay(d),s/veh	24.3	0.0	23.7	27.1	0.0	0.0	31.8	11.9	11.9	38.4	12.4	10.9
LnGrp LOS	C		C	C			C	B	B	D	B	B
Approach Vol, veh/h		232			244			877			774	
Approach Delay, s/veh		24.0			27.1			18.5			16.8	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		19.9	13.0	37.4		19.9	11.4	39.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	21.5	26.5		28.5	13.5	34.5				
Max Q Clear Time (g_c+I1), s		8.5	7.7	8.9		12.7	7.3	9.0				
Green Ext Time (p_c), s		3.0	0.8	7.4		2.7	0.2	8.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			19.5									
HCM 2010 LOS			B									



**Intersection**

Int Delay, s/veh 4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↑	↗	↕	↗		↕	↗	
Traffic Vol, veh/h	6	250	66	107	285	71	24	3	121	47	4	6
Future Vol, veh/h	6	250	66	107	285	71	24	3	121	47	4	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	250	66	107	285	71	24	3	121	47	4	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	285	0	0	316	0	0	799	794	283	856	827	285
Stage 1	-	-	-	-	-	-	295	295	-	499	499	-
Stage 2	-	-	-	-	-	-	504	499	-	357	328	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1277	-	-	1244	-	-	304	321	756	278	307	754
Stage 1	-	-	-	-	-	-	713	669	-	554	544	-
Stage 2	-	-	-	-	-	-	550	544	-	661	647	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1277	-	-	1244	-	-	277	292	756	215	279	754
Mov Cap-2 Maneuver	-	-	-	-	-	-	277	292	-	215	279	-
Stage 1	-	-	-	-	-	-	709	665	-	551	497	-
Stage 2	-	-	-	-	-	-	495	497	-	549	643	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.9	12.3	24.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	277	728	1277	-	-	1244	-	-	215	449
HCM Lane V/C Ratio	0.087	0.17	0.005	-	-	0.086	-	-	0.219	0.022
HCM Control Delay (s)	19.2	11	7.8	0	-	8.2	-	-	26.4	13.2
HCM Lane LOS	C	B	A	A	-	A	-	-	D	B
HCM 95th %tile Q(veh)	0.3	0.6	0	-	-	0.3	-	-	0.8	0.1