

# CITY OF PASADENA

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# 1.0 INTRODUCTION

## INTRODUCTION

The City of Pasadena developed a Bicycle Transportation Action Plan (BTAP) that provides specific goals, objectives, actions, and timelines for creating an environment (1) where people circulate without a car, (2) that significantly increases the number of people who commute by bike, (3) that increases the number of people who use a bike for utilitarian trips, fitness and recreation, and (4) that provides business and economic benefits for the City.

To assist the City with the development of the plan, a Bikeways Analysis and Feasibility Study was conducted to evaluate the possibility of constructing buffered bike lanes, cycle tracks, for bicycle boulevards on specific roadways throughout the City.

This document builds upon the outreach and feedback received during the development of the BTAP and focuses on four north-south bicycle boulevard corridors. This study evaluates the traffic calming features based on existing traffic conditions, bicycle Level of Traffic Stress (LTS), vehicle impacts (traffic Level of Service (LOS), on-street parking), collisions, accessibility to existing bicycle facilities and land uses, and cost of the corridor improvements. This study developed planning level conceptual design plans based on the refined traffic calming features recommended for each study corridor.

## PROJECT DESCRIPTION

The City of Pasadena has put an emphasis on the need to enhance safety for all roadway users for various corridors, specifically for bicycles on the four north-south bike boulevard corridors of the City's BTAP. The four bike boulevard corridors in this study include the following north-south corridors:

- El Molino Avenue: Atchison Street to Bonita Drive (approx. 3.8 miles)
- Wilson Avenue: Washington Boulevard to California Boulevard (approx. 2.3 miles)
- Sierra Bonita Avenue: Washington Boulevard to Colorado Boulevard (approx. 1.6 miles)
- Craig Avenue: Orange Grove Boulevard to Del Mar Boulevard (approx. 1.1 miles)

These bicycle boulevard corridors are essential in providing access to many residential neighborhoods, commercial areas, local parks, schools, colleges, and other major destinations throughout the City. The four bicycle boulevard corridors provide access north and south of the Interstate 210 Freeway (1-210). Implementation of the traffic calming features and other improvements would help reduce traffic speeds and collisions, helping increase the safety for pedestrians and cyclists along the four corridors.

Figure 1.1 illustrates the location and extents of the four bicycle boulevard corridors within the City of Pasadena.

## STUDY TIMEFRAMES

This report presents an analysis of the corridor intersection operating conditions during the morning and evening peak hours, where traffic data was collected for this analysis. The study includes the analysis of the following timeframes:

- Existing Year (2019)
- Existing Year (2019) Plus Project

## PROJECT STUDY INTERSECTIONS

The study intersections were identified and determined through consultation with the City of Pasadena. Figure 1.2 illustrates the study intersections and roadway segment locations where new traffic data was collected.

## INTERSECTION CAPACITY ANALYSIS METHODOLOGY

Traffic conditions at intersections are normally analyzed using the principles or specific analysis methods contained in the Highway Capacity Manual, 2010 Edition (HCM), a publication of the Transportation Research Board, a branch of the Federal Government. Chapter 9 of the HCM is devoted to analysis of signalized intersections and Chapter 10 is devoted to the analysis of unsignalized intersections. The methodologies in the HCM for signalized and unsignalized intersections are based upon measurements or forecasts of delay for traffic utilizing all approaches to the intersection. The analysis results include average vehicle delays for lanes/approaches and expected vehicle queue lengths. The Level of Service (LOS) is based on the estimated vehicular delay in seconds per vehicle for the control turning movement or approach of an intersection. Total delay is defined as the time elapsed between when a vehicle stops at the end of a queue and when the vehicle departs from the stop line.

The term "Level of Service" (LOS) describes the quality of traffic flow at an intersection. LOS A to C is indicative of excellent to good traffic flow conditions. LOS D corresponds to fair conditions that may experience substantial delay during portions of the peak hours, but without excessive backups. LOS E represents poor conditions, with volumes at or near the capacity of the intersection and long lines of vehicles that may have to wait through several signal cycles. LOS F is characteristic of failure (i.e., the intersection is overloaded, vehicular movements may be restricted or prevented, and delays and queue lengths become increasingly longer).

The study utilizes the Synchro software program for the Level of Service analysis of the study intersections, based on the HCM methodology. The following peak periods during the weekdays were selected for the intersection analysis:

- Weekday AM (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM (peak hour between 4:00 PM and 6:00 PM)

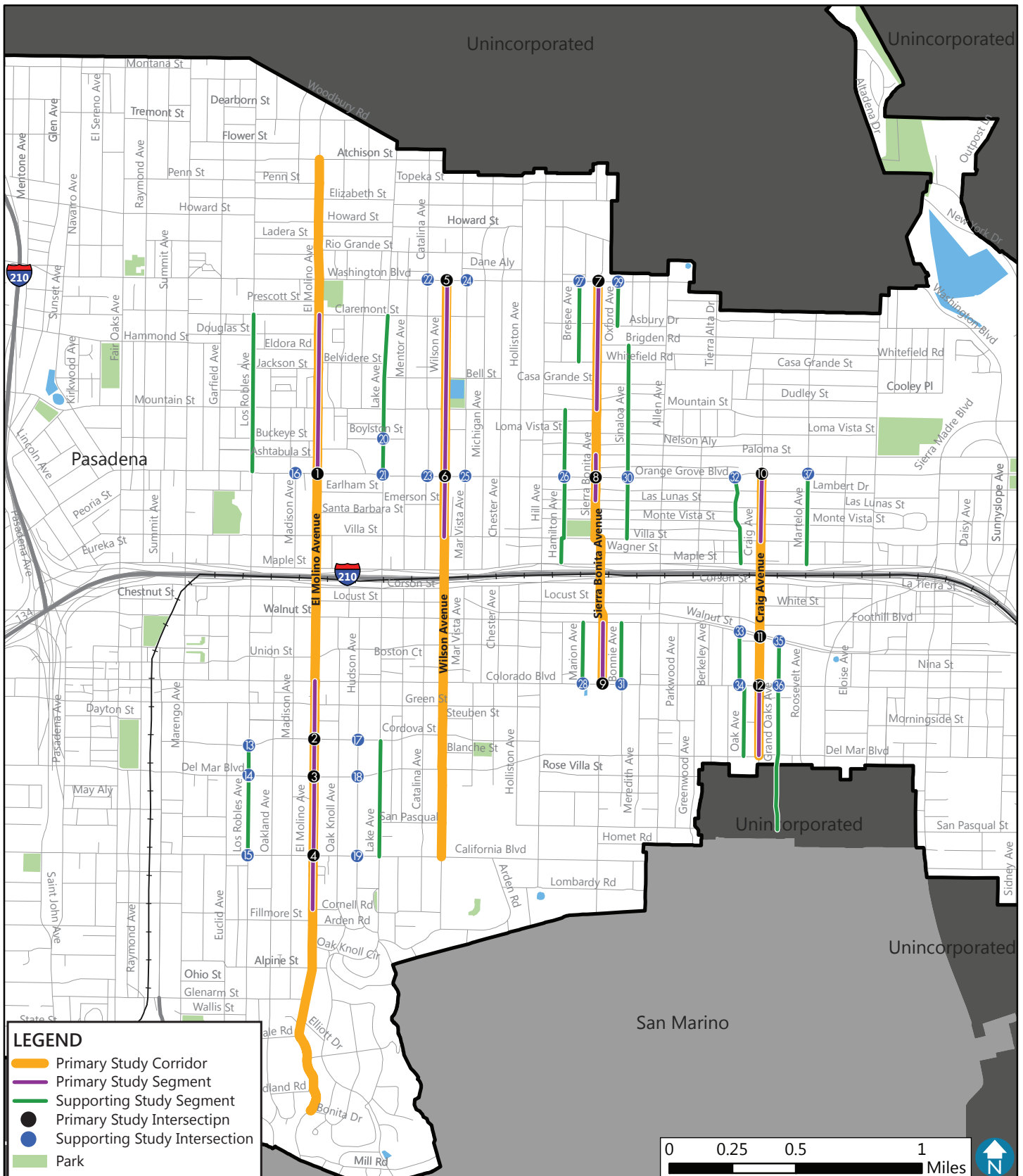
Table 1.1 shows the relationship between level of service and HCM delay range for intersections.

FIGURE 1.1 - BICYCLE BOULEVARD STUDY CORRIDORS



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FIGURE 1.2 - PROJECT STUDY INTERSECTIONS AND ROADWAY SEGMENTS



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Table 1.1 – Levels of Service for Intersections

Level of Service	Description	Delay in Seconds
A	Progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	>10.0
B	Progression is good, cycle lengths are short, or both. More vehicles stop than with LOS A, causing higher levels of average delay.	>10.0 to 20.0
C	Higher congestion may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level, though many still pass through the intersection without stopping.	>20.0 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high V/C ratios. May vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	>35.0 to 55.0
E	This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor (vehicle) progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	>55.0 to 80.0
F	This level is considered oversaturation, which is when arrival flow rates exceed the capacity of the intersection. This level may also occur at high V/C ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to such delay levels.	>80.0

Source: 2010 Highway Capacity Manual

## TRAFFIC COUNT DATA

Existing AM and PM peak hour intersections traffic counts and 24-hour roadway segment counts were collected during October 2019. All traffic count data used in this study is provided in Appendix A of this report and was uploaded to the City's Transportation Data Management System portal.

## STANDARDS OF SIGNIFICANCE

While the City of Pasadena evaluates the effects of new development and roadway capacity enhancing projects via changes to Vehicle Miles Traveled (VMT), it is recognized that this project may shift roadway capacity at various locations. As such, this study will evaluate vehicle performance using the delay based Level of Service (LOS) traffic operations metrics. The City of Pasadena has established LOS D as the maximum threshold of significance at all study intersections along the study corridors.

Additionally, this study evaluated the study corridors based on bicycle Level of Traffic Stress (LTS), with LTS 1 being the least stressful and more desirable condition, comparable to a dedicated bike path, and LTS 4 being the most stressful and least desirable, comparable to no bicycle facility on a roadway with high traffic volumes and speeds. The bicycle LTS methodology and detailed description is provided in Section 4.0 of this report.

## 2.0 EXISTING YEAR (2019) CONDITIONS

### EXISTING ROADWAY SYSTEM

The study corridor roadways are described below. The discussion presented here is limited to specific roadways that are part of the study corridors. Figure 2.1 illustrates the existing traffic controls and approach lane geometries at the study intersections for each study corridor. Figure 2.2 and 2.3 illustrate the existing traffic controls and approach geometries at the surrounding intersections for the parallel corridors.

#### El Molino Avenue

One of the four study corridors is El Molino Avenue from Atchison Street to Bonita Drive. This 3.8-mile long corridor consists of on-street parking, and several two-way, all-way, and signalized stops. El Molino Avenue also provides access to several key destinations and intersects multiple land uses from low density residential to commercial. The corridor is broken down into segments to better describe and identify patterns in its existing conditions.

##### **Atchison Street to Rio Grande Street**

This 0.4-mile long segment of El Molino Avenue from Atchison Street to Rio Grande Street is zoned RS-6 single family residential. This segment also consists of six two-way stops, two all-way stops, and on-street parking on the west side of the road. Additionally, the street width for this segment measures 30 feet from curb to curb.

##### **Rio Grande Street to Claremont Street**

El Molino Avenue from Rio Grande Street to Claremont Street features a mix of land uses. For example, the land use between Rio Grande Street and Washington Boulevard transitions from low density single family residential (RS-6) to medium-high density multi-family residential (RM-32) according to Pasadena's Zoning Code. South of Washington Boulevard and west of El Molino Avenue, the land use transitions back from RM-32 to RS-6, and on the east side of El Molino Avenue, a portion of the land is zoned OS for open space. The land use then continues on to Claremont Street as RS-6 on both sides of El Molino Avenue.

This 0.2-mile long segment of the El Molino Avenue corridor contains one signalized stop at Washington Boulevard, a two-way stop on Prescott Street, and an all-way stop on Claremont Street. One important feature about the signalized stop on Washington Boulevard is that there is no southbound-through access for El Molino Avenue. Southbound traffic is directed to either make a left or right turn at this signalized intersection. Although there is no southbound-through access, this signalized intersection does provide northbound-through access for El Molino Avenue. In addition, this segment of the corridor features on-street parking on the west side of the street and measures 30 feet from curb to curb. Furthermore, this segment of El Molino contains two key destinations, which are Washington Park and Universal Church.

##### **Claremont Street to Orange Grove Boulevard**

The parcels along El Molino Avenue between Claremont Street and Orange Grove Boulevard are mostly zoned RS-6 with the exception of a small portion between Mountain and Emira Street on the east side of El Molino Avenue, which is zoned RM-16 medium density multi-family housing. This 0.8-mile long segment of El Molino Avenue consists of two signalized intersections and seven two-way stops. This

segment also features on-street parking on the west side of the corridor and measures approximately 30 feet from curb to curb.

### **Orange Grove Boulevard to Corson Street**

The land use between Orange Grove Boulevard and Villa Street is low-medium density multi-family residential (RM-12). From Villa Street to Maple Street, the density of the land use increases to high-density multi-family residential (RM-48). From Maple Street to Corson Street, the land is zoned PS (Public/Semi-public) because of the I-210 Foothill Freeway that passes underneath El Molino Avenue.

This 0.5-mile segment of El Molino Avenue consists of three signalized intersections and two two-way stops. This segment also features on-street parking on the west side of El Molino Avenue, which ends at Maple Street because of the freeway overpass. In addition, the street width of this segment of El Molino Avenue starts at 34 feet from curb to curb and increases to 80 feet from curb to curb adjacent to and over the freeway.

### **Corson Street to Cordova Street**

The land use along El Molino Avenue between Corson Street and Union Street is CD-3 Walnut Housing. According to Pasadena's Zoning Code, CD-3 Walnut Housing is a central district specific plan that intends to promote high-density residential development around the Lake Avenue light rail station and balance growth and historic preservation in the area. In addition to the CD-3 zoning, there is a small area between Corson Street and Walnut Street that is zoned PD-12 for planned development. Between Union Street and Cordova Street, El Molino Avenue is zoned CD-4 Pasadena Playhouse. According to Pasadena's Zoning Code, the purpose of the Pasadena Playhouse central district specific plan is to maintain the historic character of the area and support the districts retail and entertainment uses by introducing complimentary uses.

This 0.6-mile long segment of El Molino Avenue consists of five signalized intersections and two two-way stops. This segment also features sporadic on-street parking. For instance, there are some sections that allow parking on the west side of the street, some sections that allow parking on the east side of the street, and some sections where parking is not allowed at all. In addition, this segment of El Molino Avenue measures 32 feet from curb to curb and contains several key destinations such as shopping centers, retail stores, and offices with the Pasadena Playhouse being the most prominent key destination on this segment.

### **Cordova Street to California Boulevard**

El Molino Avenue between Cordova Street and Del Mar Boulevard is zoned RM-48 high-density multi-family residential. South of Del Mar Boulevard, on the west side of El Molino Avenue, the land is zoned RM-32 medium-high density multi-family residential; on the east side El Molino Avenue, the land is zoned Public/Semi-public (PS) and high-density multi-family residential (RM-48). In addition, the parcels along California Boulevard are zoned RM-16 medium density multi-family residential.

This 0.5-mile long segment of El Molino Avenue consists of two signalized intersections, features on-street parking on the east side of the street, and measures 32 feet from curb to curb. This segment also features two key destinations: an office on Cordova Street and the McKinley School between Del Mar Boulevard and California Boulevard.

### **California Boulevard to Bonita Drive**

The land use between California Boulevard and Bonita Drive is all low-density single family residential (RS-

6). As the corridor gets closer to Bonita Drive, the density of these single-family residences starts to decrease. For example, the zoning between California Boulevard and Glenarm Street is RS-6, which means the land is zoned for single-family low-density residential and the maximum number of dwelling units allowed on this property is six. Between Glenarm Street and Allendale Road, the zoning is RS-4, which means that the land use is still single family; however, the maximum number of dwelling units allowed in this zone is four instead of six. Finally, between Allendale Street and Bonita Drive, the density of the land use further decreases to RS-2, which allows for only two dwelling units per single-family residence.

This final mile-long segment of El Molino Avenue contains six two-way stops and five all-way stops. In addition, this segment features sporadic on-street parking. For instance, there are some sections where parking is allowed on the west side of the street, some sections where parking is allowed on the east side of the street, some sections where parking is not allowed at all, and some sections where parking is allowed on both sides of the street. The street width also varies at different sections of this segment. For example, just south of California Boulevard the street width measures 30 feet from curb to curb, but as the corridor approaches Glenarm Street the corridor measures 40 feet from curb to curb. As the study corridor approaches its end at Bonita Drive, the street width changes again to 32 feet from curb to curb.

### Wilson Avenue

The Wilson Avenue Corridor runs 2.3 miles between Washington Boulevard and California Boulevard. It provides access to several key destinations such as schools, parks, shopping centers, auto body shops, retail stores, and offices. In addition, one of the most prominent destinations on this corridor is the California Institute of Technology. North of the I-210 Freeway, the land use is mainly single family residential with multi-family residences located towards the freeway south of Orange Grove Boulevard. As a result, this portion of the corridor does not contain many key destinations. South of the I-210 Freeway, there is mix of commercial and multi-family residential uses with high density buildings concentrated between Walnut Street and Colorado Boulevard. Most of the key destinations on Wilson Avenue are located on this portion of the corridor.

#### **Washington Boulevard to Orange Grove Boulevard**

The land use along Wilson Avenue between Washington Boulevard and Orange Grove Boulevard is primarily zoned RS-6 with the exception of two small sections. The first section is located between Bell Street and Mountain Street; it is zoned OS for open space. The second section is located on Washington Boulevard; it is zoned RM-16 medium density multi-family residential.

This 0.8-mile long segment of Wilson Avenue consists of one signalized intersection, one all-way stop, and four two-way stops. In addition, this segment features on-street parking on both sides of the road and a 30 feet street width from curb to curb. Furthermore, this segment features two key destinations: Longfellow Elementary School and McDonald Park.

#### **Orange Grove Boulevard to Corson Street**

This segment of Wilson Avenue between Orange Grove Boulevard and Maple Street is zoned multi-family residential. Even though the zoning on this segment is the same, the density of these multi-family residences increases as they get closer to the I-210 Freeway. For example, the zoning of the first section of this segment of Wilson Avenue starts as medium density multi-family residential (RM-16). The density then increases to medium-high density multi-family residential (RM-32) at Emerson Street. Finally, past Villa Street, the density increases to high-density multi-family residential (RM-48). Between Maple Street and Corson Street, the land is zoned public/semi-public (PS) because of the I-210 Freeway that passes

underneath.

This 0.5-mile long segment of Wilson Avenue contains three signalized intersections and one two-way stop. This segment also features on-street parking on the west side of Wilson Avenue until Villa Street. South of Villa Street, on-street parking is available on both sides of the road until Maple Street. Between Maple Street and Corson Street, on-street parking is not allowed because of the I-210 Freeway overpass. In addition, this segment has a street width of 30 feet from curb to curb that starts at Orange Grove Boulevard and increases to 90 feet from curb to curb as it passes over the I-210 Freeway.

#### **Corson Street to Del Mar Boulevard**

This segment of Wilson Avenue features a mix of multi-family residential and commercial uses. The first portion of this segment from Corson Street to the middle of the block between Locust and Walnut Street is zoned medium-high density multi-family residential (RM-32). South of the RM-32 designations, the zoning of the parcels adjacent to Walnut Street are zoned commercial general (CG). From that point on, the zoning designation is high-density multi-family residential (RM-48) until Rhodes Alley. Between Rhodes Alley and Green Street, the zoning is mixed between East Corridor Specific Plan (ECSP), limited commercial (CL), and Lake Avenue Specific Plan (CD-5) until Steuben Street. South of Steuben Street, the zoning designation is high density multi-family residential (RM-48) and continues to Del Mar Boulevard.

This 0.7-mile long segment of Wilson Avenue consists of six signalized intersections and three two-way stops. On street parking along this segment is sporadic with street parking available on either one side of the road, both sides of the road, or on neither side of the road at all. Additionally, the street width of this segment increases from 30 feet from curb to curb at Locust Street to 44 feet at Del Mar Boulevard. Furthermore, this segment features several key destinations such as retail stores, shopping centers, offices, and auto shops.

#### **Del Mar Boulevard to California Boulevard**

The zoning designation along Wilson Avenue between Del Mar Boulevard and California Boulevard is public/semi-public with the exception of a small section on the west side of Wilson Avenue which is zoned medium-high density multi-family residential (RM-32). This 0.3-mile long segment of Wilson Avenue contains an all-way stop and a signalized intersection, and features on-street parking on both sides of the road. Additionally, the street width along this segment continues to measure at 44 feet from curb to curb, and contains the California Institute of Technology, which is a major key destination on this corridor.

### **Sierra Bonita Avenue**

The Sierra Bonita Avenue Corridor runs 1.6 miles between Washington Boulevard and Colorado Boulevard. The corridor features on-street parking and several two-way, all-way, and signalized stops. The corridor also provides access to several key destinations with Pasadena City College being one of the more prominent destinations on this corridor. Additionally, the corridor mainly consists of low-density single-family residences north of the I-210 Freeway and a mix of multi-family residences and commercial areas south of the freeway.

#### **Washington Boulevard to Maple Street**

Land use along Sierra Bonita Avenue between Washington Boulevard and Maple Street is mostly low density single-family residential (RS-6) with the exception of two sections on the corridor. One of the sections is located adjacent to the intersection of Washington Boulevard and Sierra Bonita Avenue; the parcels located near this intersection are zoned limited commercial (CL). The other section is located north

of Maple Street and west of Sierra Bonita Avenue; those parcels are zoned open space (OS) and public/semi-public (PS).

This 1.1-mile long segment of the Sierra Bonita Corridor contains one signalized intersection, one all-way stop, and twelve two-way stops. This segment features on-street parking on both sides of the road for most of the segment, and has a street width of 30 feet from curb to curb beginning at Washington Boulevard and increases to 36 feet from curb to curb near Maple Street. There are several key destinations along this segment of Sierra Bonita Avenue such as: The Pasadena Highlands Senior Living Apartments, Armenian Brethren Church, Jefferson Recreation Center, and Jefferson Elementary School.

### **Maple Street to Colorado Boulevard**

This segment of the Sierra Bonita Corridor features a mix of multi-family residential, commercial, and public/semi-public zones. The zoning designation between Maple Street and Corson Street is zoned public/semi-public because of the I-210 Freeway that passes over the corridor. South of Corson Street, the land is primarily zoned for medium density multi-family residences (RM-16) except for the parcels adjacent to Walnut Street and Colorado Boulevard. The parcels along Walnut Street are zoned general commercial (CG) and the parcels along Colorado Boulevard are zoned East Corridor Specific Plan (ECSP).

This 0.4-mile long segment of the Sierra Bonita Corridor contains three signalized intersections and one two-way stop. The segment measures 40 feet from curb to curb and features on-street parking on both sides of the road for most of the section. This segment also features a few small commercial areas, two hotels, a Jiffy Lube and Pasadena City College.

### **Craig Avenue**

The Craig Avenue Corridor is the smallest corridor of the four study corridors. The corridor runs 1.1 miles between Orange Grove Boulevard and Del Mar Boulevard. Compared to the other three corridors, which were primarily made up of single-family residential zones, this corridor features more of an even mix of land uses. This corridor also features a few key destinations such as small retail stores, auto body shops, offices, hotels, schools, and parks.

### **Orange Grove Boulevard to Maple Street**

The land use along Craig Avenue between Orange Grove Boulevard and Monte Vista street is all low density single-family residential (RS-6). South of Monte Vista Street, the land use is mixed between limited commercial (CL), public/semi-public (PS), and medium density multi-family residential (RM-16) up to Maple Street.

This 0.4-mile long segment of the Craig Avenue Corridor consists of five two-way stops and one all-way stop. The segment features on-street parking on both sides of the road and has a street width of 36 feet from curb to curb that increases to 74 feet south of Villa Street.

### **Maple Street to Del Mar Boulevard**

The land use designation between Maple Street and Corson Street is public/Semi-public (PS) because of the I-210 Freeway. South of Corson Street, the land use is mixed between medium density multi-family (RM-16), Planned Development (PD), and General Commercial (CG) until the corridor reaches Walnut Street. South of Walnut Street, the land use is medium-high density multi-family residential (RM-32) and transitions to East Corridor Specific Plan (ECSP) once the corridor reaches Colorado Boulevard. South of Colorado Boulevard, the land use is medium density multi-family residential (RM-16) and transitions to low density single-family residential (RS-6) before it reaches Del Mar Boulevard.

This 0.8-mile long segment of the Craig Avenue Corridor consists of 5 signalized intersections, one all-way stop, and two two-way stops. Additionally, this corridor features on-street parking on both sides of the road from Corson Street until Colorado Boulevard. South of Colorado Boulevard, on-street parking is only available on the west side of the street. Furthermore, the width of the corridor at the beginning of this segment measures 74 feet from curb to curb and gradually decreases to 30 feet from curb to curb towards the end of the corridor.

## EXISTING TRAFFIC VOLUMES

New traffic counts were collected at study intersections in October 2019. Traffic count sheets are included in Appendix A. Figure 2.4 and 2.5 show the AM/PM peak hour traffic counts collected at the study intersections. Figure 2.6 through 2.9 shows the existing average daily traffic (ADT) volumes along various corridor segments and parallel segments.

## EXISTING ON-STREET PARKING

Along the four corridors, available on-street parking is variable. The locations where parking is restricted via red curb or signage (No Parking Any Time) is shown in Figure 2.10. Where parking is restricted to 1-hour or 2-hour or other variations other than "No Parking Any Time", no demarcation is made on the Figure.

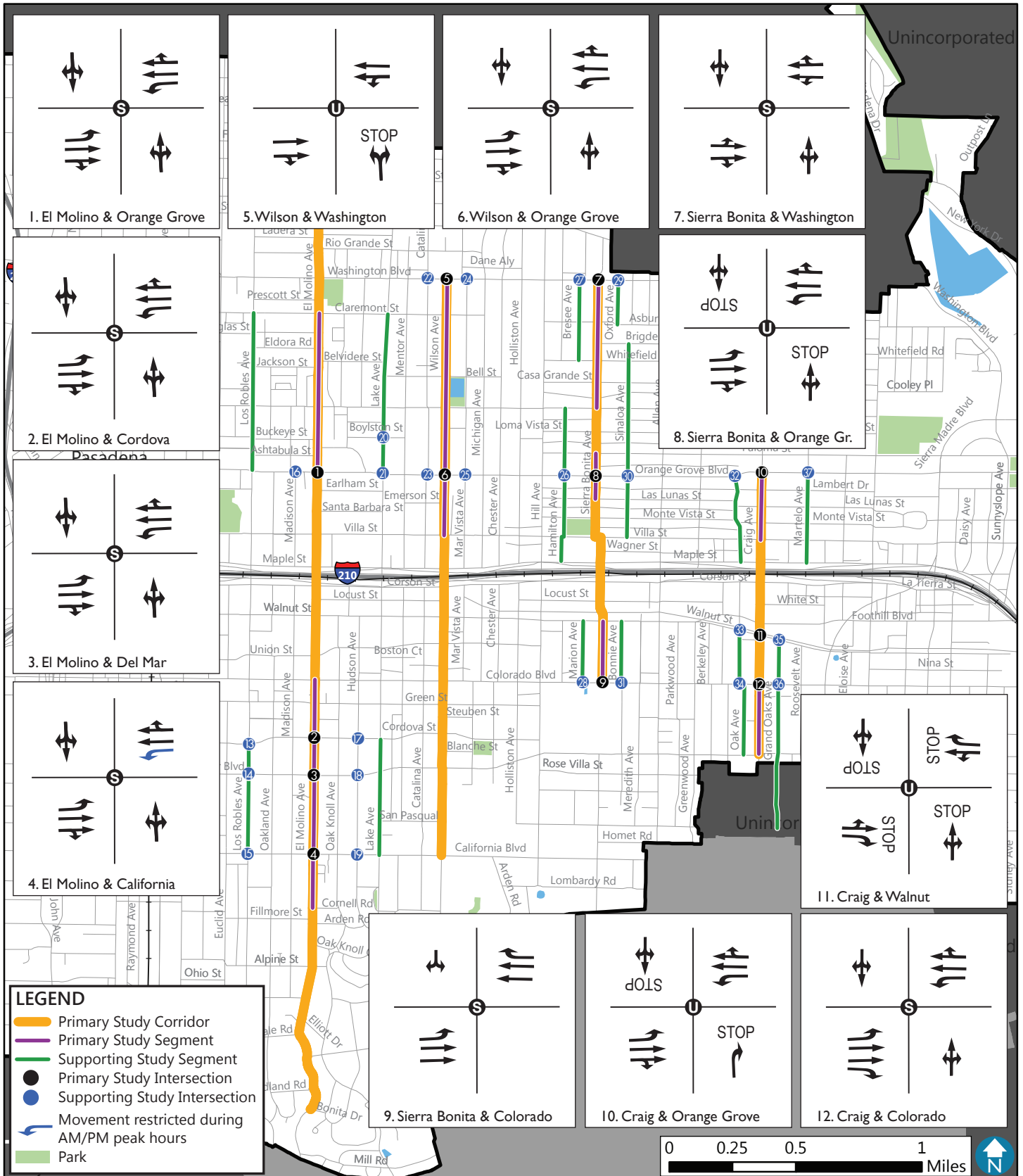
El Molino rarely offers parking on both sides of the roadway. For example, from Atchison Street to Maple Street on the west side of the roadway on-street parking is allowed, however on-street parking is not permitted on the east side of the roadway. In areas where the roadway width is highly constrained, on-street parking is restricted completely (i.e. between Union Street and Colorado Boulevard). Variable parking is offered in residential areas typically, but not always.

Wilson Avenue generally offers full on-street parking on the west side of the roadway, except for a few locations. Segments that are restricted on the east side are between Orange Grove Boulevard and Villa Street, and between Locust Street and just south of Colorado Boulevard.

Sierra Bonita Avenue offers on-street parking on both sides of the roadway except under the I-210, and proximal to Locust Street for a short segment.

Craig Avenue offers some on-street parking options. Areas that are restricted are on both sides of the road under the I-210, a short segment on the west side between Foothill Boulevard and Walnut Street, and a longer segment on the east side between Colorado Boulevard and Del Mar Boulevard.

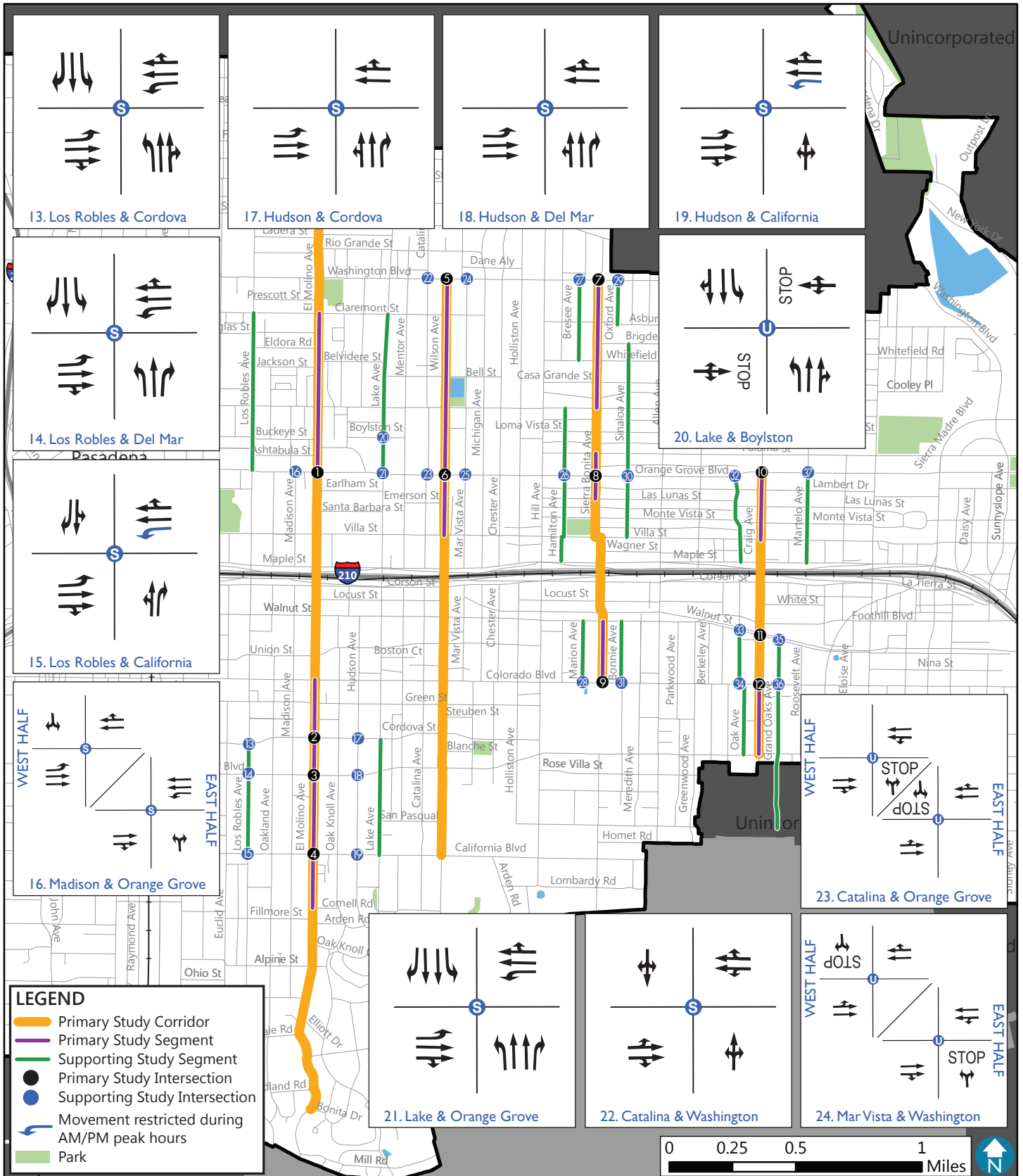
FIGURE 2.1 - EXISTING INTERSECTION GEMOETRIES (PRIMARY INTERSECTIONS)



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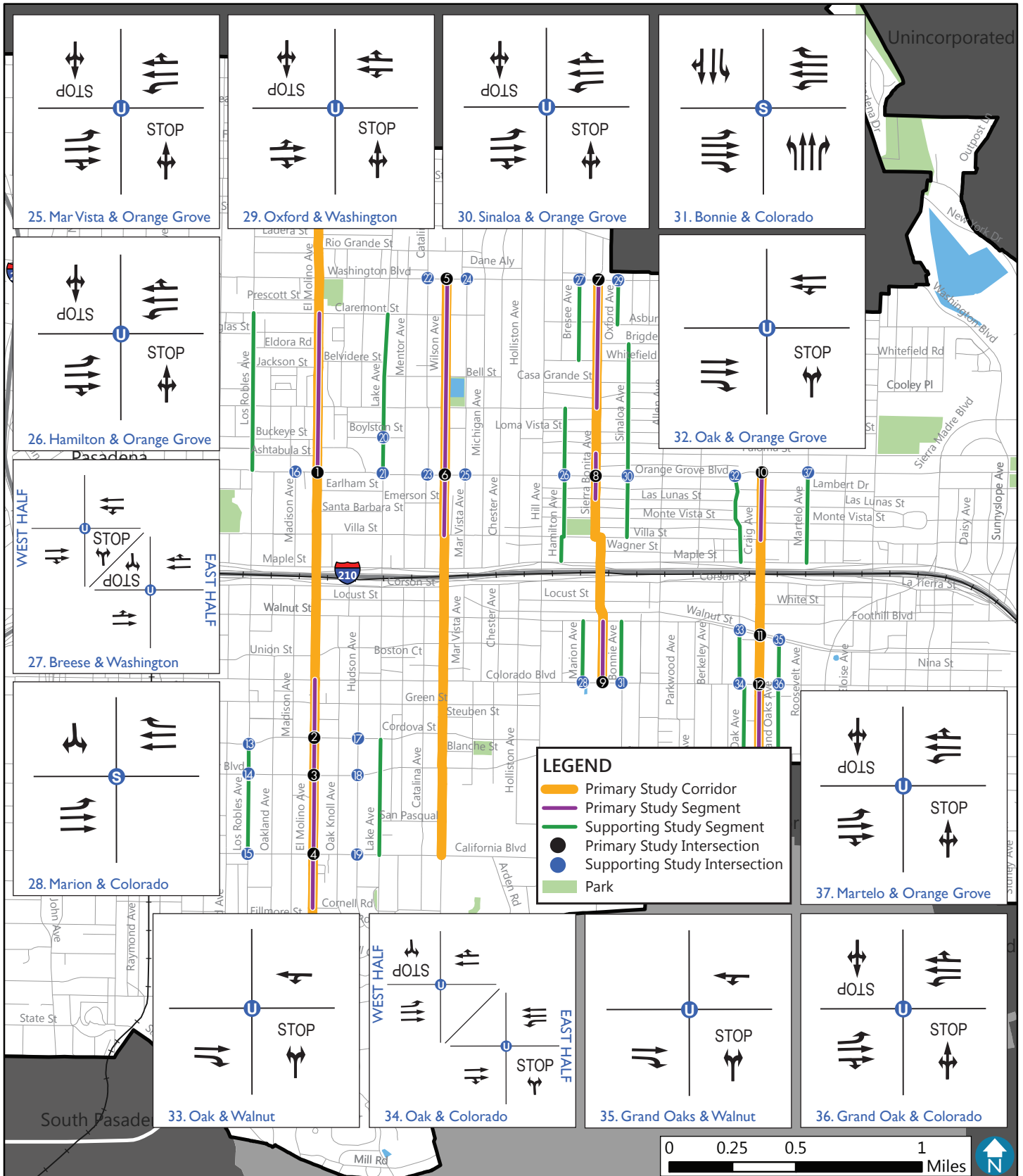


FIGURE 2.2 - EXISTING INTERSECTION GEMOETRIES (SUPPORTING INTERSECTIONS)



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FIGURE 2.3 - EXISTING INTERSECTION GEMOETRIES (SUPPORTING INTERSECTIONS)



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FIGURE 2.4 – EXISTING YEAR (2019) AM/PM PEAK HOUR INTERSECTION TRAFFIC VOLUMES

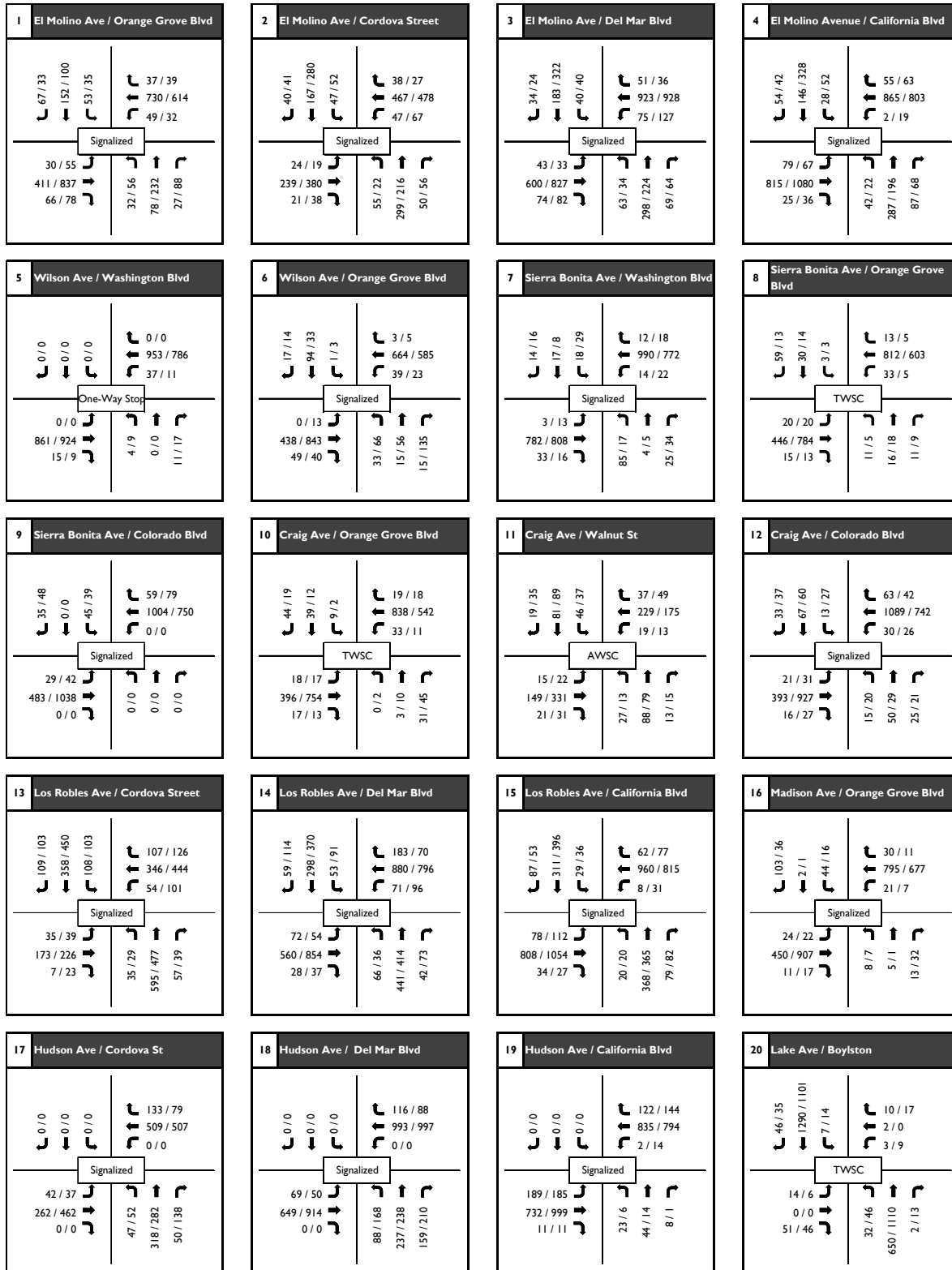


FIGURE 2.5 – EXISTING YEAR (2019) AM/PM PEAK HOUR INTERSECTION TRAFFIC VOLUMES, CONT'D

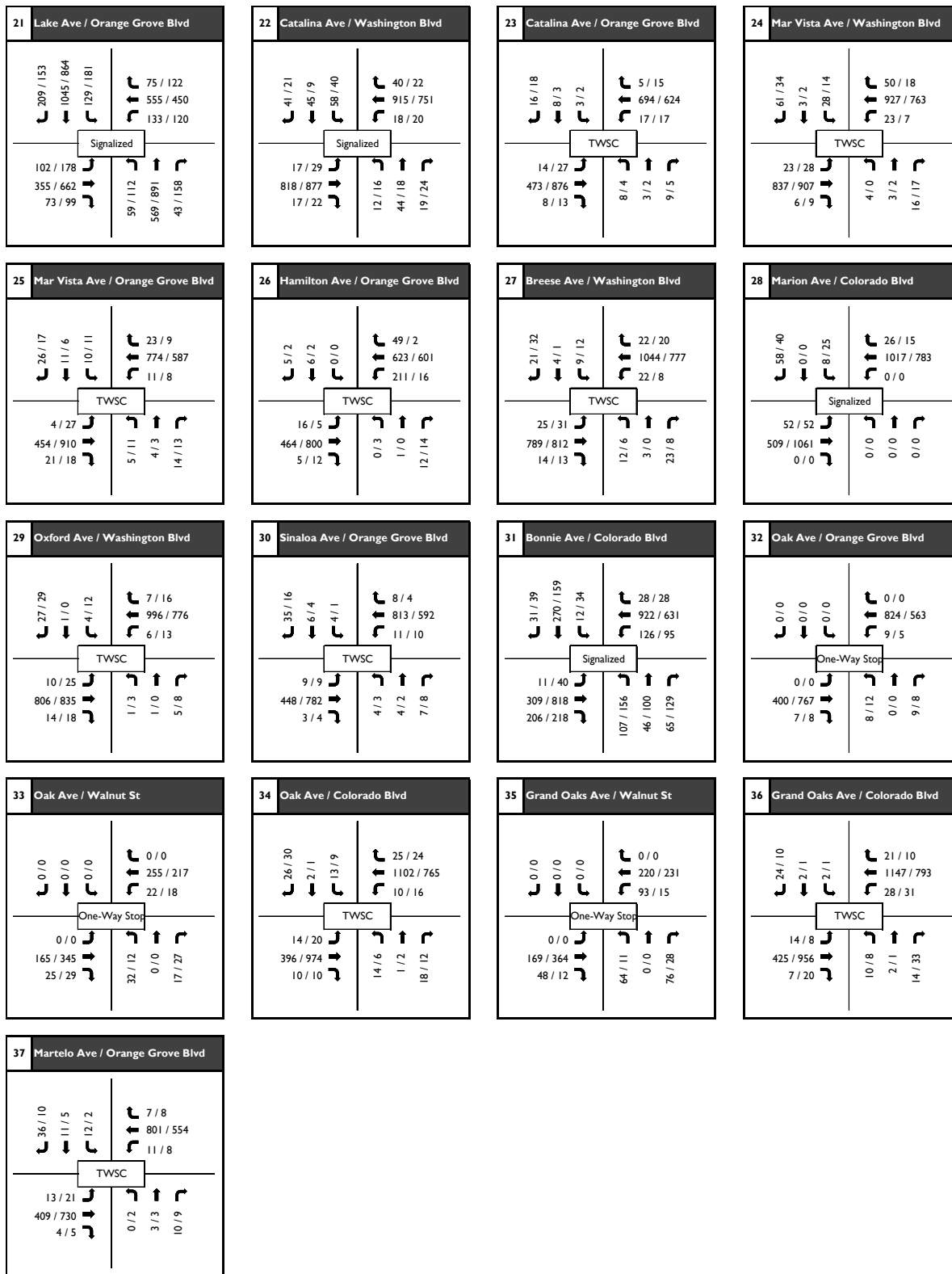
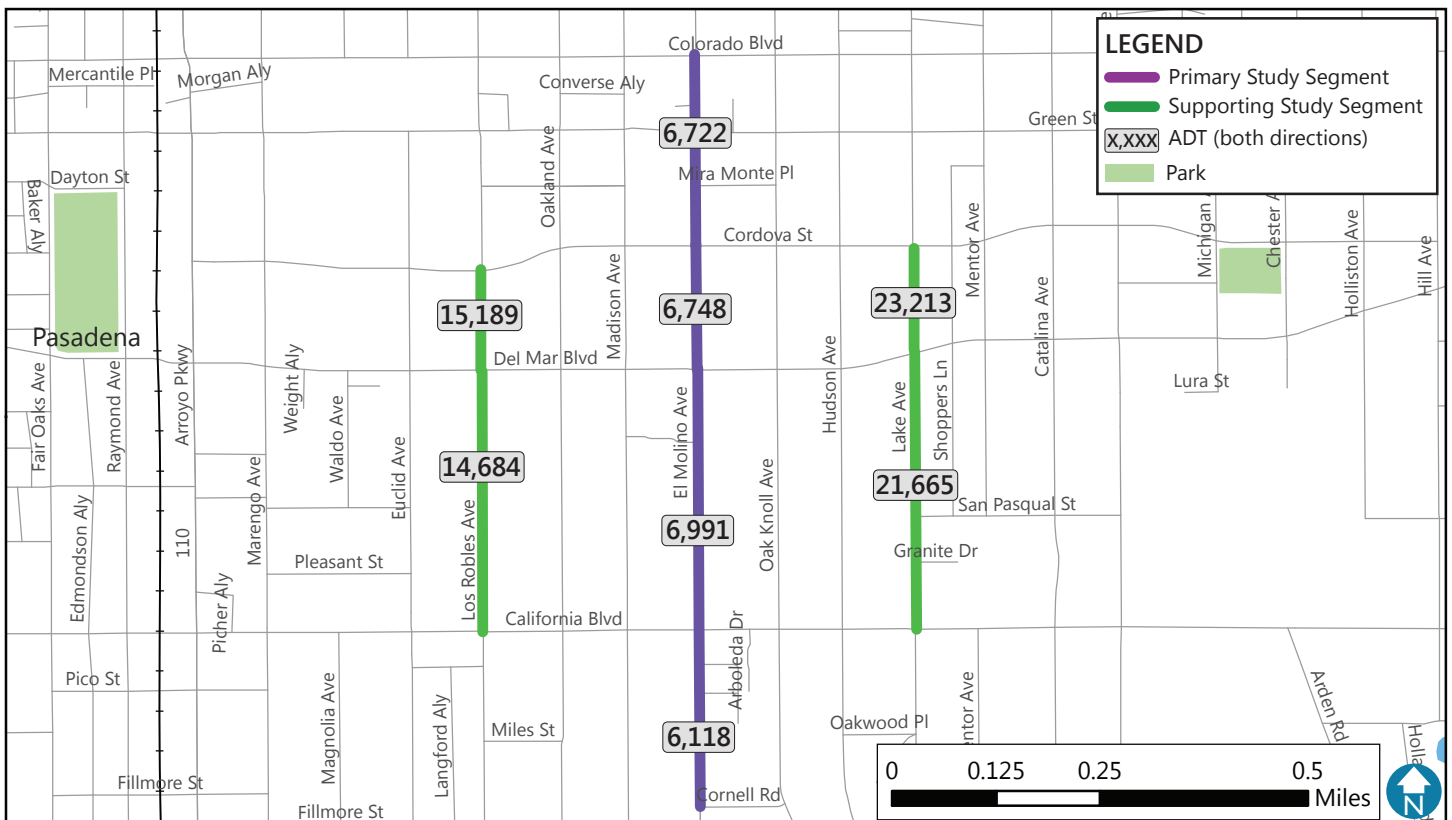
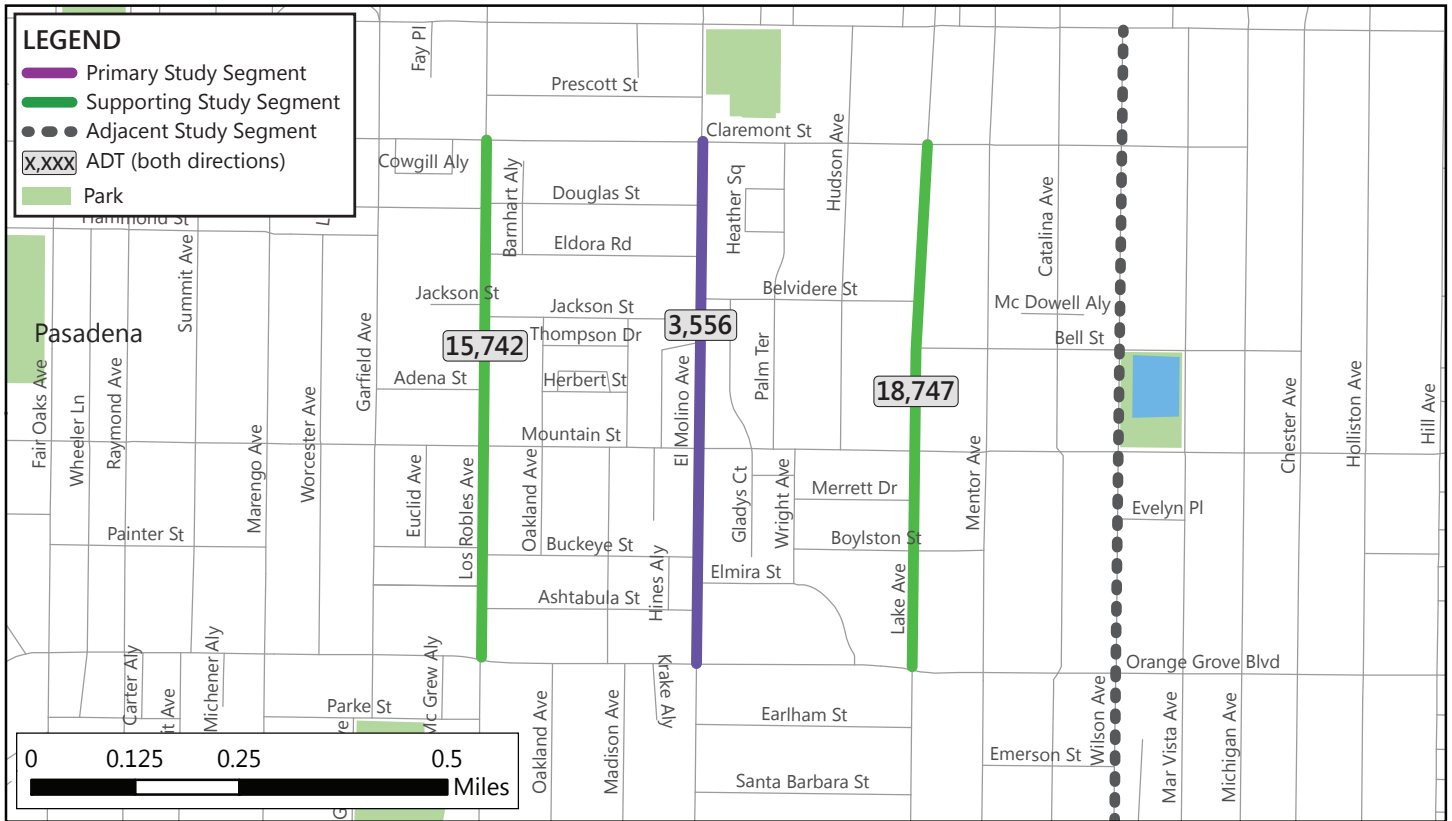


FIGURE 2.6 - EXISTING ADT, EL MOLINO AVENUE CORRIDOR



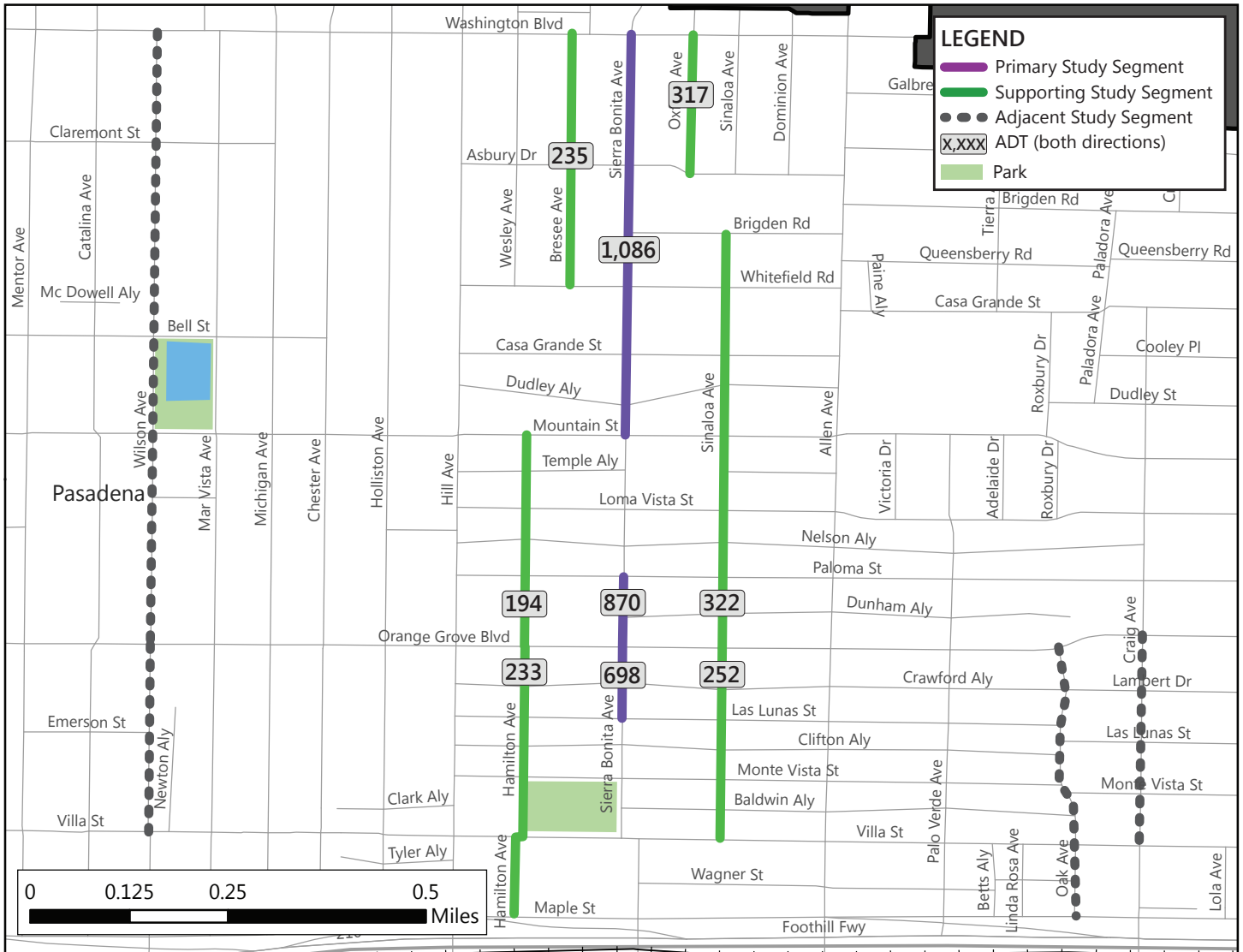
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FIGURE 2.7 - EXISTING ADT, WILSON AVENUE CORRIDOR



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FIGURE 2.8 - EXISTING ADT, SIERRA BONITA AVENUE CORRIDOR



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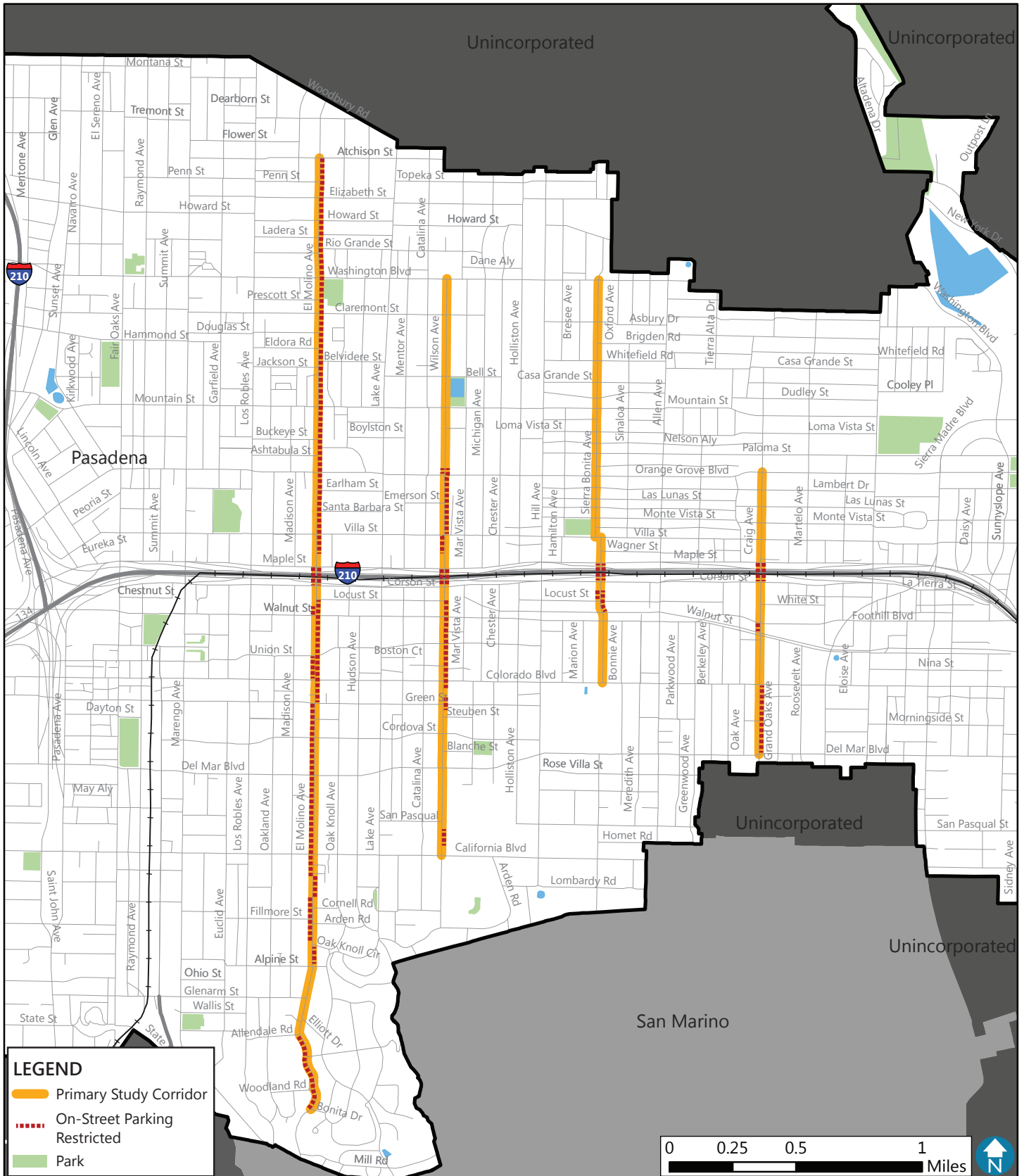
FIGURE 2.9 - EXISTING ADT, CRAIG AVENUE CORRIDOR



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FIGURE 2.10 - EXISTING ON-STREET PARKING RESTRICTIONS



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## 3.0 TRAFFIC ANALYSIS

This section documents the existing year traffic conditions at the study intersections along the study corridors as well as the existing plus project conditions. The existing plus project conditions scenario was analyzed to determine any potential impacts caused by the proposed improvements. This analysis was used during the development of recommendations. Appendix B contains the Existing Conditions analysis worksheets.

### EXISTING YEAR (2019) INTERSECTION LEVEL OF SERVICE

#### El Molino Avenue

Table 3.1 summarizes the results of the Existing Year (2019) conditions intersection analysis for the El Molino Avenue corridor study intersections along with the parallel corridor study intersections.

As shown on Table 3.1, all of the study intersections along El Molino Avenue corridor are currently operating at acceptable level of service during the AM and PM peak hours, except for El Molino Avenue at California Boulevard which operates at LOS F during the PM peak hour, under V/C analysis.

**Table 3.1 – Existing Year (2019) Traffic Conditions, El Molino Avenue Corridor**

Intersection	AM Peak Hour		PM Peak hour	
	V/C / LOS	Delay / LOS	V/C / LOS	Delay / LOS
1. El Molino Avenue and Orange Grove Boulevard	0.663 / B	12.7 / B	0.781 / C	18.3 / B
2. El Molino Avenue and Cordova Street	0.635 / B	16.9 / B	0.695 / B	16.8 / B
3. El Molino Avenue and Del Mar Boulevard	0.844 / D	21.5 / C	0.801 / D	22.9 / C
4. El Molino Avenue and California Boulevard	0.848 / D	25.5 / C	1.072 / F	27.2 / C
<b>Parallel Corridor Intersections</b>				
A. Madison Avenue and Orange Grove Boulevard	0.437 / A	9.1 / A	0.462 / A	15.9 / A
B. Lake Avenue and Boylston Street	-	41.0 / E	-	52.3 / F
C. Los Robles Avenue and Cordova Street	0.644 / C	11.9 / B	0.921 / E	11.0 / B
D. Los Robles Avenue and Del Mar Boulevard	0.875 / D	29.0 / C	0.840 / D	20.8 / C
E. Los Robles Avenue and California Boulevard	0.952 / F	20.9 / C	1.272 / F	24.8 / C
F. Hudson Avenue and Cordova Street	0.425 / A	9.3 / A	0.422 / A	8.3 / A
G. Hudson Avenue and Del Mar Boulevard	0.638 / B	12.1 / B	0.638 / B	14.2 / B
H. Hudson Avenue and California Boulevard	0.599 / A	0.795 / C	8.2 / A	3.2 / A

*Note: ICU = Intersection Capacity Utilization volume-to-capacity (V/C) ratio; LOS = Level of Service; Delay = Delay from the worst (highest) intersection approach, in seconds*

#### Wilson Avenue

Table 3.2 summarizes the results of the Existing Year (2019) conditions intersection analysis for the Wilson Avenue corridor study intersections along with the parallel corridor study intersections.

As shown on Table 3.2, all of the study intersections along the Wilson Avenue corridor are currently

operating at acceptable level of service during the AM and PM peak hours.

**Table 3.2 – Existing Year (2019) Traffic Conditions, Wilson Avenue Corridor**

Intersection	AM Peak Hour		PM Peak hour	
	V/C / LOS	Delay / LOS	V/C / LOS	Delay / LOS
1. Wilson Avenue and Washington Boulevard	-	28.5 / D	-	22.7 / C
2. Wilson Avenue and Orange Grove Boulevard	0.507 / A	7.7 / A	0.580 / A	7.7 / A
<b>Parallel Corridor Intersections</b>				
A. Catalina Avenue and Washington Boulevard	0.686 / B	16.6 / B	0.688 / B	9.6 / A
B. Catalina Avenue and Orange Grove Boulevard	-	17.3 / C	-	23.9 / C
C. Mar Vista Avenue and Washington Boulevard	-	61.8 / F	-	24.4 / C
D. Mar Vista Avenue and Orange Grove Boulevard	-	30.1 / D	-	35.7 / E

Note: ICU = Intersection Capacity Utilization volume-to-capacity (V/C) ratio; LOS = Level of Service; Delay = Delay from the worst (highest) intersection approach, in seconds

### Sierra Bonita Avenue

Table 3.3 summarizes the results of the Existing Year (2019) conditions intersection analysis for the Sierra Bonita Avenue corridor study intersections along with the parallel corridor study intersections.

As shown on Table 3.3, all of the study intersections along Sierra Bonita Avenue corridor are currently operating at acceptable level of service during the AM and PM peak hours, except for Sierra Bonita Avenue at Orange Grove Boulevard which operates at LOS F during the AM peak hour and LOS E during the PM peak hour.

**Table 3.3 – Existing Year (2019) Traffic Conditions, Sierra Bonita Avenue Corridor**

Intersection	AM Peak Hour		PM Peak hour	
	V/C / LOS	Delay / LOS	V/C / LOS	Delay / LOS
1. Sierra Bonita Avenue and Washington Boulevard	0.626 / B	11.7 / B	0.567 / A	5.5 / A
2. Sierra Bonita Avenue and Orange Grove Boulevard	-	177.9 / F	-	47.5 / E
3. Sierra Bonita Avenue and Colorado Boulevard	0.456 / A	4.3 / A	0.502 / A	4.0 / A
<b>Parallel Corridor Intersections</b>				
A. Breeze Avenue and Washington Boulevard	-	44.7 / E	-	21.1 / C
B. Hamilton Avenue and Orange Grove Boulevard	-	91.5 / F	-	27.8 / D
C. Marion Avenue and Colorado Boulevard	0.584 / A	4.1 / A	0.512 / A	4.1 / A
D. Oxford Avenue and Washington Boulevard	-	37.7 / E	-	25.8 / D
E. Sinaloa Avenue and Orange Grove Boulevard	-	32.4 / D	-	22.1 / C
F. Bonnie Avenue and Colorado Boulevard	0.676 / B	20.2 / C	0.624 / B	18.2 / B

Note: ICU = Intersection Capacity Utilization volume-to-capacity (V/C) ratio; LOS = Level of Service; Delay = Delay from the worst (highest) intersection approach, in seconds

## Craig Avenue

Table 3.4 summarizes the results of the Existing Year (2019) conditions intersection analysis for the Craig Avenue corridor study intersections along with the parallel corridor study intersections.

As shown on Table 3.4, all of the study intersections along Craig Avenue corridor are currently operating at acceptable level of service during the AM and PM peak hours.

**Table 3.4 – Existing Year (2019) Traffic Conditions, Craig Avenue Corridor**

Intersection	AM Peak Hour		PM Peak hour	
	V/C / LOS	Delay / LOS	V/C / LOS	Delay / LOS
1. Craig Avenue and Orange Grove Boulevard	-	164.1 / F	-	23.0 / C
2. Craig Avenue and Walnut Street	-	14.7 / B	-	16.4 / C
3. Craig Avenue and Colorado Boulevard	0.523 / A	9.0 / A	0.461 / A	7.9 / A
<b>Parallel Corridor Intersections</b>				
A. Oak Avenue and Orange Grove Boulevard	-	14.5 / B	-	20.1 / C
B. Oak Avenue and Walnut Street	-	12.2 / B	-	12.0 / B
C. Oak Avenue and Colorado Boulevard	-	26.5 / D	-	41.8 / E
D. Martelo Avenue and Orange Grove Boulevard	-	28.0 / D	-	21.5 / C
E. Grand Oaks Avenue and Walnut Street	-	21.1 / C	-	12.4 / B
F. Grand Oaks Avenue and Colorado Boulevard	-	27.8 / D	-	30.6 / D

Note: ICU = Intersection Capacity Utilization volume-to-capacity (V/C) ratio; LOS = Level of Service; Delay = Delay from the worst (highest) intersection approach, in seconds

## EXISTING YEAR (2019) ROADWAY LINK DAILY TRAFFIC

### El Molino Avenue

Table 3.5 summarizes the average daily traffic of the study roadway segments for the Existing Year (2019) Conditions for El Molino Avenue corridor. As shown in Table 3.5 along the El Molino Avenue northern segment ADT volumes were 3,556 with peak hour volumes between 373 and 346. The southern segments of El Molino Avenue had ADT volumes around 6,650 with peak hour volumes between 538 and 755. The highest ADT segment along El Molino Avenue was between Del Mar Boulevard and California Boulevard at 6,991.

ADT volumes along the two parallel corridor, Los Robles Avenue and Lake Avenue, are also shown in Table 3.5. Volumes along Los Robles Avenue were higher than El Molino Avenue at an average of 15,200. Peak hour volumes average higher by at least a factor of two, ranging between 938 and 1,290. Lake Avenue is a four-lane divided roadway parallel to El Molino Avenue. ADT volumes along all segments averaged at 24,637, with peak hour averages for AM and PM at 1,645 and 1,839 respectively. These volumes are 73% higher than the primary corridor, El Molino Avenue.

Table 3.5 – Roadway Link Daily Volumes Summary, El Molino Avenue

Roadway Segment			Street Section	Existing Average Daily Traffic (ADT)	Peak Hour	
No.	Name	Link			AM	PM
1	El Molino Avenue	Btwn Claremont Street & Orange Grove Boulevard	2U	3,556	373	346
2	El Molino Avenue	Btwn Colorado Boulevard & Cordova Street	2U	6,722	580	626
3	El Molino Avenue	Btwn Cordova Street & Del Mar Boulevard	2U	6,748	625	662
4	El Molino Avenue	Btwn Del Mar Boulevard & California Boulevard	2U	6,991	688	755
5	El Molino Avenue	Btwn California Boulevard & Cornell Road	2U	6,118	538	660
Parallel Corridor Segments						
6	Los Robles Avenue	Btwn Claremont Street & Orange Grove Boulevard	2D	15,742	1,175	1,290
7	Los Robles Avenue	Btwn Cordova Street & Del Mar Boulevard	2D	15,189	1,110	1,165
8	Los Robles Avenue	Btwn Del Mar Boulevard & California Boulevard	2D	14,684	938	1058
9	Lake Avenue	Btwn Claremont Street & Orange Grove Boulevard	4D	29,034	1,905	2,142
10	Lake Avenue	Btwn Cordova Street & Del Mar Boulevard	4D	23,213	1,572	1,712
11	Lake Avenue	Btwn Del Mar Boulevard & California Boulevard	4D	21,665	1,458	1,664

Note: Btwn = Between

## Wilson Avenue

Table 3.6 summarizes the average daily traffic of the study roadway segments for the Existing Year (2019) Conditions for Wilson Avenue corridor. The ADT volumes along the primary segment of Wilson Avenue were 642 (north of Orange Grove Boulevard) and 2981 (south of Orange Grove Boulevard). The peak hour period for both AM and PM averaged at 75 for the northern segment, while the southern segment averaged to be 309.

ADT volumes along the parallel corridor, Lake Avenue, are also shown in Table 3.6. Volumes along Lake Avenue were higher than Wilson Avenue at an average of 24,637. The highest volumes were seen on the segment between Claremont Street and Orange Grove Boulevard (29,034). Peak hour volumes for the AM were between 1,458 and 1,905, while the PM ranged between 2,142 and 1,664. These volumes are 93% higher than the primary corridor, Wilson Avenue.

Table 3.6 – Roadway Link Daily Volumes Summary, Wilson Avenue

Roadway Segment			Street Section	Existing Average Daily Traffic (ADT)	Peak Hour	
No.	Name	Link			AM	PM
1	Wilson Avenue	Btwn Washington Boulevard & Orange Grove Boulevard	2U	642	76	74
2	Wilson Avenue	Btwn Orange Grove Boulevard & Villa Street	2U	2981	272	346
<b>Parallel Corridor Segments</b>						
3	Lake Avenue	Btwn Claremont Street & Orange Grove Boulevard	4D	29,034	1,905	2,142
4	Lake Avenue	Btwn Cordova Street & Del Mar Boulevard	4D	23,213	1,572	1,712
5	Lake Avenue	Btwn Del Mar Boulevard & California Boulevard	4D	21,665	1,458	1,664

Note: Btwn = Between

### Sierra Bonita Avenue

Table 3.7 summarizes the average daily traffic of the study roadway segments for the Existing Year (2019) Conditions for Sierra Bonita Avenue corridor. Existing volumes along the two-lane undivided primary segments of Sierra Bonita Avenue ranged between 698 and 1,544. Peak hour volumes in the AM were approximately 151 with a maximum of 186, while in the PM they were 110 with a maximum of 173.

Multiple parallel segments are assessed in Table 3.7, including parts of Bresee Avenue, Hamilton Avenue, Marion Avenue, Oxford Avenue, Sinaloa Avenue, and Bonnie Avenue. ADT volumes vary along these segments as each provides access to differing areas; the lowest ADT was noted to be along Hamilton Avenue (194), while the highest was along Bonnie Avenue (4,368). The average ADT along all parallel segments was 989. Peak hour volumes average for the AM and PM at 125 and 92 respectively. Bonnie Avenue exhibited the highest AM and PM peak hour volumes (420) and (381) respectively.

Table 3.7 – Roadway Link Daily Volumes Summary, Sierra Bonita Avenue

Roadway Segment			Street Section	Existing Average Daily Traffic (ADT)	Peak Hour	
No.	Name	Link			AM	PM
1	Sierra Bonita Ave	Btwn Washington Boulevard & Mountain Street	2U	1,086	169	120
2	Sierra Bonita Ave	Btwn Paloma Street & Orange Grove Boulevard	2U	870	141	83
3	Sierra Bonita Ave	Btwn Orange Grove Boulevard & Las Lunas Street	2U	698	110	67
4	Sierra Bonita Ave	Btwn Walnut Street & Colorado Boulevard	2U	1,544	186	173
<b>Parallel Corridor Segments</b>						
5	Bresee Ave	Btwn Washington Boulevard & Whitefield Road	2U	235	29	31
6	Hamilton Ave	Btwn Mountain Street & Orange Grove Boulevard	2U	194	53	19

Roadway Segment			Street Section	Existing Average Daily Traffic (ADT)	Peak Hour	
No.	Name	Link			AM	PM
7	Hamilton Avenue	Btwn Orange Grove Boulevard & Maple Street	2U	581	187	40
8	Marion Avenue	Btwn Walnut Street & Colorado Boulevard	2U	1,240	150	134
9	Oxford Avenue	Btwn Washington Boulevard & Ashbury Drive	2U	317	35	38
10	Sinaloa Avenue	Btwn Brigden Road & Orange Grove Boulevard	2U	322	90	64
11	Sinaloa Avenue	Btwn Orange Grove Boulevard & Villa Street	2U	252	32	29
12	Bonnie Avenue	Btwn Walnut Street & Colorado Boulevard	2U	4,368	420	381

Note: Btwn = Between

### Craig Avenue

Table 3.8 summarizes the average daily traffic of the study roadway segments for the Existing Year (2019) Conditions for Craig Avenue corridor. Existing volumes along the two-lane undivided primary segments of Craig Avenue ranged between 1,315 (segment norther of the I-210) and 2,123 (segment south of the I-210). Peak hour volumes in the AM were on average 163, while in the PM they were 179 with a maximum of 210.

Three parallel segments are assessed in Table 3.8, including parts of Oak Avenue, Martelo Avenue, and Grand Oaks Avenue. ADT volumes vary along these segments as each provides similar, yet different access to the area. The lowest ADT was observed along Martelo Avenue (185), while the highest was observed along Grand Oaks Avenue (2,830). The average ADT along all parallel segments was noted to be 964. Peak hour volumes average for the AM and PM were 122 and 113 respectively. Grand Oaks Avenue exhibited the highest AM and PM peak hour volumes (274) and (261) respectively.

Table 3.8 – Roadway Link Daily Volumes Summary, Craig Avenue

Roadway Segment			Street Section	Existing Average Daily Traffic (ADT)	Peak Hour	
No.	Name	Link			AM	PM
1	Craig Avenue	Btwn Orange Grove Boulevard & Villa Street	2U	1,315	165	147
2	Craig Avenue	Btwn Colorado Boulevard & Del Mar Boulevard	2U	2,123	160	210
<b>Parallel Corridor Segments</b>						
3	Oak Avenue	Btwn Orange Grove Boulevard & Maple Street	2U	281	36	29
4	Oak Avenue	Btwn Walnut Street & Colorado Boulevard	2U	930	90	81
5	Oak Avenue	Btwn Colorado Boulevard & Del Mar Boulevard	2U	508	60	54
6	Martelo Avenue	Btwn Orange Grove Boulevard & Maple Street	2U	185	31	23
7	Grand Oaks Avenue	Btwn Walnut Street & Colorado Boulevard	2U	1,050	274	227

Roadway Segment			Street Section	Existing Average Daily Traffic (ADT)	Peak Hour	
No.	Name	Link			AM	PM
8	Grand Oaks Avenue	Btwn Colorado Boulevard & San Pasqual Street	2U	2,830	239	261

Note: Btwn = Between

## EXISTING YEAR (2019) CORRIDOR TRAVEL TIME ANALYSIS

The KOA team conducted travel time studies for the four greenway corridors to document existing traffic performance, including stops, delays, and average speeds. The travel time studies were conducted using the floating-car method, using Global Position System (GPS) equipped vehicles. The floating-car method is the most direct and verifiable method of measuring existing travel time. The survey data was collected using an instrumented vehicle driven within the general traffic flow from one end of the corridor to the other. Measurements were conducted during the end of January 2020. Travel time data was collected during four peak periods: Weekday AM peak period (7:00 AM – 9:00 AM) and Weekday PM peak period (4:00 PM – 6:00 PM).

The travel performance data was used to create travel time and speed/delay reports for each corridor. The reports provide the capability to assess existing conditions and compare to the forecast existing plus project conditions.

### El Molino Avenue

Table 3.9 summarizes the results of the existing travel time analysis for the El Molino Avenue corridor. As shown in the table, it takes approximately 15 minutes to travel northbound from the southern end of the corridor to the northern end during both the AM and PM peak period. During both peak periods, the average speed along each segment of the corridor is approximately 15 mph. The corridor also experiences approximately 16 stops in total when traveling northbound in either the AM or PM peak period.

Table 3.9 – Existing Corridor Travel Time Summary, El Molino Avenue

Peak Period	Direction	Duration (minutes)	Average Speed (mph)	Number of Stops <sup>1</sup>
AM	Northbound	15:22	15.1	15.6
PM	Northbound	14:29	15.8	16.0
AM	Southbound	18:52	14.7	22.0
PM	Southbound	16:55	15.4	16.0

Note: 1. A "Stop" is counted when the speed drops below 5 mph after exceeding 15mph

It takes approximately 18 minutes to travel southbound from the northern end of the corridor to the south end during both the AM and PM peak periods. During both AM and PM peak periods, the average travel speed along each segment of the corridor is approximately 15 mph for the southbound direction. During the AM peak period, there are approximately 22 stops when traveling southbound and approximately 16 stops during the PM peak period.



## Wilson Avenue

Table 3.10 summarizes the results of the existing travel time analysis for the Wilson Avenue corridor. Travel time data shows it takes approximately 10 minutes to travel northbound from the southern end of the corridor to the northern end during both the AM and PM peak period. During both peak periods, the average speed along each segment of the corridor is approximately 13 mph. The corridor experiences approximately 10 stops in total when traveling northbound in either the AM or PM peak period.

Similar to northbound travel, trips take approximately 10 minutes to travel southbound from the northern end of the corridor to the south end during both the AM and PM peak periods. During both AM and PM peak periods, the average travel speed along each segment of the corridor is approximately 13 mph for the southbound direction. The corridor also experiences approximately 10 stops in total when traveling northbound in either the AM or PM peak period.

**Table 3.10 – Existing Corridor Travel Time Summary, Wilson Avenue**

Peak Period	Direction	Duration (minutes)	Average Speed (mph)	Number of Stops <sup>1</sup>
AM	Northbound	10:16	13.5	10.2
PM	Northbound	10:01	13.8	9.6
AM	Southbound	10:27	13.3	9.4
PM	Southbound	9:28	14.5	8.0

Note: 1. A "Stop" is counted when the speed drops below 5 mph after exceeding 15mph

## Sierra Bonita Avenue

Table 3.11 summarizes the results of the existing travel time analysis for the Sierra Bonita Avenue corridor. Travel time data shows it takes approximately 5 minutes to travel northbound from the southern end of the corridor to the northern end during the AM peak period and approximately 8 minutes during the PM peak period. During the AM peak period, the average speed along the segment was approximately 17 mph. The average speed during the PM peak period was approximately 12 mph. During the AM peak period, there are approximately 6 stops when traveling southbound and approximately 7 stops during the PM peak period.

It takes approximately 6 minutes to travel southbound from the northern end of the corridor to the south end during both the AM and PM peak periods. During the AM and PM peak periods, the average travel speed along each segment of the corridor is approximately 17 mph and 14 mph respectively for the southbound direction. The corridor experiences approximately 6 stops in total when traveling northbound in either the AM or PM peak period.

**Table 3.11 – Existing Corridor Travel Time Summary, Sierra Bonita Avenue**

Peak Period	Direction	Duration (minutes)	Average Speed (mph)	Number of Stops <sup>1</sup>
AM	Northbound	5:34	17.4	6.3
PM	Northbound	7:46	12.6	7.4
AM	Southbound	5:41	17.2	5.4
PM	Southbound	6:47	14.5	6.4

Note: 1. A "Stop" is counted when the speed drops below 5 mph after exceeding 15mph

## Craig Avenue

Table 3.12 summarizes the results of the existing travel time analysis for the Craig Avenue corridor. Travel time data shows it takes approximately 15 minutes to travel northbound from the southern end of the corridor to the northern end during both the AM and PM peak period. During both peak periods, the average speed along each segment of the corridor is approximately 15 mph. The corridor experiences approximately 16 stops in total when traveling northbound in either the AM or PM peak period.

Trips takes approximately 19 minutes to travel southbound from the northern end of the corridor to the south end during both the AM peak period and 17 minutes during the PM peak period. During both AM and PM peak periods, the average travel speed along each segment of the corridor is approximately 15 mph for the southbound direction. During the AM peak period, there are approximately 22 stops when traveling southbound and approximately 16 stops during the PM peak period

**Table 3.12 – Existing Corridor Travel Time Summary, Craig Avenue**

Peak Period	Direction	Duration (minutes)	Average Speed (mph)	Number of Stops <sup>1</sup>
AM	Northbound	15:22	15.1	15.6
PM	Northbound	14:29	15.8	16.0
AM	Southbound	18:52	14.7	22.0
PM	Southbound	16:55	15.4	16.0

Note: 1. A "Stop" is counted when the speed drops below 5 mph after exceeding 15mph

## COLLISION ANALYSIS

The purpose of analyzing historical collision data is to understand where collisions take place and what the circumstances are. This approach establishes a linkage between a "problem" and potential "solutions".

Collision data was obtained from the City of Pasadena from beginning of 2015 (January) to the end of January 2020. Five years of pedestrian, bicycle, and vehicle-involved collisions were assessed along each of the four greenway corridors; a total of 196 collisions took place along El Molino Avenue, 140 took place along Wilson Avenue, 37 took place along Sierra Bonita Avenue, and 54 took place along Craig Avenue. Collision totals cannot be compared corridor to corridor since the length of each corridor impacts the quantity. Instead calculating the number of collisions per ¼ mile normalizes for corridor length.

- El Molino Avenue (196 total), 12.19 collisions per ¼ mile
- Wilson Avenue (140 total), 15.35 collisions per ¼ mile
- Sierra Bonita Avenue (27 total), 5.71 collisions per ¼ mile
- Craig Avenue (54), 12.05 collisions per ¼ mile

The results indicate the Wilson Avenue has the highest number of collisions per ¼ mile at around 15. El Molino Avenue and Craig Avenue both exhibit around 12 collisions per ¼ mile, and lastly Sierra Bonita Avenue showed approximately six collisions per ¼ mile. Corridor details regarding collateral metrics for collisions data are broken down by corridor.

## El Molino Avenue

There were in total 196 pedestrian, bicycle, and vehicle collisions along the extent of the 4.02-mile long north/south corridor. There were 12.19 collisions per ¼ mile, which ranks El Molino second amongst the four corridors of study. Figure 3.1 shows the density of pedestrian, bicycle, and vehicle collisions. High quantities were noted proximal to the I-210 freeway and at the following east/west cross streets: Orange Grove Boulevard, Villa Street, Maple Street, Corson Street, and Walnut Street.

The top three collision severity indicators were 1) property damage only (56.1%), 2) complaint of pain (29.6%), other visible injury (13.3%). Two collisions were reported as either fatal or of severe injury. Of all collisions, 64.8% (127) were involved with other motor vehicles, and 11.2% (22) were involved with a fixed object. In total 8.2% and 3.1% were involved with pedestrians (16) and bicyclists (6) respectively. These are shown in Figure 3.2.

Furthermore, Figure 3.2 shows the distribution of collisions by time and day of week; the top weekday time/date was Monday between 6:00AM and 8:59AM at 27.5%, and the top weekend time/date was Sunday between 3:00PM and 5:59PM (27.3%). The top three primary collision factors (PCFs) make up 53% of all PCFs: 1) traffic signals and signs (21.9%), 2) unknown (18.9%), and 3) improper turning (12.2%). The collision type with the highest proportion was represented as broadside collisions at 42.3%. The next top two were sideswipes and rear ends, which represent 14.8% and 14.3% respectively.

FIGURE 3.1 – EL MOLINO AVENUE COLLISION HEATMAP

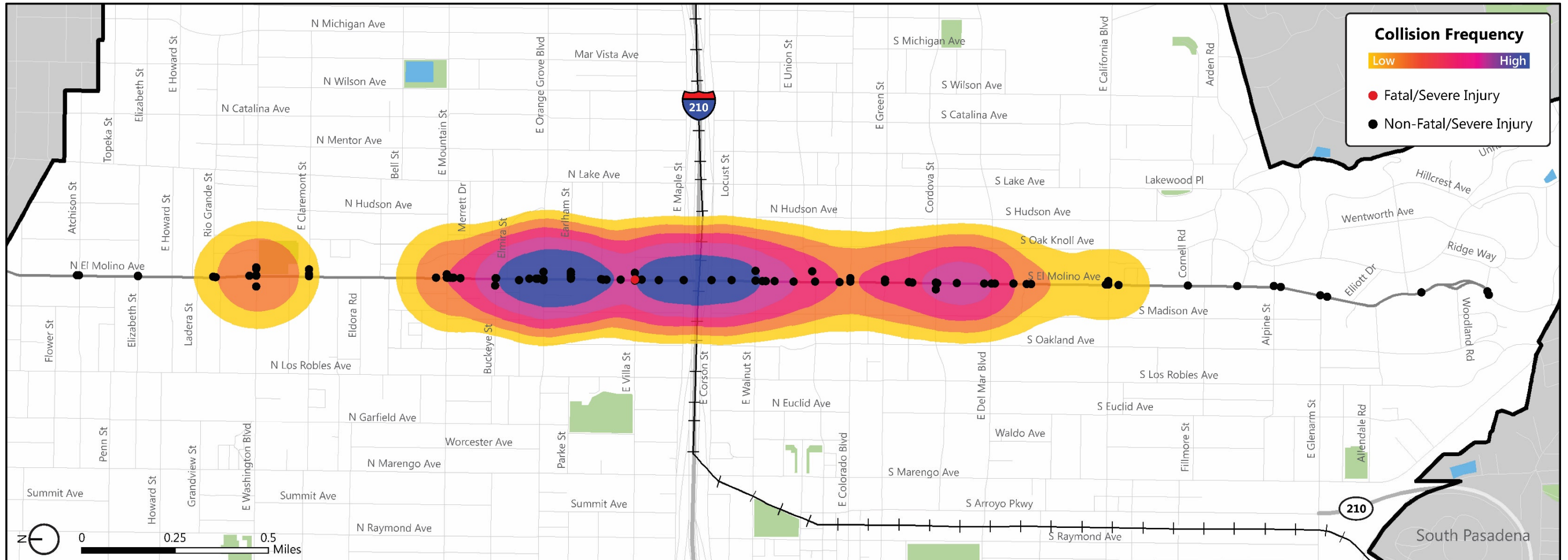
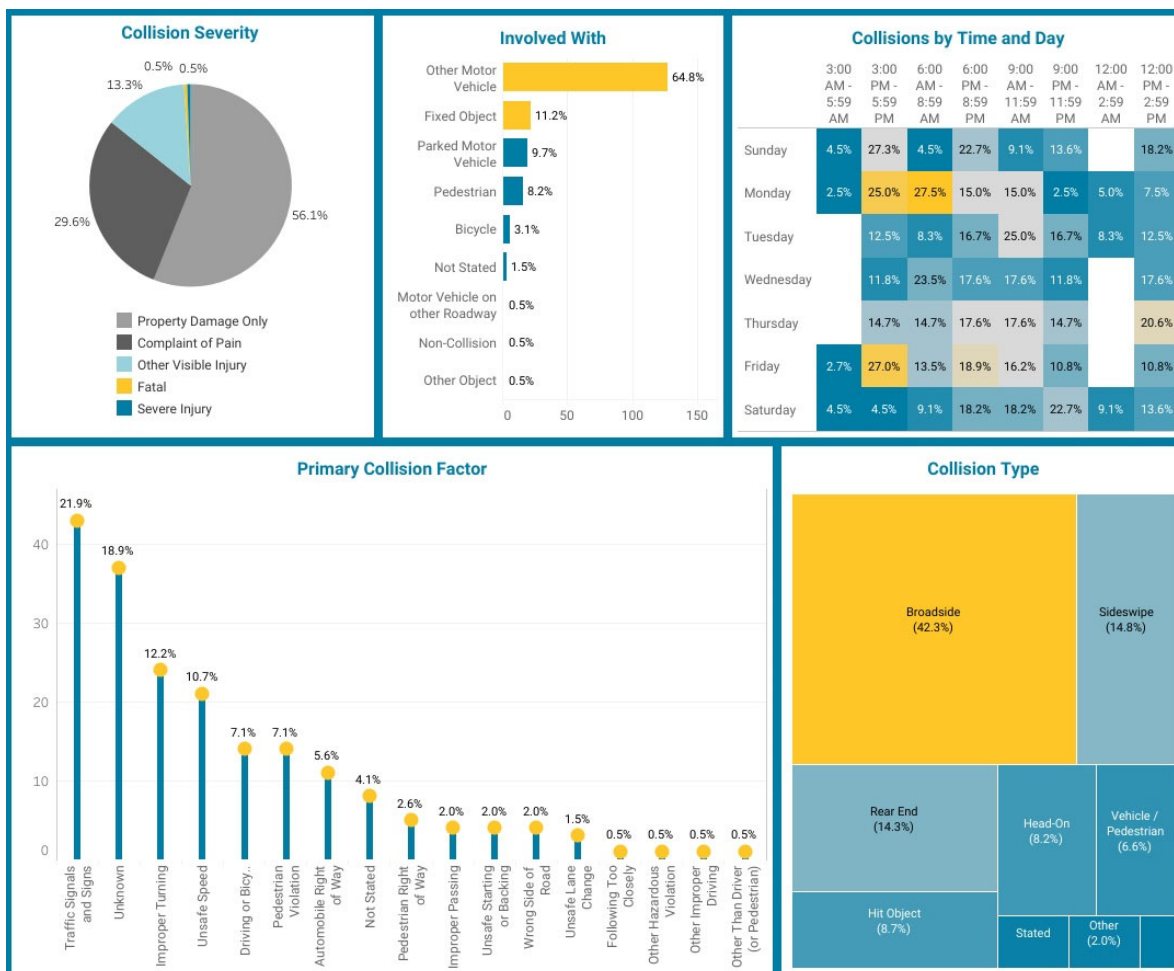


FIGURE 3.2 – EL MOLINO AVENUE COLLISION INDICATOR DASHBOARD



### Wilson Avenue

There were in total 140 pedestrian, bicycle, and vehicle collisions along the extent of the 2.28-mile long north/south corridor. There were 15.35 collisions per ¼ mile, which ranks Wilson Avenue as the highest amongst the four greenway corridors. Figure 3.3 shows the density of pedestrian, bicycle, and vehicle collisions. The highest quantities were noted proximal to Colorado Boulevard and at the following east/west cross streets: Orange Grove Boulevard, Walnut Street, Union Street, Green Street, and Cordova Street.

The top three collision severity indicators were 1) property damage only (54.3%), 2) complaint of pain (29.3%), other visible injury (13.6%). Four collisions were reported as either fatal (1) or of severe injury (3). Of all collisions, 72.1% (101) were involved with other motor vehicles, and 9.3% were involved with a parked motor vehicle. In total 5.7% and 4.3% were involved with bicyclists (8) and pedestrians (6) respectively. These are shown in Figure 3.4.

Furthermore, Figure 3.4 shows the distribution of collisions by time and day of week; the top weekday

time/date was Monday between 12:00PM and 2:59PM at 33.3%, and the top weekend time/date was Sunday between 3:00PM and 5:59PM (38.5%). The top three primary collision factors (PCFs) make up 56.4% of all PCFs: 1) unknown (27.9%), 2) traffic signals and signs (17.1%), and 3) unsafe speed (11.4%). The collision type with the highest proportion was represented as broadside collisions at 48.6%. The next top two were rear ends and sideswipes, which represent 21.4% and 14.3% respectively.

### Sierra Bonita Avenue

There were in total 37 pedestrian, bicycle, and vehicle collisions along the extent of the 1.62-mile long north/south corridor. There were 5.71 collisions per ¼ mile, which ranks Sierra Bonita Avenue as the lowest amongst the four greenway corridors. Figure 3.5 shows the density of pedestrian, bicycle, and vehicle collisions. The highest quantities were noted at the following east/west cross streets: Washington Boulevard, Maple Street, Corson Street, Walnut Street, and Colorado Boulevard.

The top three collision severity indicators were 1) property damage only (48.6%), 2) complaint of pain (29.7%), other visible injury (18.9%). One collisions were reported as a severe injury, and no fatal collisions were reported. Of all collisions, 70.3% (26) were involved with other motor vehicles, and 13.5% were involved with a fixed object. In total 5.4% and 2.4% were involved with pedestrians (2) and bicyclists (1) respectively. These are shown in Figure 3.6.

Furthermore, Figure 3.6 shows the distribution of collisions by time and day of week; the top weekday time/date was Tuesday between 9:00AM and 11:59AM at 75.0%, and the top weekend time and day was split equally across both days and respective times at about 33.3%. The top three primary collision factors (PCFs) make up 67.5% of all PCFs: 1) unknown (29.7%), 2) automotive right of way (24.3%), and 3) improper turning (13.5%). The collision type with the highest proportion was represented as broadside collisions at 45.9%. The next top two were rear ends and hit object, which represent 27.0% and 8.1% respectively.

FIGURE 3.3 – WILSON AVENUE COLLISION HEATMAP

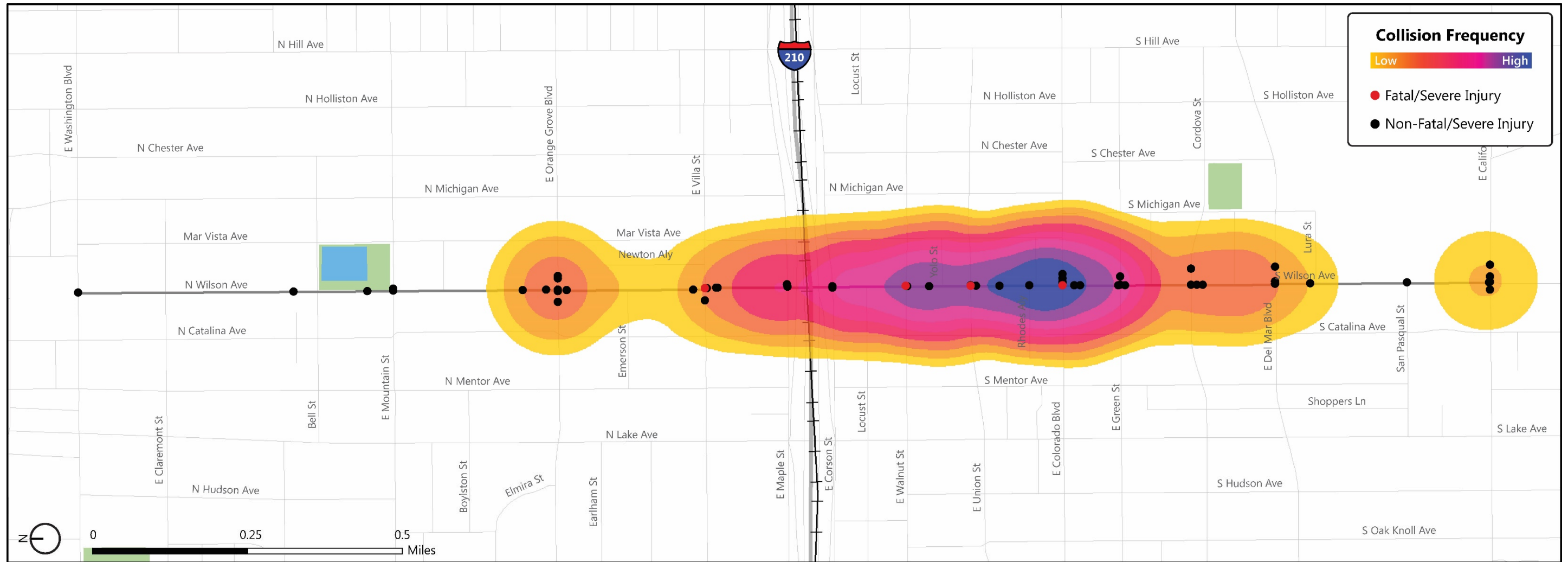


FIGURE 3.4 – WILSON AVENUE COLLISION INDICATOR DASHBOARD

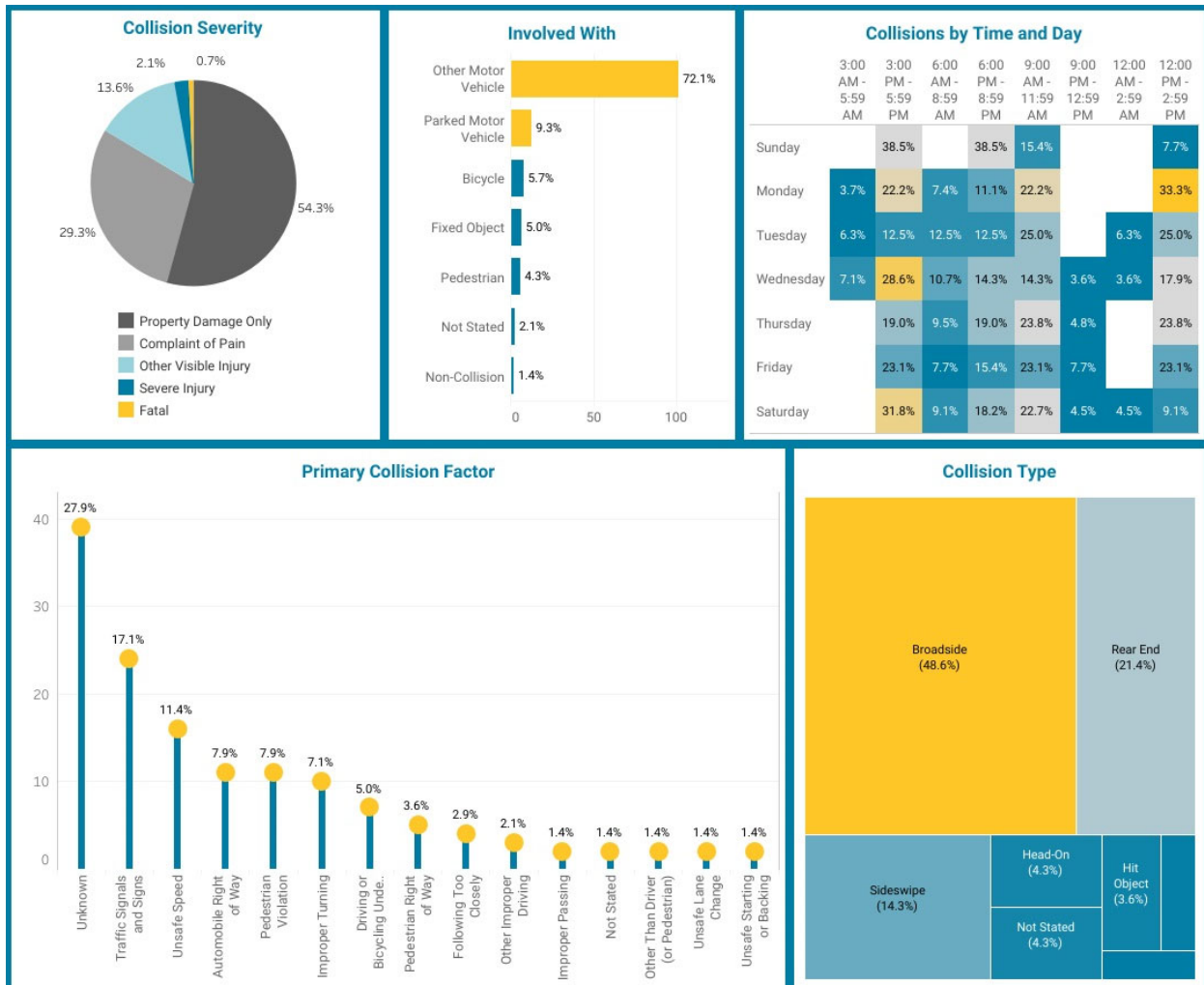
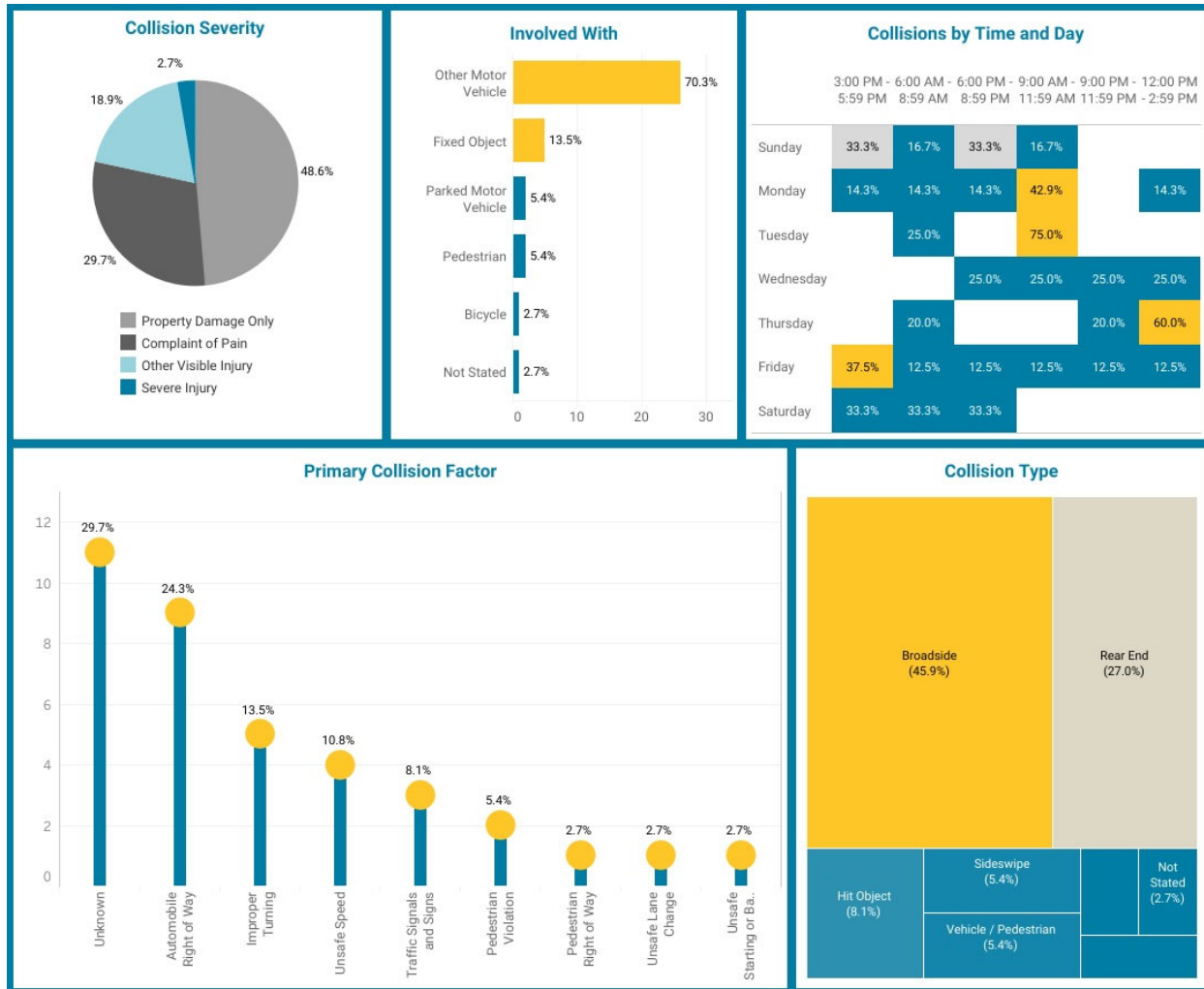




FIGURE 3.5 – SIERRA BONITA AVENUE COLLISION HEATMAP



FIGURE 3.6 – SIERRA BONITA AVENUE COLLISION INDICATOR DASHBOARD



### Craig Avenue

There were in total 54 pedestrian, bicycle, and vehicle collisions along the extent of the 1.12-mile long north/south corridor. There were 12.05 collisions per ¼ mile, which ranks Craig Avenue as the third ranked corridor amongst the four greenway corridors. Figure 3.7 shows the density of pedestrian, bicycle, and vehicle collisions. The highest quantities were noted at the following east/west cross streets: Orange Grove Boulevard, Foothill Boulevard, Walnut Street, and Colorado Boulevard.

The top three collision severity indicators were the only represented indicators across the data set: 1) property damage only (48.1%), 2) complaint of pain (38.9%), other visible injury (13.0%). Zero collisions resulted in a fatality or of severe injury. Of all collisions, 75.9% (41) were involved with other motor vehicles, and 9.3% (5) were involved with a fixed object. In total 5.6% involved pedestrians (3) and none involved bicyclists. These are shown in Figure 3.8.

Furthermore, Figure 3.9 shows the distribution of collisions by time and day of week; the top weekday time/date was Tuesday between 6:00AM and 8:59AM at 66.7%, and the top weekend time/date was Sunday between 12:00PM and 2:59PM (66.7%). The top three primary collision factors (PCFs) make up

66.7% of all PCFs: 1) traffic signals and signs (27.8%), 2) unknown (20.4%), and 3) automobile right of way (18.5%). The collision type with the highest proportion was represented as broadside collisions at 64.8%. The next top two were hit object and sideswipe, which represent 11.1% and 11.1% respectively.

FIGURE 3.8 – CRAIG AVENUE COLLISION INDICATOR DASHBOARD

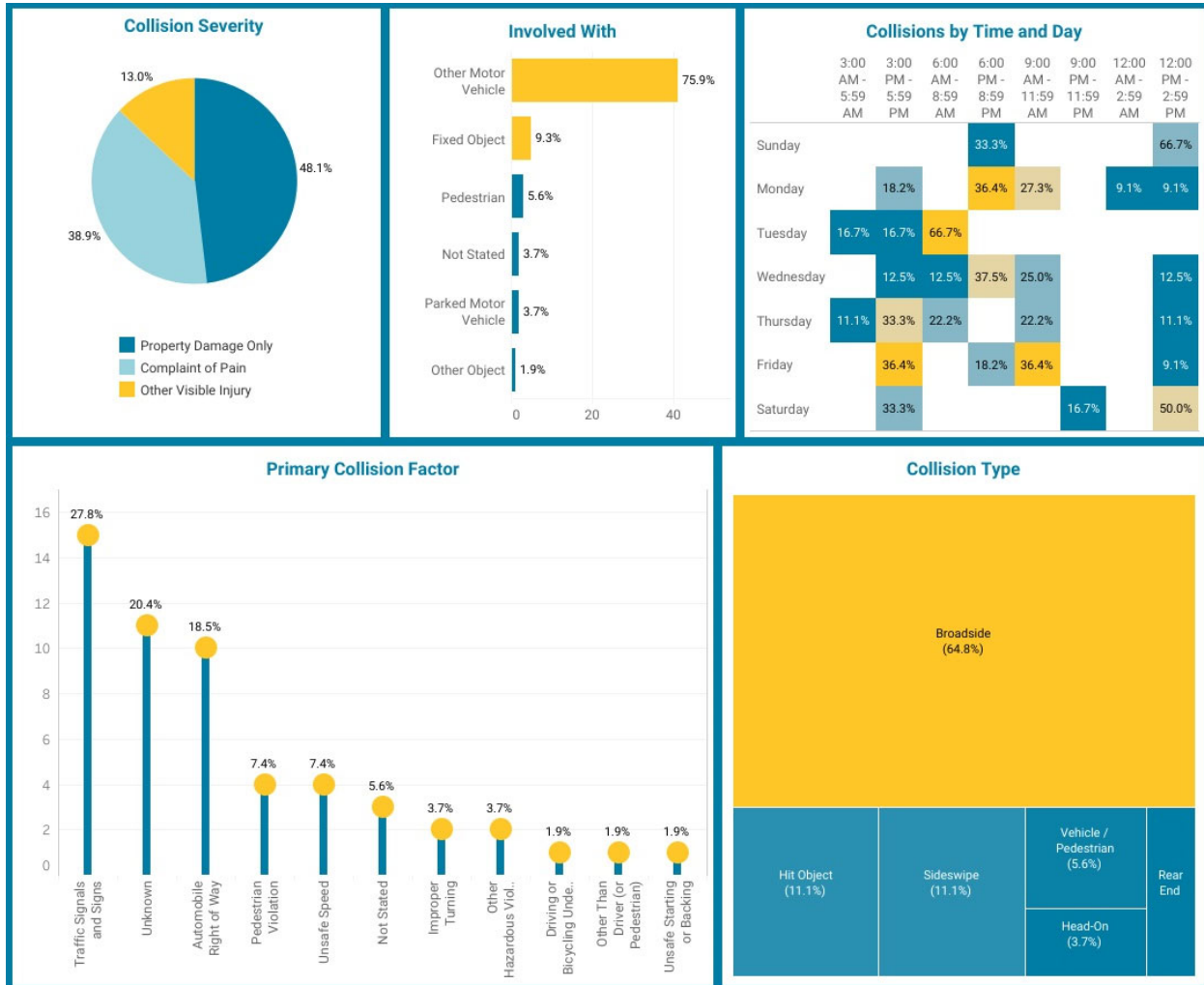


FIGURE 3.7 – CRAIG AVENUE COLLISION HEATMAP



## 4.0 BICYCLE ANALYSIS

This section evaluates the existing bicycle environment based on the bicycle Level of Traffic Stress (LTS) conditions. This analysis provides insight into the perceived comfort level of users while on a roadway and also what facility typologies that are present. LTS methodology assigns a score from 1-4 to a roadway segment, with 1 being the least stressful and most desirable to 4 being the most stressful and least desirable. LTS is an industry best practice that allows for current conditions to be assessed, while also allowing for future-based comparisons after improvements are made. This planning approach is termed performance-based planning and is powerful in quantifying change. Existing conditions are important to document conditions prior to any infrastructure changes so comparison can be made post-project.

### LEVEL OF TRAFFIC STRESS (LTS) METHODOLOGY

LTS designations were developed based on Table 4.2 in the BTAP. However, some of the designations in the table require additional clarification. The table only provides a description for what criteria are sufficient to designate a street as LTS 1 or LTS 2, and does not explicitly lay out what kinds of streets would be considered LTS 3 or LTS 4. Additionally, the BTAP has a different set of criteria for streets with bike lanes than those without bike lanes, with much more stringent requirements for streets with bike lanes. The table requires streets with bike lanes to be of a certain width to reach LTS 1 or LTS 2, whereas for streets without bike lanes, certain types of streets qualify even though no bike facilities are present.

Data indicates that a street containing a bike lane may be considered safer than a street without a bike lane. Therefore, for the purposes of this analysis a street without a bike facility cannot receive an "LTS 1" designation, even if it would qualify under previous LTS criteria. This as a way to bridge the conflicting criteria. Additionally, it is professional practice to consider the volume of vehicles on roadways when making an LTS designation, in accordance with research done by the Mineta Transportation Institute at San Jose State University. This element is not covered in the existing LTS table provided in the BTAP. To include this consideration, streets with an Average Annual Daily Traffic over 6,250 must be designated as "LTS 3" or higher.

For the purposes of the analysis, the worst-case scenario is assumed for each segment. So if any part of the segment is adjacent to commercial, the entire segment is considered adjacent to commercial, and so on. Additionally, number of lanes identified for each segment includes intersection approaches; if the segment is two lanes with a left turn lane added at the intersection, it is considered a 3-lane roadway, and so on. The LTS criteria is listed below.

#### LTS 1 Criteria:

LTS 1 facilities must have bike lanes present and meet one of the following conditions:

- 25 mile per hour street with no marked centerline (any land use)
- 2-lane, 25 mile per hour street adjacent only to residential or K-12 school (no commercial)

#### LTS 2 Criteria:

LTS 2 facilities must have average annual daily traffic less than 6,250 and meet one of the following conditions:

- 30 mile per hour street with no marked centerline (any land use)
- 2-lane, 30 mile per hour street adjacent only to residential or K-12 school (no commercial)
- 3-lane, 25 mile per hour street adjacent only to residential or K-12 school (no commercial)

- 2-lane, 25 mile per hour street adjacent to commercial uses with curb cuts present
- Anything otherwise meeting LTS 1 criteria without bike lanes

### LTS 3 Criteria:

LTS 3 facilities must meet one of the following conditions:

- 2-lane, 25 mile per hour street adjacent to commercial uses, no curb cuts present
- 3-lane, 25 mile per hour street adjacent to commercial uses, curb cuts present
- 3-lane, 30 mile per hour street adjacent only to residential or K-12 school (no commercial)
- 4-lane, 25 mile per hour street adjacent only to residential or K-12 school (no commercial)
- Anything otherwise meeting LTS 2 criteria with an AADT over 6,250

### LTS 4 Criteria:

LTS 4 facilities are anything worse than LTS 3 conditions, including the following conditions:

- 4-lane, 30 mile per hour street
- 4-lane, 25 mile per hour street adjacent to commercial uses
- 4-5 lane roadway over/under a freeway

## LEVEL OF TRAFFIC STRESS (LTS) ANALYSIS

### El Molino Avenue

The average LTS score, normalized by length, along El Molino Avenue was 2.33. This score ranks the corridor third out of the four studied greenways for the best normalized average LTS score. There were no segments that ranked as a LTS 1, however 70.1% of all segments were ranked as LTS 2 (14,891 feet). LTS 3 and LTS 4 proportions were 26.7% and 3.2% respectively. Table 4.1 summarizes the bicycle LTS results for the El Molino Avenue corridor.

The areas and corresponding segments that were highest ranked were proximal to the I-210 freeway and adjacent to commercial land uses south of the I-210 freeway (Walnut Street to California Boulevard). Segments adjacent to residential land uses exhibited lower LTS ranks than those proximal to higher demand generating land uses.

Table 4.1 – Bicycle LTS Summary, El Molino Avenue

El Molino Avenue LTS Proportions			
LTS	# of Segments	Length (feet)	% of total length
1	0	0	0.0%
2	41	14,891	70.1%
3	10	5,680	26.7%
4	2	679	3.2%

### Wilson Avenue

The average LTS score, normalized by length, along Wilson Avenue was 2.13. This score ranks the corridor

first out of the four studied greenways for the best normalized average LTS score. There were two segments that ranked as LTS 1, amounting to 9.3% of the entire corridor (1,125 feet). Sixteen segments or 71.0% of all segments were ranked as LTS 2 (8,560 feet). LTS 3 and LTS 4 proportions were 16.4% and 3.2% respectively. Table 4.2 summarizes the bicycle LTS results for the Wilson Avenue corridor.

From Washington Boulevard to Villa Street, the segments ranked LTS 2. This is partly in part due to the proximity to residential land uses. The highest rank was seen around the I-210 freeway where LTS 3 and 4 were exhibited. South of Walnut Street was generally LTS rank 2, except for proximal to Colorado Boulevard (LTS 3) and between Del Mar Boulevard and San Pasqual (LTS 1). The LTS 1 was a result of existing bike lanes and low speed limits, while the LTS was a result of proximity to commercial land uses.

Table 4.2 – Bicycle LTS Summary, Wilson Avenue Corridor

Wilson Avenue LTS Proportions			
LTS	# of Segments	Length (feet)	% of total length
1	2	1,125	9.3%
2	16	8,560	71.0%
3	5	1,980	16.4%
4	1	384	3.2%

### Sierra Bonita Avenue

The average LTS score, normalized by length, along Sierra Bonita Avenue was 2.22. This score ranks the corridor second out of the four studied greenways for the best normalized average LTS score. There were no segments that ranked as a LTS 1, however 81.5% of all segments were ranked as LTS 2 (6,957 feet). LTS 3 and LTS 4 proportions were 13.9% and 4.6% respectively. Table 4.3 summarizes the bicycle LTS results for the Sierra Bonita Avenue corridor.

From Washington Boulevard to Wagner Street the segments were proximal to residential land uses and ranked as LTS 2. Between Wagner Street and Walnut Street, excluding the portion immediately under the I-210 freeway (LTS 4), was ranked as LTS 3. This is partly a result of the number of lanes in and around the I-210 freeway.

Table 4.3 – Bicycle LTS Summary, Sierra Bonita Avenue

Sierra Bonita Avenue LTS Proportions			
LTS	# of Segments	Length (feet)	% of total length
1	0	0	0.0%
2	20	6,957	81.5%
3	4	1,186	13.9%
4	1	396	4.6%

## Craig Avenue

The average LTS score, normalized by length, along Craig Avenue was 2.38. This score ranks the corridor fourth out of the four studied greenways for the best normalized average LTS score. There were no segments that ranked as a LTS 1, however 77.0% of all segments were ranked as LTS 2 (4,537 feet). LTS 3 and LTS 4 proportions were 7.9% and 15.1% respectively. Table 4.4 summarizes the bicycle LTS results for the Craig Avenue corridor.

From Lambert Drive to Villa Street the segments ranked as LTS 2. Proximal to the I-210 freeway (Villa Street to Corson Street) the segments ranked as LTS 4, and from Corson Street to White Street the segments ranked at LTS 3. South of White Street to Del Mar Boulevard the segments ranked as LTS 2. Higher ranked segments of LTS 3 and LTS 4 were a result of freeway land use and number of lanes greater than two.

Table 4.4 – Bicycle LTS Summary, Craig Avenue

Craig Avenue LTS Proportions			
LTS	# of Segments	Length (feet)	% of total length
1	0	0	0.0%
2	11	4,537	77.0%
3	1	465	7.9%
4	3	893	15.1%

## EXISTING BICYCLE NETWORK

The City of Pasadena consists of 30 miles of dedicated bike lanes (Class II Bike Lanes) and 26.7 miles of bicycle friendly roads (Class III Bike Routes or Bike Boulevards). Each study corridor has unique existing bicycle network provisions and are detailed below.

### El Molino Avenue

There are no existing facilities provided along the north/south corridor or El Molino from Atchison Street to Bonita Drive, with the exception of a 600-foot segment from Howard Street to Rio Grande Street. There are five explicit east/west network connections, which equates to 1.2 connections on average per mile (normalized by length). El Molino ranked the lowest amongst the four study corridors per average connections per mile. Of the five east/west connections three were designated as bicycle friendly corridors, and two were designated as dedicated bike lanes. The bike lanes exist along Maple Street (north of I-210) and Corson Street (south of I-210); each road is one-way only. Bicycle friendly corridor east/west connections are made along Howard Street/Rio Grande Street, Claremont Street, and Fillmore Street.

### Wilson Avenue

There are two existing bicycle facilities along Wilson Avenue. A bicycle friendly road exists from Washington Boulevard to Orange Grove Boulevard (4,200 feet). A dedicated bike lane exists between Cordova Street and California Boulevard (2,560 feet). The full extent of the Wilson Avenue corridor is from



Washington Boulevard to California Boulevard. Extending south from the southernmost extent of the corridor is an existing bike lane that connects to an existing east west bicycle friendly roadway along Arden Street.

There are five explicit east/west network connections, which equates to 2.2 connections on average per mile (normalized by length). Wilson Avenue is ranked third based on average connections per average connections per mile. Of the five east/west connections, two are bicycle friendly corridors along Washington Boulevard and Claremont Street, and three are dedicated bike lanes. One bike lane exists along Cordova Street, and the other two bike lanes exist along Maple Street (north of I-210) and Corson Street (south of I-210); Maple Street and Corson Street are one-way only.

### Sierra Bonita Avenue

There is an existing bicycle friendly road that exists along a majority of Sierra Bonita Avenue. One portion that exist is from Washington Boulevard to Villa Street (5,400 feet). An existing bike lane (110 feet) is present along Villa Street for the portion of the Sierra Bonita Avenue corridor that aligns with Villa Street that then reconnects with Sierra Bonita Avenue. Another portion of a bicycle friendly road exists from Villa Street to Corson Street (930 feet). In total the corridor has 75% bike facility coverage.

An existing bicycle friendly roadway extends north beyond the Sierra Bonita Avenue corridor northern extent (Washington Boulevard) to connect to the east/west Howard Street bicycle friendly roadway corridor. There are five total east/west connections that are made along Sierra Bonita Avenue. Two bicycle friendly roadways exist along Ashbury Drive and another along Paloma Street. Three bike lanes are present along Villa Street, Maple Street, and Corson Street. In total there are five explicit east/west network connections, which equates to 3.1 connections on average per mile (normalized by length). This ranks Sierra Bonita Avenue first in most average connection per mile amongst the four studied corridors.

### Craig Avenue

There is one existing bicycle friendly roadway within the extents of Craig Avenue between Orange Grove Boulevard and Corson Street (2,330 feet). This equates to 40% of existing coverage of bicycle facilities. The existing bicycle friendly roadway designation extends north beyond the northern most extent of the corridor (Orange Grove Boulevard) towards the existing east/west connections.

There are three total east/west connections made along the corridor, which averages to 2.7 connections made per mile. This data ranks Craig Avenue second out of the four studied corridors based on normalized average connections. The three existing east/west connections are made along Villa Street, Maple Street (north of I-210), and Corson Street (south of I-210); Maple Street and Corson Street are one-way only.

## 5.0 RECOMMENDATIONS

This section documents the recommended corridor improvements that were included in the final conceptual design plans. To determine the final conceptual designs of the recommended improvements for each study corridor, various corridor improvements were considered including the evaluation of existing traffic data and operations, existing bicycle facilities, collision data, corridor characteristics, roadway and lane configurations, and coordination with the City.

After collecting and analyzing various types of data on the four study corridors, KOA's final conceptual designs include the improvements listed in Table 5.1.

Table 5.1 – Recommended Improvements Summary

Improvement	El Molino Avenue	Wilson Avenue	Sierra Bonita Avenue	Craig Avenue
Bicycle detection on signalized approaches that lack such detection and are not on recall	X	X	X	X
Bicycle intersection crossing markings		X		
Bicycle lane through existing intersection diverter with new bicycle signal head	X			
Bicycle sharrows	X	X	X	X
Bicycle signage	X	X	X	X
Cycle track / buffered bike lanes	X	X	X	X
Intersection bulb-outs/curb extensions / curb ramps		X	X	
Intersection median barriers for left-turns (optional)				
New pedestrian crosswalks			X	
On-street parking shift	X	X		X
Pavement rehabilitation with narrower gutters (long-term)	X			
Quick-build striped medians with shoulder striping	X			
Raised center median at intersection			X	
Raised traffic calming median islands with striping		X	X	X
Red curb	X	X	X	X
Restripe pavement markings / legends / striping	X	X		
Roundabout			X	
Shoulder striping	X			
Traffic circle			X	X
Traffic signal (previously approved)			X	X
Upgraded signal poles and signal heads		X		
Two-stage left-turn bike box	X	X	X	X
Flashing Yellow Left-Turn Arrow	X	X	X	X

In developing the conceptual designs, KOA took care to ensure that minimal traffic impacts were created and minimal on-street parking spaces were lost.

The recommended improvements are summarized in the section below and the final conceptual design

plans are provided in Appendix C where additional details are provided.

## CORRIDOR IMPROVEMENT RECOMMENDATIONS

### El Molino Avenue Corridor

The roadway segments along El Molino Avenue, north of Maple Street, provide long straight travel lanes which can induce higher than posted speeds for motorists. Traffic calming elements along these segments may encourage motorists to maintain vehicle speeds within the speed limit, providing an environment where bicyclists can be supported and encouraged to use the El Molino Avenue Greenway corridor.

The traffic calming elements proposed for the roadway segments north of Maple Street include a shift in on-street parking from one side of the street to the other with shoulder striping on alternating blocks or mid-block areas. Figure 5.1 illustrates an example of the on-street parking shifts being proposed along the corridor.

Additional improvements throughout this section of the corridor include repainting centerlines, stop bars, and pavement markings as well as adding a southbound channelized bike lane through the semi-diverter located at the south leg of the intersection with Washington Boulevard. Adding the channelized bike lane will allow bicyclists to travel southbound through the semi-diverter and avoid the need to travel onto the sidewalks or merge into the northbound lane.

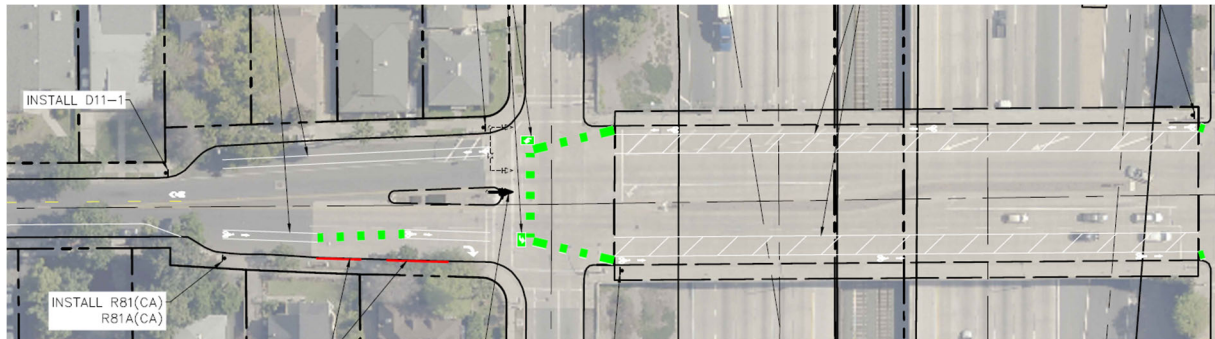
**FIGURE 5.1 – ON-STREET PARKING SHIFT WITH SHOULDER STRIPING, EL MOLINO AVENUE**



*Example from Conceptual Plans*

Starting from north of Maple Street to south of Corson Street, El Molino Avenue becomes an overpass to the I-210 freeway and gradually widens from approximately 30 feet in width to 80 feet. Within this section of El Molino Avenue, the added width of the street accommodates the addition of travel lanes, left-turn lanes, and a raised center median. In order to facilitate safe and comfortable bicycle travel along this section of the corridor and encourage slower vehicle speeds, the existing travel lanes will be reconfigured to provide one lane in each direction and include buffered bike lanes in the northbound and southbound directions, beginning south of Corson Street and north of Maple Street with two-stage left-turn bike boxes and bicycle intersection crossing markings. Once bicyclists travel across the overpass and across Corson Street and Maple Street, the bike lanes end and merge back into the bike boulevard design. Flashing yellow left-turn signal arrows are proposed for the left-turn movements on Corson Street and Maple Street to minimize left-turn queuing. Figure 5.2 illustrates the cycle track/buffered bike lanes proposed on El Molino Avenue over the I-210 Freeway.

FIGURE 5.2 – CYCLE TRACK/BUFFERED BIKE LANES, EL MOLINO AVENUE



*Example from Conceptual Plans*

The existing conditions of the roadway between Corson Street and Glenarm Street are similar to those described for the segment north of Maple Street. As such, the type of improvements for this segment of the roadway also include a series of diverters that shift on-street parking from one side of the street to the other along with edgeline striping on a single side of the street.

Between Glenarm Street and Pinehurst Drive, the centerline will be shifted to provide approximately 13 feet for the southbound lane and 17 feet for northbound lane for more lateral space for southbound bicyclists. Edgelines will be installed on both sides of the roadway from Glenarm Street to Allendale Road and only on the east side of the road from Allendale Road to Pinehurst Drive.

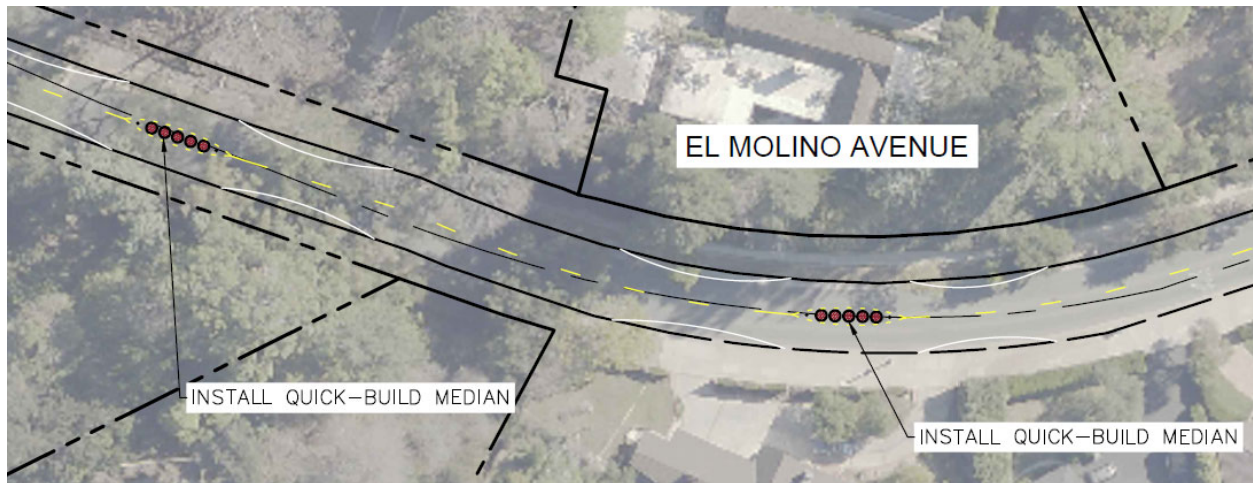
The addition of edgeline striping along the curving section of El Molino Avenue between Elliot Drive and Pinehurst Drive will help to maintain consistent lane widths and discourage excessive vehicle speeding.

Between Pinehurst Drive and Bonita Drive there is a landscaped median that splits El Molino Avenue. However, unlike typical medians, the eastern most section of the roadway consists of a northbound and a southbound lane, while the western section functions as a slip lane to access Woodland Road. Improvements on the main eastern segment of El Molino Avenue include restriping the centerline and adding sharrow pavement markings at the south end of the segment. Conflict zone striping will be added where Woodland Road merges with El Molino Avenue to increase the motorist awareness of potential conflicts with bicyclists. Red curb paint will be installed along the northbound curb to prohibit on-street parking.

#### *Additional Considerations*

In order to build a more complete corridor to the City's boundaries, additional improvements should be considered at the north and south ends of the corridor beyond the limits established for this project. From Atchison to Woodbury the City may consider the installation of two additional diverters located to the north of Atchison Street and south of Highland Street. Between Bonita Drive and old Mill Road, the City may consider the installation of four offset edge islands to create traffic calming chicanes. Figure 5.3 illustrates the conceptual design of the offset islands (quick-build median).

FIGURE 5.3 – OFFSET EDGE ISLANDS/QUICK BUILD MEDIANS, EL MOLINO AVENUE



*Example from Conceptual Plans*

### Wilson Avenue Corridor

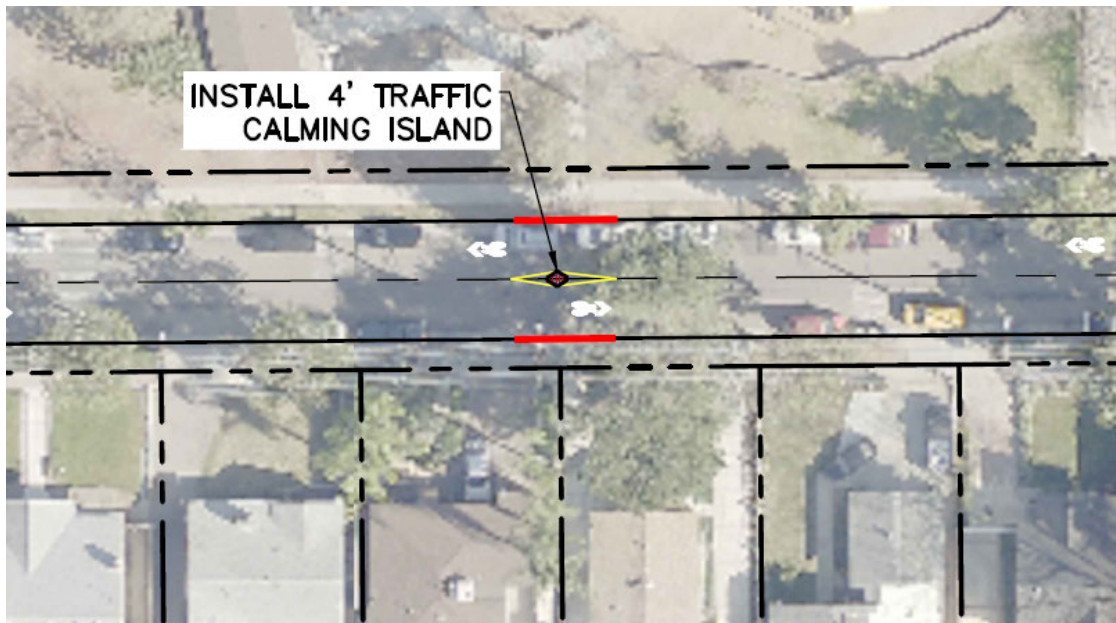
Wilson Avenue Corridor begins at Washington Boulevard at the north and ends at California Boulevard in the south. Similar to El Molino Avenue, Wilson Avenue consists of long straight travel lanes which can induce higher than posted speeds for motorists.

Unlike El Molino Avenue, there have been efforts to improve bicycle and pedestrian infrastructure through the implementation of curb extensions and bike lanes throughout the corridor. The purpose of the proposed improvements is to enhance existing features and expand their use throughout the corridor and close gaps in the pedestrian and bicycle networks.

#### *Washington Boulevard to Orange Grove Boulevard*

Between Washington Boulevard and Orange Grove Boulevard, improvements generally consist of D11-1 bike route signage, sharrow pavement markings spaced at approximately 150 feet, and a series of six traffic calming islands at mid-block locations. Figure 5.4 shows one location of the proposed traffic calming islands along the Wilson Avenue corridor.

FIGURE 5.4 – TRAFFIC CALMING ISLANDS, WILSON AVENUE

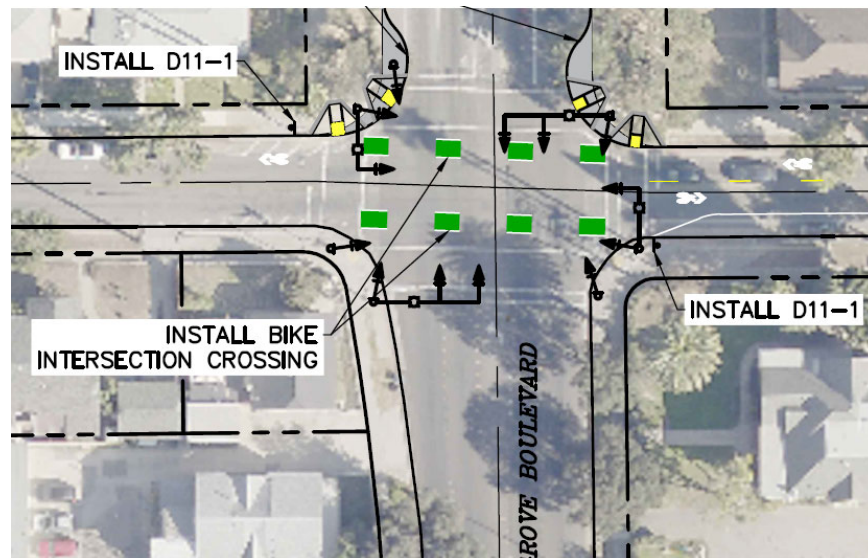


*Example from Conceptual Plans*

#### *Orange Grove Boulevard Intersection*

The wide crossing distance at the intersection of Orange Grove Boulevard can act as a barrier for safely crossing the street, particularly for age vulnerable users and users with limited mobility. The proposed improvements at the intersection include bulb-outs at the northeast and southeast corners. The bulb-outs are intended to help reduce the crossing distance from 70 feet to approximately 55 feet. Other improvements at the intersection include green bicycle intersection marked crossings to identify the bikeways through the intersection and provide visual queue for motorists of where to expect bicyclists. D11-1 bike route signs and sharrow pavement markings should be placed exiting and entering the intersection to show the continuation of the bike route. Additional improvements include upgrading traffic signal poles and signal heads for the intersection. Figure 5.5 illustrates the proposed bulbouts/curb extensions and bicycle crossing pavement markings.

FIGURE 5.5 – BULBOUTS / CURB EXTENSIONS & BICYCLE CROSSING PAVEMENT MARKINGS, WILSON AVENUE

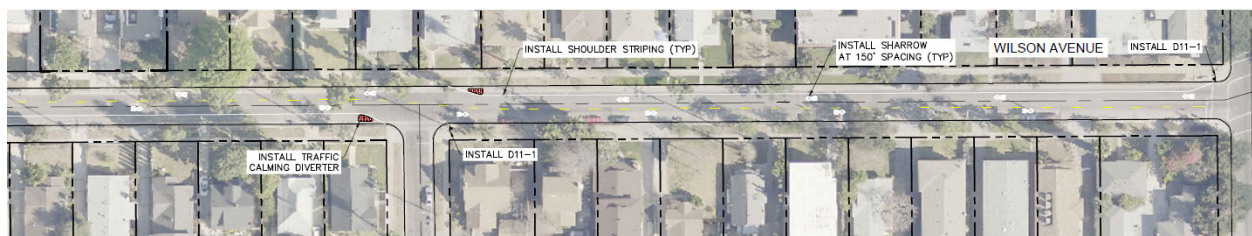


Example from Conceptual Plans

*Emerson Street Intersection*

South of Orange Grove Boulevard the roadway configuration changes to allow on-street parking on only one side of the street. The proposed improvements for this section include edgeline striping at the west side of the street to discourage vehicles speeding by visually narrowing the roadway. At the intersection with Emerson Street a proposed traffic calming diverter will shift the edgeline striping and on-street parking to the east side of the street. Figure 5.6 shows an example of the proposed on-street parking shift along the Wilson Avenue corridor.

FIGURE 5.6 – ON-STREET PARKING SHIFT, WILSON AVENUE



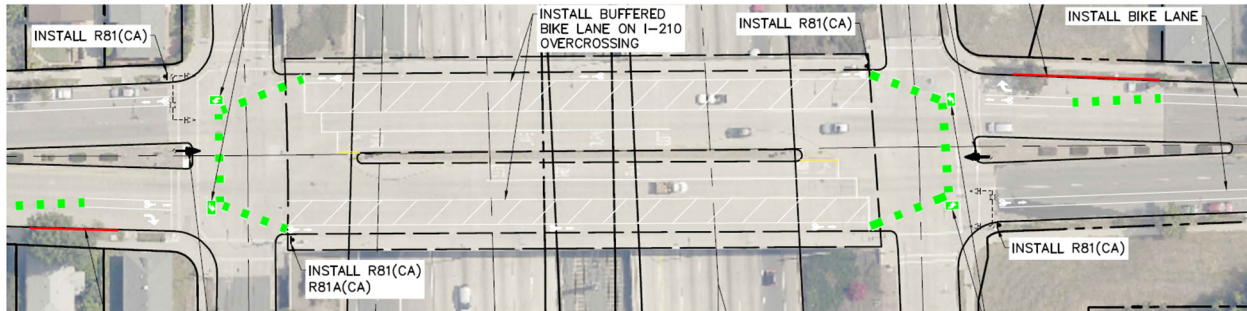
Example from Conceptual Plans

*I-210 Overcrossing*

Starting from just north of Maple Street to just south of Corson Street, Wilson Avenue becomes an overcrossing to the I-210 freeway and gradually widens from approximately 30 feet in width to 90 feet. Within this section of Wilson Avenue, the added width of the street accommodates the addition of two travel lanes and a left turn lane in each direction along with a raised center median. Similar to El Molino Avenue, Class II buffered bike lanes would be installed across the overpass in each direction by reconfiguring the roadway to provide one through lane in each direction along with the left-turn lanes, two-stage left-turn bike boxes and bicycle intersection crossing markings. Flashing yellow left-turn arrow signals are proposed for the left-turn movements on Corson Street and Maple Street to minimize left-turn

queuing to reduce left-turn lane queuing. This would provide a more comfortable and safe experience for bicyclists. Figure 5.7 shows proposed cycle track/buffered bike lanes on Wilson Avenue over the I-210 Freeway.

**FIGURE 5.7 – CYCLE TRACK/BUFFERED BIKE LANES OVER I-210 FREEWAY, WILSON AVENUE**



Example from Conceptual Plans

*Corson Street to Colorado Boulevard*

From Corson Street to Colorado Boulevard a series of traffic calming diverters, edgeline striping and sharrow pavement markings, which shift the on-street parking from one side of the roadway to the other, throughout the segments are proposed. These improvements are intended to help continue traffic calming along Wilson Avenue, as noted in previous segments of the corridor. Figure 5.8 illustrates a portion of Wilson Avenue with the on-street parking shift improvements.

**FIGURE 5.8 – ON-STREET PARKING SHIFT, WILSON AVENUE**



Example from Conceptual Plans

*Colorado Avenue to Cordova Street*

From Colorado Avenue to Cordova Street there is an existing consistent alignment of the roadway with edgeline striping. Sharrow pavement markings would be installed along the segment.

*South of Colorado Boulevard*

Beginning at Colorado Boulevard, the surrounding land uses shift from primarily low density residential, to a mixture of mid density residential units, commercial uses along cross streets, and institutional uses, including California Institute of Technology. The shift in land use can create an increase in vehicle, pedestrian, and bicyclist traffic which can result in a change in the demand for bikeway infrastructure.

Class II bikeways between Cordova Boulevard and San Pasqual Street will remain in place. However, after San Pasqual Street bike sharrow pavement marking would be implemented to further enhance the corridor to the terminus at California Boulevard.

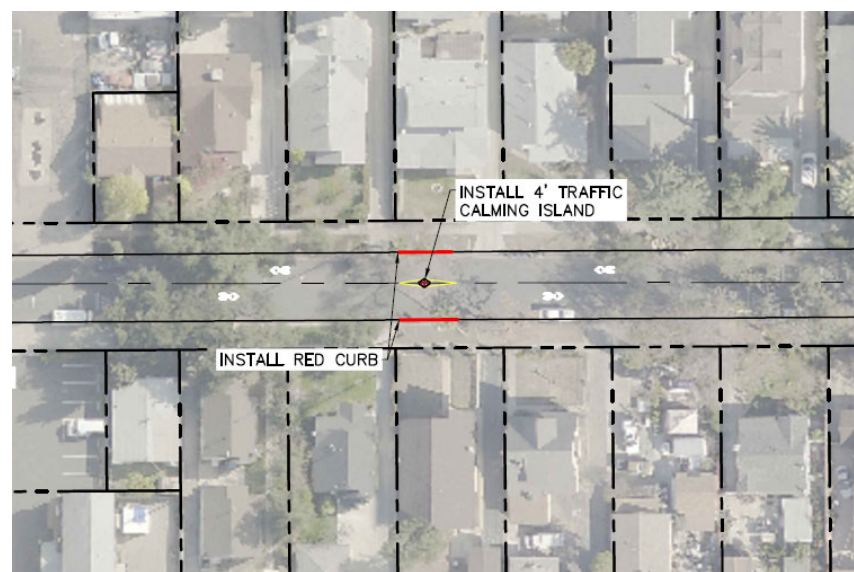


## Sierra Bonita Avenue Corridor

The extent of the corridor begins at Washington Boulevard and ends at Colorado Boulevard to the south. The corridor mostly consists of one travel lane in each direction with on-street parking on both sides of the street. Most intersections along the corridor are controlled by two-way stops, with several all-way stop controlled and traffic signal controlled intersections at major intersection.

From Washington Boulevard to Mountain Street improvement generally consist of D11-1 bike route signage, sharrow pavement markings and a series of five traffic calming islands at mid-block locations. Throughout the remainder of the corridor a class III bike route is recommended, excluding a portion of the corridor that serves as an undercrossing to the I-210 freeway. Figure 5.9 illustrates one of the locations of the traffic calming island and red curb improvement on Sierra Bonita Avenue.

**FIGURE 5.9 – TRAFFIC CALMING ISLANDS, SIERRA BONITA AVENUE**

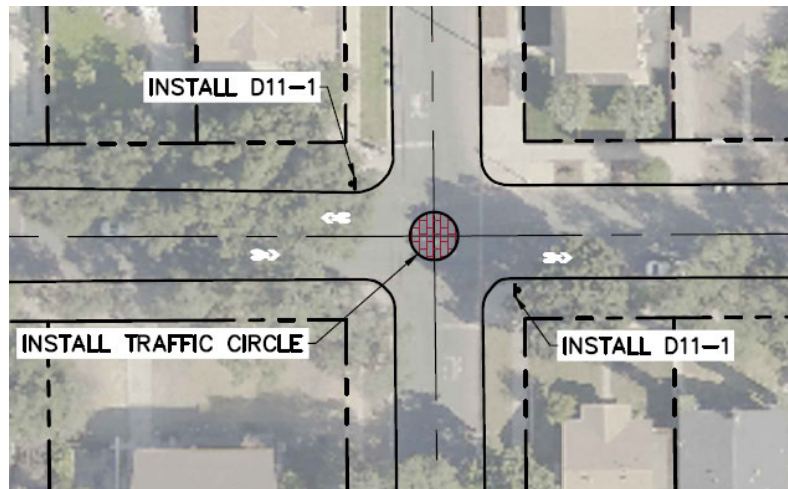


*Example from Conceptual Plans*

There are a variety of traffic calming improvement recommended at intersections throughout the corridor to help improve safety and traffic flow. Traffic circles are recommended at Asbury Drive, Casa Grande Street, and Monte Vista Street. These traffic circles vary in size, but are tailored to fit the geometry of the intersection in order to be most effective at reducing vehicle speeds as motorists tend to reduce speeds approaching the intersection in order to yield to other roadway users and to complete the deviation around the traffic circle. Figure 5.10 illustrates one of the locations where the traffic circle improvement is recommended.

A set of raised center medians are planned by the City along the east and west approach to the intersection with Mountain Street. By narrowing the access points to Mountain Street, raised medians help increase compliance with vehicle stops by narrowing the street to encourage slower speeds approaching the intersection from Mountain as well as reduce instances of vehicles completing unsafe turns. Proposed improvements to accompany the planned raised center medians include red curb paint along the approach to the intersection on Mountain Street to reduce obstructing visibility of northbound and southbound traffic. Figure 5.11 illustrates the raised center medians at the all-way stop-controlled intersection of Sierra Bonita Avenue and Mountain Street.

FIGURE 5.10 – TRAFFIC CIRCLE, SIERRA BONITA AVENUE



Example from Conceptual Plans

FIGURE 5.11 – RAISED CENTER MEDIANS, SIERRA BONITA AVENUE



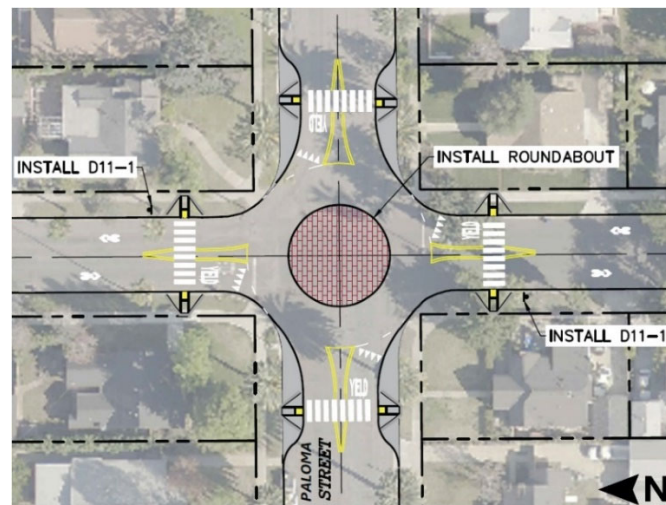
Example from Conceptual Plans

Roundabouts are recommended at the intersections with Loma Vista Street, Paloma Street and Las Lunas Street. In all of these cases, roundabouts will replace an existing two-way stop controlled intersection. Roundabouts offer a variety of benefits to pedestrians, bicyclists, and motorists. Roundabouts can help improve traffic flow while offering more safety benefits than a two-way stop controlled intersection. As part of these intersection recommendations, the approach at each intersection is realigned by the use of bulb-outs to provide vehicles a more optimized entry angle to the roundabout, but also narrow the roadway to encourage slower entry speeds. These bulb-outs also provide a shorter crossing distance for pedestrians and increase their visibility to motorists. The roundabout recommendations also include the

installation of high visibility crosswalks at each leg of the intersections to help improve awareness of pedestrian traffic. Figure 5.12 illustrates the proposed roundabout at the intersection of Paloma Street.

Roundabouts require the need to mark all crosswalks as they are not at the standard location of a typical intersection and therefore motorists need to be made aware of their locations. Traffic circles may have approaches that are currently not STOP controlled and installing a new marked crosswalk may create a false sense of security which may result in a potential increase in vehicle-pedestrian collisions. Therefore, crosswalks are not marked at locations where proposed traffic circles do not add additional STOP controlled approaches.

FIGURE 5.12 – ROUNDABOUT AT PALOMA STREET, SIERRA BONITA AVENUE



*Example from Conceptual Plans*

### *Sierra Bonita and Orange Grove Boulevard*

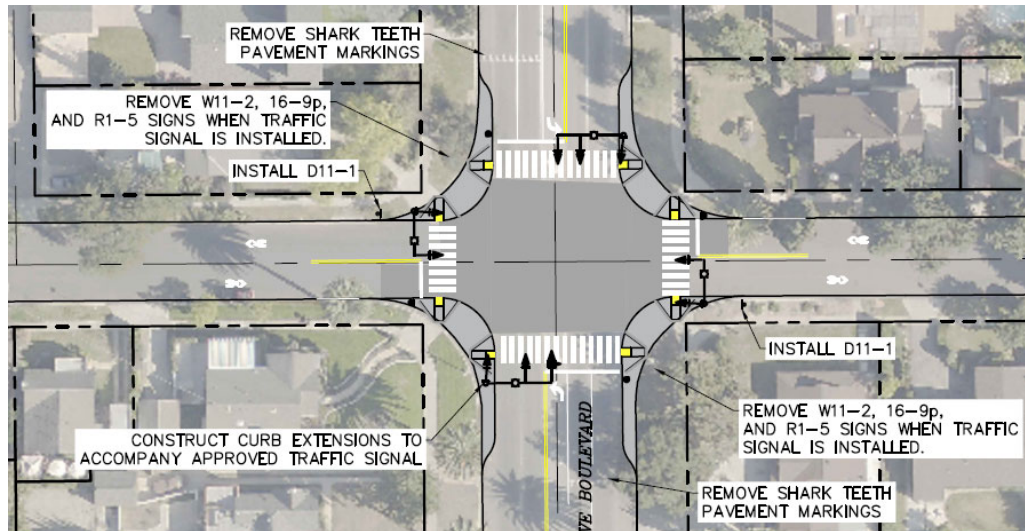
The intersection of Sierra Bonita Avenue and Orange Grove Boulevard is currently a two-way stop controlled intersection for northbound and southbound vehicles. The City previously approved the installation of a traffic signal to better manage traffic flow. Additional improvements to accompany the approved new traffic signal include providing improved crossing conditions for pedestrians and bicyclists. Proposed bulb-outs that extend only onto Orange Grove Boulevard would be implemented at each corner. This would help to reduce the crossing distance for pedestrians, increase pedestrian visibility, and encourage slower vehicle speeds on Orange Grove Boulevard by narrowing the roadway. Figure 5.13 shows the improvements at the intersection of Sierra Bonita and Orange Grove Boulevard.

### *Villa Street Intersection*

At Villa Street there is a jog in the alignment of Sierra Bonita Avenue which requires users to complete a left turn then a right turn to continue southbound along the corridor. Improvements at this location would be applied at the western and eastern intersections with Villa Street. The western intersection crossing is controlled by a pedestrian beacon to help facilitate safe crossings for Jefferson Elementary School and Jefferson Park. At the western intersection 6-foot bulb-outs will be installed at the northwest and southwest corners. Curb ramps will be installed on the bulb-outs to facilitate crossings at the north and west leg. The eastern section is controlled by a one-way stop in the northbound direction. Bulb-outs would be installed at the north and south east corners of the eastern intersection. By installing bulb-outs

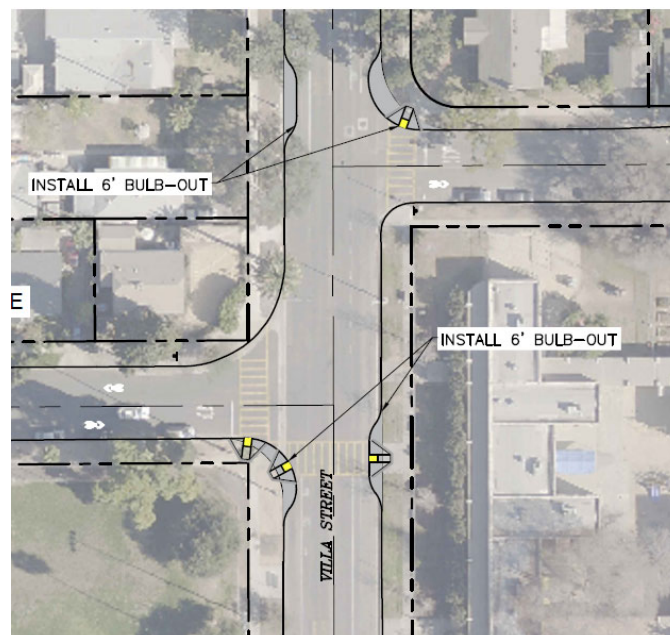
at these locations, the roadway becomes narrower and provides increased visibility of pedestrian as well as narrowing the crossing distances. This would help encourage reduced vehicle speeds and safer crossings at these intersections. Figure 5.14 illustrates the bulb-outs/curb extension improvements.

FIGURE 5.13 – TRAFFIC SIGNAL, SIERRA BONITA AVENUE



Example from Conceptual Plans

FIGURE 5.14 – BULB-OUTS/CURB EXTENSIONS AT VILLA STREET, SIERRA BONITA AVENUE



Example from Conceptual Plans

### I-210 Undercrossing

Sierra Bonita Avenue becomes an underpass for the I-210 freeway between Maple Street and Corson

Street. Similar to the conditions described for El Molino Avenue, the roadway widens to approximately 80 feet allowing for the addition of a travel lane and left turn lane in each direction, as well as a raised center median. Class II buffered bike lanes would be installed across the underpass in each direction by reconfiguring the roadway to provide one through lane in each direction along with the left-turn lanes, two-stage left-turn bike boxes and bicycle intersection crossing markings. Flashing yellow left-turn arrow signals are proposed for the left-turn movements on Corson Street and Maple Street to minimize left-turn queuing to reduce left-turn lane queuing. This would help in reducing vehicle speeds and provide safe travel for bicyclists through this segment.

*South of Corson Street*

From Corson Street to the end of the corridor at Colorado Boulevard, proposed improvements consist of sharrow pavement markings and D11-1 bike route signage to improve awareness of bicyclists through the corridor.

*Additional Considerations*

In order to build a more complete corridor, additional improvements should be explored to extend the corridor to Howard Street providing access to William Carey International University.

*Traffic Analysis*

Table 5.2 summarizes the results of the Existing Year (2019) and Existing Year Plus Project conditions for the intersection of Sierra Bonita Avenue and Orange Grove Boulevard, where a proposed traffic signal is proposed. The installation of a new traffic signal at this intersection would bring the intersection operations from LOS E and F to LOS A during both the AM and PM peak hour.

**Table 5.2 – Existing Year (2019) Plus Project Traffic Conditions, Sierra Bonita Avenue Corridor**

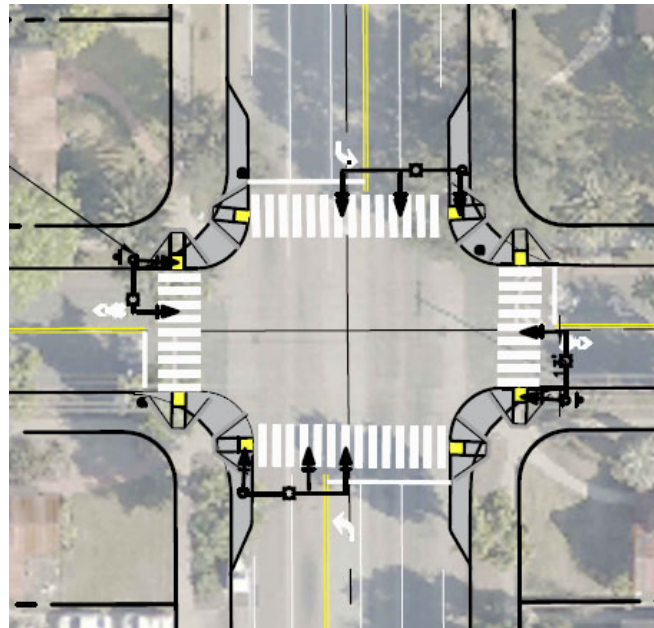
Intersection	Existing		Existing Plus Project	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	Delay / LOS		Delay / LOS	
2. Sierra Bonita Avenue and Orange Grove Boulevard	177.9 / F	47.5 / E	6.2 / A	6.0 / A

**Craig Avenue Corridor**

The Craig Avenue Corridor begins at the two-way stop controlled intersection with Orange Grove Boulevard. The City had previously approved the installation of a traffic signal at this intersection. To accompany the approved new traffic signal, bulb-outs that only extend onto Orange Grove Boulevard and high visibility crosswalks are proposed. The combination of the improvements is intended to provide more safe and comfortable conditions for non-motorized users, while improving vehicle traffic flow. Figure 5.15 illustrates the proposed bulb-outs to accompany the approved traffic signal for this intersection.

Beginning at Orange Grove Boulevard sharrow pavement markings are recommended throughout most of the corridor until its terminus at Del Mar Boulevard. Additional traffic calming improvements along the way at mid-block locations and intersections help to further enhance the safety and comfort for all roadway users. Two mid-block traffic calming islands that narrow the roadway at strategic points are proposed to be installed just north of Lambert Drive and Maple Street.

FIGURE 5.15 – PROPOSED BULB-OUTS FOR APPROVED TRAFFIC SIGNAL, CRAIG AVENUE

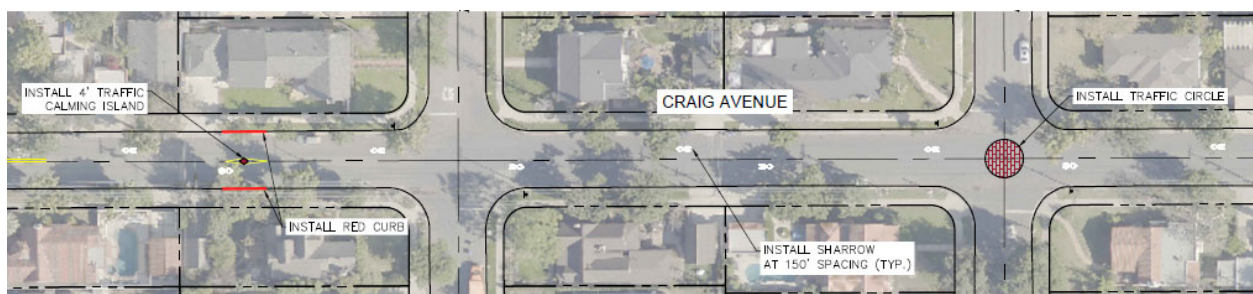


Example from Conceptual Plans

*Las Tunas Street Intersection*

A traffic calming circle is proposed at Las Tunas Street. As discussed in previous sections traffic circles can be effective at reducing vehicle speeds as motorists reduce speeds approaching the intersection in order to complete the necessary through movements. This helps provide an environment where bicyclists can feel more comfortable traveling along the corridor. Figure 5.16 illustrates the proposed traffic calming islands and traffic circle on Craig Avenue.

FIGURE 5.16 – TRAFFIC CALMING ISLANDS & TRAFFIC CIRCLE, CRAIG AVENUE



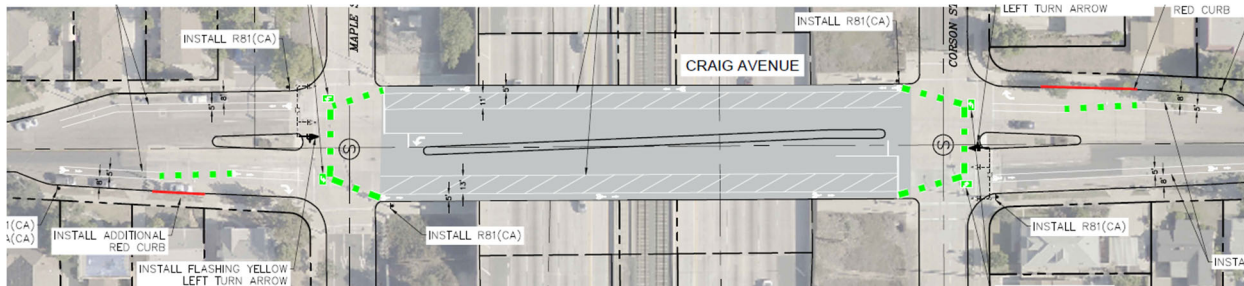
Example from Conceptual Plans

*I-210 Undercrossing*

Similar to Sierra Bonita Avenue, Craig Avenue serves as an undercrossing for the I-210 freeway between Maple Street and Corson Street. This segment of the corridor consists of two travel lanes and a left turn lane in each direction, as well as a raised center median. Class II buffered bike lanes would be installed across the underpass in each direction by reconfiguring the roadway to provide one through lane in each

direction along with the left-turn lanes, two-stage left-turn bike boxes and bicycle intersection crossing markings. Flashing yellow left-turn arrow signals are proposed for the left-turn movements on Corson Street and Maple Street to minimize left-turn queuing to reduce left-turn lane queuing. This would help to reduce vehicle speeds and provide a more comfortable and safer travel experience for bicyclists through this segment. Figure 5.17 illustrates the cycle track/buffered bike lanes on Craig Avenue at the I-210 Freeway undercrossing.

**FIGURE 5.17 – CYCLE TRACK/BUFFERED BIKE LANES, CRAIG AVENUE**



Example from Conceptual Plans

### South of Corson Street

The Class III bike route improvements continue at Corson Street with the addition of sharrow markings placed at approximately 150-foot spacing. Shoulder striping on the west side of the roadway is recommended at Colorado Boulevard to visually narrow the roadway for motorists, encouraging lower vehicle speeds. At mid-block, a traffic calming diverter is recommended to shift edgeline striping and on-street parking to the east side of the street. This configuration continues to the end of the corridor at Del Mar Boulevard.

### Additional Considerations

In order to build a more complete corridor to the City’s boundaries, additional improvements should be considered from the north end of the corridor to Casa Grande Street including a traffic circle at Dudley Street.

### Traffic Analysis

Table 5.3 summarizes the results of the Existing Year (2019) and Existing Year Plus Project conditions for the intersection of Craig Avenue and Orange Grove Boulevard, where a proposed traffic signal is proposed. The installation of a new traffic signal at this intersection would bring the intersection operations from LOS F to LOS A during the AM peak hour and from LOS C to LOS A during the PM peak hour.

**Table 5.3 – Existing Year (2019) Plus Project Traffic Conditions, Craig Avenue Corridor**

Intersection	Existing		Existing Plus Project	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	Delay / LOS		Delay / LOS	
1. Craig Avenue and Orange Grove Boulevard	164.1 / F	23.0 / C	6.0 / A	5.9 / A

**PROPOSED ON-STREET PARKING**

There are several proposed improvements on each of the four corridors which change the roadway configurations that change the on-street parking availability, especially where proposed red curbs, roadway center dividers, lane shifts, and other proposed improvements. On-street parking along these corridors are not striped or marked to identify individual spaces available, therefore the on-street parking is determined by using the City’s design length of 24 feet per on-street space. Using this design length, the existing and proposed on-street parking estimations are summarized in Table 5.4.

**Table 5.4 – On-Street Parking Summary, Existing & Proposed**

Corridor	On-Street Parking Supply (spaces)		Difference	Total Spaces Gained/Lost
	Existing	Proposed		
<b>El Molino Avenue</b>				-98
East Side	247	296	+49	
West Side	403	256	-147	
<b>Wilson Avenue</b>				0
East Side	255	321	+66	
West Side	344	278	-66	
<b>Sierra Bonita Avenue</b>				-42
East Side	210	190	-20	
West Side	231	209	-22	
<b>Craig Avenue</b>				-23
East Side	113	127	+14	
West Side	160	123	-37	
<b>Total</b>				<b>-163</b>



# 6.0 IMPLEMENTATION PLAN

## CORRIDOR PRIORITIZATION

The purpose of a prioritization analysis is to provide the City with an implementation guide for the corridors and recommendations that offer the greatest potential benefit to the users of the four bike boulevard (Greenways) corridors.

While projects with higher rankings should be considered for implementation before projects with a lower rank, the City may choose to advance specific projects for other reasons or as certain types of funding become available. Additional analyses should be conducted periodically in response to major changes in population, the environment, and the circulation network.

Corridor homogeneity was the main challenge that was overcome in establishing a prioritization methodology that allows for suitable differentiation between the four primary corridors. A refined analysis was used to establish priority between the four corridors; these include a set of overarching data-backed categories: 1) Safety, 2) Transformation & Readiness, 3) Access, and 4) Health & Environment. Eight criteria are used to assign scores to each of the four corridors:

- Collisions
- Corridor significance
- Existing Level of Traffic Stress
- Existing Usage
- Access to Open Space
- Access to School or University
- Access to Existing Bikeway
- CalEnviroScreen3.0

The four corridors are ranked by priority and shown in Table 6.1 based on the measures and assigned points. The specific measures and maximum point values are shown in Table 6.2. The total possible point value for each corridor is 100 points. Each criteria description assigns the respective point values as opposed to weighting each corridor. This is advantageous when fewer corridors are assessed. A detailed breakdown of the prioritization results for each category by corridor are shown in Table 6.3.

Table 6.1 – Corridor Prioritization Results Summary

Corridor	Prioritization Score	Rank
El Molino Avenue	75 points	1
Wilson Avenue	67 points	2
Sierra Bonita Avenue	60 points	3
Craig Avenue	45 points	4

A detailed breakdown of the prioritization results, sources, and assigned values are shown in Appendix D.

Table 6.2 – Corridor Prioritization Table

Category	Criteria	Description	Points Possible
<b>SAFETY</b>	<i>Historical Collisions</i>	Average # of pedestrian-, bicycle-, and vehicle-involved collisions per 0.25 miles are >13.00 (15pts) Average # of pedestrian-, bicycle-, and vehicle-involved collisions per 0.25 miles are between 6.00 and 12.99 (10pts) Average # of pedestrian-, bicycle-, and vehicle-involved collisions per 0.25 miles are <5.99 (5pts)	15
<b>TRANSFORMATION &amp; READINESS</b>	<i>Corridor Significance</i>	Corridor length is greater than 3.0 miles (10pts) Corridor length is greater than 2.0 miles (7pts) Corridor length is greater than 1.0 miles (5pt)	10
	<i>Existing Level of Traffic Stress (LTS)</i>	Average normalized corridor level of traffic stress is between 1.00 and 2.29 (10pts) Average normalized corridor level of traffic stress is between 2.30 and 4.00 (5pts)	10
	<i>Existing Usage</i>	Average roadway ADT is >4,000 (15pts) Average roadway ADT is between 2,000 and 3,999 (10pts) Average roadway ADT is <2,000 (5pts)	15
<b>ACCESS</b>	<i>Access to Open Space</i>	Corridor directly connects to an open space or recreational facility (10pts) Corridor connects to existing facility that connects to an open space or recreational facility (5pts) Corridor does not provide access to an open space or recreational facility (0pts)	10
	<i>Access to School or University</i>	Corridor directly connects to two or more schools and/or universities (10pts) Corridor directly connects to one school and/or university (5pts) Corridor does not provide access to a school or university (0pts)	10
	<i>Access to Existing Bikeways</i>	Corridor connects to an average of 3.00 or more existing bike facilities per mile (15pts) Corridor connects to an average of 2.01 to 2.99 existing bike facilities per mile (10pts) Corridor connects to an average of 1.01 to 1.99 existing bike facilities per mile (5pts) Corridor does not make additional connection (0pts)	15
<b>HEALTH &amp; ENVIRONMENT</b>	<i>CalEnviroScreen3.0</i>	Corridor is within a health-burdened area (based on CalEnviroScreen 3.0 census tract data >= 60th percentile tract) (15pts) Corridor is not within a health-burdened area (0pts)	15

**TOTAL SCORE 100**

Table 6.3 – Corridor Ranking Table

Corridor Name			El Molino Avenue	Wilson Avenue	Sierra Bonita Avenue	Craig Avenue
<b>Total (weighted)</b>			<b>75</b>	<b>67</b>	<b>60</b>	<b>45</b>
<b>Rank</b>			<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Historical Collisions</b>	<i>Collisions Total</i>	15pts Max	196	140	37	54
	<i>Collisions per 0.25-mile</i>		12.19	15.35	5.71	12.05
	<i>Collision Score</i>		<b>10</b>	<b>15</b>	<b>5</b>	<b>10</b>
<b>Corridor Significance</b>	<i>Corridor Length (mi)</i>	10pts Max	4.02	2.28	1.62	1.12
	<i>Length Score</i>		<b>10</b>	<b>7</b>	<b>5</b>	<b>5</b>
<b>Existing Level of Traffic Stress (LTS)</b>	<i>Average LTS</i>	10pts Max	2.33	2.13	2.22	2.38
	<i>Average LTS Score</i>		<b>5</b>	<b>10</b>	<b>10</b>	<b>5</b>
<b>Existing Usage</b>	<i>Average Usage (ADT)</i>	15pts Max	6029	1812	1050	1719
	<i>Usage Score</i>		<b>15</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>Access to Open Space</b>	<i>Access to Open Space</i>	10pts Max	Directly	Directly	Directly	Indirectly
	<i>Score</i>		<b>10</b>	<b>10</b>	<b>10</b>	<b>5</b>
<b>Access to School or University</b>	<i>Access to Educational</i>	10pts Max	One	Two or more	Two or more	One
	<i>Score</i>		<b>5</b>	<b>10</b>	<b>10</b>	<b>5</b>
<b>Access to Existing Bikeways</b>	<i>Existing Bikeways Connections</i>	15pts Max	5	5	5	3
	<i>Normalized Average per Mile</i>		1.24	2.19	3.09	2.68
	<i>Existing Bikeway Score</i>		<b>5</b>	<b>10</b>	<b>15</b>	<b>10</b>
<b>CalEnviroScreen3.0</b>	<i>CES Access</i>	15pts Max	>60thP	<60thP	<60thP	<60thP
	<i>CES Score</i>		<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>

## COST SUMMARY

This section summarizes the financial estimates for each of the four Greenways and the cost assumptions used to prepare overall costs.

### Cost Assumptions

Greenway Corridor costs are estimated to reflect actual cost of implementation as accurately as possible (based on 2020 dollars). As such, cost assumptions include considerations for design, construction management, storm water pollution prevention, mobilization, and traffic control. A more detailed cost breakdown for each corridor can be found in Appendix E.

While other project specific factors such as grading, acquisition costs, or landscaping may increase the actual cost of construction, an additional 30 percent contingency has been added to each project to account for these factors and additional design considerations that may arise during the design phase.

As the City pursues funding for these corridors and their respective components, it should be noted that construction costs may fluctuate based on when funding becomes available and when the project is actually constructed.

Cost estimates for each corridor are summarized in Table 6.4. Detailed cost estimates for each corridor by improvement and location are summarized in Tables 6.5 to 6.8.

Table 6.4 – Cost Estimates Summary by Corridor

Corridor	Cost Estimate
El Molino Avenue	\$1,447,144
Wilson Avenue	\$1,417,840
Sierra Bonita Avenue	\$3,970,840
Craig Avenue	\$1,466,680
<b>Total</b>	<b>\$8,302,504</b>

Table 6.5 – El Molino Avenue Detailed Cost Estimates

El Molino Avenue - Detailed Cost Estimates						
Corridor:		El Molino Avenue (approx. 3.8 miles)				
City:		Pasadena				
Item	Location	Improvement	Unit	Qty.	Unit Price	Amount
1	Entire Corridor	Bike Signage and Sharrow markings along corridor	LS	1	\$110,000.00	\$110,000.00
2	Entire Corridor	Install APS at all signalized intersections throughout the corridor.	EA	20	\$2,000.00	\$40,000.00
3	North of Elizabeth St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$15,000.00	\$15,000.00
4	South of Howard St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$12,000.00	\$12,000.00
5	North of Washington Blvd	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$15,000.00	\$15,000.00
6	Washington Blvd	Install bike lane through existing intersection diverter allowing southbound bicycle	LS	1	\$50,000.00	\$50,000.00
7	North & South of Claremont St	Install Traffic Calming Diverter both sides. x2 (with shoulder stripe)	LS	1	\$30,000.00	\$30,000.00
8	North of Mountain St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$15,000.00	\$15,000.00
9	Mountain St	Install Bike Detection (Video detection: entire intersection) & Install traffic calming median island south of Mountain Street	LS	1	\$60,000.00	\$60,000.00
10	Elmira St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$10,000.00	\$10,000.00
11	Orange Grove Blvd	Install bulbout curb extension and allow only bicycles to travel northbound (see concept) & Install bike detection and Bicycle signal head for NB direction	LS	1	\$65,000.00	\$65,000.00
12	South of Orange Grove Blvd	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$12,000.00	\$12,000.00
13	Villa St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
14	South of Villa Street	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00
15	South of Villa St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$12,000.00	\$12,000.00
16	Maple St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00
17	Corson St to Maple St	Buffered Bike Lane (Both sides of roadway, striping with bollards)	LS	1	\$15,000.00	\$15,000.00
18	Corson St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00
19	South of Corson St	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00
20	Walnut St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
21	North of Union St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$15,000.00	\$15,000.00
22	Union St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
23	Colorado Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
24	Green St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
25	North of Cordova St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$15,000.00	\$15,000.00
26	Cordova St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
27	North of Del Mar Blvd	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$15,000.00	\$15,000.00
28	Del Mar Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
29	North of Villa St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$15,000.00	\$15,000.00
30	California Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
31	Pinehurst Dr	Install white edgeline striping 8 feet from curb north and south of Pinehurst Drive (to the next intersections)	LF	1600	\$3.00	\$4,800.00
32	Woodland Rd	Relocation of center yellow centerline to add SB bike land along east side of center median, and red curb	LS	1	\$5,000.00	\$5,000.00
33	North of Bonita Dr	Install Red Curb	LS	1	\$2,000.00	\$2,000.00
34	South of Bonita Dr	Install quick-build median. (with shoulder stripe)	LS	1	\$12,000.00	\$12,000.00
35	South of Bonita Dr	Install quick-build median. (with shoulder stripe)	LS	1	\$12,000.00	\$12,000.00
36	South of Bonita Dr	Install quick-build median. (with shoulder stripe)	LS	1	\$12,000.00	\$12,000.00
37	South of Bonita Dr	Install quick-build median. (with shoulder stripe)	LS	1	\$12,000.00	\$12,000.00
Subtotal:						\$977,800
30% Contingency:						\$293,340
3% Inflation per year:						\$29,334
Engineer's Construction Cost Estimate:						\$1,300,474
Design Cost:						\$146,670
<b>TOTAL ENGINEER'S ESTIMATE:</b>						<b>\$1,447,144</b>

Table 6.6 – Wilson Avenue Detailed Cost Estimates

Wilson Street - Detailed Cost Estimate							
Corridor:		Wilson Avenue (approx. 2.3 miles)					
City:		Pasadena					
Item	Location	Improvement	Unit	Qty.	Unit Price	Amount	
1	Entire Corridor	Bike Signage and Sharrow markings along corridor	LS	1	\$70,000.00	\$70,000.00	
2	Entire Corridor	Install APS at all signalized intersections throughout the corridor.	EA	14	\$2,000.00	\$28,000.00	
3	North of Claremont St	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00	
4	North of Bell St	Raised traffic calming median, striping, and Red Curb	LS	2	\$10,000.00	\$20,000.00	
5	North of Mountain St	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00	
6	North of Evelyn Place	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00	
7	North of Orange Grove Blvd	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00	
8	Orange Grove Blvd	Install Bike Detection (entire intersection) & curb extensions with bicycle crossing through intersection & Upgrade signal heads at intersection	LS	1	\$250,000.00	\$250,000.00	
9	North of Villa St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$10,000.00	\$10,000.00	
10	Villa St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00	
11	South of Villa Street	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00	
12	Maple St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00	
13	Corson St to Maple St	Buffered Bike Lane (Both sides of roadway)	LS	1	\$15,000.00	\$15,000.00	
14	Corson St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00	
15	South of Corson St	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00	
16	North and South of Walnut	Install Offset Edge Islands both sides x2 (with shoulder stripe)	LS	1	\$40,000.00	\$40,000.00	
17	Walnut St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00	
18	Union St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00	
19	Between Colorado Blvd and Union St	Install Offset Edge Islands both sides x2 (with shoulder stripe)	LS	1	\$40,000.00	\$40,000.00	
20	Colorado Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00	
21	Green St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00	
22	Cordova St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00	
23	Del Mar Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00	
24	California Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00	
Subtotal:						\$958,000	
30% Contingency:						\$287,400	
3% Inflation per year:						\$28,740	
Engineer's Construction Cost Estimate:						\$1,274,140	
Design Cost:						\$143,700	
<b>TOTAL ENGINEER'S ESTIMATE:</b>						<b>\$1,417,840</b>	

Table 6.7 – Sierra Bonita Avenue Detailed Cost Estimates

Sierra Bonita Avenue - Detailed Cost Estimate						
Corridor:		Sierra Bonita Avenue (approx. 1.6 miles)				
City:		Pasadena				
Item	Location	Improvement	Unit	Qty.	Unit Price	Amount
1	Entire Corridor	Bike Signage and Sharrow markings along corridor	LS	1	\$55,000.00	\$55,000.00
2	Entire Corridor	Install APS at all signalized intersections throughout the corridor.	EA	9	\$2,000.00	\$18,000.00
3	Between Asbury Dr and Washnigton Blvd	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00
4	Asbury Dr	Install Traffic Circle.	LS	1	\$150,000.00	\$150,000.00
5	Between Brigden Rd and Asbury Dr	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00
6	Between Whitefield Rd and Brigden Rd	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00
7	Between Casa Grande St and Whitefield Rd	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00
8	Casa Grande St	Install Traffic Circle.	LS	1	\$200,000.00	\$200,000.00
9	Between Mountain St and Casa Grande St	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00
10	Mountain St	Raised medians at East and West legs (mountain St) and red curb	LS	1	\$40,000.00	\$40,000.00
11	Loma Vista St	Install Roundabout with bulbouts (drainage considerations)	LS	1	\$400,000.00	\$400,000.00
12	Paloma St	Install Roundabout with bulbouts (drainage considerations)	LS	1	\$400,000.00	\$400,000.00
13	Orange Grove Blvd	Install Traffic Signal with curb extensions and two crosswalks	LS	1	\$400,000.00	\$400,000.00
14	Las Lunas St	Install Roundabout with bulbouts (drainage considerations)	LS	1	\$400,000.00	\$400,000.00
15	Monte Vista St	Install Traffic Circle.	LS	1	\$200,000.00	\$200,000.00
16	Villa St	Install Bulb outs.	EA	5	\$30,000.00	\$150,000.00
17	South of Villa Street	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00
18	Maple St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00
19	Corson St to Maple St	Buffered Bike Lane (Both sides of roadway, striping with bollards)	LS	1	\$15,000.00	\$15,000.00
20	Corson St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00
21	South of Corson St	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00
22	Walnut St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
23	Colorado Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
Subtotal:						\$2,683,000
30% Contingency:						\$804,900
3% Inflation per year:						\$80,490
Engineer's Construction Cost Estimate:						\$3,568,390
Design Cost:						\$402,450
<b>TOTAL ENGINEER'S ESTIMATE:</b>						<b>\$3,970,840</b>

Table 6.8 – Craig Avenue Detailed Cost Estimates

Craig Avenue - Detailed Cost Estimate						
Corridor:		Craig Avenue (approx. 1.1 miles)				
City:		Pasadena				
Item	Location	Improvement	Unit	Qty.	Unit Price	Amount
1	Entire Corridor	Bike Signage and Sharrow markings along corridor	LS	1	\$55,000.00	\$55,000.00
2	Entire Corridor	Install APS at all signalized intersections throughout the corridor.	EA	8	\$2,000.00	\$16,000.00
3	Orange Grove Blvd	Install Traffic Signal with new crosswalks (landscaping work, new curb ramps, striping)	LS	1	\$400,000.00	\$400,000.00
4	South of Orange Grove Blvd	Install 4' Traffic Calming Island	LS	1	\$10,000.00	\$10,000.00
5	Las Lunas Street	Install Traffic Circle	LS	1	\$200,000.00	\$200,000.00
6	South of Monte Vista St	Install 4' Traffic Calming Island	LS	1	\$10,000.00	\$10,000.00
7	South of Villa Street	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00
8	Maple St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00
9	Corson St to Maple St	Buffered Bike Lane (Both sides of roadway, striping with bollards)	LS	1	\$15,000.00	\$15,000.00
10	Corson St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00
11	South of Corson St	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00
12	Foothill Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
13	Colorado Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
14	South of Colorado	Install Traffic Calming Diverter (Both sides)	LS	1	\$20,000.00	\$20,000.00
15	North of Del Mar	Install Traffic Calming Diverter (Both sides)	LS	1	\$20,000.00	\$20,000.00
16	Del Mar Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
Subtotal:						\$991,000
30% Contingency:						\$297,300
3% Inflation per year:						\$29,730
Engineer's Construction Cost Estimate:						\$1,318,030
Design Cost:						\$148,650
<b>TOTAL ENGINEER'S ESTIMATE:</b>						<b>\$1,466,680</b>

## PROJECT PHASING

Project phasing provides a structured approach to the implementation of corridor recommendations as well as highlights the anticipated amount of time it will take to implement said recommendations. It is designed to aid the City in planning for projects that can be phased in the near future versus the projects that will not be foreseeable until several years from now. Project prioritization differs from project phasing in the sense that the prioritization ranks full corridors to determine potential schedules for implementation. Project phasing is a tool that the City can use to apply to sets of categorical projects within each corridor. Table 6.9 summarizes the project phasing by category.

In some cases, the implementation of some treatments might occur over a prolonged period of time due to budget availability and pilot program testing. In these cases, the City can adapt the phasing to slow or expedite implementation. Where unforeseen urgency develops, phasing can similarly be altered to attend to the demands. The structure herein is a suggested guideline for the City to follow.

### Short-Term (0-2 Years)

Short-term projects are those with a high "readiness" factor, meaning the proposed projects can be quickly implemented. Corridor bicycle projects within the City that are phased as "short-term" present opportunities for more rapid implementation, reflect strong support, and impactful effect on the system.



### Mid-Term (2-5 Years)

Mid-term projects are phased beyond short-term projects due to their level of system significance and readiness. Projects either require additional research or are ready for implementation; however, impacts on vehicular right-of-way, utility easements, and/or other constraints must be considered. The system significance and in general, support, is not as impactful as short-term projects.

### Long-Term (5-10 Years)

These projects can be considered as forecasted projects and require added resources prior to implementation. These projects require more attention in the engineering and design phases or include the need for coordination with additional agencies/entities. Cost sharing and/or grant application demands can influence "readiness".

Table 6.9 – Project Phasing Breakdown

Category	Phasing		
	Short-Term	Mid-Term	Long-Term
Bicycle	Sharrow markings, bike lane stripe and markings, intersection crossing markings, signage, cycle track, white edge line striping, red curb, quick-build medians, shoulder stripe	Bicycle detection & bicycle signal heads, lane shift / parking relocation / remove travel lane, bike lane through intersection diverter, median barriers	Upgrade signal poles and signal heads, pavement rehabilitation with narrow gutters, white edge line striping, new traffic signals
Pedestrian	Striping, signage, curb ramps, high visibility crosswalk, pavement markings	Sidewalk (with curb and gutter), curb extension	Upgrade signal poles and signal heads, new traffic signals
Traffic Calming	Striping, signage, traffic calming median, yield markings/lines,	Lane shift, parking relocation, remove travel lane, centerline shift, traffic circle, median barriers	Upgrade signal poles and signal heads, STOP controlled addition, roundabout, traffic circles, new traffic signals

## FUNDING OPPORTUNITIES

There are potential federal, state, regional, and local funding sources that the City can seek for the implementation of the four greenways corridor recommendations. These opportunities are highlighted in the Federal Funding, State Funding, and Local Funding sections herein.

The City or County can consider applying for a variety of funding opportunities to implement infrastructure recommendations and complementary non-infrastructure programs. Funding sources come and go by the year(s). As such, information should be confirmed at each respective agency's webpage prior to the pursuit of funding and to confirm funding application demands.

Based on the project prioritization detailed in the previous section, the City could seek grant funding to design and construct the recommended infrastructure projects using the prioritization rankings as a guide.

The City or County may individually advance the implementation of a project along a corridor where there is interest, funding is available, or there is incorporation into an existing infrastructure improvement project or feasibility study.

## Federal Funding

Agency	Program	Eligibility	Description
<b>Federal Highway Administration (FHWA)</b>	Highway Safety Improvement Program (HSIP)	Infrastructure & Non-Infrastructure	<p>The Highway Safety Improvement Program (HSIP) is a federal-aid program that was created from the FAST Act. The purpose of the program is to reduce fatalities and serious injuries on all public roads. In California, the HSIP funds are managed by the Division of Local Assistance (DLA). The City can apply for HSIP funds toward any public road or publicly owned bicycle or pedestrian pathway or trail in order to improve the safety for its users.</p> <p>Note: In the future HSIP Calls-for-Projects, a Local Roadway Safety Plan (or its equivalent such as Systemic Safety Analysis Report (SSAR) or Vision Zero Action Plan) will be preferred or required for an agency to be eligible to apply for federal HSIP funds: HSIP Cycle 10 (around April 2020): an LRSP (or its equivalent) will be highly recommended but not required for an agency to apply; HSIP Cycle 11 (around April 2022) and on: an LRSP (or its equivalent) will be required for an agency to be eligible to apply.</p>
<b>Housing and Urban Development (HUD)</b>	Community Development Block Grant (CDBG)	Infrastructure & Non-Infrastructure	<p>CDBG is a flexible program that provides communities with resources to address a wide range of unique community development needs. The federally-funding program is administered by the Department of Housing and Urban Development (HUD).</p> <p>On the local level, these funds can fund a range a projects including neighborhood revitalization, transportation services, public safety programs, flood and drainage facilities, water/sewer improvements, street improvements/sidewalks, etc.</p>

## State Funding

Agency	Program	Eligibility	Description
<b>California Department of Transportation (CALTRANS)</b>	Community-Based Transportation Planning Grant (CBTP) Program	Non-Infrastructure	The Community-Based Transportation Planning grant program aims to engage the community in transportation and land use projects. Projects support concepts such as livable and sustainable communities with a transportation or mobility focus. They should also promote community identity and quality of life, as well as, provide transportation and land use benefits to communities.
<b>California Department of Transportation (CALTRANS)</b>	Active Transportation Program (ATP)	Infrastructure & Non-Infrastructure	The Active Transportation Program (ATP) was signed into legislation in 2013. It consolidated existing federal and state transportation programs such as the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and Safe Routes to School (SR2S) into a single program. The Road Repair and Accountability Act of 2017 added approximately \$100 million per year in available funds for the ATP. This ATP is supported with funding from the Surface Transportation Block Grant Program (STGB) administered by the FHWA. The program recently completed its fourth funding cycle.
<b>California Office of Traffic Safety</b>	OTS Grants	Non-Infrastructure	The Office of Traffic Safety Grants seeks to reduce traffic deaths, injuries, and economic losses. The grants have ten

Agency	Program	Eligibility	Description
<b>(OTS)</b>			areas of concentration; of these, projects identified in this Plan qualify for the following: <ul style="list-style-type: none"> <li>• Pedestrian and Bicycle Safety</li> <li>• Police Traffic Services</li> <li>• Public Relations, Advertising, and Marketing Program</li> <li>• Roadway Safety and Traffic Records</li> </ul>
<b>California Natural Resources Agency</b>	Urban Greening Grant Program	Infrastructure	“The Urban Greening Program receives its funding from revenue generated from the state’s Cap and Trade program. The program is administered by the California Natural Resources Agency which has allocated \$80 million to the program. Projects that are qualify for grants from the program are required to show net GHG benefits along with other benefits; additionally, they must include one of three project activities: <ul style="list-style-type: none"> <li>• Sequester and store carbon by planting trees</li> <li>• Reduce building energy use by strategically planting trees to shade buildings</li> <li>• Reduce commute vehicle miles traveled by constructing bicycle paths, bicycle lanes or pedestrian facilities that provide safe routes for travel between residences, workplaces, commercial centers, and schools. ”</li> </ul>
<b>California Department of Transportation (CALTRANS)</b>	Environmental Enhancement and Mitigation (EEM) Program	Infrastructure	The Environmental Enhancement and Mitigation Program seeks to mitigate the environmental effects of transportation facilities. As provided by California Streets and Highways Code Section 164.56, the state legislature can allocate up to \$7 million from the Highway Users Tax Account toward this program. One category for which funding is provided is the acquisition or enhancement of resource lands to mitigate the loss of, or the detriment to, resource lands lying within or near the right of way acquire for transportation improvements, including roadside recreational facilities,
<b>California Department of Transportation (CALTRANS)</b>	Sustainable Communities	Non-Infrastructure	Sustainable Communities grants are intended to encourage local and regional multi-modal transportation and land use planning that furthers the region’s Regional Transportation Plan/Sustainable Communities Strategy, where applicable. Successful projects will also contribute to the State’s greenhouse gas reduction targets, employ the goals and best practices cited in the 2017 RTP Guidelines, and address the needs of disadvantaged communities. An estimated \$17 million in competitive grants is available for the FY 2019-20 grant cycle. The program requires an 11.47% local match. Grants are available in amounts ranging from a minimum of \$100,000 (\$50,000 for disadvantaged communities) to a maximum of \$1,000,000 (MPOs may only apply with sub-applicants for the competitive grants).
<b>California Department of Transportation (CALTRANS)</b>	Strategic Partnership	Non-Infrastructure	Strategic Partnerships grants are intended to identify and address statewide, interregional, or regional transportation deficiencies on the State highway system in partnership with Caltrans. Successful Strategic Partnerships will strengthen government-to-governments relationships and result in programmed improvements. A total of <\$5 million in competitive grants is available for the FY 2019-20 grant cycle. Example project types include corridor studies, and corridor

Agency	Program	Eligibility	Description
			preservation studies, studies that identify interregional, inter-county, and/or statewide mobility and access needs, and projects that evaluate accessibility and connectivity of the multi-modal transportation network.

### Local / Regional Funding

Agency	Program	Eligibility	Description
<b>Southern California Association of Governments (SCAG)</b>	Sustainable Planning Grant	Non-Infrastructure	The Sustainability Planning Grant Program (formerly known as the Compass Blueprint Grant Program) provides technical support to members in SCAG's jurisdictions. Grants can be used toward planning and policy efforts that allow for the implementation of the regional RTP/SCS. Grants in the program falls into three categories: <ul style="list-style-type: none"> <li>• Integrated Land Use – Sustainable Land Use Planning, Transit Oriented Development (TOD) and Land Use &amp; Transportation Integration</li> <li>• Active Transportation – Bicycle, Pedestrian and Safe Routes to School Plans</li> <li>• Green Region – Natural Resource Plans, Climate Action Plans (CAPs) and Green House Gas (GHG) Reduction programs</li> </ul>
<b>Safe Routes to School National Partnership</b>	Safe Routes to Parks Activating Communities	Non-Infrastructure	The Safe Routes to Parks Activating Communities program provides tailored technical assistance for seven communities to develop Safe Routes to Parks action plans and awards \$12,500 to each community to begin implementation of those plans. Awarded communities' action plans will address each stage of the Safe Routes to Parks Action Framework and provide clear steps to improve local park access for people walking, biking, and rolling.
<b>City of Pasadena</b>	Developer Impact Fees	Infrastructure & Non-Infrastructure	Under California law, developers can be charged a one-time fee to offset impacts of their project. "Exaction" is a broader term for impact fees, dedications of land, and in-lieu fees that are imposed to fund public improvements necessitated by the proposed development. School facility fees, park land dedication requirements, and road dedications and improvements are all examples of exactions. In order for these fees to be imposed, the City must: identify the purpose to which the fee is put, demonstrate relationship between the fee and purpose of use, identify all sources and amounts of funding anticipated to be used, and designate approximate dates of funding deposits.
<b>City of Pasadena</b>	Transportation Impact Fee Funding for Bicycle Infrastructure	Infrastructure	An expanded emphasis on sustainability and livability, the performance measures assist in determining how to balance trade-offs among travel modes and among the mobility needs. The five transportation performance measures with CEQA thresholds are: vehicle miles traveled per capita, proximity and quality of the transit network, pedestrian accessibility, vehicle trips per capita, proximity and quality of the bicycle network.

## PERFORMANCE MEASURES

Performance measures are specific variables that evaluate the effectiveness of the Greenway Corridor planning and implementation with quantitative data. Performance measures provide several benefits to agencies that use them. They show the value of projects to community stakeholders, inform justified budgeting decisions, and demonstrate to grant administrators the importance of and need for project funding, as shown in Table 6.10.

The following performance measures are recommended to help ensure the success of the goals of the project. A suggested performance measure is provided for each of the listed objectives, including the data source required to track and assess this metric.

Most State ATP funded projects have required before and after studies. Caltrans recently updated and published the Interim Count Methodology Guidance for Active Transportation Program, which requires all ATP projects funded after October 2019 to conduct a before and after study based on the guidelines. A copy of the guidelines is included in Appendix F.

Table 6.10: Performance Measures

Goal	Objective	Performance Measure	Source
1. Improve Safety	Reduce bicycle and pedestrian fatalities/injuries	Number of bicycle and pedestrian fatalities/injuries over five years	SWITRS/TIMS
	Establish best practices for maintaining bicycle and pedestrian facilities and monitoring future collisions	City maintenance tracking system updated regularly, and city quarterly/yearly collision data portal	City Inventory, and SWITRS/TIMS
2. Enhance Accessibility	Increase corridor comfort for bicycle users	Normalized average Level of Traffic Stress score per corridor	2020 Pasadena LTS Methods (KOA Corporation)
	Invest in accessible alternative transportation infrastructure for all ages/abilities/comfort levels	Miles/quantity of alternative transportation infrastructure	City Inventory
3. Plan for Greenway Corridor Significance	Increase quantity of bicycle riders along primary corridor, and reduce quantity of bicycle riders along parallel corridors	Quantity of bicycle users per primary vs parallel corridor	Average Daily Traffic Count
	Increase significant bicycle facility connection options along corridors and to/from regional routes	Number of new significant intra-city route options and regionally significant route options	City Inventory
4. Create Healthy Options	Reduce chronic health diseases by providing active transportation options that promote healthy lifestyle choices	Obesity rates, physical activity rates	CalEnviroScreen/Healthy Places Index/Community Survey
	Encourage programs at community centers and schools that teach residents safe and healthy biking and walking habits	Number of active transportation programs per year, number of staff or teachers trained in active transportation issues	City/County Inventory
5. Seek Economic & Environmental Sustainability	Invest in facilities that bring long-term sustainable economic growth to the City	Number of jobs added to the economy as a result of improved transportation conditions	REMI model via SCAG
	Maintain or increase average speed of vehicle traffic along parallel corridors, and maintain or lower average vehicle speeds along primary greenway corridors	Average speed of bicycle and vehicular traffic as compared to existing conditions (2019) travel run data	Future Post-Project Travel Run Values
	Reduce economic losses related to life and property damages	Cost associated with loss of life and property damages	SWITRS/TIMS
	Reduce public health costs due to shift towards increased active transportation	Cost spent associated with physical inactivity externalities	City/County/Health Provider Inventory

## NEXT STEPS

The City of Pasadena, working with its stakeholders, including residents and businesses, intends to pursue the actions and goals outlined within this Study. These include: 1) improved safety, 2) enhanced accessibility, 3) establish corridor significance, 4) create healthy options, and 5) seek sustainability economically and environmentally. The City will build on the policies and the program recommendations to make Pasadena a city where people can circulate without a car, where an increasing number of residents and visitors can commute by bicycles, where more people use non-motorized transportation for utilitarian trips, fitness and recreation, and where significant business and economic benefits can be provided.

The City intends to pursue available federal, state, and local funding options and leverage funds to maximize matching opportunities. In addition to infrastructure improvements to the four north/south greenway corridors, the City intends to continue to provide non-infrastructure programs for motorists, pedestrians, and bicyclists, while seeking the implementation of primary greenway corridor treatments identified herein. The City's Police Department will ensure that traffic laws are enforced and that people are educated as to traffic laws related to all modes of transportation.



## 7.0 CONCLUSION

Through the analysis of traffic volumes, collision data, and analysis of various treatments, KOA developed a set of recommendations for each study corridor to provide bicycle facilities with traffic calming and other treatments along each corridor to improve safety for all users. The greenway corridor enhancements along the four study corridors are intended to reduce vehicle speeds and collisions and to encourage and provide a corridor suitable for bicyclists. These corridor improvements may also help increase the safety for pedestrians along the study corridor.

Based on the various analyses of the potential roadway lane configurations and spot treatments on the study corridors, all study intersections will operate at acceptable level of service under the Existing Plus Project conditions during the AM and PM peak hour.

Minimal on-street parking would be lost due to the proposed improvements and red curb areas, but some proposed improvements will increase on-street parking by shifting the on-street parking from one side of the street to the other, where more opportunities for on-street parking capacity is available.

The approved and proposed improvements along the corridors are intended to improve vehicle movements at intersections, reduce high travel speeds along the corridor, and provide a corridor suitable for bicyclists and pedestrians by providing additional crossings, raised medians, bulb-outs, and other features to help increase safety for all users along the four Greenway corridors.

# Appendix A – Traffic Count Data

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### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

<b>DATE:</b> Wed, Oct 30, 19	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	<b>Pasadena</b> El Molino Orange Grove	<b>PROJECT #:</b> SC <b>LOCATION #:</b> 9 <b>CONTROL:</b> SIGNAL
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NOTES:

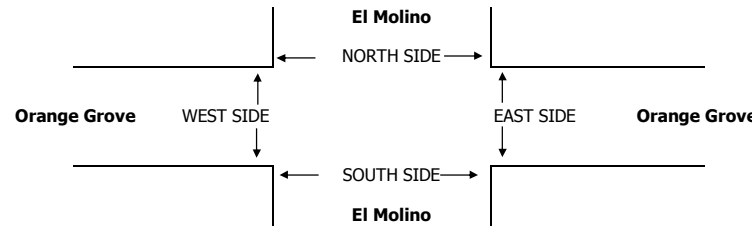
AM	▲	N	▶
PM	◀	W	E
MD	◀	W	E
OTHER	▼	S	▶
OTHER	◀	W	E

Add U-Turns to Left Turns

LANES:	NORTHBOUND El Molino			SOUTHBOUND El Molino			EASTBOUND Orange Grove			WESTBOUND Orange Grove			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	2	7	1	8	10	13	6	77	12	7	103	3	249	0	0	0	0	0
	7:15 AM	5	6	12	9	29	10	6	126	10	8	139	7	367	0	0	0	0	0
	7:30 AM	6	22	8	12	40	12	9	124	15	13	195	10	466	0	0	0	0	0
	7:45 AM	7	25	10	10	51	18	8	92	19	15	207	14	476	0	0	0	0	0
	8:00 AM	7	16	4	15	32	17	4	94	16	10	182	9	406	0	0	0	0	0
	8:15 AM	12	15	5	16	29	20	9	101	16	11	146	4	384	0	0	0	1	1
	8:30 AM	2	3	2	15	17	16	12	95	23	17	140	13	355	0	0	0	0	0
	8:45 AM	4	5	3	6	23	4	4	90	11	10	131	10	301	0	0	0	1	1
	VOLUMES	45	99	45	91	231	110	58	799	122	91	1,243	70	3,004	0	0	0	2	2
	APPROACH %	24%	52%	24%	21%	53%	25%	6%	82%	12%	6%	89%	5%						
APP/DEPART	189	/	227	432	/	442	979	/	937	1,404	/	1,398	0						
BEGIN PEAK HR	7:30 AM																		
VOLUMES	32	78	27	53	152	67	30	411	66	49	730	37	1,732						
APPROACH %	23%	57%	20%	19%	56%	25%	6%	81%	13%	6%	89%	5%							
PEAK HR FACTOR	0.815			0.861			0.856			0.864			0.910						
APP/DEPART	137	/	145	272	/	266	507	/	492	816	/	829	0						
PM	4:00 PM	20	49	15	19	18	19	8	151	7	3	124	9	442	0	0	0	0	0
	4:15 PM	9	45	15	11	21	9	10	164	14	6	138	8	450	0	0	0	0	0
	4:30 PM	17	49	11	4	19	9	10	160	13	7	142	7	448	0	0	0	0	0
	4:45 PM	9	42	12	6	24	11	16	178	19	11	163	10	501	0	0	0	0	0
	5:00 PM	14	63	28	15	24	5	14	192	18	8	139	7	527	0	0	0	0	0
	5:15 PM	11	63	26	6	18	8	11	188	13	6	156	12	518	0	0	0	0	0
	5:30 PM	16	46	19	8	31	11	16	208	25	10	175	11	576	0	0	0	0	0
	5:45 PM	15	60	15	6	27	9	14	249	22	8	144	9	578	0	0	0	0	0
	VOLUMES	111	417	141	75	182	81	99	1,490	131	59	1,181	73	4,040	0	0	0	0	0
	APPROACH %	17%	62%	21%	22%	54%	24%	6%	87%	8%	4%	90%	6%						
APP/DEPART	669	/	589	338	/	372	1,720	/	1,706	1,313	/	1,373	0						
BEGIN PEAK HR	5:00 PM																		
VOLUMES	56	232	88	35	100	33	55	837	78	32	614	39	2,199						
APPROACH %	15%	62%	23%	21%	60%	20%	6%	86%	8%	5%	90%	6%							
PEAK HR FACTOR	0.895			0.840			0.851			0.874			0.951						
APP/DEPART	376	/	326	168	/	210	970	/	960	685	/	703	0						

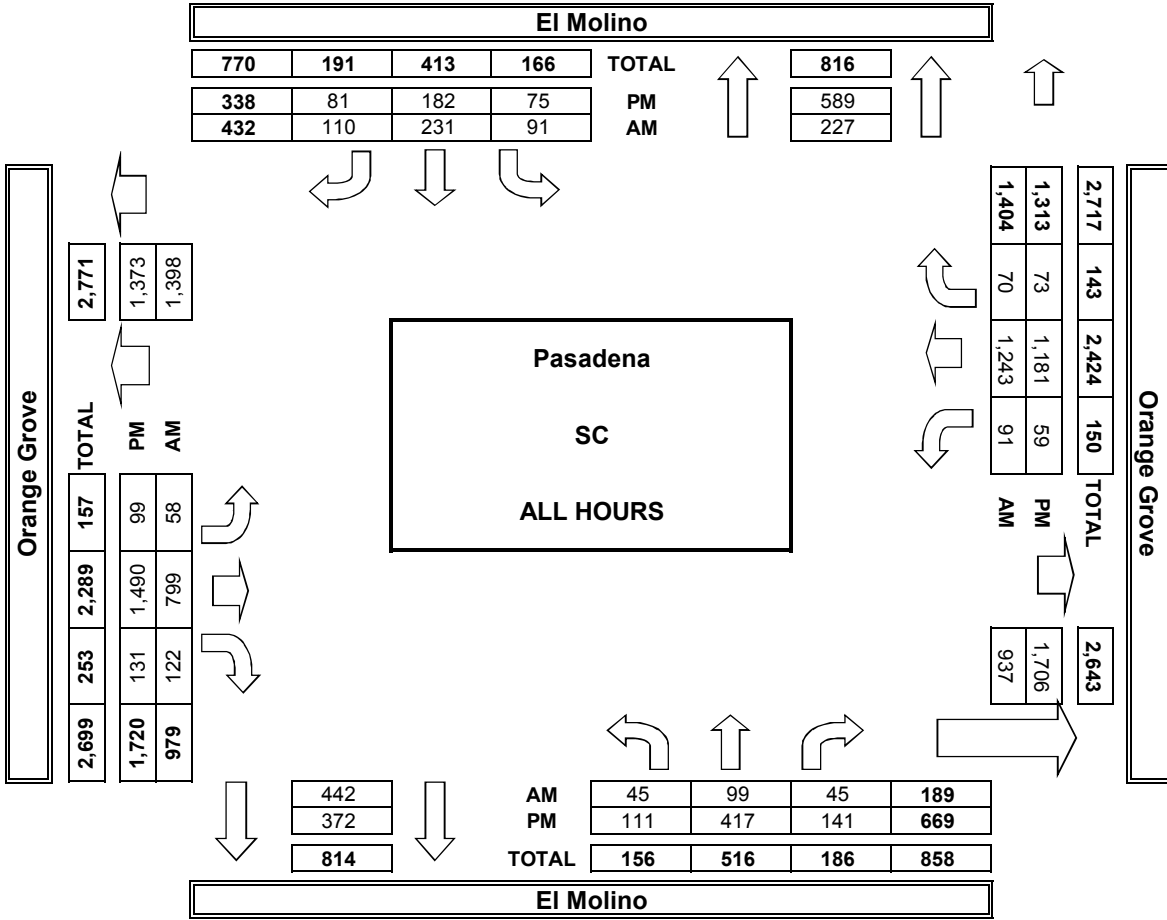


	PEDESTRIAN + BIKE CROSSINGS					
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0	
AM BEGIN PEAK HR	7:30 AM					
PM	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0	
PM BEGIN PEAK HR	5:00 PM					

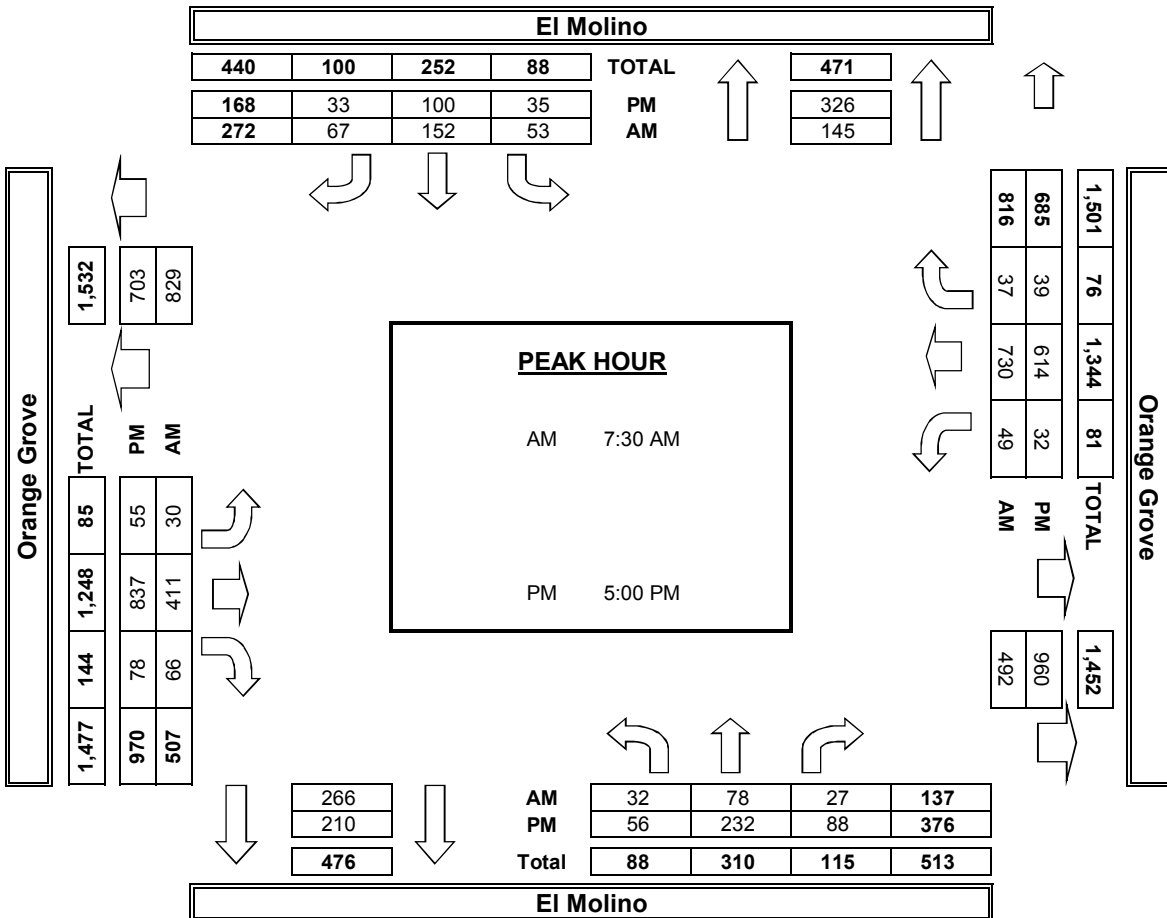
	PEDESTRIAN CROSSINGS					
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0	
PM	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0	

	BICYCLE CROSSINGS					
	NS	SS	ES	WS	TOTAL	
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0	
PM	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0	

**AimTD LLC**  
TURNING MOVEMENT COUNTS



**Pasadena**  
**SC**  
**ALL HOURS**



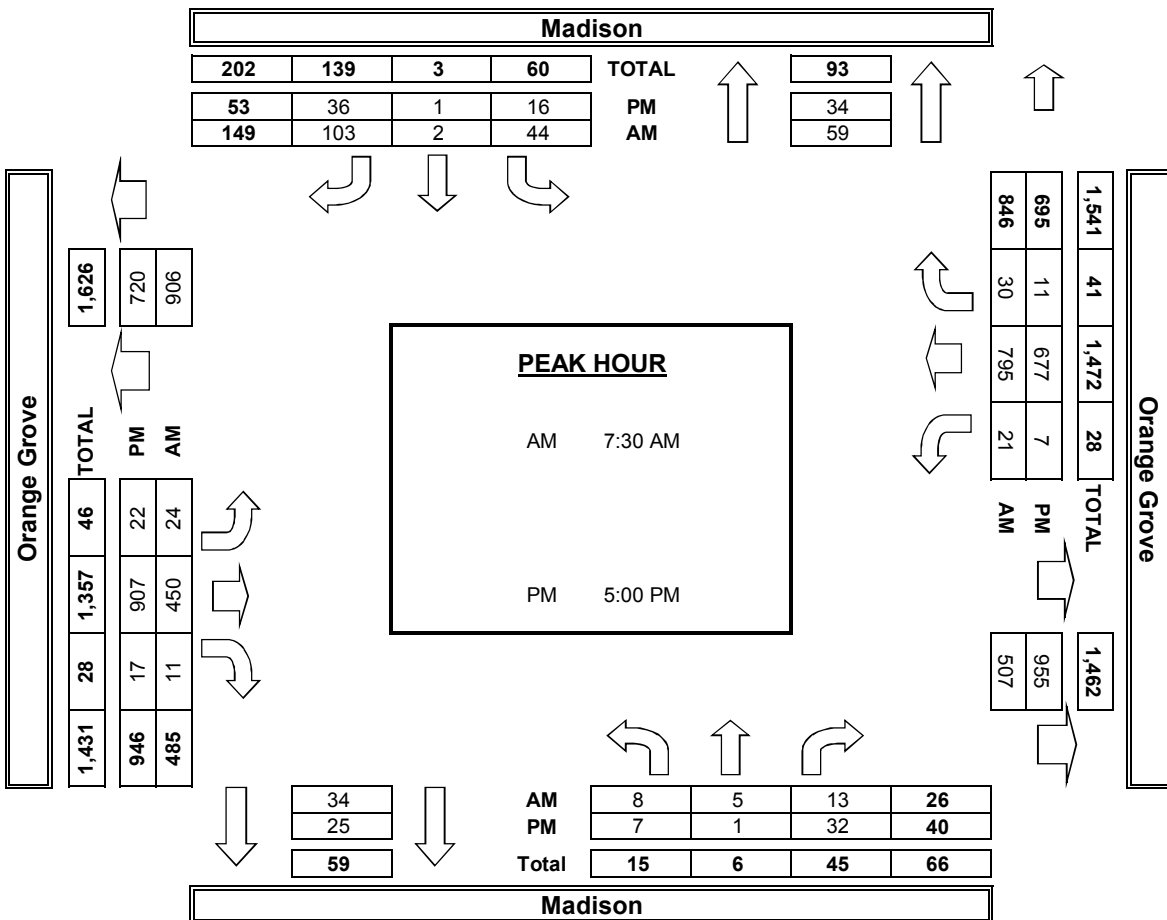
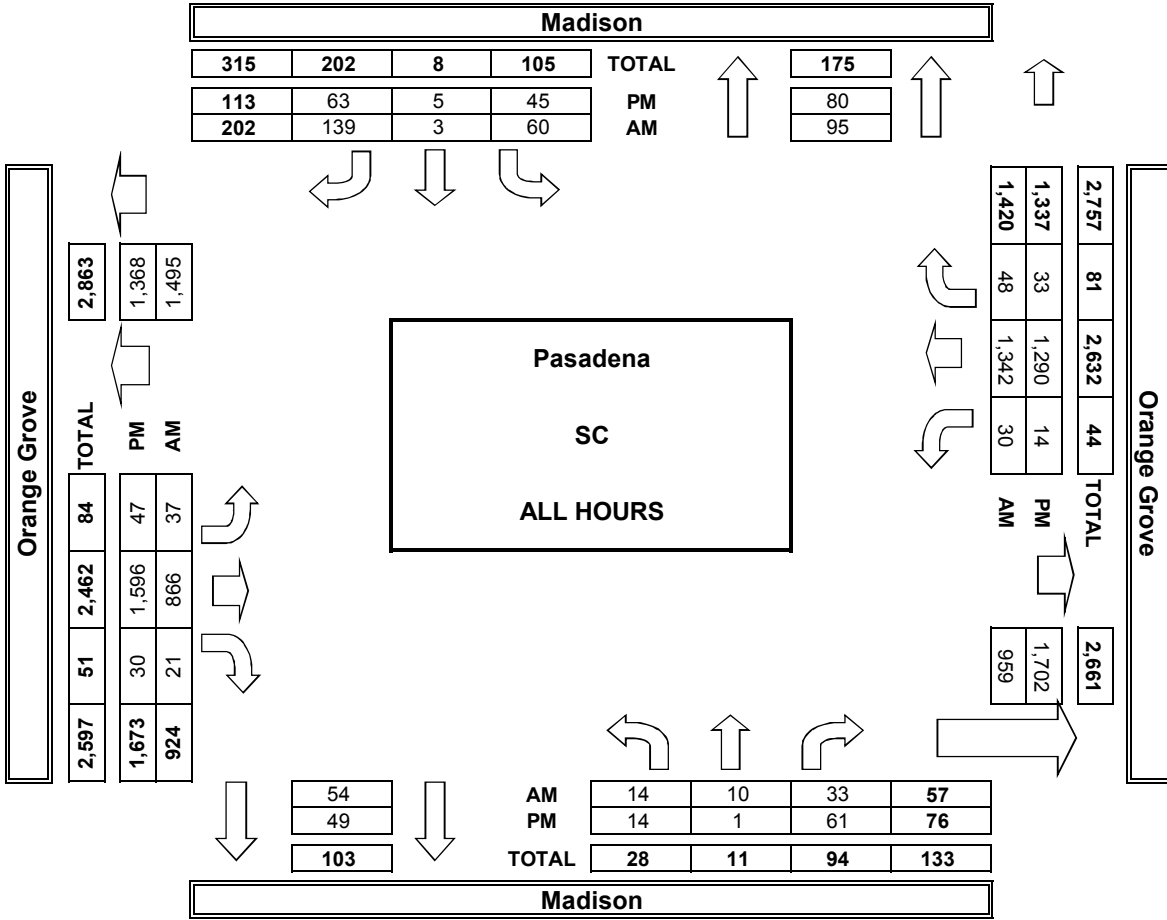
**PEAK HOUR**

AM 7:30 AM

PM 5:00 PM

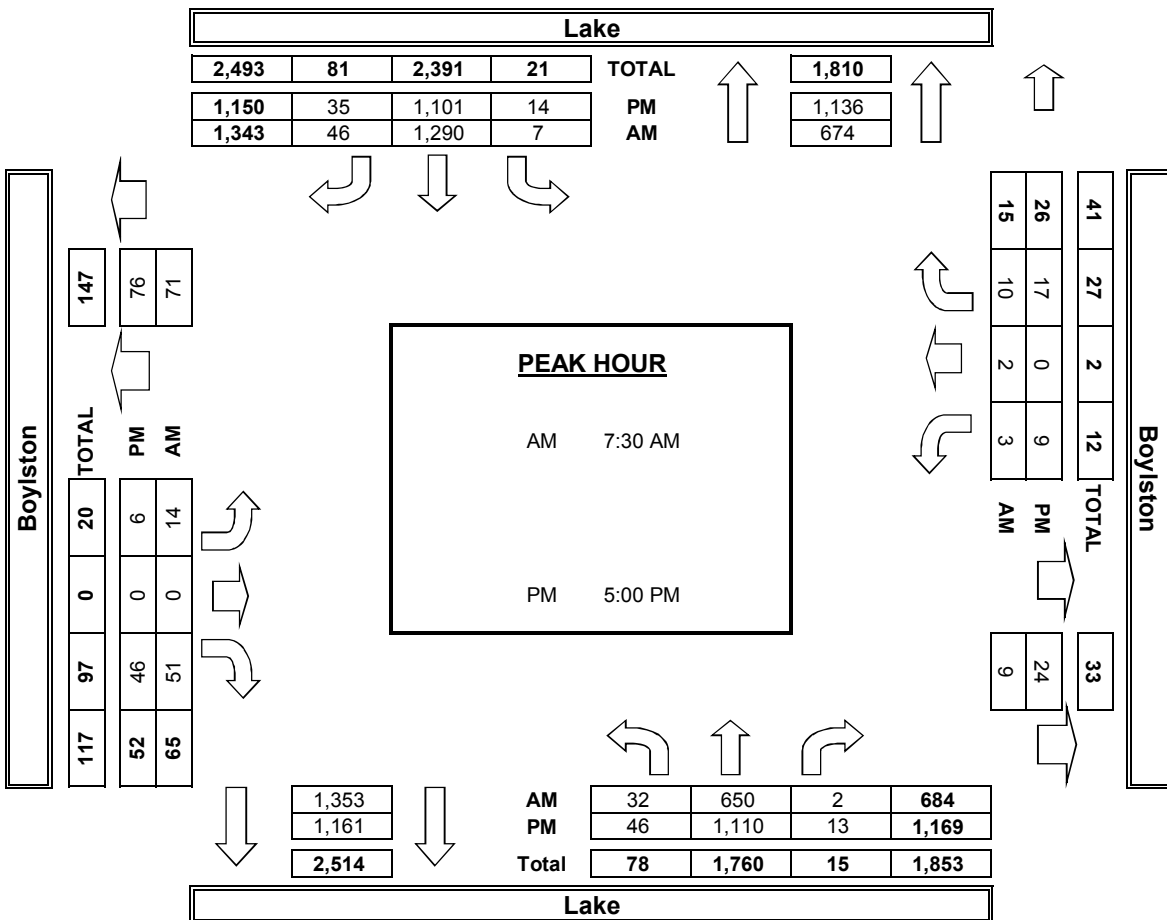
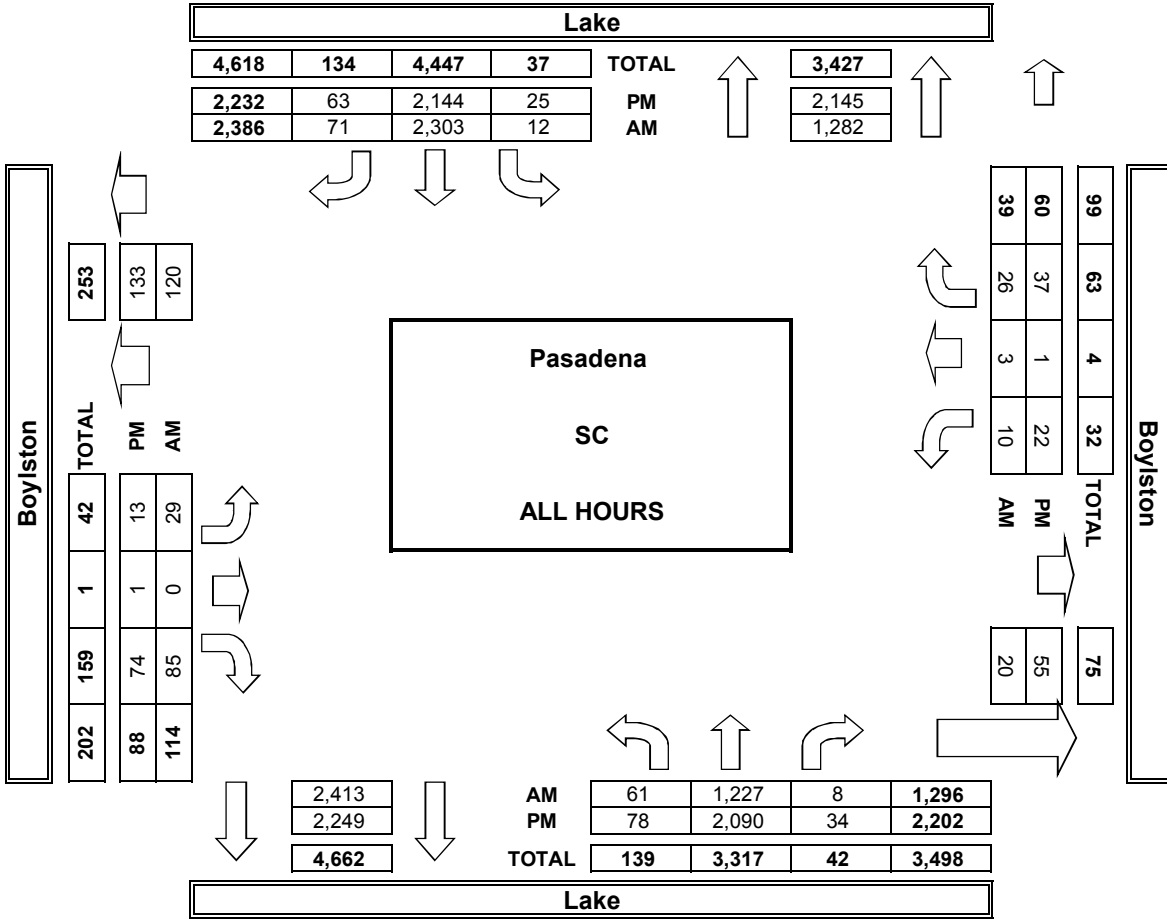


**AimTD LLC**  
TURNING MOVEMENT COUNTS





**AimTD LLC**  
TURNING MOVEMENT COUNTS





### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

**DATE:**  
Wed, Oct 30, 19

**LOCATION:**  
NORTH & SOUTH:  
EAST & WEST:

Pasadena  
Lake  
Orange Grove

**PROJECT #:** SC  
**LOCATION #:** 4  
**CONTROL:** SIGNAL

NOTES:

AM	▲	N	▶
PM	◀	W	◀
MD		S	▶
OTHER			
OTHER			

Add U-Turns to Left Turns

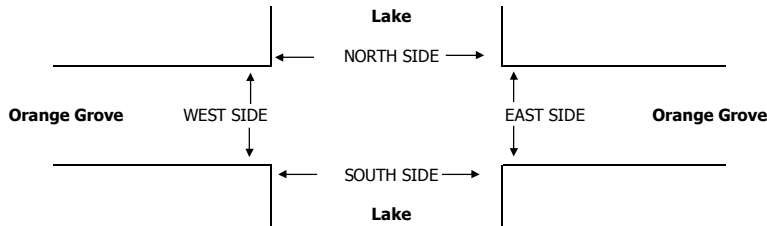
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	

U-TURNS				
NB	SB	EB	WB	TTL

7:00 AM	13	85	6	17	197	21	19	54	19	23	69	16	539	
7:15 AM	17	111	4	20	218	25	25	82	26	30	98	23	679	
7:30 AM	10	139	7	37	292	39	35	130	17	47	156	21	930	
7:45 AM	20	160	10	32	226	54	21	82	18	28	153	15	819	
8:00 AM	14	130	18	25	269	68	24	70	15	28	136	23	820	
8:15 AM	15	140	8	35	258	48	22	73	23	30	110	16	778	
8:30 AM	21	139	10	33	217	50	17	77	25	29	106	17	741	
8:45 AM	19	176	14	29	237	46	27	56	30	33	116	23	806	
VOLUMES	129	1,080	77	228	1,914	351	190	624	173	248	944	154	6,112	
APPROACH %	10%	84%	6%	9%	77%	14%	19%	63%	18%	18%	70%	11%		
APP/DEPART	1,286	/	1,431	2,493	/	2,337	987	/	922	1,346	/	1,422	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	59	569	43	129	1,045	209	102	355	73	133	555	75	3,347	
APPROACH %	9%	85%	6%	9%	76%	15%	19%	67%	14%	17%	73%	10%		
PEAK HR FACTOR	0.883			0.940			0.728			0.852			0.900	
APP/DEPART	671	/	748	1,383	/	1,252	530	/	524	763	/	823	0	
4:00 PM	24	191	24	33	208	40	36	129	13	25	90	18	831	
4:15 PM	34	250	25	34	186	34	27	142	20	28	91	21	892	
4:30 PM	27	205	35	36	221	46	36	119	17	22	94	26	884	
4:45 PM	31	234	39	42	192	48	43	135	18	25	99	27	933	
5:00 PM	21	216	27	37	219	34	44	151	23	30	98	22	922	
5:15 PM	32	225	34	41	214	41	45	156	20	24	129	32	993	
5:30 PM	32	216	35	51	205	44	44	171	28	38	117	36	1,017	
5:45 PM	27	234	62	52	226	34	45	184	28	28	106	32	1,058	
VOLUMES	228	1,771	281	326	1,671	321	320	1,187	167	220	824	214	7,530	
APPROACH %	10%	78%	12%	14%	72%	14%	19%	71%	10%	17%	66%	17%		
APP/DEPART	2,280	/	2,315	2,318	/	2,057	1,674	/	1,786	1,258	/	1,372	0	
BEGIN PEAK HR	5:00 PM													
VOLUMES	112	891	158	181	864	153	178	662	99	120	450	122	3,990	
APPROACH %	10%	77%	14%	15%	72%	13%	19%	71%	11%	17%	65%	18%		
PEAK HR FACTOR	0.899			0.960			0.913			0.906			0.943	
APP/DEPART	1,161	/	1,197	1,198	/	1,082	939	/	996	692	/	715	0	

1	1	0	0	2
0	0	0	1	1
0	1	1	0	2
1	1	0	0	2
0	0	0	0	0
0	1	0	0	1
0	3	0	0	3
1	1	0	0	2
3	8	1	1	13

0	0	0	0	0
1	1	0	1	3
0	1	0	0	1
0	2	0	0	2
0	2	1	1	4
0	1	0	0	1
0	2	0	1	3
1	2	0	0	3
2	11	1	3	17



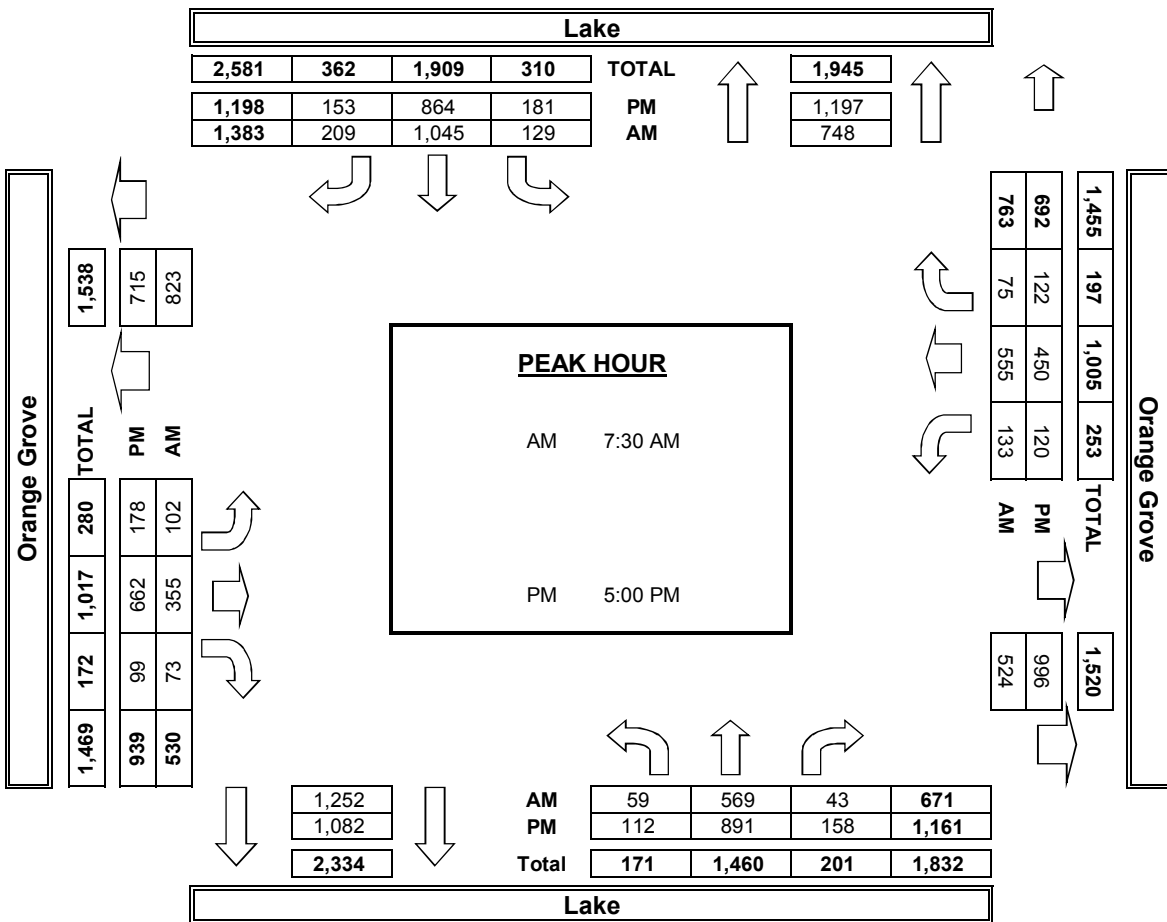
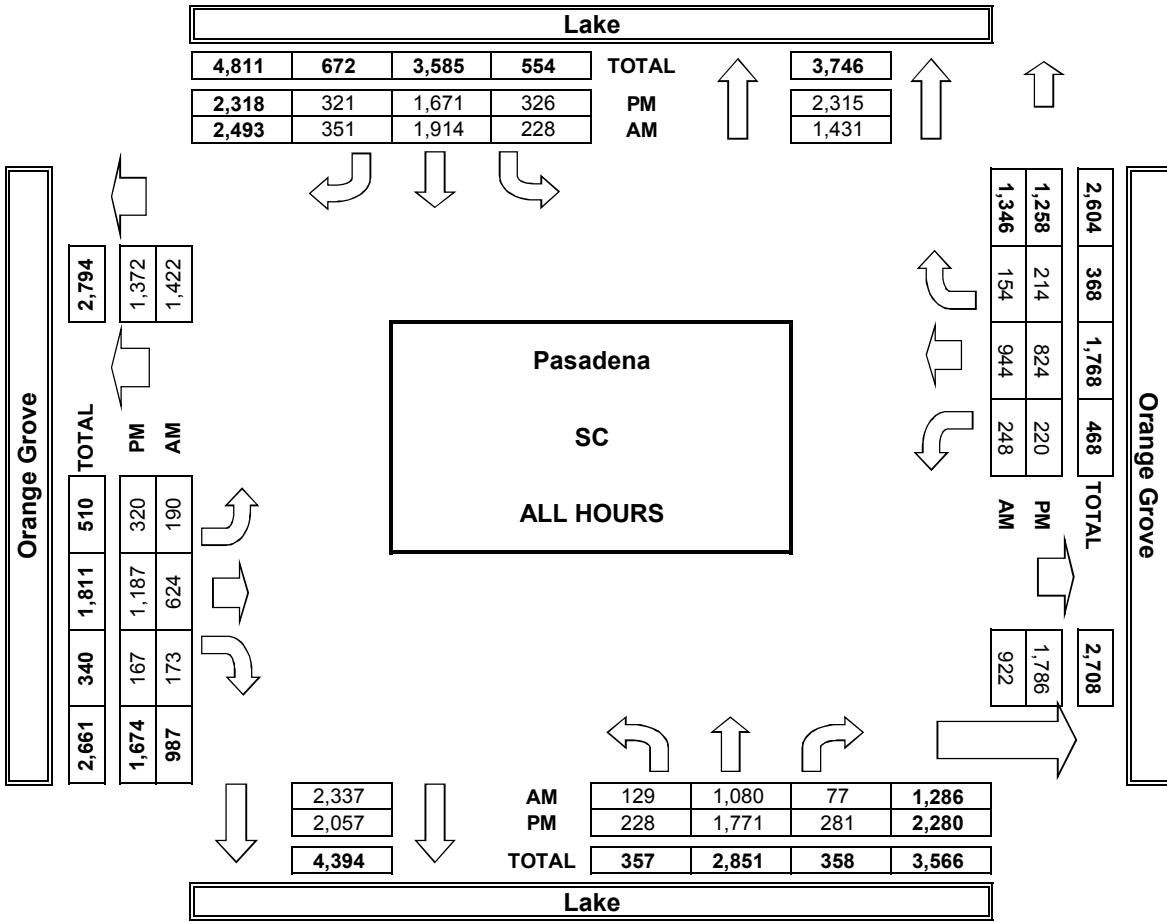
	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL

7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:30 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL

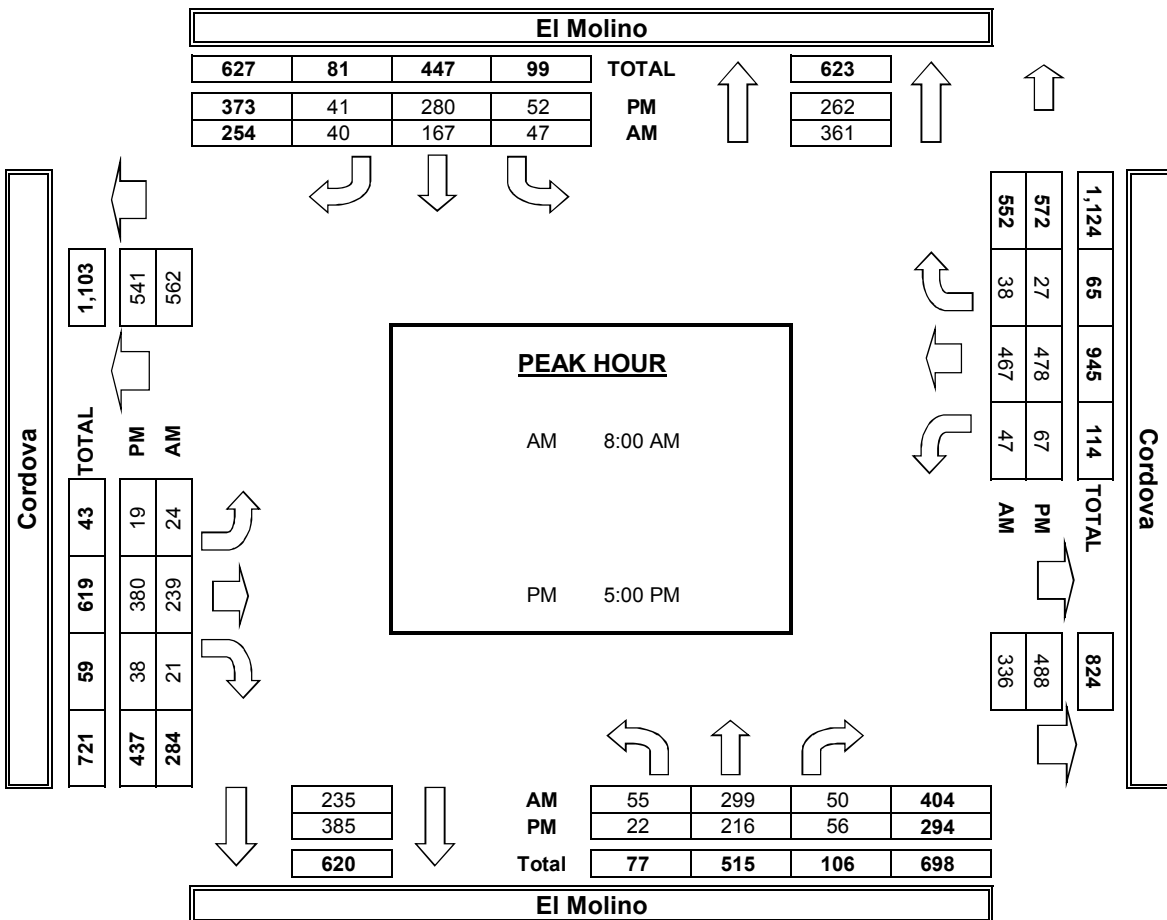
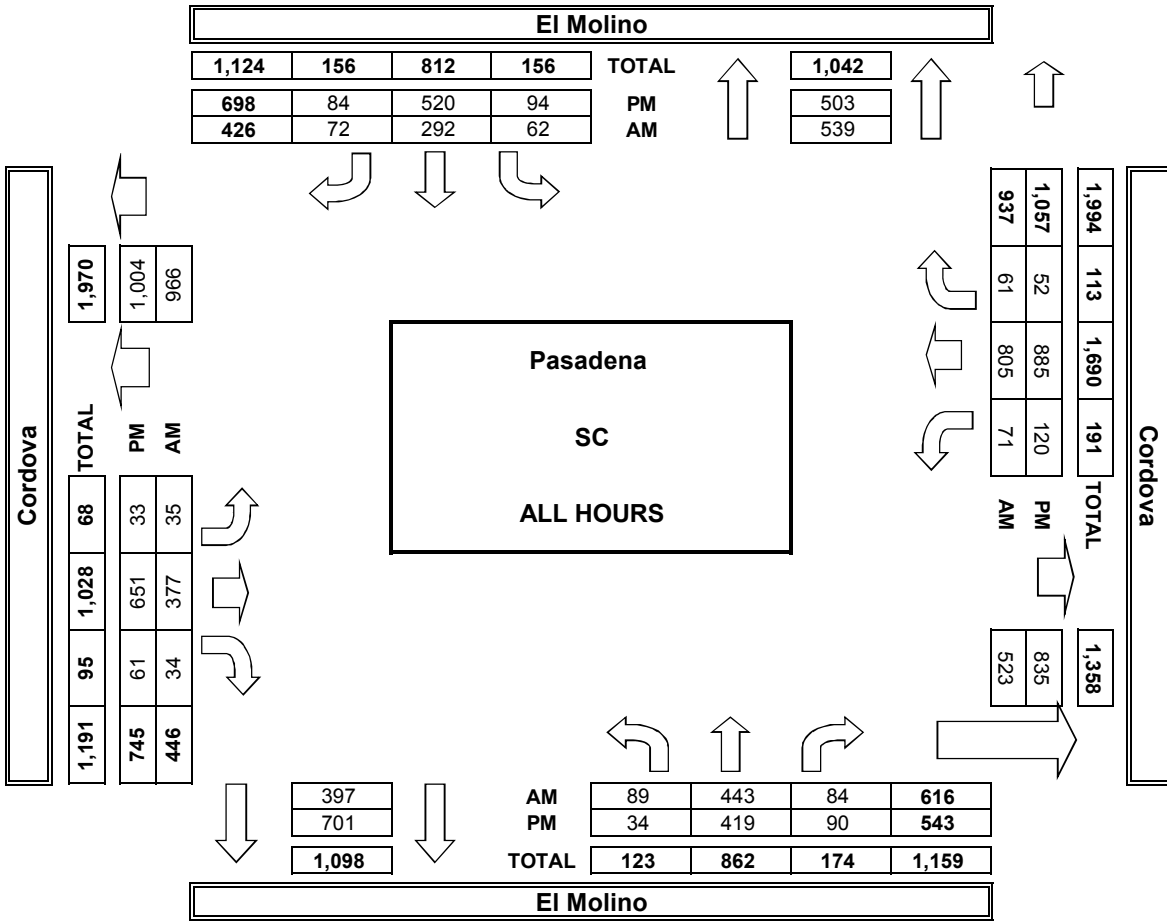
	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL

**AimTD LLC**  
TURNING MOVEMENT COUNTS



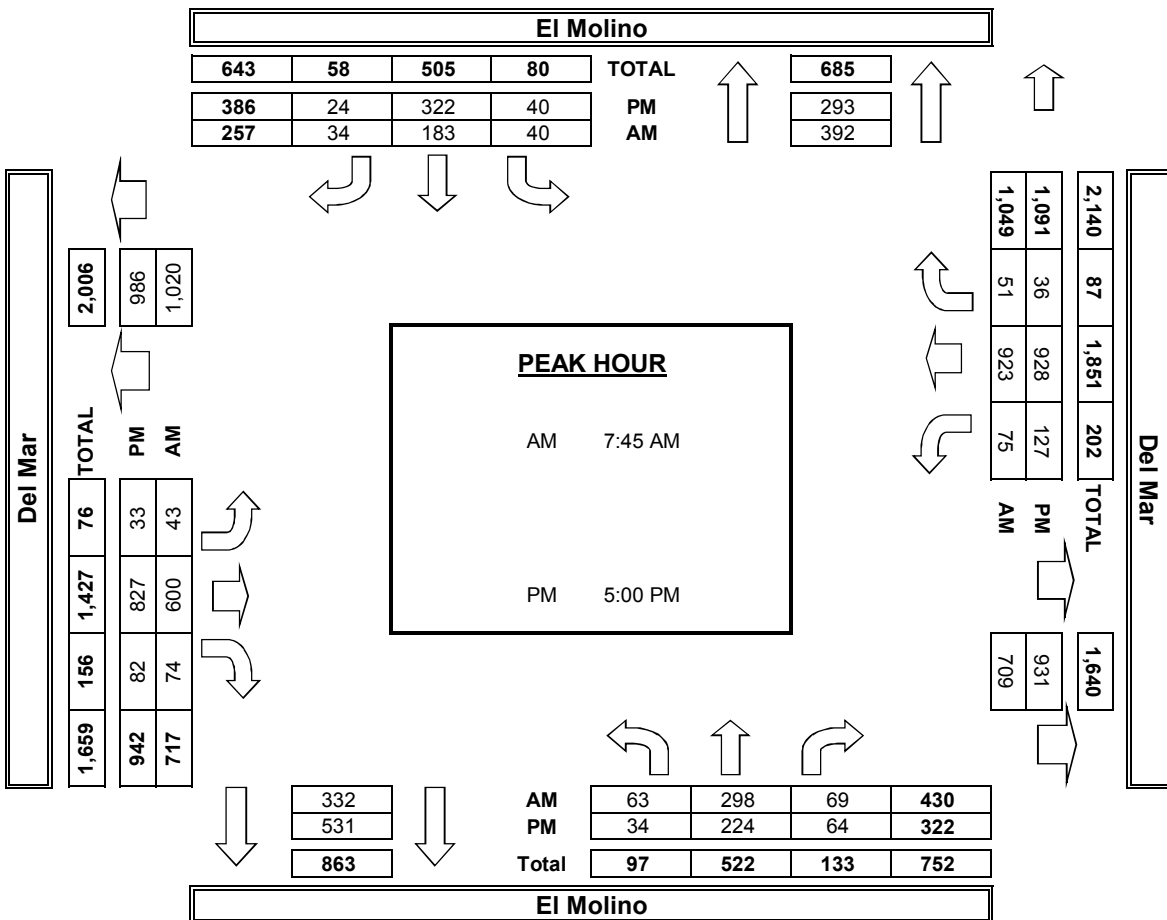
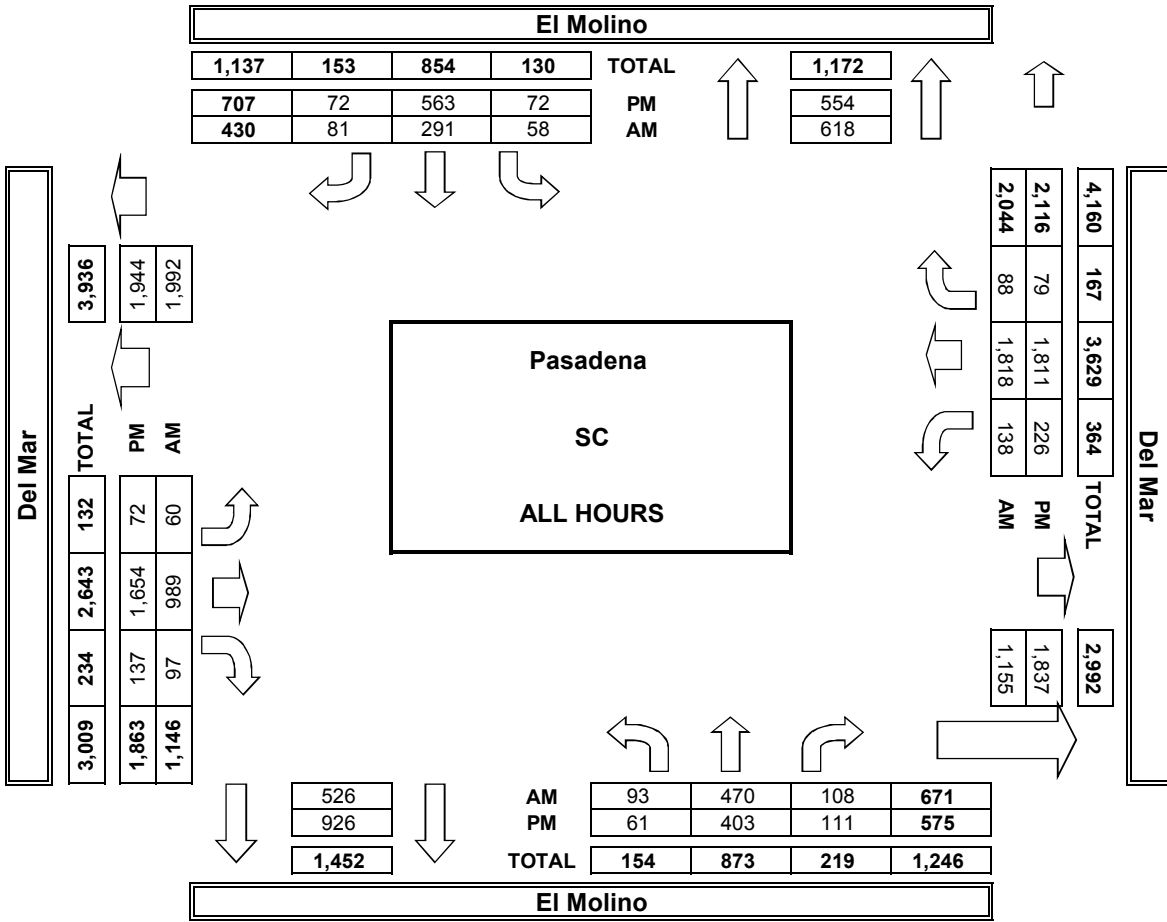


**AimTD LLC**  
TURNING MOVEMENT COUNTS





**AimTD LLC**  
TURNING MOVEMENT COUNTS



**INTERSECTION TURNING MOVEMENT COUNTS**

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Wed, Oct 30, 19

LOCATION:  
NORTH & SOUTH:  
EAST & WEST: Pasadena  
El Molino  
California

PROJECT #:  
LOCATION #:  
CONTROL: SC  
7  
SIGNAL

NOTES:

AM	▲	N	▶
PM	◀	W	E
MD			
OTHER			
OTHER		S	▼

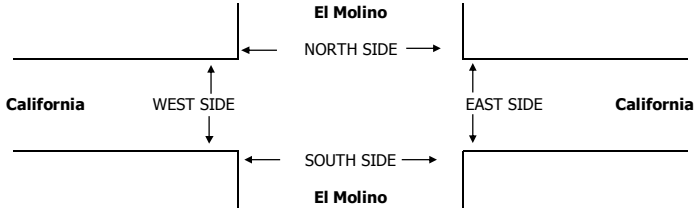
Add U-Turns to Left Turns

	NORTHBOUND El Molino			SOUTHBOUND El Molino			EASTBOUND California			WESTBOUND California			TOTAL
	NL 0	NT 1	NR 0	SL 0	ST 1	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	
<b>AM</b>													
7:00 AM	5	11	10	4	25	7	4	81	4	2	182	3	338
7:15 AM	6	36	11	5	28	11	4	127	7	0	177	1	413
7:30 AM	12	45	14	2	38	17	5	154	6	0	210	1	504
7:45 AM	15	78	19	8	48	13	14	188	5	0	240	9	637
8:00 AM	13	70	22	5	32	14	24	185	8	0	226	16	615
8:15 AM	5	73	29	8	30	9	26	240	6	1	202	18	647
8:30 AM	9	66	17	7	36	18	15	202	6	1	197	12	586
8:45 AM	10	58	24	4	35	15	9	190	5	1	198	10	559
VOLUMES	75	437	146	43	272	104	101	1,367	47	5	1,632	70	4,299
APPROACH %	11%	66%	22%	10%	65%	25%	7%	90%	3%	0%	96%	4%	
APP/DEPART	658	/	608	419	/	324	1,515	/	1,556	1,707	/	1,811	0
BEGIN PEAK HR	7:45 AM												
VOLUMES	42	287	87	28	146	54	79	815	25	2	865	55	2,485
APPROACH %	10%	69%	21%	12%	64%	24%	9%	89%	3%	0%	94%	6%	
PEAK HR FACTOR		0.929			0.826			0.845			0.926		0.960
APP/DEPART	416	/	421	228	/	173	919	/	930	922	/	961	0
<b>PM</b>													
4:00 PM	6	35	14	10	67	14	19	252	10	1	192	15	635
4:15 PM	5	32	17	12	53	11	14	216	11	0	153	12	536
4:30 PM	6	32	28	15	61	10	13	283	8	2	200	14	672
4:45 PM	6	48	20	5	74	15	20	221	13	4	208	13	647
5:00 PM	8	41	15	16	89	8	14	273	9	1	206	11	691
5:15 PM	4	51	14	15	89	13	16	284	14	6	209	19	734
5:30 PM	5	55	23	16	62	13	18	250	9	5	188	13	657
5:45 PM	5	49	16	5	88	8	19	273	4	7	200	20	694
VOLUMES	45	343	147	94	583	92	133	2,052	78	26	1,556	117	5,266
APPROACH %	8%	64%	27%	12%	76%	12%	6%	91%	3%	2%	92%	7%	
APP/DEPART	535	/	593	769	/	687	2,263	/	2,293	1,699	/	1,693	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	22	196	68	52	328	42	67	1,080	36	19	803	63	2,776
APPROACH %	8%	69%	24%	12%	78%	10%	6%	91%	3%	2%	91%	7%	
PEAK HR FACTOR		0.861			0.902			0.942			0.946		0.946
APP/DEPART	286	/	326	422	/	383	1,183	/	1,200	885	/	867	0

**U-TURNS**

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



<b>AM</b>				
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0
AM BEGIN PEAK HR	7:45 AM			
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0
PM BEGIN PEAK HR	5:00 PM			

**PEDESTRIAN + BIKE CROSSINGS**

	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
7:45 AM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0

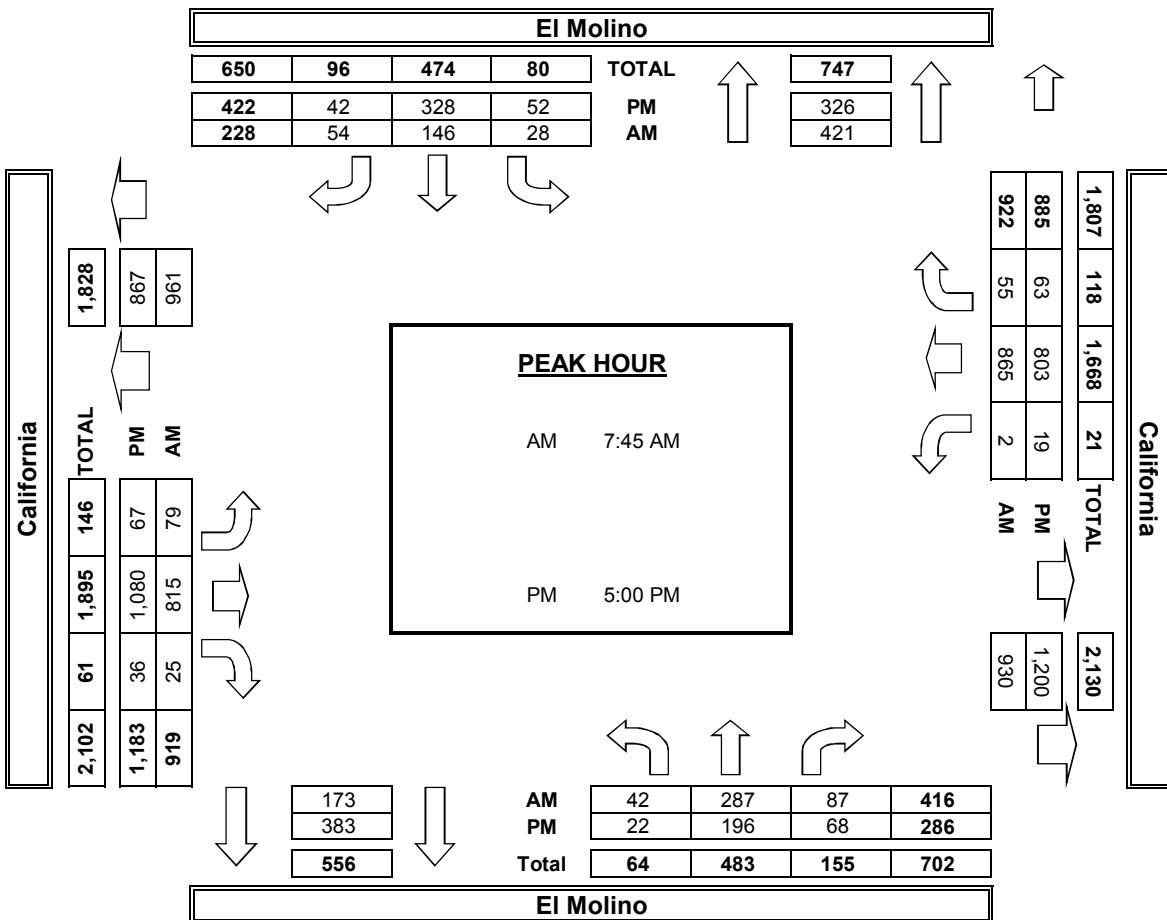
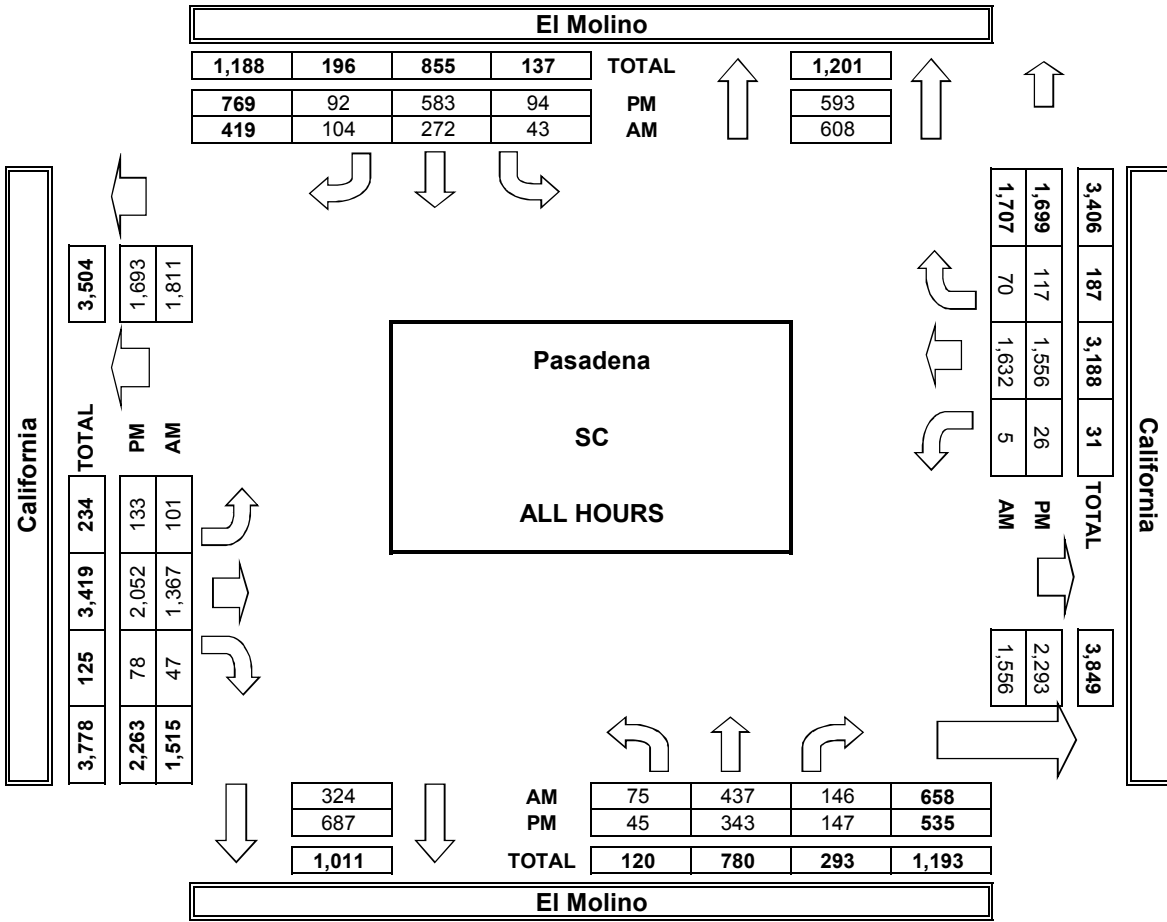
**PEDESTRIAN CROSSINGS**

	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
7:45 AM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0

**BICYCLE CROSSINGS**

	NS	SS	ES	WS	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
7:45 AM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0

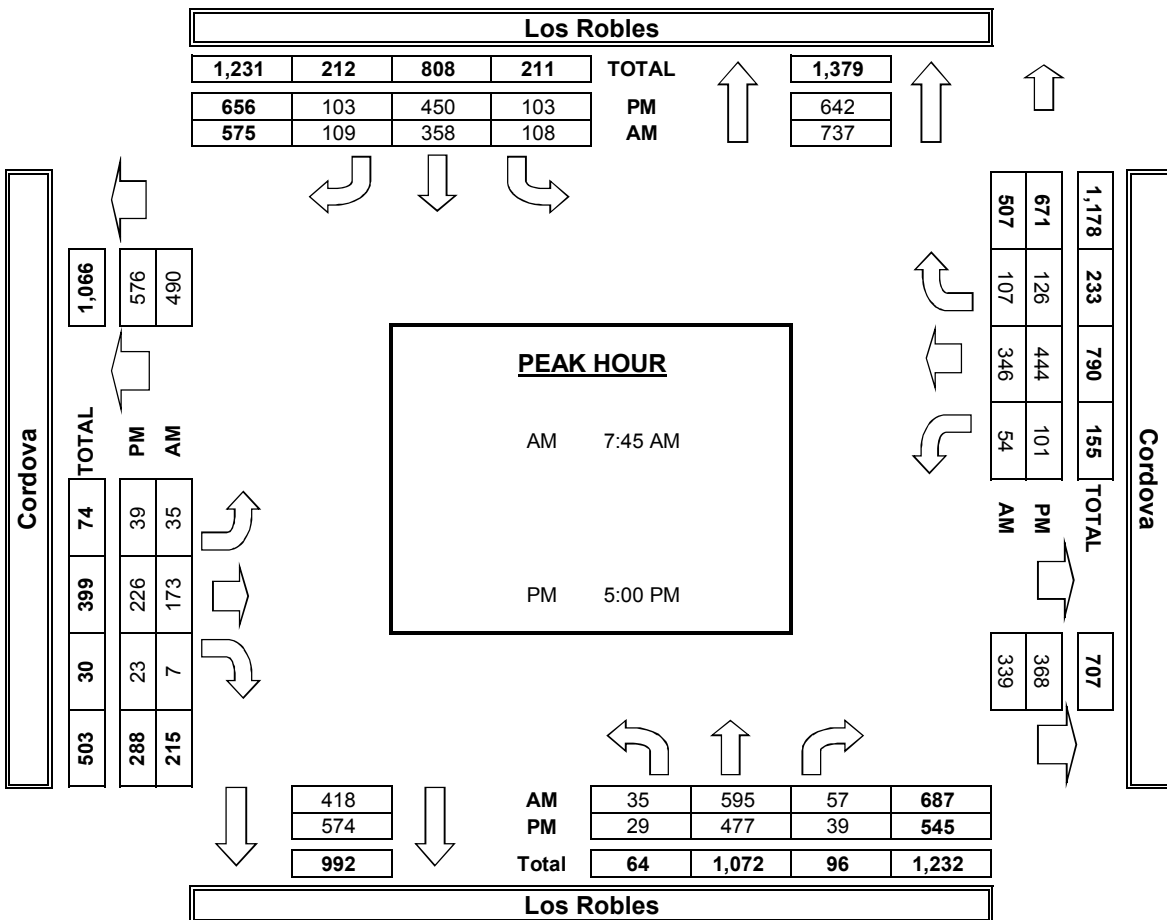
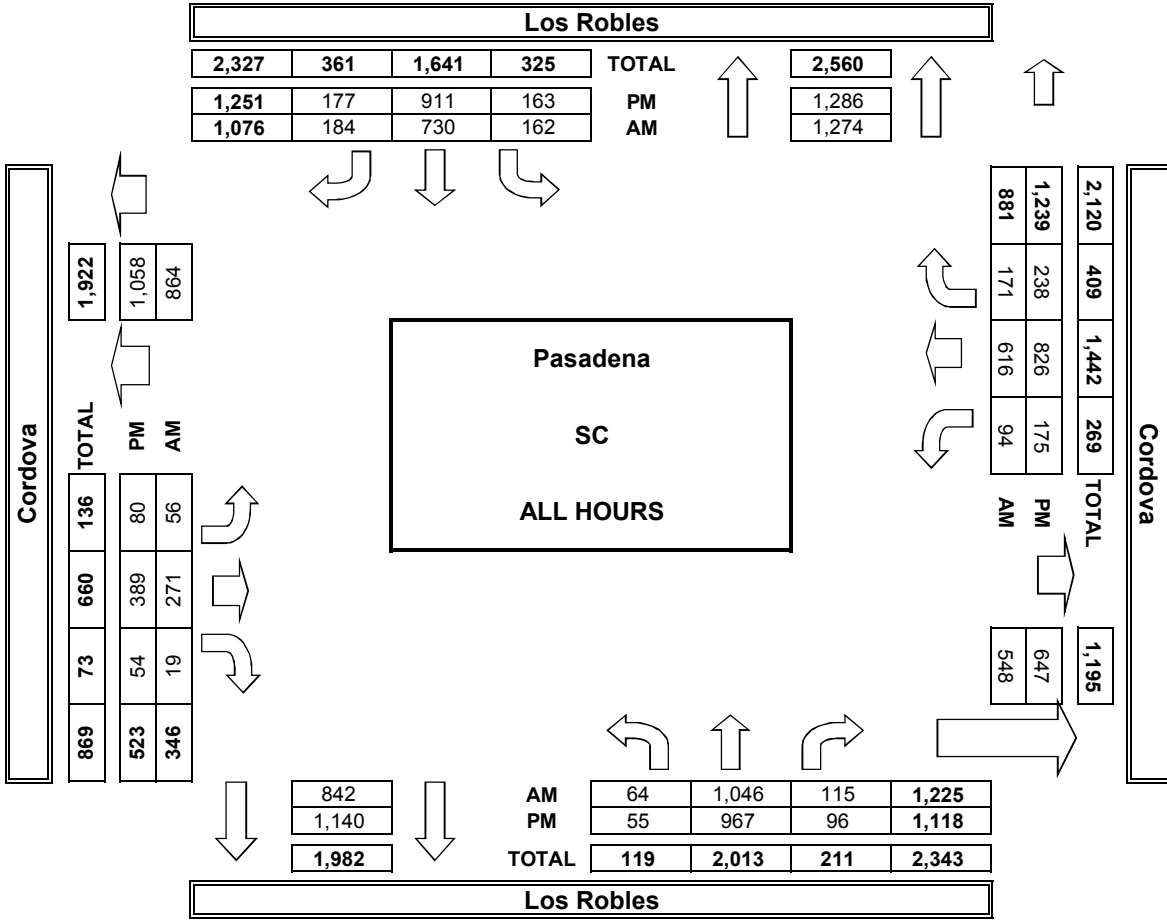
**AimTD LLC**  
TURNING MOVEMENT COUNTS





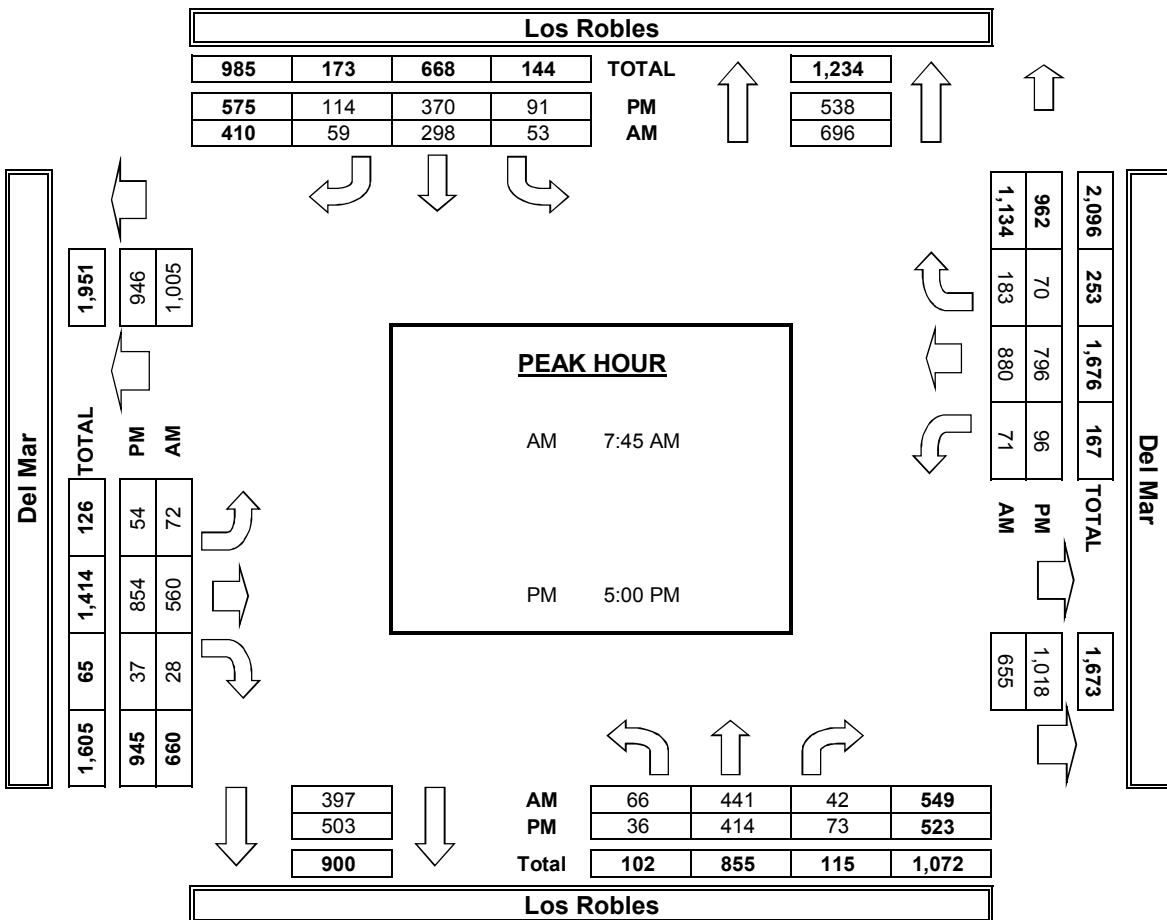
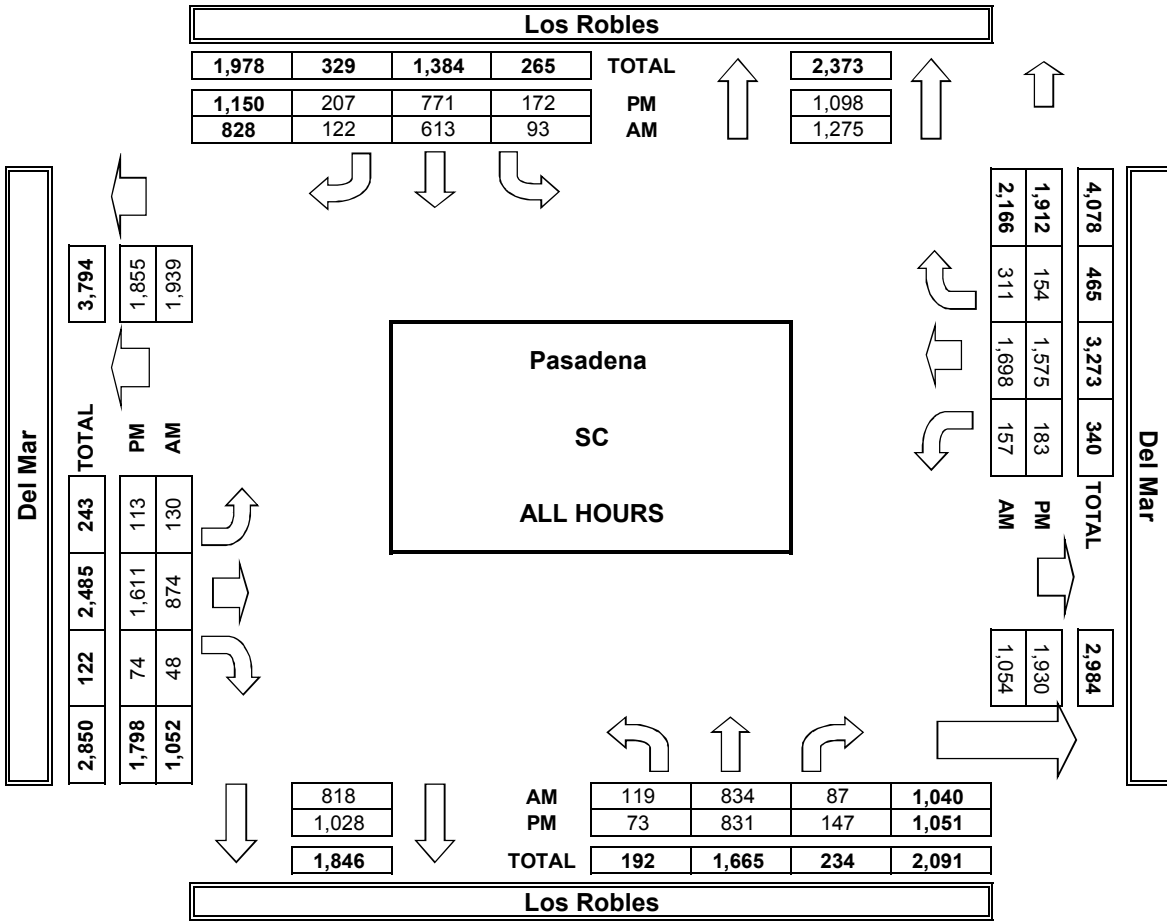


**AimTD LLC**  
TURNING MOVEMENT COUNTS



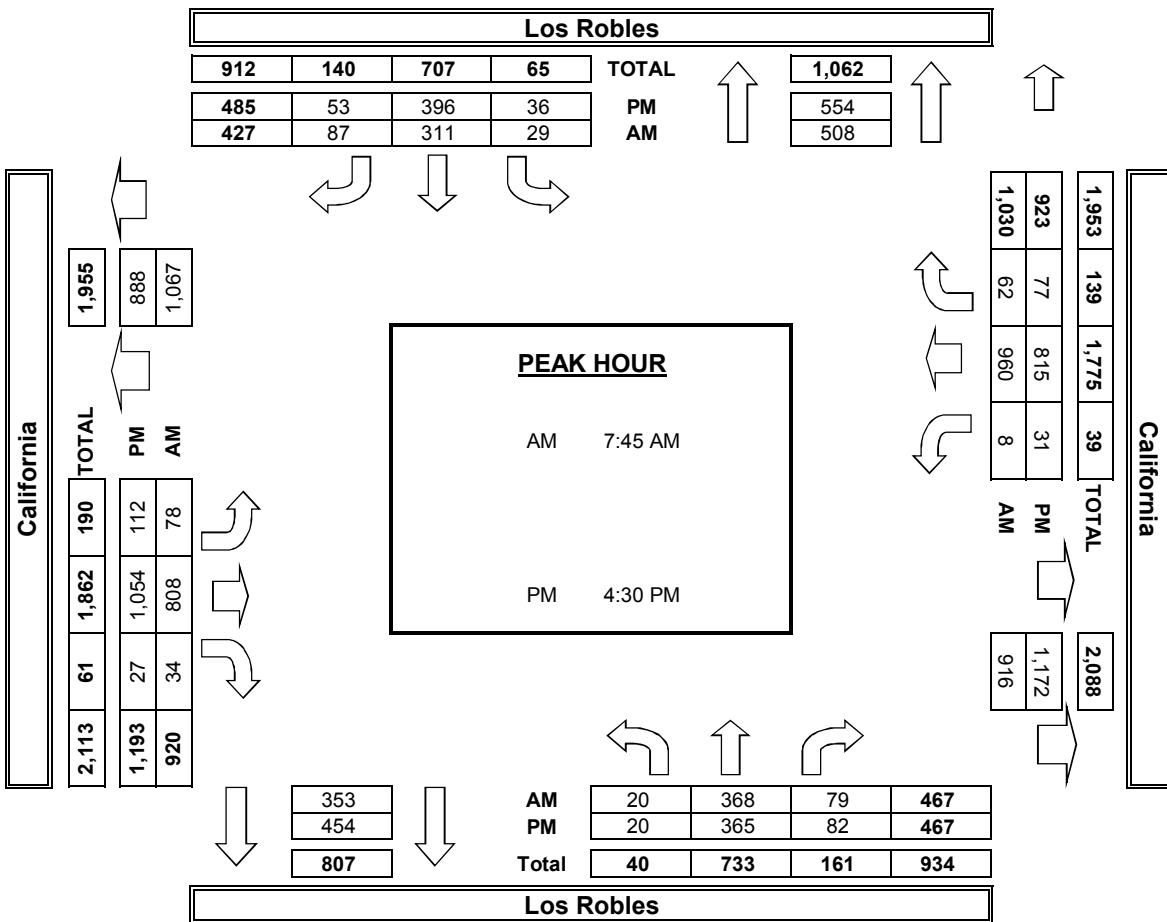
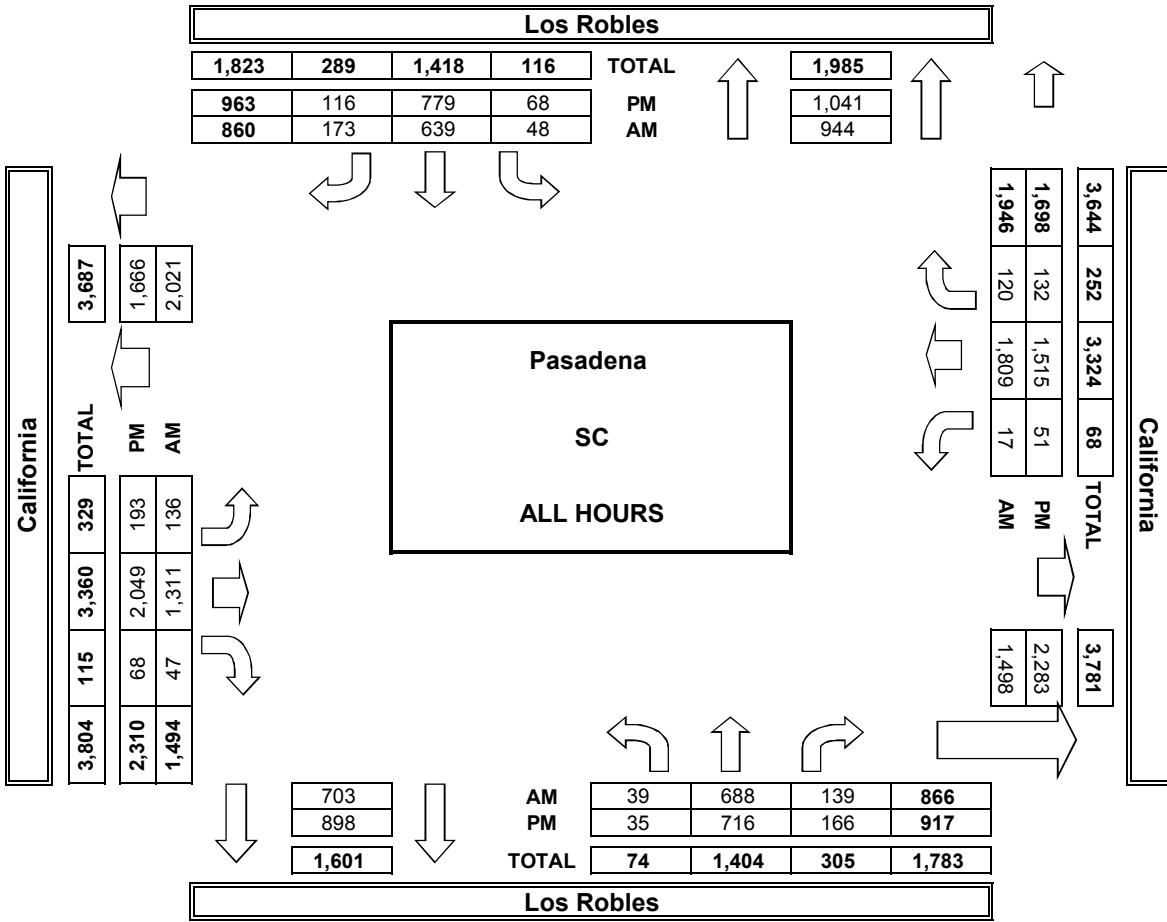


**AimTD LLC**  
TURNING MOVEMENT COUNTS



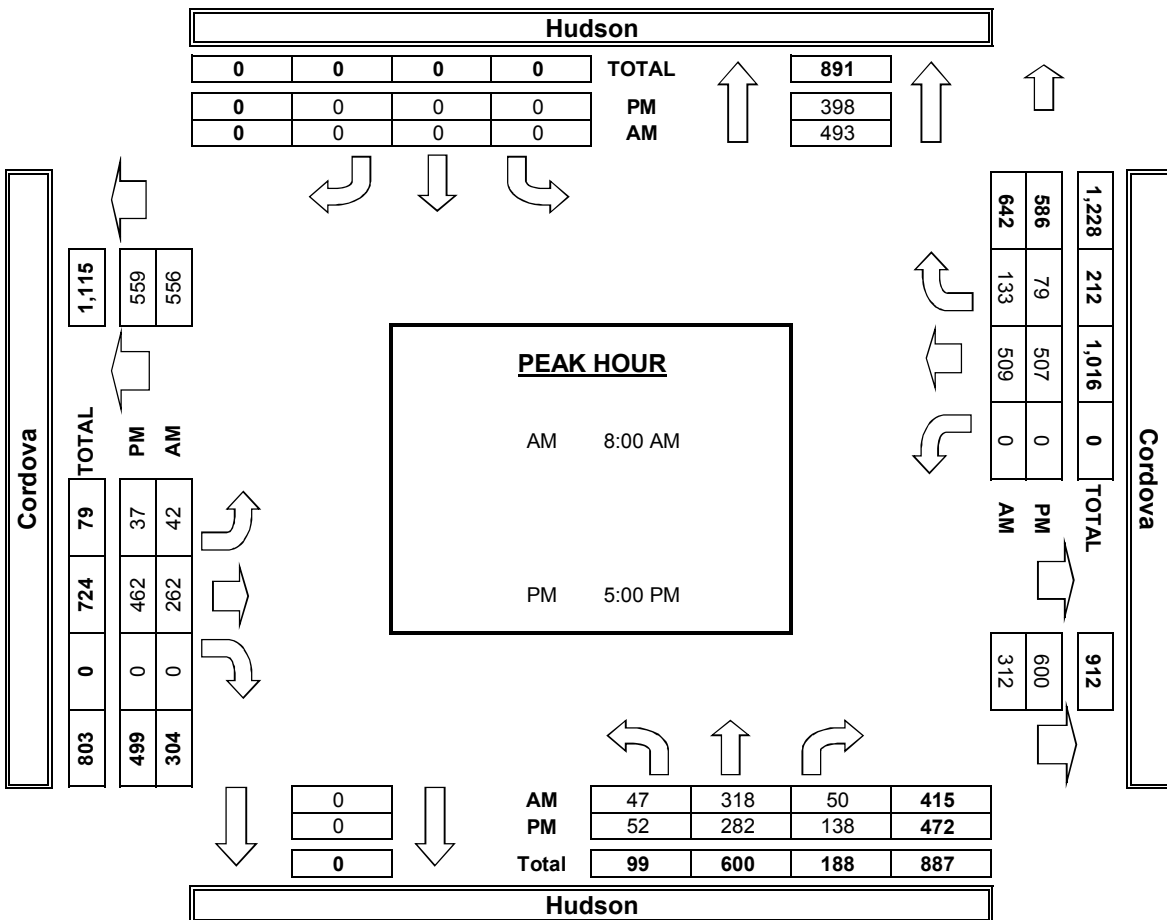
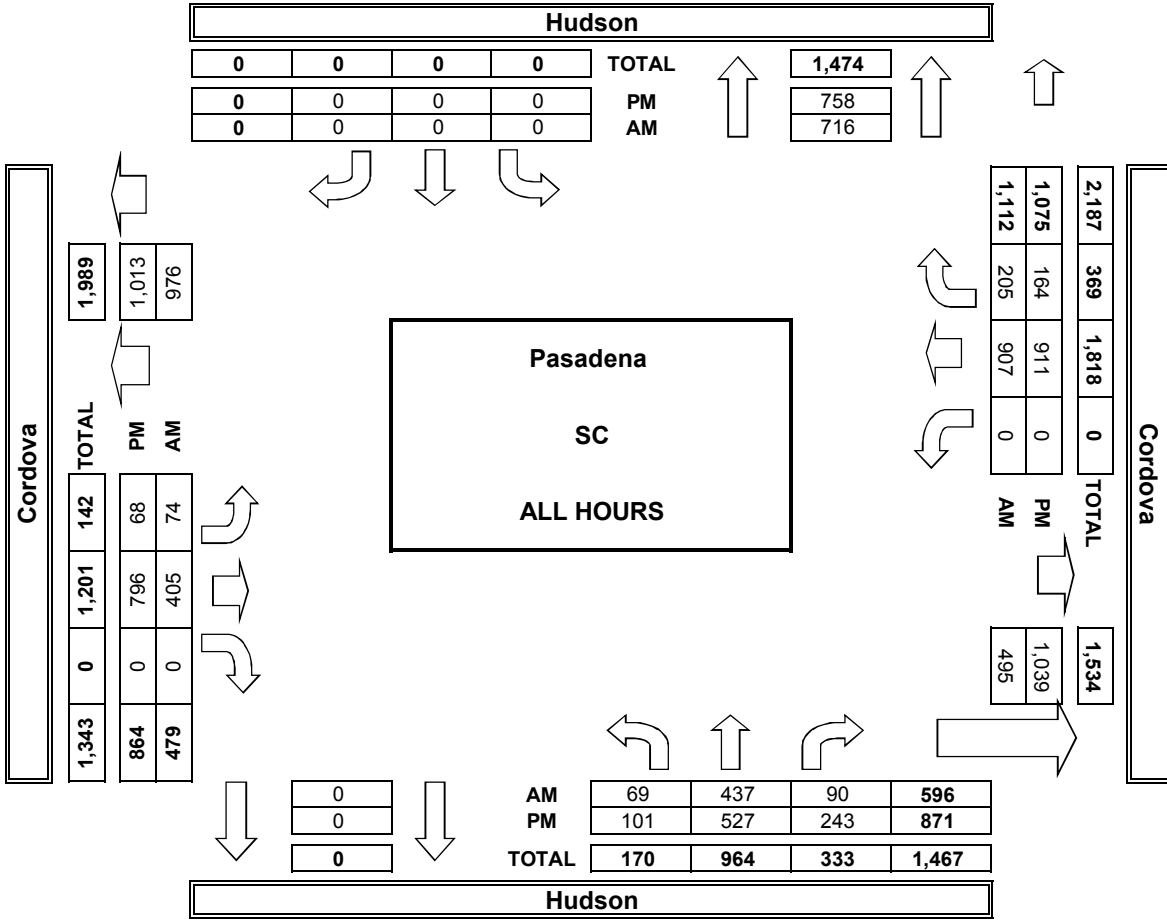


**AimTD LLC**  
TURNING MOVEMENT COUNTS





**AimTD LLC**  
TURNING MOVEMENT COUNTS





**INTERSECTION TURNING MOVEMENT COUNTS**

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Wed, Oct 30, 19

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:  
Pasadena  
Hudson  
Del Mar

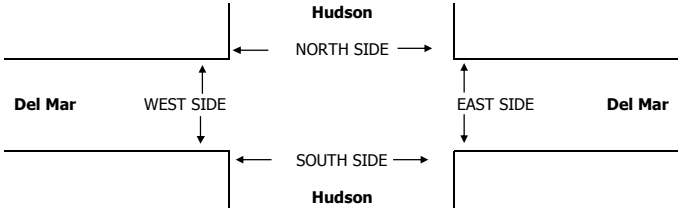
PROJECT #:  
LOCATION #:  
CONTROL:  
SC  
12  
SIGNAL

NOTES:

AM		▲	
PM		▲	N
MD	◀ W		E ▶
OTHER		S	
OTHER		▼	

Add U-Turns to Left Turns

LANES:	NORTHBOUND <small>Hudson</small>			SOUTHBOUND <small>Hudson</small>			EASTBOUND <small>Del Mar</small>			WESTBOUND <small>Del Mar</small>			TOTAL	U-TURNS				
	NL 0	NT 2	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 0		NB 0	SB 0	EB 0	WB 0	TTL
7:00 AM	7	16	8	0	0	0	5	75	0	0	202	14	327	0	0	0	0	0
7:15 AM	6	20	11	0	0	0	7	95	0	0	238	12	389	0	0	0	0	0
7:30 AM	12	30	17	0	0	0	11	97	0	0	295	12	474	0	0	0	0	0
7:45 AM	20	41	34	0	0	0	13	138	0	0	282	24	552	0	0	0	0	0
8:00 AM	17	57	33	0	0	0	18	193	0	0	244	40	602	0	0	0	0	0
8:15 AM	33	56	48	0	0	0	20	170	0	0	230	21	578	0	0	0	0	0
8:30 AM	18	83	44	0	0	0	18	148	0	0	237	31	579	0	0	0	0	0
8:45 AM	25	68	38	0	0	0	16	149	0	0	222	24	542	0	0	0	0	0
VOLUMES	138	371	233	0	0	0	108	1,065	0	0	1,950	178	4,043	0	0	0	0	0
APPROACH %	19%	50%	31%	0%	0%	0%	9%	91%	0%	0%	92%	8%						
APP/DEPART	742	/	657	0	/	0	1,173	/	1,298	2,128	/	2,088	0					
BEGIN PEAK HR	7:45 AM																	
VOLUMES	88	237	159	0	0	0	69	649	0	0	993	116	2,311					
APPROACH %	18%	49%	33%	0%	0%	0%	10%	90%	0%	0%	90%	10%						
PEAK HR FACTOR	0.834			0.000			0.851			0.906			0.960					
APP/DEPART	484	/	422	0	/	0	718	/	808	1,109	/	1,081	0					
4:00 PM	50	51	50	0	0	0	6	221	0	0	224	20	622	0	0	0	0	0
4:15 PM	34	49	48	0	0	0	10	235	0	0	214	27	617	0	0	0	0	0
4:30 PM	43	56	57	0	0	0	6	243	0	0	209	18	632	0	0	0	0	0
4:45 PM	42	54	54	0	0	0	10	225	0	0	250	22	657	0	0	0	0	0
5:00 PM	46	54	66	0	0	0	13	226	0	0	251	24	680	0	0	0	0	0
5:15 PM	35	59	47	0	0	0	11	220	0	0	264	20	656	0	0	0	0	0
5:30 PM	47	66	43	0	0	0	17	220	0	0	236	20	649	0	0	0	0	0
5:45 PM	40	59	54	0	0	0	9	248	0	0	246	24	680	0	0	0	1	1
VOLUMES	337	448	419	0	0	0	82	1,838	0	0	1,894	175	5,194	0	0	0	1	1
APPROACH %	28%	37%	35%	0%	0%	0%	4%	96%	0%	0%	91%	8%						
APP/DEPART	1,204	/	705	0	/	0	1,920	/	2,258	2,070	/	2,231	0					
BEGIN PEAK HR	5:00 PM																	
VOLUMES	168	238	210	0	0	0	50	914	0	0	997	88	2,666					
APPROACH %	27%	39%	34%	0%	0%	0%	5%	95%	0%	0%	92%	8%						
PEAK HR FACTOR	0.928			0.000			0.938			0.956			0.979					
APP/DEPART	616	/	376	0	/	0	964	/	1,125	1,086	/	1,165	0					



Time	AM	PM
7:00 AM		
7:15 AM		
7:30 AM		
7:45 AM		
8:00 AM		
8:15 AM		
8:30 AM		
8:45 AM		
TOTAL		
AM BEGIN PEAK HR		
4:00 PM		
4:15 PM		
4:30 PM		
4:45 PM		
5:00 PM		
5:15 PM		
5:30 PM		
5:45 PM		
TOTAL		
PM BEGIN PEAK HR		

**PEDESTRIAN + BIKE CROSSINGS**

Time	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
7:45 AM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
5:00 PM	0	0	0	0	0

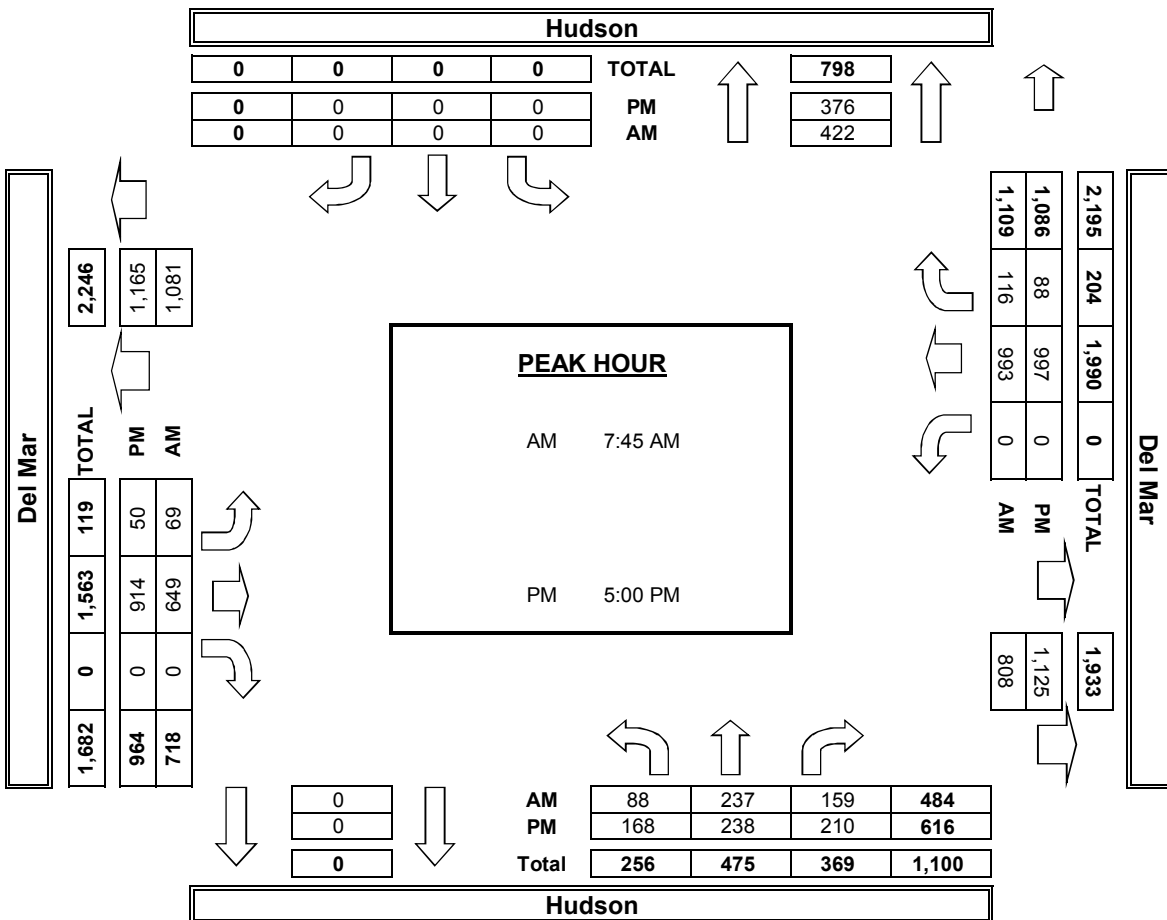
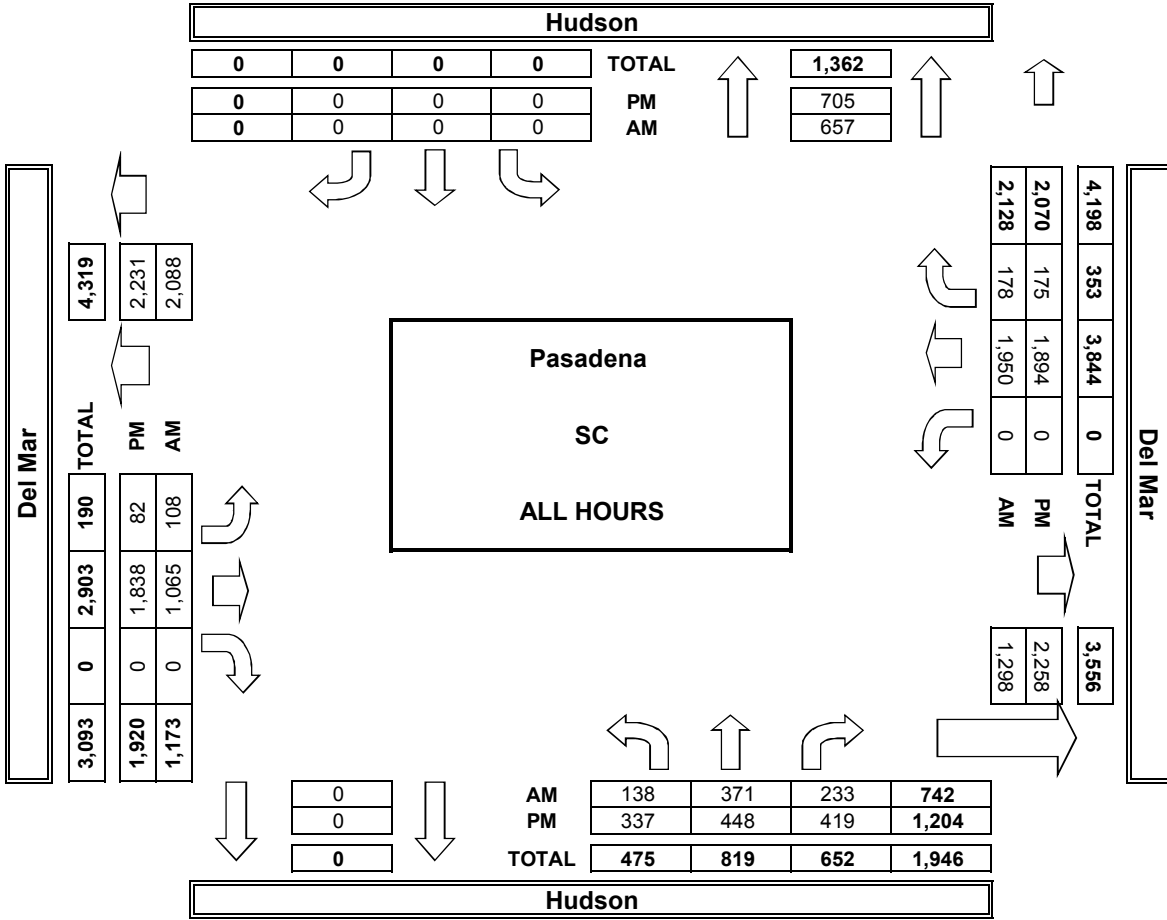
**PEDESTRIAN CROSSINGS**

Time	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
7:45 AM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
5:00 PM	0	0	0	0	0

**BICYCLE CROSSINGS**

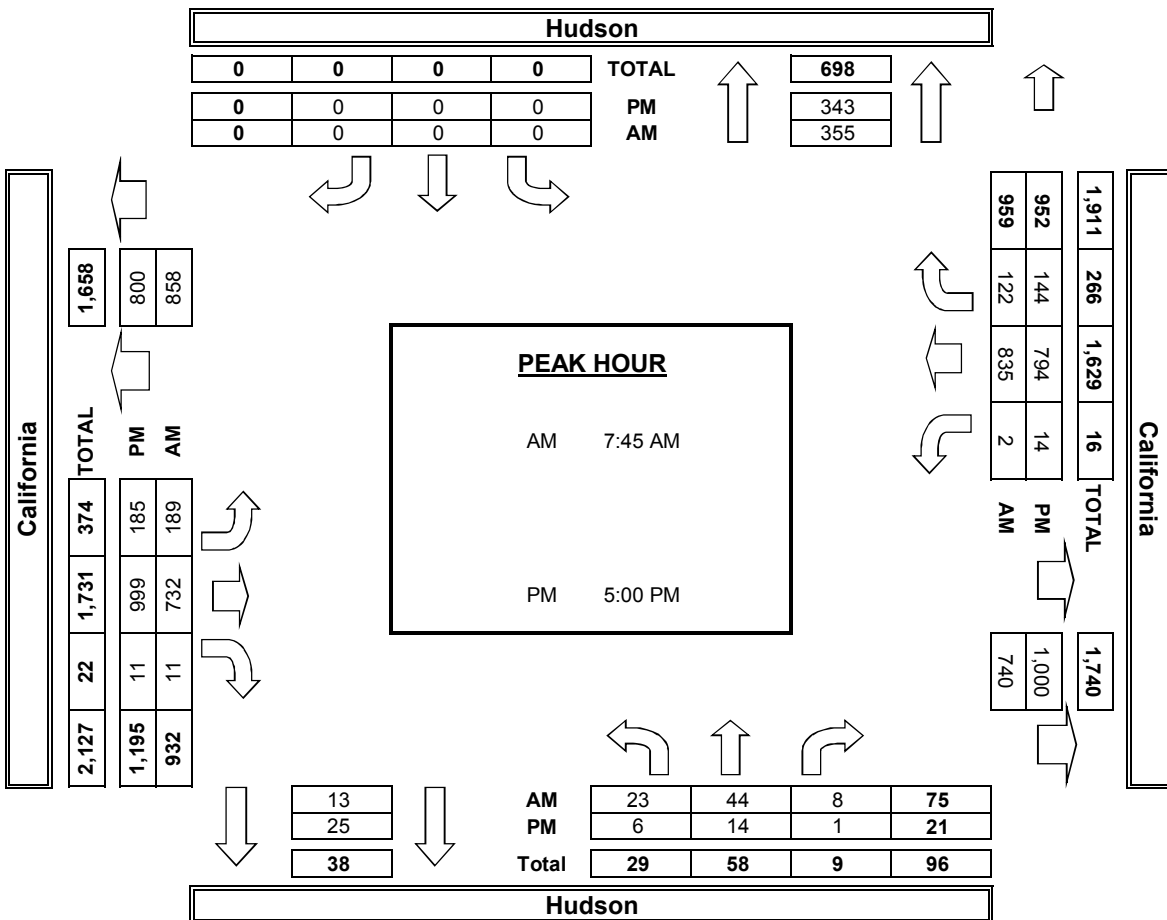
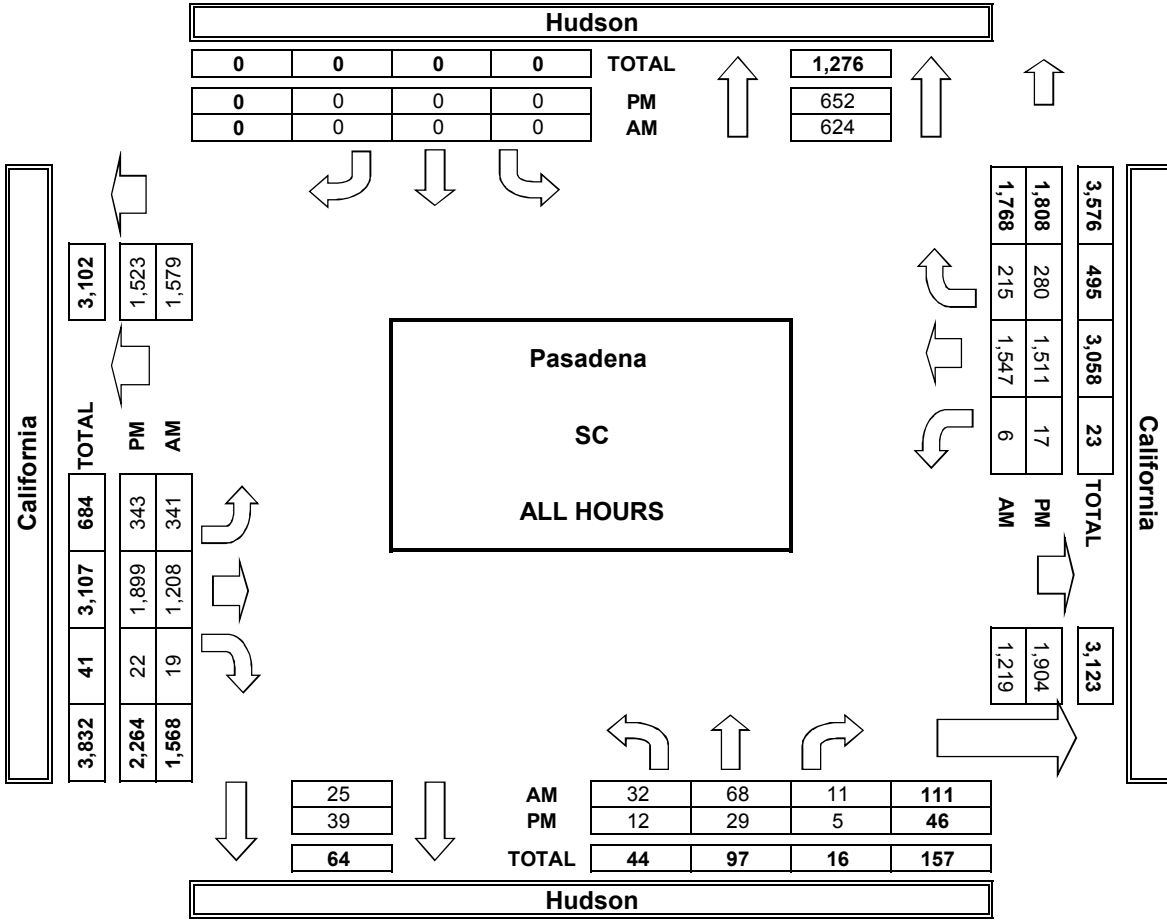
Time	NS	SS	ES	WS	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
7:45 AM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
5:00 PM	0	0	0	0	0

**AimTD LLC**  
TURNING MOVEMENT COUNTS





**AimTD LLC**  
TURNING MOVEMENT COUNTS



Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT1 EI Molino Ave between Claremont St and Orange Grove Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	2	4			12:00	22	20			
0:15	0	5			12:15	25	19			
0:30	2	4			12:30	44	16			
0:45	0	4	4	17	12:45	30	121	27	82	
										203
1:00	0	0			13:00	25	30			
1:15	0	0			13:15	21	33			
1:30	0	0			13:30	30	33			
1:45	3	3	0	0	13:45	35	111	39	135	
										246
2:00	0	0			14:00	34	31			
2:15	2	0			14:15	36	31			
2:30	0	3			14:30	28	27			
2:45	0	2	2	5	14:45	32	130	36	125	
										255
3:00	0	0			15:00	57	34			
3:15	0	0			15:15	57	49			
3:30	0	0			15:30	24	57			
3:45	0	0	0	0	15:45	15	153	49	189	
										342
4:00	0	0			16:00	29	51			
4:15	2	0			16:15	16	49			
4:30	2	0			16:30	16	46			
4:45	2	6	2	2	16:45	19	80	49	195	
										275
5:00	3	0			17:00	13	57			
5:15	0	0			17:15	16	68			
5:30	0	0			17:30	20	55			
5:45	3	6	2	2	17:45	17	66	59	239	
										305
6:00	2	6			18:00	16	50			
6:15	4	2			18:15	15	55			
6:30	6	7			18:30	19	38			
6:45	9	21	7	22	18:45	19	69	47	190	
										259
7:00	13	8			19:00	11	59			
7:15	34	15			19:15	17	38			
7:30	75	34			19:30	10	31			
7:45	67	189	41	98	19:45	9	47	31	159	
										206
8:00	56	20			20:00	10	29			
8:15	48	32			20:15	10	30			
8:30	32	26			20:30	8	18			
8:45	35	171	11	89	20:45	4	32	30	107	
										139
9:00	28	18			21:00	8	21			
9:15	29	19			21:15	3	10			
9:30	31	21			21:30	7	15			
9:45	23	111	13	71	21:45	9	27	16	62	
										89
10:00	20	11			22:00	12	12			
10:15	26	14			22:15	0	11			
10:30	29	18			22:30	2	4			
10:45	41	116	14	57	22:45	2	16	10	37	
										53
11:00	22	13			23:00	3	9			
11:15	32	17			23:15	0	5			
11:30	28	17			23:30	0	2			
11:45	26	108	18	65	23:45	0	3	0	16	
										19
<b>Total Vol.</b>	737	428			<b>1165</b>	855	1536			<b>2391</b>

Daily Totals				
NB	SB	EB	WB	Combined
1592	1964			<b>3556</b>

	AM			PM		
<b>Split %</b>	63.3%	36.7%	<b>32.8%</b>	35.8%	64.2%	<b>67.2%</b>
<b>Peak Hour</b>	7:30	7:30	<b>7:30</b>	14:30	17:00	<b>14:45</b>
<b>Volume</b>	246	127	<b>373</b>	174	239	<b>346</b>
<b>P.H.F.</b>	0.82	0.77	<b>0.86</b>	0.76	0.88	<b>0.82</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT2 EI Molino Ave between Colorado Blvd and Cordova St.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	8	11			12:00	47	74		
0:15	4	0			12:15	55	43		
0:30	2	2			12:30	47	52		
0:45	4	18	5	18	12:45	49	198	71	240
					<b>438</b>				
1:00	2	2			13:00	52	51		
1:15	2	5			13:15	50	63		
1:30	0	0			13:30	43	64		
1:45	2	6	0	7	13:45	63	208	46	224
					<b>432</b>				
2:00	0	0			14:00	56	53		
2:15	0	0			14:15	48	52		
2:30	2	2			14:30	42	57		
2:45	0	2	2	4	14:45	55	201	62	224
					<b>425</b>				
3:00	0	0			15:00	79	42		
3:15	0	2			15:15	68	63		
3:30	0	0			15:30	45	69		
3:45	0	0	0	2	15:45	70	262	63	237
					<b>499</b>				
4:00	2	2			16:00	68	74		
4:15	0	0			16:15	53	84		
4:30	3	3			16:30	54	72		
4:45	8	13	0	5	16:45	63	238	86	316
					<b>554</b>				
5:00	3	4			17:00	61	105		
5:15	2	4			17:15	65	85		
5:30	3	11			17:30	71	81		
5:45	18	26	7	26	17:45	64	261	94	365
					<b>626</b>				
6:00	8	12			18:00	58	90		
6:15	8	11			18:15	60	80		
6:30	16	17			18:30	51	64		
6:45	29	61	26	66	18:45	66	235	72	306
					<b>541</b>				
7:00	18	32			19:00	49	60		
7:15	37	25			19:15	52	54		
7:30	57	60			19:30	30	50		
7:45	67	179	52	169	19:45	39	170	37	201
					<b>371</b>				
8:00	80	64			20:00	30	38		
8:15	84	77			20:15	21	21		
8:30	86	70			20:30	37	33		
8:45	72	322	46	257	20:45	20	108	39	131
					<b>239</b>				
9:00	62	48			21:00	20	28		
9:15	55	47			21:15	21	33		
9:30	40	41			21:30	13	19		
9:45	54	211	50	186	21:45	16	70	21	101
					<b>171</b>				
10:00	52	39			22:00	15	12		
10:15	47	38			22:15	7	17		
10:30	37	41			22:30	8	6		
10:45	53	189	52	170	22:45	7	37	6	41
					<b>78</b>				
11:00	43	48			23:00	8	11		
11:15	40	26			23:15	4	10		
11:30	44	41			23:30	4	6		
11:45	68	195	52	167	23:45	3	19	3	30
					<b>49</b>				
<b>Total Vol.</b>	1222	1077				2007	2416		
					<b>4423</b>				

Daily Totals				
NB	SB	EB	WB	Combined
3229	3493			<b>6722</b>

	AM			PM		
<b>Split %</b>	53.2%	46.8%	<b>34.2%</b>	45.4%	54.6%	<b>65.8%</b>
<b>Peak Hour</b>	8:00	7:45	<b>7:45</b>	15:00	17:00	<b>17:00</b>
<b>Volume</b>	322	263	<b>580</b>	262	365	<b>626</b>
<b>P.H.F.</b>	0.94	0.85	<b>0.90</b>	0.75	0.87	<b>0.94</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT3 El Molino Ave between Cordova St and Del Mar Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	5	9			12:00	45	64			
0:15	6	0			12:15	49	43			
0:30	2	3			12:30	43	43			
0:45	2	15	6	18	12:45	34	171	48	198	
					369					
1:00	0	2			13:00	42	45			
1:15	2	4			13:15	50	61			
1:30	0	0			13:30	55	47			
1:45	2	4	0	6	13:45	51	198	48	201	
					399					
2:00	0	0			14:00	44	53			
2:15	0	0			14:15	52	59			
2:30	3	2			14:30	35	54			
2:45	0	3	2	4	14:45	53	184	60	226	
					410					
3:00	0	0			15:00	47	70			
3:15	0	0			15:15	69	67			
3:30	2	0			15:30	53	59			
3:45	0	2	3	3	15:45	73	242	63	259	
					501					
4:00	0	2			16:00	61	72			
4:15	0	0			16:15	61	87			
4:30	0	2			16:30	57	71			
4:45	6	6	0	4	16:45	68	247	94	324	
					571					
5:00	3	3			17:00	55	109			
5:15	4	6			17:15	79	93			
5:30	9	8			17:30	77	87			
5:45	13	29	8	25	17:45	66	277	94	383	
					660					
6:00	14	14			18:00	60	85			
6:15	8	9			18:15	61	79			
6:30	21	17			18:30	61	70			
6:45	38	81	30	70	18:45	62	244	70	304	
					548					
7:00	32	28			19:00	56	56			
7:15	42	32			19:15	42	47			
7:30	64	56			19:30	28	38			
7:45	86	224	52	168	19:45	37	163	40	181	
					344					
8:00	95	71			20:00	33	34			
8:15	101	71			20:15	30	18			
8:30	93	56			20:30	37	30			
8:45	91	380	43	241	20:45	20	120	44	126	
					246					
9:00	76	40			21:00	21	35			
9:15	58	41			21:15	16	30			
9:30	54	41			21:30	12	24			
9:45	59	247	34	156	21:45	14	63	20	109	
					172					
10:00	59	31			22:00	15	11			
10:15	38	34			22:15	11	18			
10:30	41	44			22:30	10	6			
10:45	61	199	40	149	22:45	9	45	9	44	
					89					
11:00	36	55			23:00	5	14			
11:15	37	26			23:15	12	5			
11:30	49	31			23:30	9	10			
11:45	55	177	56	168	23:45	3	29	2	31	
					60					
<b>Total Vol.</b>	1367	1012			<b>2379</b>	1983	2386			<b>4369</b>

Daily Totals

NB	SB	EB	WB	Combined
3350	3398			<b>6748</b>

AM

PM

<b>Split %</b>	57.5%	42.5%	<b>35.3%</b>	45.4%	54.6%	<b>64.7%</b>
<b>Peak Hour</b>	8:00	7:30	<b>7:45</b>	17:15	16:45	<b>16:45</b>
<b>Volume</b>	380	250	<b>625</b>	282	383	<b>662</b>
<b>P.H.F.</b>	0.94	0.88	<b>0.91</b>	0.91	0.88	<b>0.96</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

**ADT4 El Molino Ave between Del Mar Blvd and California Blvd.**

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	5	7			12:00	44	56			
0:15	7	3			12:15	43	41			
0:30	4	4			12:30	36	43			
0:45	2	18	2	16	12:45	32	155	33	173	
										328
1:00	2	0			13:00	52	36			
1:15	0	2			13:15	48	46			
1:30	0	0			13:30	41	47			
1:45	3	5	0	2	13:45	45	186	43	172	
										358
2:00	2	0			14:00	42	53			
2:15	2	0			14:15	30	62			
2:30	2	0			14:30	44	51			
2:45	0	6	0	0	14:45	56	172	42	208	
										380
3:00	0	0			15:00	43	72			
3:15	0	0			15:15	75	86			
3:30	0	0			15:30	44	62			
3:45	0	0	2	2	15:45	72	234	78	298	
										532
4:00	0	0			16:00	69	94			
4:15	3	3			16:15	71	82			
4:30	0	3			16:30	51	84			
4:45	5	8	2	8	16:45	63	254	98	358	
										612
5:00	3	5			17:00	67	127			
5:15	2	5			17:15	84	112			
5:30	12	8			17:30	82	97			
5:45	11	28	10	28	17:45	87	320	99	435	
										755
6:00	13	15			18:00	75	107			
6:15	11	11			18:15	59	95			
6:30	20	20			18:30	61	77			
6:45	39	83	28	74	18:45	59	254	71	350	
										604
7:00	22	43			19:00	56	56			
7:15	43	49			19:15	47	44			
7:30	58	60			19:30	30	57			
7:45	98	221	70	222	19:45	28	161	39	196	
										357
8:00	117	59			20:00	31	42			
8:15	115	60			20:15	28	22			
8:30	102	67			20:30	24	34			
8:45	88	422	61	247	20:45	20	103	35	133	
										236
9:00	68	53			21:00	26	35			
9:15	53	45			21:15	16	29			
9:30	63	38			21:30	16	33			
9:45	53	237	48	184	21:45	15	73	26	123	
										196
10:00	49	35			22:00	15	15			
10:15	62	36			22:15	9	18			
10:30	41	33			22:30	13	5			
10:45	64	216	43	147	22:45	6	43	11	49	
										92
11:00	45	33			23:00	8	13			
11:15	36	31			23:15	6	9			
11:30	42	31			23:30	4	8			
11:45	47	170	49	144	23:45	2	20	3	33	
										53
<b>Total Vol.</b>	1414	1074				1975	2528			<b>4503</b>

Daily Totals				
NB	SB	EB	WB	Combined
3389	3602			<b>6991</b>

	AM			PM		
<b>Split %</b>	56.8%	43.2%	<b>35.6%</b>	43.9%	56.1%	<b>64.4%</b>
<b>Peak Hour</b>	7:45	7:45	<b>7:45</b>	17:15	17:00	<b>17:00</b>
<b>Volume</b>	432	256	<b>688</b>	328	435	<b>755</b>
<b>P.H.F.</b>	0.92	0.91	<b>0.98</b>	0.98	0.86	<b>0.96</b>



Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

**ADT5 El Molino Ave between California Blvd and Cornell Rd.**

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	2	4			12:00	43	45			
0:15	4	0			12:15	39	34			
0:30	2	3			12:30	42	30			
0:45	0	8	0	7	12:45	27	151	28	137	
										288
1:00	0	0			13:00	38	29			
1:15	0	3			13:15	48	39			
1:30	2	0			13:30	45	35			
1:45	0	2	0	3	13:45	49	180	37	140	
										320
2:00	2	0			14:00	40	53			
2:15	0	0			14:15	39	51			
2:30	0	0			14:30	39	33			
2:45	0	2	0	0	14:45	56	174	42	179	
										353
3:00	0	0			15:00	50	56			
3:15	0	0			15:15	53	59			
3:30	0	0			15:30	56	67			
3:45	0	0	0	0	15:45	69	228	63	245	
										473
4:00	0	0			16:00	50	75			
4:15	0	3			16:15	52	71			
4:30	2	2			16:30	65	70			
4:45	3	5	2	7	16:45	68	235	89	305	
										540
5:00	2	4			17:00	60	96			
5:15	5	5			17:15	72	110			
5:30	14	4			17:30	78	79			
5:45	6	27	7	20	17:45	67	277	96	381	
										658
6:00	9	7			18:00	77	81			
6:15	5	8			18:15	64	89			
6:30	21	14			18:30	53	62			
6:45	39	74	30	59	18:45	58	252	59	291	
										543
7:00	47	26			19:00	56	45			
7:15	50	29			19:15	39	38			
7:30	75	45			19:30	31	33			
7:45	86	258	56	156	19:45	28	154	33	149	
										303
8:00	104	37			20:00	26	31			
8:15	100	32			20:15	19	14			
8:30	83	40			20:30	21	20			
8:45	89	376	42	151	20:45	13	79	27	92	
										171
9:00	76	32			21:00	21	24			
9:15	54	26			21:15	17	26			
9:30	61	33			21:30	11	18			
9:45	68	259	30	121	21:45	13	62	17	85	
										147
10:00	47	33			22:00	20	6			
10:15	60	35			22:15	6	10			
10:30	50	27			22:30	16	5			
10:45	46	203	44	139	22:45	8	50	9	30	
										80
11:00	43	30			23:00	8	10			
11:15	31	33			23:15	6	5			
11:30	54	33			23:30	5	6			
11:45	49	177	48	144	23:45	2	21	2	23	
										44
<b>Total Vol.</b>	1391	807			<b>2198</b>	1863	2057			<b>3920</b>

	Daily Totals				Combined	
	NB	SB	EB	WB		
	3254	2864			<b>6118</b>	
	<b>AM</b>		<b>PM</b>			
<b>Split %</b>	63.3%	36.7%	<b>35.9%</b>	47.5%	52.5%	<b>64.1%</b>
<b>Peak Hour</b>	8:00	7:30	<b>7:45</b>	17:15	17:00	<b>17:15</b>
<b>Volume</b>	376	170	<b>538</b>	294	381	<b>660</b>
<b>P.H.F.</b>	0.90	0.76	<b>0.95</b>	0.91	0.87	<b>0.91</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT6 Los Robles Ave north of Orange Grove Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	23	11			12:00	120	92			
0:15	14	15			12:15	123	106			
0:30	19	13			12:30	107	112			
0:45	11	67	8	47	12:45	118	468	109	419	
										887
1:00	8	10			13:00	115	104			
1:15	10	6			13:15	104	98			
1:30	8	6			13:30	97	87			
1:45	5	31	7	29	13:45	132	448	116	405	
										853
2:00	6	5			14:00	140	81			
2:15	5	3			14:15	124	116			
2:30	7	9			14:30	120	148			
2:45	0	18	2	19	14:45	141	525	116	461	
										986
3:00	2	8			15:00	115	151			
3:15	4	6			15:15	142	163			
3:30	2	5			15:30	168	132			
3:45	4	12	9	28	15:45	140	565	139	585	
										1150
4:00	0	12			16:00	169	108			
4:15	3	5			16:15	157	129			
4:30	4	15			16:30	172	140			
4:45	3	10	17	49	16:45	177	675	136	513	
										1188
5:00	10	22			17:00	135	142			
5:15	10	34			17:15	183	143			
5:30	10	45			17:30	213	125			
5:45	27	57	63	164	17:45	177	708	149	559	
										1267
6:00	27	60			18:00	161	139			
6:15	31	72			18:15	192	123			
6:30	42	80			18:30	162	117			
6:45	48	148	112	324	18:45	152	667	138	517	
										1184
7:00	67	143			19:00	167	106			
7:15	77	163			19:15	128	105			
7:30	87	216			19:30	161	80			
7:45	99	330	199	721	19:45	116	572	64	355	
										927
8:00	114	191			20:00	127	91			
8:15	95	174			20:15	110	63			
8:30	97	173			20:30	94	58			
8:45	84	390	156	694	20:45	96	427	66	278	
										705
9:00	73	127			21:00	108	47			
9:15	71	132			21:15	97	60			
9:30	76	124			21:30	86	44			
9:45	91	311	131	514	21:45	73	364	34	185	
										549
10:00	78	112			22:00	58	28			
10:15	77	114			22:15	50	42			
10:30	91	103			22:30	50	28			
10:45	77	323	115	444	22:45	43	201	20	118	
										319
11:00	96	111			23:00	26	24			
11:15	82	102			23:15	36	22			
11:30	86	105			23:30	31	22			
11:45	109	373	100	418	23:45	22	115	23	91	
										206
<b>Total Vol.</b>	2070	3451				5735	4486			<b>10221</b>

Daily Totals

NB	SB	EB	WB	Combined
7805	7937			<b>15742</b>

AM

PM

<b>Split %</b>	37.5%	62.5%	<b>35.1%</b>	56.1%	43.9%	<b>64.9%</b>
<b>Peak Hour</b>	11:45	7:30	<b>7:30</b>	17:30	15:00	<b>17:15</b>
<b>Volume</b>	459	780	<b>1175</b>	743	585	<b>1290</b>
<b>P.H.F.</b>	0.93	0.90	<b>0.96</b>	0.84	0.90	<b>0.95</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT7 Los Robles Ave between Cordova St and Del Mar Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	13	15			12:00	121	101			
0:15	10	11			12:15	120	107			
0:30	14	10			12:30	139	102			
0:45	11	48	5	41	12:45	129	509	94	404	
										913
1:00	9	12			13:00	116	128			
1:15	2	5			13:15	127	103			
1:30	4	8			13:30	122	115			
1:45	2	17	5	30	13:45	123	488	105	451	
										939
2:00	0	5			14:00	121	95			
2:15	3	7			14:15	139	108			
2:30	2	5			14:30	126	105			
2:45	2	7	5	22	14:45	143	529	118	426	
										955
3:00	2	4			15:00	123	121			
3:15	3	3			15:15	172	95			
3:30	6	0			15:30	145	142			
3:45	2	13	2	9	15:45	147	587	136	494	
										1081
4:00	5	5			16:00	139	142			
4:15	5	9			16:15	129	133			
4:30	5	11			16:30	154	133			
4:45	15	30	16	41	16:45	150	572	161	569	
										1141
5:00	11	12			17:00	147	151			
5:15	15	14			17:15	134	135			
5:30	33	23			17:30	147	120			
5:45	36	95	30	79	17:45	122	550	161	567	
										1117
6:00	40	33			18:00	149	107			
6:15	61	46			18:15	122	130			
6:30	69	57			18:30	119	136			
6:45	78	248	56	192	18:45	128	518	122	495	
										1013
7:00	124	89			19:00	126	126			
7:15	140	94			19:15	112	86			
7:30	138	106			19:30	118	98			
7:45	158	560	114	403	19:45	99	455	101	411	
										866
8:00	199	103			20:00	85	96			
8:15	168	97			20:15	89	70			
8:30	158	102			20:30	53	57			
8:45	153	678	130	432	20:45	57	284	76	299	
										583
9:00	156	81			21:00	73	76			
9:15	145	88			21:15	52	75			
9:30	138	85			21:30	53	80			
9:45	144	583	89	343	21:45	45	223	75	306	
										529
10:00	109	86			22:00	52	57			
10:15	119	92			22:15	28	54			
10:30	113	72			22:30	44	46			
10:45	113	454	98	348	22:45	24	148	30	187	
										335
11:00	100	106			23:00	24	38			
11:15	117	84			23:15	17	26			
11:30	115	98			23:30	22	20			
11:45	131	463	115	403	23:45	14	77	17	101	
										178
<b>Total Vol.</b>	3196	2343		<b>5539</b>		4940	4710		<b>9650</b>	

Daily Totals

NB	SB	EB	WB	Combined
8136	7053			<b>15189</b>

AM

PM

<b>Split %</b>	57.7%	42.3%	<b>36.5%</b>	51.2%	48.8%	<b>63.5%</b>
<b>Peak Hour</b>	7:45	8:00	<b>8:00</b>	15:15	16:30	<b>16:30</b>
<b>Volume</b>	683	432	<b>1110</b>	603	580	<b>1165</b>
<b>P.H.F.</b>	0.86	0.83	<b>0.92</b>	0.89	0.90	<b>0.94</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

**ADT8 Los Robles Ave between Del Mar Blvd and California Blvd.**

**Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	11	16			12:00	105	123			
0:15	12	11			12:15	92	125			
0:30	11	11			12:30	126	118			
0:45	16	50	8	46	12:45	91	414	125	491	
										905
1:00	8	12			13:00	112	141			
1:15	4	7			13:15	118	116			
1:30	4	8			13:30	104	109			
1:45	4	20	5	32	13:45	128	462	113	479	
										941
2:00	0	6			14:00	117	121			
2:15	3	7			14:15	121	115			
2:30	2	5			14:30	112	114			
2:45	3	8	4	22	14:45	137	487	131	481	
										968
3:00	4	3			15:00	130	127			
3:15	4	6			15:15	122	114			
3:30	7	2			15:30	116	129			
3:45	5	20	0	11	15:45	140	508	124	494	
										1002
4:00	5	4			16:00	124	125			
4:15	3	11			16:15	119	109			
4:30	4	13			16:30	140	132			
4:45	13	25	13	41	16:45	130	513	127	493	
										1006
5:00	14	11			17:00	142	136			
5:15	18	13			17:15	137	114			
5:30	24	24			17:30	130	108			
5:45	30	86	32	80	17:45	117	526	120	478	
										1004
6:00	38	37			18:00	140	122			
6:15	59	48			18:15	129	148			
6:30	68	66			18:30	92	151			
6:45	80	245	56	207	18:45	127	488	113	534	
										1022
7:00	108	90			19:00	118	129			
7:15	125	97			19:15	116	94			
7:30	122	114			19:30	118	97			
7:45	128	483	115	416	19:45	95	447	114	434	
										881
8:00	117	111			20:00	88	94			
8:15	113	93			20:15	79	79			
8:30	135	109			20:30	57	73			
8:45	118	483	107	420	20:45	70	294	81	327	
										621
9:00	126	86			21:00	58	84			
9:15	104	87			21:15	61	87			
9:30	119	96			21:30	48	79			
9:45	128	477	96	365	21:45	43	210	80	330	
										540
10:00	90	108			22:00	53	77			
10:15	128	105			22:15	30	54			
10:30	106	95			22:30	39	51			
10:45	108	432	107	415	22:45	24	146	29	211	
										357
11:00	94	119			23:00	16	34			
11:15	101	95			23:15	20	25			
11:30	120	105			23:30	19	21			
11:45	124	439	125	444	23:45	16	71	19	99	
										170
<b>Total Vol.</b>	2768	2499		<b>5267</b>		4566	4851		<b>9417</b>	

Daily Totals				
NB	SB	EB	WB	Combined
7334	7350			<b>14684</b>

	AM			PM		
<b>Split %</b>	52.6%	47.4%	<b>35.9%</b>	48.5%	51.5%	<b>64.1%</b>
<b>Peak Hour</b>	7:45	11:45	<b>11:45</b>	16:30	17:45	<b>16:30</b>
<b>Volume</b>	493	491	<b>938</b>	549	541	<b>1058</b>
<b>P.H.F.</b>	0.91	0.98	<b>0.94</b>	0.98	0.90	<b>0.95</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT9 Lake Ave north of Orange Grove Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	34	35			12:00	200	230		
0:15	38	22			12:15	222	240		
0:30	21	35			12:30	218	234		
0:45	27	120	17	109	12:45	214	854	251	955
1:00	21	12			13:00	216	209		
1:15	19	17			13:15	217	227		
1:30	19	14			13:30	207	197		
1:45	18	77	13	56	13:45	253	893	233	866
2:00	14	9			14:00	218	208		
2:15	15	8			14:15	230	219		
2:30	14	9			14:30	209	232		
2:45	10	53	9	35	14:45	228	885	220	879
3:00	10	11			15:00	232	247		
3:15	10	8			15:15	240	262		
3:30	6	10			15:30	253	224		
3:45	3	29	18	47	15:45	235	960	231	964
4:00	10	20			16:00	226	264		
4:15	9	20			16:15	239	254		
4:30	9	33			16:30	244	262		
4:45	15	43	55	128	16:45	266	975	268	1048
5:00	15	46			17:00	282	257		
5:15	29	75			17:15	273	273		
5:30	34	84			17:30	265	258		
5:45	50	128	103	308	17:45	252	1072	269	1057
6:00	69	116			18:00	252	267		
6:15	83	152			18:15	222	226		
6:30	61	180			18:30	246	237		
6:45	86	299	165	613	18:45	244	964	250	980
7:00	90	215			19:00	260	211		
7:15	132	259			19:15	241	219		
7:30	170	311			19:30	246	194		
7:45	177	569	294	1079	19:45	194	941	186	810
8:00	160	319			20:00	189	176		
8:15	164	310			20:15	220	154		
8:30	164	264			20:30	186	125		
8:45	181	669	259	1152	20:45	173	768	127	582
9:00	142	260			21:00	177	148		
9:15	144	229			21:15	147	129		
9:30	169	214			21:30	132	106		
9:45	166	621	225	928	21:45	115	571	138	521
10:00	159	202			22:00	136	88		
10:15	158	211			22:15	124	93		
10:30	189	234			22:30	79	89		
10:45	206	712	225	872	22:45	85	424	58	328
11:00	173	208			23:00	82	62		
11:15	168	215			23:15	79	48		
11:30	183	232			23:30	57	37		
11:45	208	732	253	908	23:45	41	259	44	191
<b>Total Vol.</b>	4052	6235		<b>10287</b>		9566	9181		<b>18747</b>

Daily Totals				
NB	SB	EB	WB	Combined
13618	15416			<b>29034</b>

	AM			PM		
<b>Split %</b>	39.4%	60.6%	<b>35.4%</b>	51.0%	49.0%	<b>64.6%</b>
<b>Peak Hour</b>	11:45	7:30	<b>7:30</b>	16:45	17:15	<b>16:45</b>
<b>Volume</b>	848	1234	<b>1905</b>	1086	1067	<b>2142</b>
<b>P.H.F.</b>	0.95	0.97	<b>0.99</b>	0.97	0.98	<b>0.98</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT10 Lake Ave between Cordova St and Del Mar Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	15	17			12:00	179	195		
0:15	14	16			12:15	175	197		
0:30	19	10			12:30	189	184		
0:45	10	58	5	48	12:45	181	724	204	780
1:00	14	11			13:00	184	180		
1:15	5	4			13:15	161	197		
1:30	5	9			13:30	186	216		
1:45	4	28	6	30	13:45	211	742	201	794
2:00	5	8			14:00	173	194		
2:15	2	6			14:15	170	197		
2:30	5	10			14:30	186	197		
2:45	4	16	3	27	14:45	184	713	212	800
3:00	0	4			15:00	159	225		
3:15	5	3			15:15	173	223		
3:30	4	7			15:30	216	225		
3:45	4	13	7	21	15:45	165	713	211	884
4:00	0	5			16:00	177	225		
4:15	6	10			16:15	184	221		
4:30	11	7			16:30	160	230		
4:45	4	21	34	56	16:45	178	699	199	875
5:00	21	36			17:00	171	247		
5:15	14	44			17:15	159	218		
5:30	15	41			17:30	149	197		
5:45	38	88	63	184	17:45	179	658	227	889
6:00	44	65			18:00	190	220		
6:15	52	67			18:15	212	252		
6:30	78	91			18:30	198	217		
6:45	97	271	108	331	18:45	210	810	213	902
7:00	111	123			19:00	198	195		
7:15	136	136			19:15	158	210		
7:30	174	156			19:30	179	206		
7:45	181	602	177	592	19:45	159	694	167	778
8:00	188	205			20:00	160	178		
8:15	211	209			20:15	148	156		
8:30	223	178			20:30	134	136		
8:45	183	805	173	765	20:45	119	561	126	596
9:00	191	163			21:00	122	117		
9:15	193	157			21:15	124	123		
9:30	190	174			21:30	110	96		
9:45	167	741	167	661	21:45	83	439	95	431
10:00	156	163			22:00	73	89		
10:15	152	156			22:15	76	67		
10:30	134	151			22:30	54	61		
10:45	128	570	174	644	22:45	58	261	38	255
11:00	154	155			23:00	41	33		
11:15	168	167			23:15	34	34		
11:30	165	204			23:30	29	25		
11:45	183	670	203	729	23:45	24	128	24	116
<b>Total Vol.</b>	3883	4088		<b>7971</b>		7142	8100		<b>15242</b>

	Daily Totals				Combined	
	NB	SB	EB	WB		
	11025	12188			<b>23213</b>	
	<b>AM</b>		<b>PM</b>			
<b>Split %</b>	48.7%	51.3%	<b>34.3%</b>	46.9%	53.1%	<b>65.7%</b>
<b>Peak Hour</b>	8:15	11:30	<b>7:45</b>	18:15	17:45	<b>18:00</b>
<b>Volume</b>	808	799	<b>1572</b>	818	916	<b>1712</b>
<b>P.H.F.</b>	0.91	0.98	<b>0.94</b>	0.98	0.91	<b>0.92</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT11 Lake Ave between Del Mar Blvd and California Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	11	15			12:00	153	181			
0:15	16	14			12:15	146	203			
0:30	12	11			12:30	167	177			
0:45	5	44	5	45	12:45	160	626	194	755	
										1381
1:00	9	9			13:00	134	154			
1:15	5	4			13:15	147	209			
1:30	4	5			13:30	133	196			
1:45	3	21	4	22	13:45	176	590	192	751	
										1341
2:00	3	7			14:00	155	231			
2:15	0	5			14:15	159	182			
2:30	2	7			14:30	150	189			
2:45	3	8	4	23	14:45	161	625	194	796	
										1421
3:00	0	6			15:00	152	213			
3:15	2	3			15:15	176	230			
3:30	3	8			15:30	189	239			
3:45	2	7	0	17	15:45	153	670	233	915	
										1585
4:00	0	4			16:00	161	222			
4:15	3	4			16:15	167	215			
4:30	8	6			16:30	172	203			
4:45	3	14	22	36	16:45	164	664	205	845	
										1509
5:00	13	19			17:00	165	207			
5:15	8	27			17:15	188	189			
5:30	14	41			17:30	169	207			
5:45	37	72	45	132	17:45	184	706	233	836	
										1542
6:00	37	53			18:00	174	221			
6:15	53	49			18:15	194	245			
6:30	63	79			18:30	182	231			
6:45	104	257	98	279	18:45	176	726	220	917	
										1643
7:00	102	111			19:00	166	193			
7:15	120	109			19:15	137	193			
7:30	150	150			19:30	159	217			
7:45	193	565	160	530	19:45	121	583	198	801	
										1384
8:00	185	186			20:00	123	173			
8:15	205	189			20:15	126	172			
8:30	201	139			20:30	103	147			
8:45	166	757	163	677	20:45	90	442	144	636	
										1078
9:00	188	150			21:00	101	152			
9:15	178	150			21:15	93	153			
9:30	183	156			21:30	80	119			
9:45	170	719	142	598	21:45	68	342	89	513	
										855
10:00	152	154			22:00	57	97			
10:15	155	150			22:15	52	70			
10:30	118	159			22:30	42	50			
10:45	130	555	164	627	22:45	48	199	44	261	
										460
11:00	134	162			23:00	36	31			
11:15	147	181			23:15	25	22			
11:30	134	191			23:30	22	22			
11:45	151	566	174	708	23:45	18	101	11	86	
										187
<b>Total Vol.</b>	3585	3694		<b>7279</b>		6274	8112		<b>14386</b>	

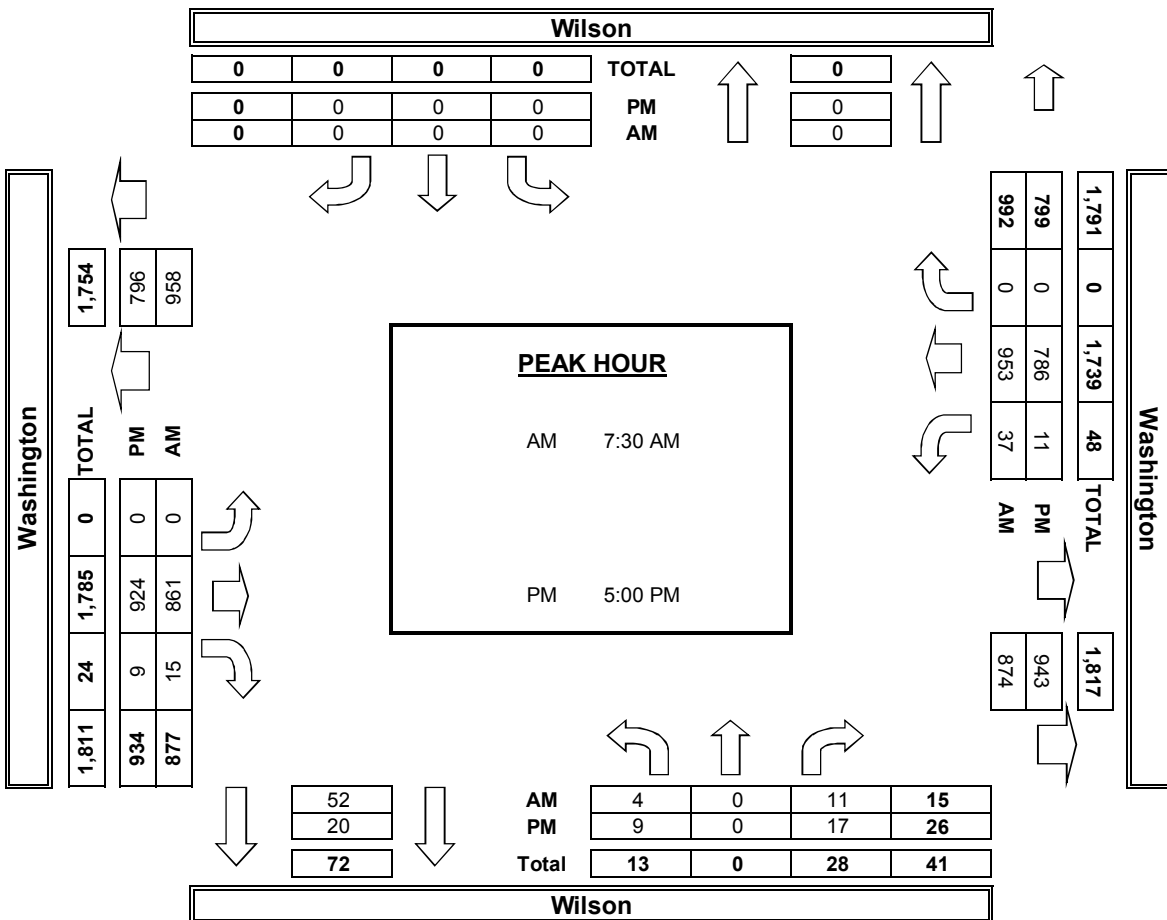
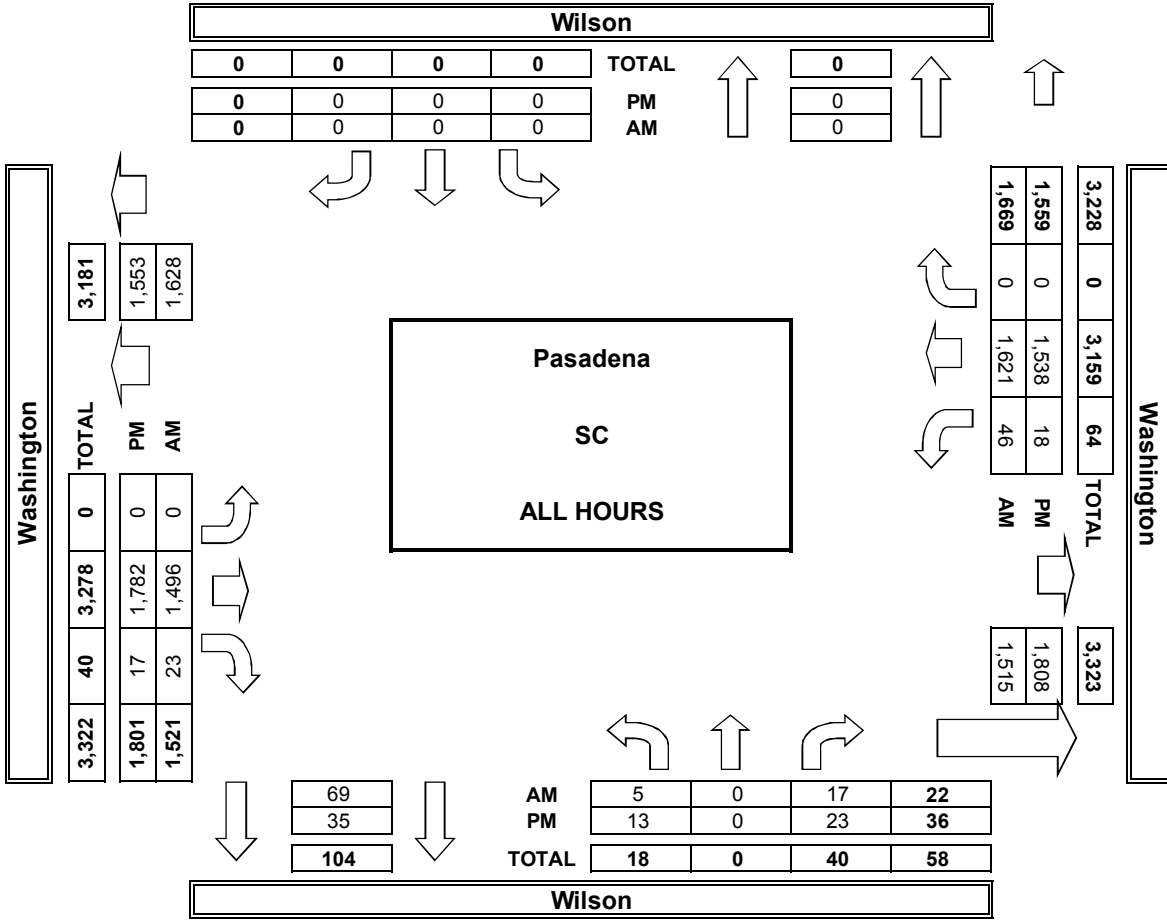
Daily Totals				
NB	SB	EB	WB	Combined
9859	11806			<b>21665</b>

	AM			PM		
<b>Split %</b>	49.3%	50.7%	<b>33.6%</b>	43.6%	56.4%	<b>66.4%</b>
<b>Peak Hour</b>	7:45	11:30	<b>7:45</b>	17:45	17:45	<b>17:45</b>
<b>Volume</b>	784	749	<b>1458</b>	734	930	<b>1664</b>
<b>P.H.F.</b>	0.96	0.92	<b>0.93</b>	0.96	0.95	<b>0.95</b>





**AimTD LLC**  
TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Wed, Oct 30, 19

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Pasadena  
Wilson  
Orange Grove

PROJECT #: SC  
LOCATION #: 2  
CONTROL: SIGNAL

NOTES:  
Construction EB/WB

AM	▲ N	► E
PM	◄ W	◄ W
MD		
OTHER	▼ S	

Add U-Turns to Left Turns

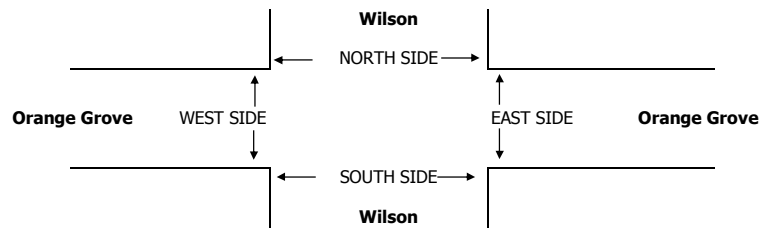
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

7:00 AM	5	0	4	3	8	2	3	59	4	10	86	0	184	
7:15 AM	6	2	5	1	8	3	0	94	11	11	148	2	291	
7:30 AM	7	3	2	0	26	4	0	154	16	7	199	0	418	
7:45 AM	10	4	4	0	33	5	0	98	14	11	172	0	351	
8:00 AM	10	6	4	0	27	5	0	92	8	10	145	1	308	
8:15 AM	2	6	4	0	16	5	0	86	17	12	134	1	283	
8:30 AM	14	5	5	0	8	5	1	94	14	5	134	0	285	
8:45 AM	7	9	3	0	19	6	0	89	7	9	145	0	294	
VOLUMES	61	35	31	4	145	35	4	766	91	75	1,163	4	2,414	
APPROACH %	48%	28%	24%	2%	79%	19%	0%	89%	11%	6%	94%	0%		
APP/DEPART	127	/	43	184	/	311	861	/	801	1,242	/	1,259	0	
BEGIN PEAK HR VOLUMES	7:15 AM													
VOLUMES	33	15	15	1	94	17	0	438	49	39	664	3	1,368	
APPROACH %	52%	24%	24%	1%	84%	15%	0%	90%	10%	6%	94%	0%		
PEAK HR FACTOR	0.788			0.737			0.716			0.857			0.818	
APP/DEPART	63	/	18	112	/	182	487	/	454	706	/	714	0	
4:00 PM	1	0	38	0	1	5	0	150	10	1	106	0	312	
4:15 PM	3	0	33	0	0	7	0	177	13	5	149	1	388	
4:30 PM	10	2	26	0	0	8	0	160	10	3	112	1	332	
4:45 PM	5	0	32	0	0	11	0	173	12	3	130	1	367	
5:00 PM	9	0	69	0	1	9	0	171	8	3	124	0	394	
5:15 PM	25	18	20	0	10	1	3	209	9	5	171	1	472	
5:30 PM	14	26	22	1	10	2	6	218	10	8	152	3	472	
5:45 PM	18	12	24	2	12	2	4	245	13	7	138	1	478	
VOLUMES	85	58	264	3	34	45	13	1,503	85	35	1,082	8	3,215	
APPROACH %	21%	14%	65%	4%	41%	55%	1%	94%	5%	3%	96%	1%		
APP/DEPART	407	/	79	82	/	154	1,601	/	1,770	1,125	/	1,212	0	
BEGIN PEAK HR VOLUMES	5:00 PM													
VOLUMES	66	56	135	3	33	14	13	843	40	23	585	5	1,816	
APPROACH %	26%	22%	53%	6%	66%	28%	1%	94%	4%	4%	95%	1%		
PEAK HR FACTOR	0.824			0.781			0.855			0.866			0.950	
APP/DEPART	257	/	74	50	/	96	896	/	981	613	/	665	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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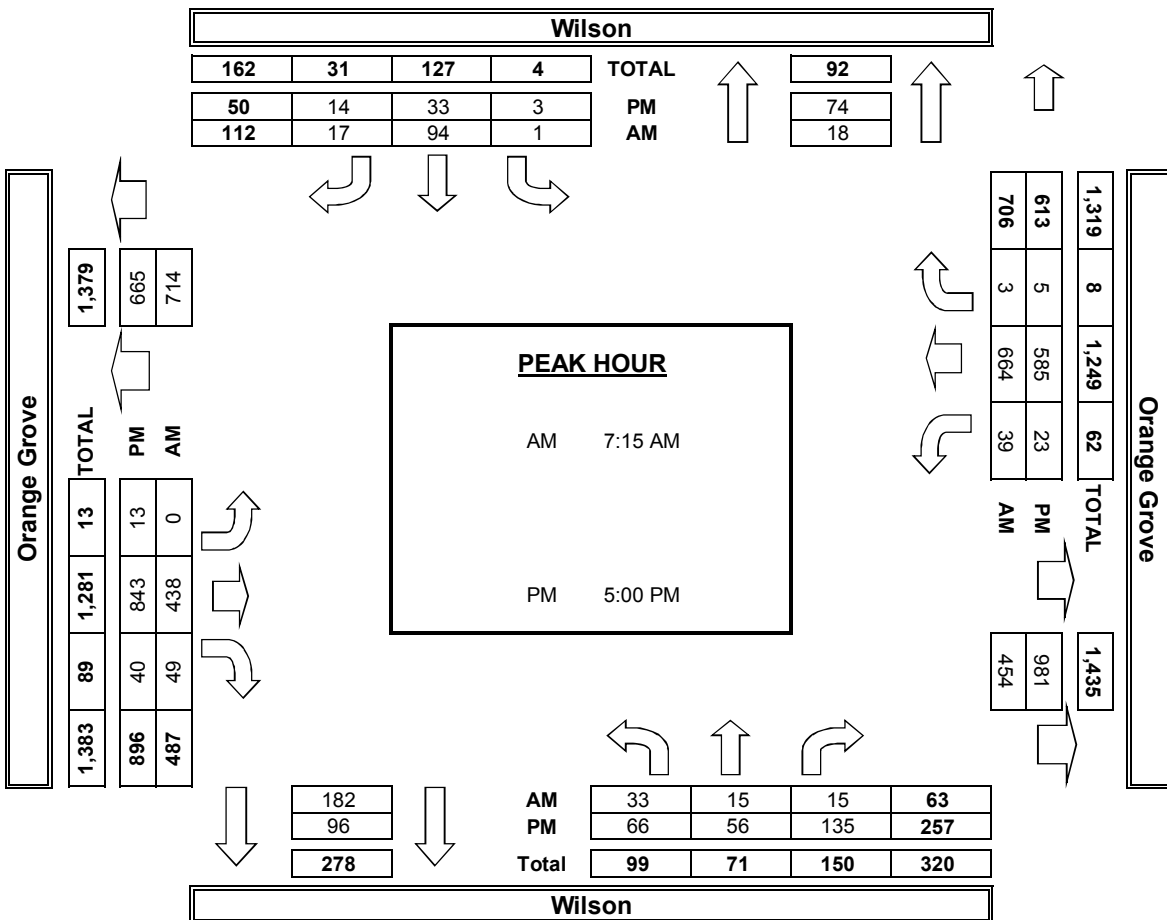
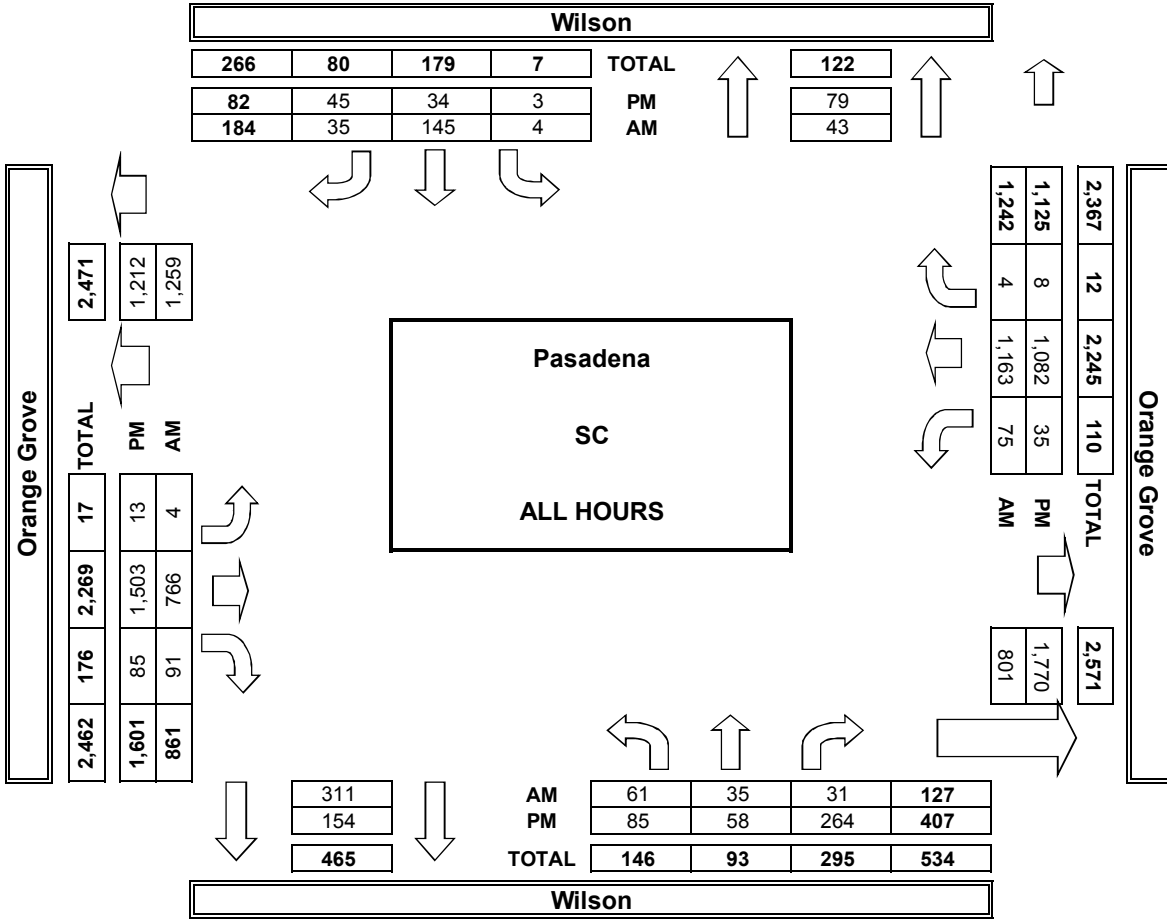
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:15 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

	PEDESTRIAN + BIKE CROSSINGS				TOTAL
	N SIDE	S SIDE	E SIDE	W SIDE	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:15 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

	PEDESTRIAN CROSSINGS				TOTAL
	N SIDE	S SIDE	E SIDE	W SIDE	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:15 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

	BICYCLE CROSSINGS				TOTAL
	NS	SS	ES	WS	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:15 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

**AimTD LLC**  
TURNING MOVEMENT COUNTS



**INTERSECTION TURNING MOVEMENT COUNTS**

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Thu, Nov 7, 19

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Pasadena  
Catalina  
Washington

PROJECT #: SC  
LOCATION #: 3  
CONTROL: SIGNAL

NOTES:

AM	▲	N
PM	◀	W
MD		E ▶
OTHER	▼	S

Add U-Turns to Left Turns

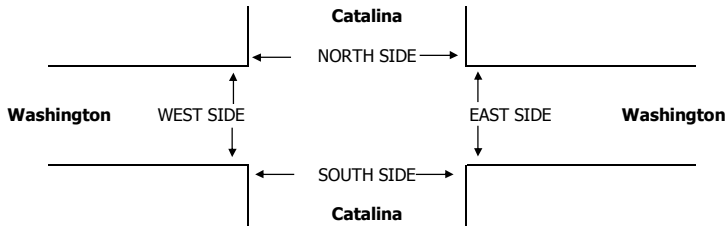
LANES:	NORTHBOUND Catalina			SOUTHBOUND Catalina			EASTBOUND Washington			WESTBOUND Washington			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	2	0	0	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

	NORTHBOUND Catalina			SOUTHBOUND Catalina			EASTBOUND Washington			WESTBOUND Washington			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
7:00 AM	3	2	8	5	0	7	1	130	5	5	111	0	277
7:15 AM	2	3	6	11	3	17	3	221	2	5	199	9	481
7:30 AM	5	19	4	16	12	5	6	232	2	5	245	8	559
7:45 AM	3	17	5	21	19	15	7	192	5	3	255	12	554
8:00 AM	2	5	4	10	11	4	1	173	8	5	216	11	450
8:15 AM	4	2	5	6	3	7	1	199	2	3	195	4	431
8:30 AM	3	1	5	10	4	3	2	167	9	7	182	3	396
8:45 AM	4	0	3	3	0	6	5	156	8	5	204	5	399
VOLUMES	26	49	40	82	52	64	26	1,470	41	38	1,607	52	3,547
APPROACH %	23%	43%	35%	41%	26%	32%	2%	96%	3%	2%	95%	3%	
APP/DEPART	115	/	128	198	/	131	1,537	/	1,591	1,697	/	1,697	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	12	44	19	58	45	41	17	818	17	18	915	40	2,044
APPROACH %	16%	59%	25%	40%	31%	28%	2%	96%	2%	2%	94%	4%	
PEAK HR FACTOR	0.670												
APP/DEPART	75	/	102	144	/	80	852	/	894	973	/	968	0
4:00 PM	1	2	8	12	3	4	2	201	8	7	172	3	423
4:15 PM	4	6	3	11	3	5	9	213	8	9	196	6	473
4:30 PM	1	4	7	14	5	12	3	199	4	2	173	4	428
4:45 PM	5	6	3	18	2	3	3	244	7	3	178	4	476
5:00 PM	6	3	6	11	4	6	6	201	4	6	194	5	452
5:15 PM	4	5	7	4	1	4	8	221	7	7	181	5	454
5:30 PM	2	3	6	13	1	6	6	227	6	4	179	6	459
5:45 PM	4	7	5	12	3	5	9	228	5	3	197	6	484
VOLUMES	27	36	45	95	22	45	46	1,734	49	41	1,470	39	3,649
APPROACH %	25%	33%	42%	59%	14%	28%	3%	95%	3%	3%	95%	3%	
APP/DEPART	108	/	121	162	/	112	1,829	/	1,874	1,550	/	1,542	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	16	18	24	40	9	21	29	877	22	20	751	22	1,849
APPROACH %	28%	31%	41%	57%	13%	30%	3%	95%	2%	3%	95%	3%	
PEAK HR FACTOR	0.906												
APP/DEPART	58	/	69	70	/	51	928	/	941	793	/	788	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	1	0	0	1

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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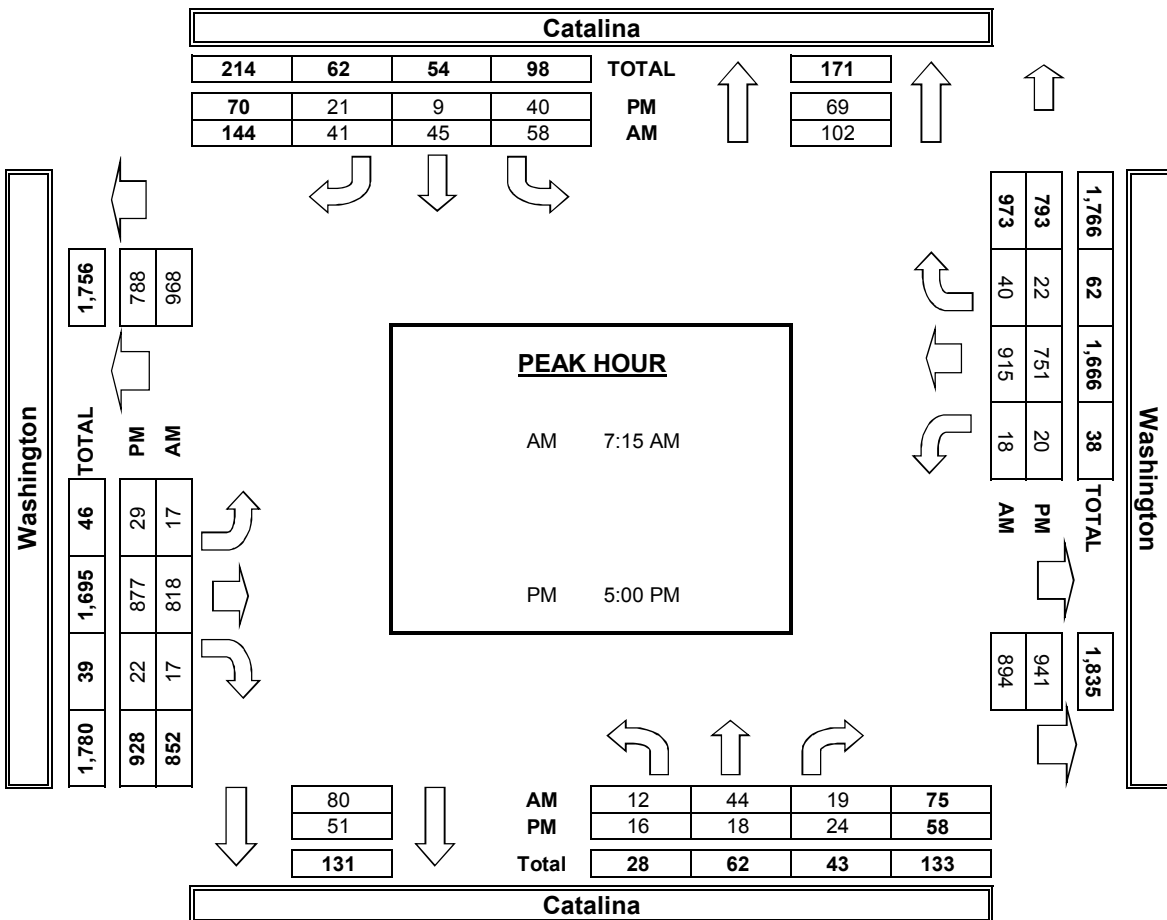
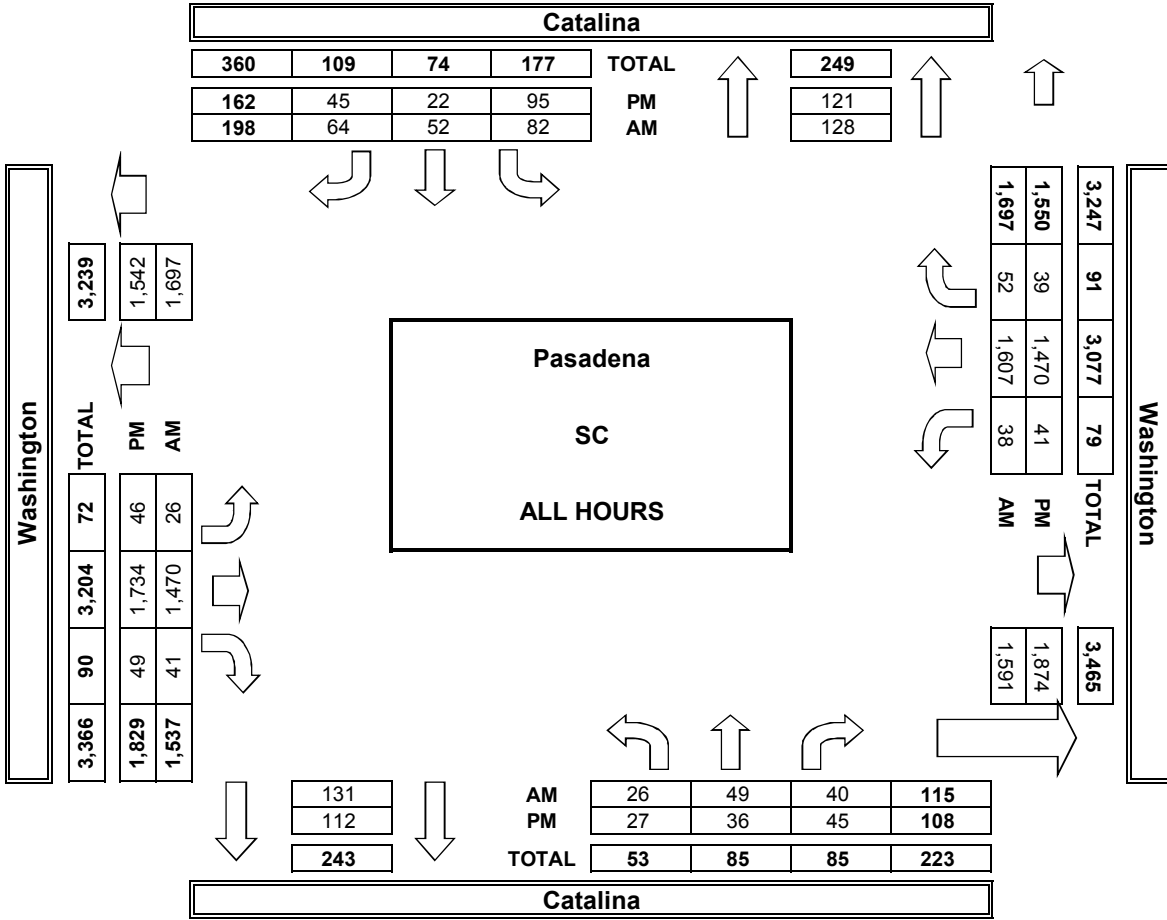


	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:15 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:15 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

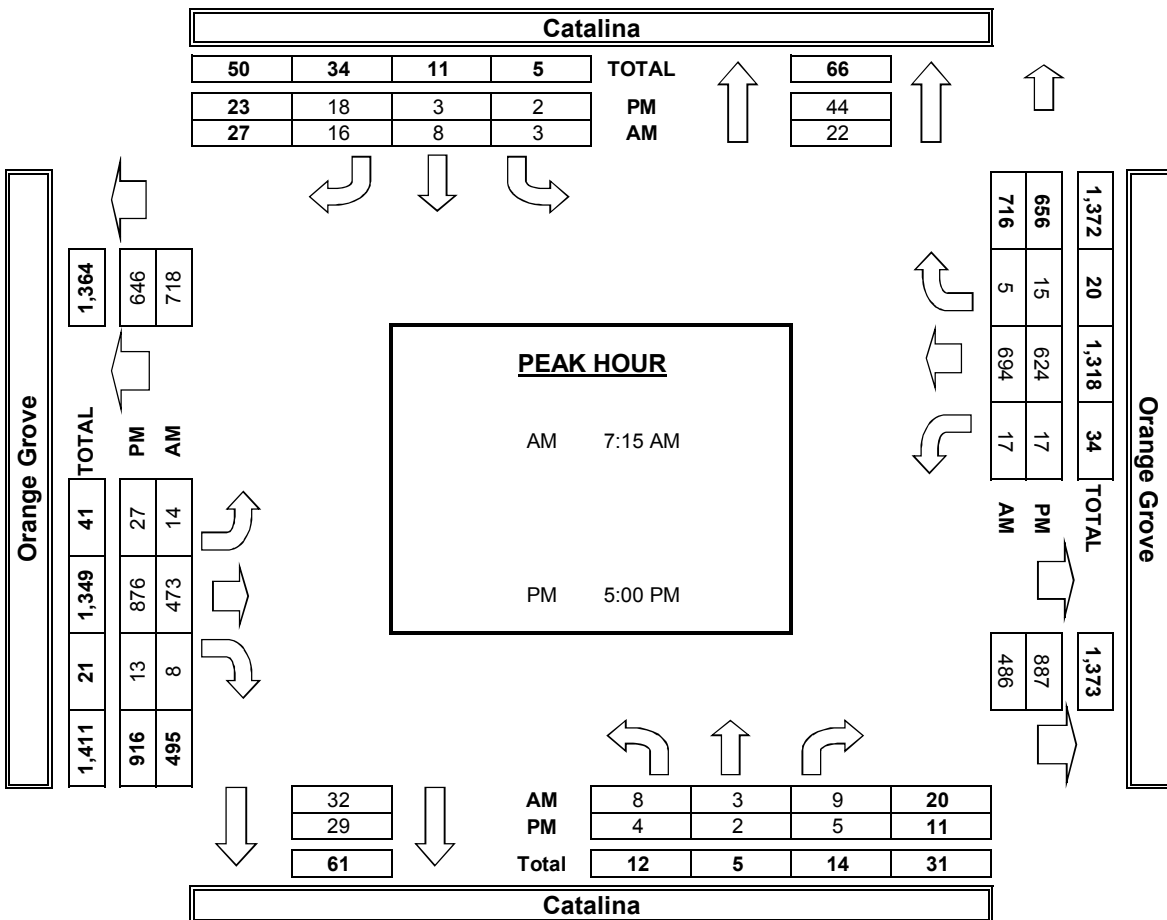
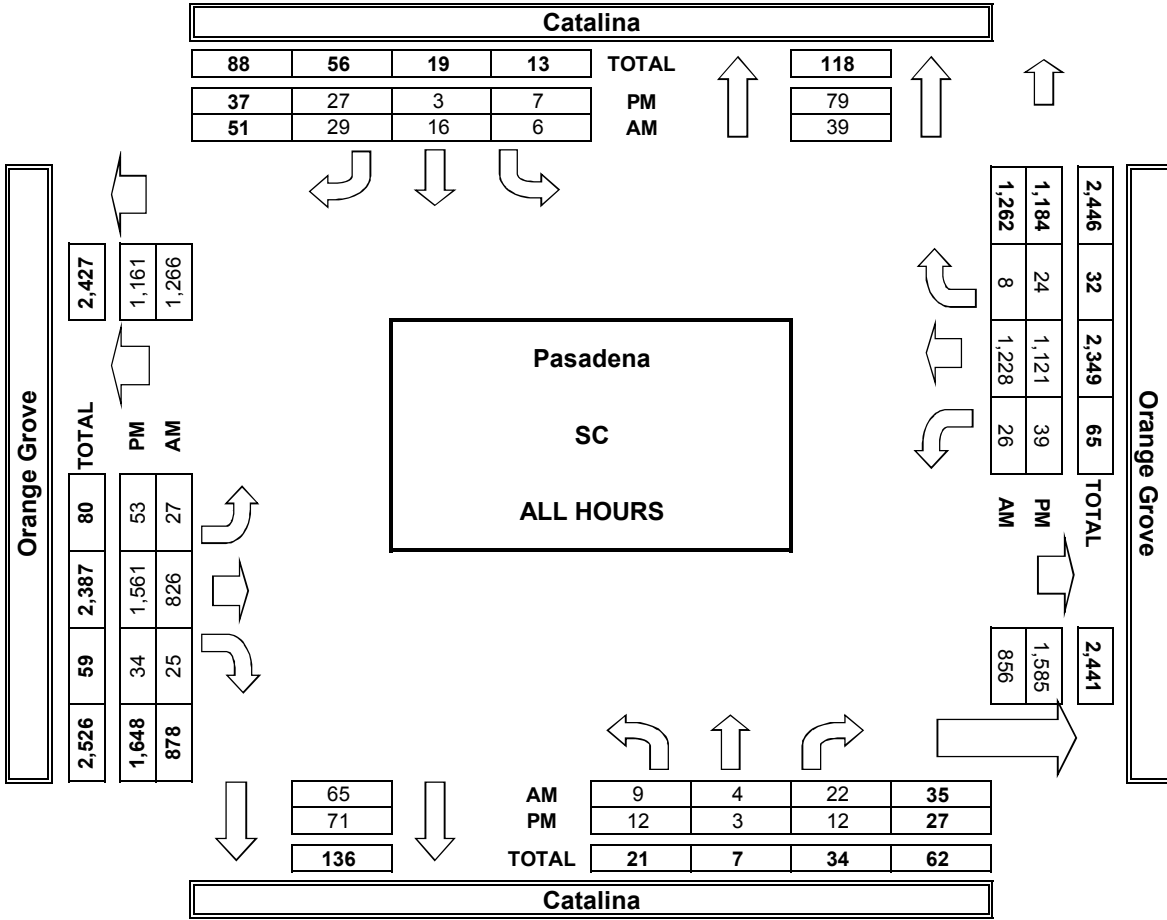
	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:15 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

**AimTD LLC**  
TURNING MOVEMENT COUNTS





**AimTD LLC**  
TURNING MOVEMENT COUNTS



### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Wed, Oct 30, 19

LOCATION:  
NORTH & SOUTH: Pasadena  
EAST & WEST: Mar Vista Washington

PROJECT #: SC  
LOCATION #: 5  
CONTROL: STOP N/S

NOTES:

AM			▲	N	
PM					
MD	◀	W			▶
OTHER				S	
OTHER				▼	

Add U-Turns to Left Turns

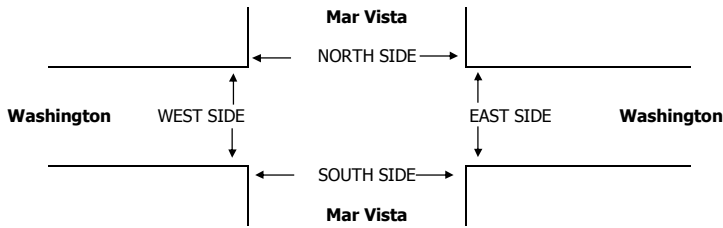
LANES:	NORTHBOUND Mar Vista			SOUTHBOUND Mar Vista			EASTBOUND Washington			WESTBOUND Washington			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	2	0	0	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

7:00 AM	0	1	1	4	0	5	2	99	1	2	108	3	226	
7:15 AM	0	0	3	5	0	4	5	166	0	3	207	2	395	
7:30 AM	1	1	6	11	0	19	5	230	3	4	242	11	533	
7:45 AM	0	2	5	3	2	14	9	221	0	8	281	14	559	
8:00 AM	2	0	3	9	0	13	3	194	1	8	216	23	472	
8:15 AM	1	0	2	5	1	15	6	192	2	3	188	2	417	
8:30 AM	2	0	3	4	2	0	1	197	3	3	182	1	398	
8:45 AM	1	1	1	5	1	7	1	164	0	3	161	0	345	
VOLUMES	7	5	24	46	6	77	32	1,463	10	34	1,585	56	3,345	
APPROACH %	19%	14%	67%	36%	5%	60%	2%	97%	1%	2%	95%	3%		
APP/DEPART	36	/	90	129	/	49	1,505	/	1,534	1,675	/	1,672	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	4	3	16	28	3	61	23	837	6	23	927	50	1,981	
APPROACH %	17%	13%	70%	30%	3%	66%	3%	97%	1%	2%	93%	5%		
PEAK HR FACTOR	0.719			0.767			0.910			0.825			0.886	
APP/DEPART	23	/	73	92	/	31	866	/	882	1,000	/	995	0	
4:00 PM	0	1	3	2	0	7	6	201	2	5	192	3	422	
4:15 PM	0	0	2	4	2	5	5	210	0	6	177	5	416	
4:30 PM	2	0	1	4	0	5	2	209	3	1	192	3	422	
4:45 PM	2	0	5	2	0	7	7	217	4	6	175	3	428	
5:00 PM	0	0	1	1	2	6	2	211	2	2	199	3	429	
5:15 PM	0	0	4	5	0	7	8	243	2	1	191	5	466	
5:30 PM	0	2	5	2	0	5	8	205	2	1	187	5	422	
5:45 PM	0	0	7	6	0	16	10	248	3	3	186	5	484	
VOLUMES	4	3	28	26	4	58	48	1,744	18	25	1,499	32	3,489	
APPROACH %	11%	9%	80%	30%	5%	66%	3%	96%	1%	2%	96%	2%		
APP/DEPART	35	/	79	88	/	47	1,810	/	1,798	1,556	/	1,565	0	
BEGIN PEAK HR	5:00 PM													
VOLUMES	0	2	17	14	2	34	28	907	9	7	763	18	1,801	
APPROACH %	0%	11%	89%	28%	4%	68%	3%	96%	1%	1%	97%	2%		
PEAK HR FACTOR	0.679			0.568			0.904			0.966			0.930	
APP/DEPART	19	/	45	50	/	18	944	/	938	788	/	800	0	

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

0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	1	0	1
0	0	0	0	0
0	0	4	0	4



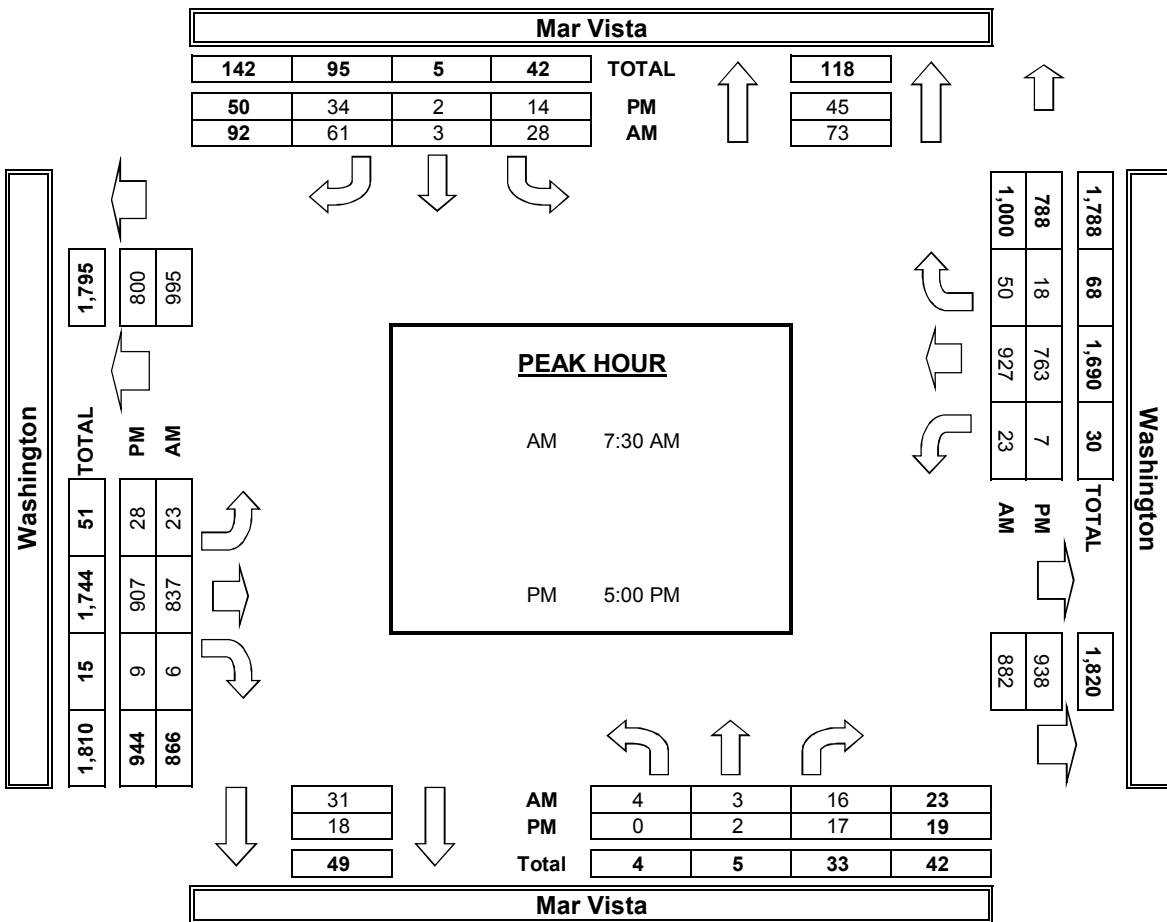
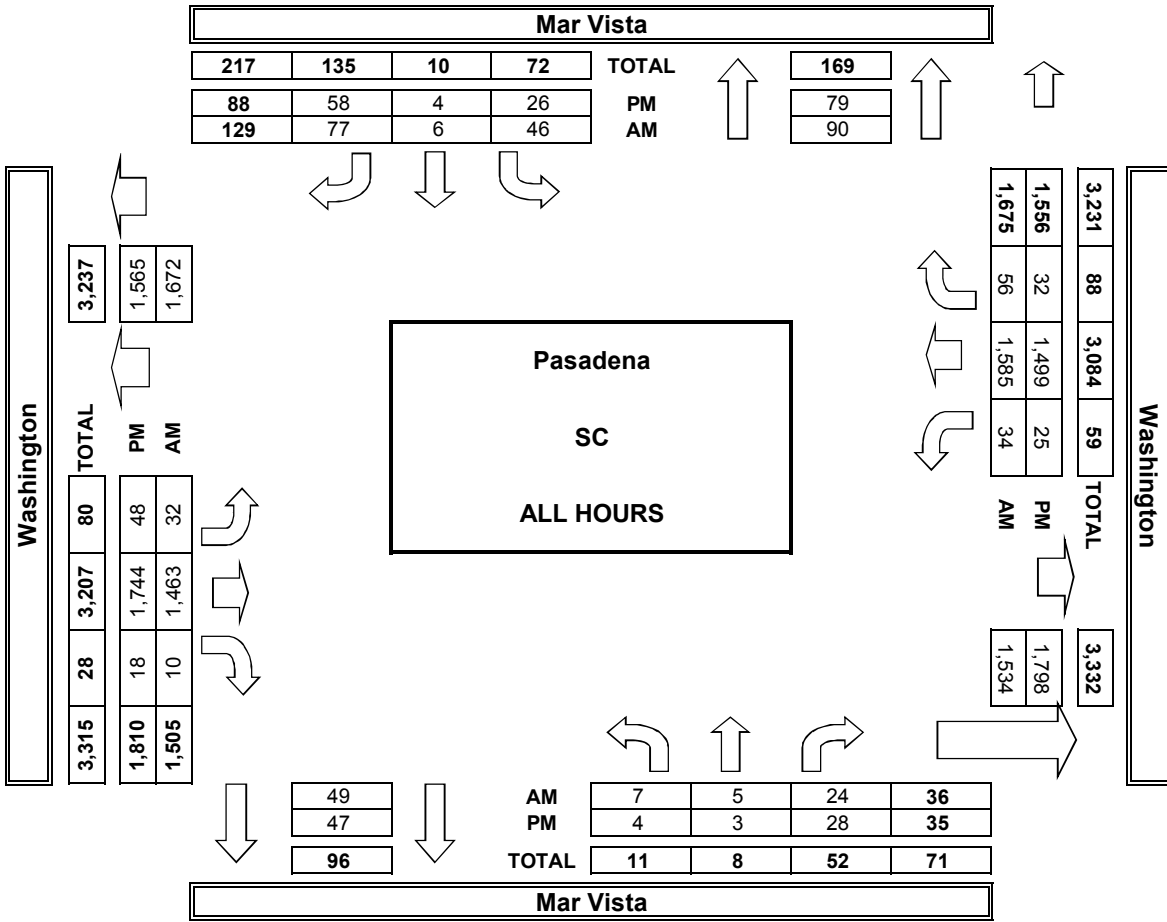
	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:30 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:30 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:30 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				



**AimTD LLC**  
TURNING MOVEMENT COUNTS



**INTERSECTION TURNING MOVEMENT COUNTS**

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Thu, Nov 7, 19

LOCATION:  
NORTH & SOUTH: Pasadena  
EAST & WEST: Mar Vista Orange Grove

PROJECT #: SC  
LOCATION #: 6  
CONTROL: STOP N/S

NOTES:

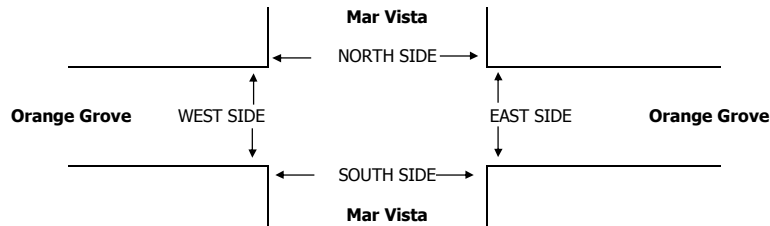
LANES:	NORTHBOUND Mar Vista			SOUTHBOUND Mar Vista			EASTBOUND Orange Grove			WESTBOUND Orange Grove			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	1	0	1

7:00 AM	1	1	0	1	0	9	2	72	4	1	95	3	189
7:15 AM	1	1	8	2	2	5	1	116	4	1	155	1	297
7:30 AM	1	1	1	5	3	8	1	133	6	2	207	1	369
7:45 AM	0	1	3	2	1	4	0	108	4	6	224	12	365
8:00 AM	3	1	2	1	5	9	2	97	7	2	188	9	326
8:15 AM	3	0	7	2	3	7	1	100	5	2	163	3	296
8:30 AM	1	0	1	1	2	3	1	98	3	4	144	4	262
8:45 AM	0	0	2	3	0	11	1	83	5	0	175	1	281
VOLUMES	10	5	24	17	16	56	9	807	38	18	1,351	34	2,385
APPROACH %	26%	13%	62%	19%	18%	63%	1%	94%	4%	1%	96%	2%	
APP/DEPART	39	/	47	89	/	69	854	/	851	1,403	/	1,418	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	5	4	14	10	11	26	4	454	21	11	774	23	1,357
APPROACH %	22%	17%	61%	21%	23%	55%	1%	95%	4%	1%	96%	3%	
PEAK HR FACTOR	0.575			0.734			0.855			0.835			0.919
APP/DEPART	23	/	31	47	/	42	479	/	479	808	/	805	0
4:00 PM	2	1	2	5	2	2	10	163	7	2	125	2	323
4:15 PM	5	0	3	2	0	6	4	185	1	3	109	6	324
4:30 PM	2	0	1	0	3	2	4	180	3	1	138	9	343
4:45 PM	3	0	3	2	1	4	6	186	3	1	164	5	378
5:00 PM	3	0	3	4	1	8	5	216	4	4	164	2	414
5:15 PM	2	1	4	1	1	3	8	233	7	2	147	1	410
5:30 PM	3	1	4	0	1	4	6	227	4	1	145	4	400
5:45 PM	3	1	2	6	3	2	8	234	3	1	131	2	396
VOLUMES	23	4	22	20	12	31	51	1,624	32	15	1,123	31	2,988
APPROACH %	47%	8%	45%	32%	19%	49%	3%	95%	2%	1%	96%	3%	
APP/DEPART	49	/	83	63	/	59	1,707	/	1,666	1,169	/	1,180	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	11	3	13	11	6	17	27	910	18	8	587	9	1,620
APPROACH %	41%	11%	48%	32%	18%	50%	3%	95%	2%	1%	97%	1%	
PEAK HR FACTOR	0.844			0.654			0.963			0.888			0.978
APP/DEPART	27	/	37	34	/	32	955	/	934	604	/	617	0

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

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
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0	0	0	0	0
0	0	3	0	3

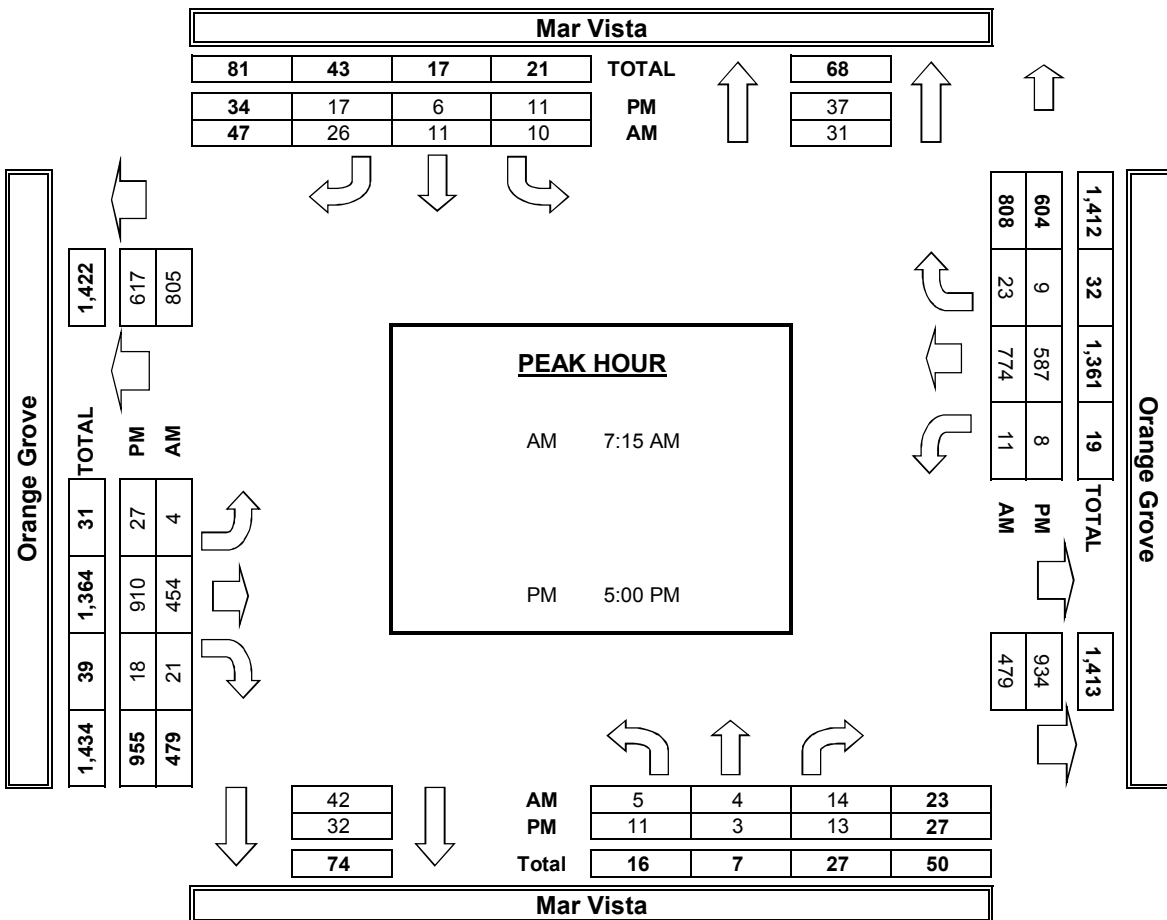
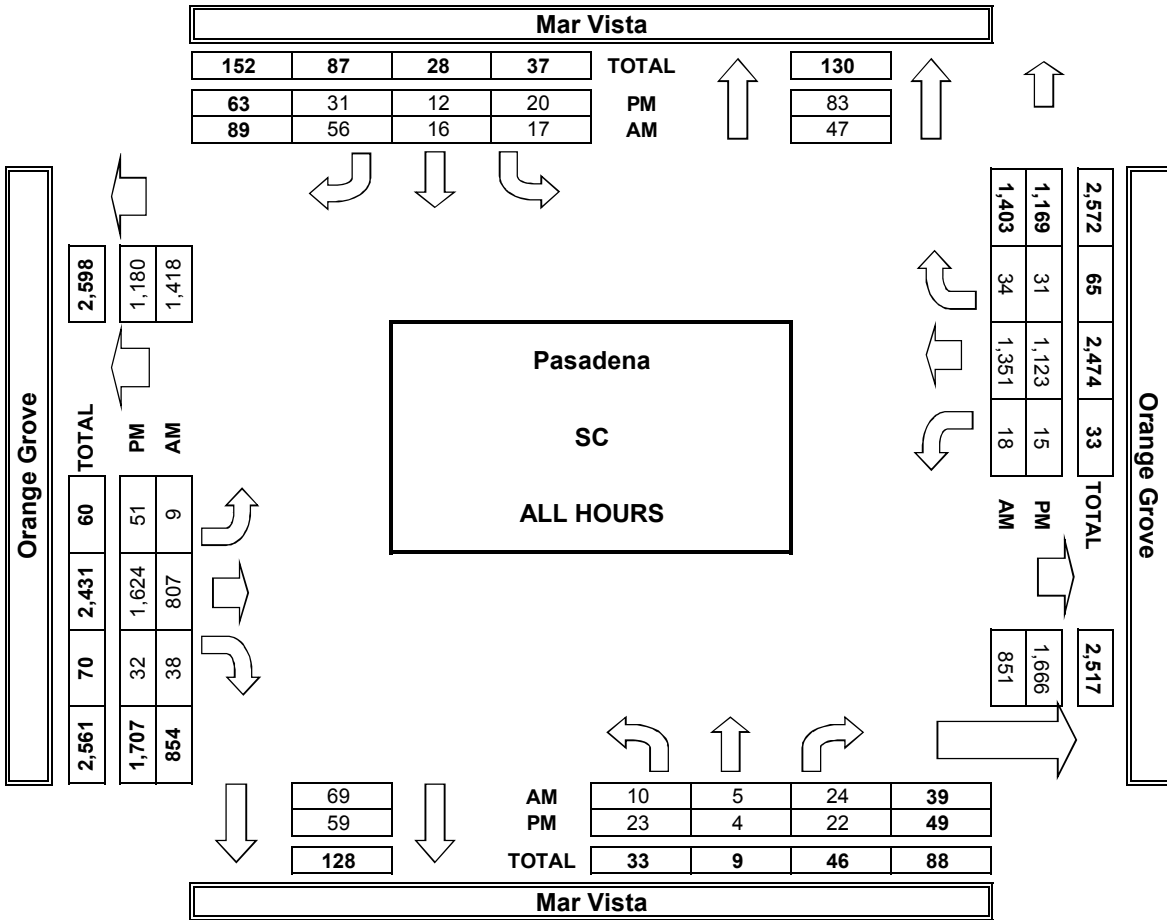


	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:15 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:15 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:15 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

**AimTD LLC**  
TURNING MOVEMENT COUNTS



Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

**ADT1 Wilson Ave between Washington Blvd and Orange Grove Blvd.**

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	0	0			12:00	0	7			
0:15	0	0			12:15	4	5			
0:30	0	0			12:30	3	8			
0:45	0	0	0	0	12:45	2	9	5	25	
<hr/>										
1:00	0	0			13:00	2	3			
1:15	0	0			13:15	2	9			
1:30	0	0			13:30	6	2			
1:45	0	0	0	0	13:45	0	10	4	18	
<hr/>										
2:00	0	0			14:00	7	5			
2:15	0	0			14:15	3	4			
2:30	0	0			14:30	5	8			
2:45	0	0	0	0	14:45	2	17	5	22	
<hr/>										
3:00	0	0			15:00	4	8			
3:15	0	0			15:15	4	6			
3:30	0	0			15:30	0	11			
3:45	0	0	0	0	15:45	8	16	5	30	
<hr/>										
4:00	0	0			16:00	6	3			
4:15	0	0			16:15	0	0			
4:30	0	0			16:30	8	8			
4:45	0	0	0	0	16:45	3	17	9	20	
<hr/>										
5:00	0	0			17:00	5	9			
5:15	0	3			17:15	13	6			
5:30	0	0			17:30	21	5			
5:45	0	0	0	3	3	17:45	11	50	4	24
<hr/>										
6:00	0	0			18:00	3	9			
6:15	0	3			18:15	11	3			
6:30	0	2			18:30	13	7			
6:45	0	0	6	11	11	18:45	8	35	4	23
<hr/>										
7:00	3	3			19:00	4	4			
7:15	5	5			19:15	4	5			
7:30	9	12			19:30	4	4			
7:45	4	21	18	38	59	19:45	3	15	2	15
<hr/>										
8:00	5	15			20:00	4	6			
8:15	7	6			20:15	3	7			
8:30	4	5			20:30	3	3			
8:45	3	19	10	36	55	20:45	3	13	2	18
<hr/>										
9:00	2	7			21:00	3	0			
9:15	4	5			21:15	4	0			
9:30	2	12			21:30	0	2			
9:45	3	11	6	30	41	21:45	0	7	0	2
<hr/>										
10:00	2	2			22:00	3	0			
10:15	2	5			22:15	0	2			
10:30	5	7			22:30	0	0			
10:45	4	13	8	22	35	22:45	0	3	0	2
<hr/>										
11:00	0	10			23:00	0	2			
11:15	5	6			23:15	0	0			
11:30	5	3			23:30	2	0			
11:45	5	15	9	28	43	23:45	0	2	0	2
<hr/>										
<b>Total Vol.</b>	79	168			<b>247</b>	194	201			<b>395</b>

Daily Totals				
NB	SB	EB	WB	Combined
273	369			<b>642</b>

	AM			PM		
<b>Split %</b>	32.0%	68.0%	<b>38.5%</b>	49.1%	50.9%	<b>61.5%</b>
<b>Peak Hour</b>	7:30	7:30	<b>7:30</b>	17:00	16:30	<b>17:00</b>
<b>Volume</b>	25	51	<b>76</b>	50	32	<b>74</b>
<b>P.H.F.</b>	0.69	0.71	<b>0.86</b>	0.71	0.89	<b>0.71</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT2 Wilson Ave between Orange Grove Blvd and Villa St.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	0	0			12:00	21	19		
0:15	4	2			12:15	35	11		
0:30	0	0			12:30	20	8		
0:45	2	6	0	2	12:45	20	96	25	63
<hr/>									
1:00	0	0			13:00	18	18		
1:15	2	3			13:15	24	16		
1:30	0	0			13:30	22	8		
1:45	0	2	0	3	13:45	19	83	17	59
<hr/>									
2:00	0	0			14:00	21	12		
2:15	0	0			14:15	29	14		
2:30	0	0			14:30	21	18		
2:45	0	0	0	0	14:45	24	95	16	60
<hr/>									
3:00	0	0			15:00	28	19		
3:15	0	0			15:15	37	13		
3:30	0	0			15:30	37	20		
3:45	0	0	0	0	15:45	32	134	13	65
<hr/>									
4:00	0	0			16:00	43	17		
4:15	0	0			16:15	38	15		
4:30	2	0			16:30	39	17		
4:45	2	4	2	2	16:45	40	160	16	65
<hr/>									
5:00	2	4			17:00	77	15		
5:15	2	3			17:15	62	21		
5:30	3	2			17:30	62	30		
5:45	0	7	4	13	17:45	51	252	28	94
<hr/>									
6:00	8	7			18:00	38	32		
6:15	2	9			18:15	58	36		
6:30	6	9			18:30	36	24		
6:45	7	23	17	42	18:45	40	172	36	128
<hr/>									
7:00	9	25			19:00	24	26		
7:15	12	27			19:15	30	13		
7:30	16	57			19:30	26	16		
7:45	16	53	59	168	19:45	15	95	11	66
<hr/>									
8:00	16	47			20:00	24	14		
8:15	13	48			20:15	17	20		
8:30	28	23			20:30	19	10		
8:45	19	76	38	156	20:45	15	75	12	56
<hr/>									
9:00	18	38			21:00	16	9		
9:15	16	34			21:15	12	12		
9:30	26	29			21:30	10	10		
9:45	20	80	24	125	21:45	10	48	8	39
<hr/>									
10:00	7	16			22:00	6	5		
10:15	22	16			22:15	9	8		
10:30	16	11			22:30	5	10		
10:45	20	65	15	58	22:45	6	26	3	26
<hr/>									
11:00	20	7			23:00	6	5		
11:15	23	12			23:15	0	0		
11:30	15	17			23:30	5	0		
11:45	14	72	12	48	23:45	3	14	0	5
<hr/>									
<b>Total Vol.</b>	388	617		<b>1005</b>		1250	726		<b>1976</b>

	Daily Totals				Combined	
	NB	SB	EB	WB		
	1638	1343			<b>2981</b>	
	<b>AM</b>		<b>PM</b>			
<b>Split %</b>	38.6%	61.4%	<b>33.7%</b>	63.3%	36.7%	<b>66.3%</b>
<b>Peak Hour</b>	11:45	7:30	<b>7:30</b>	17:00	18:00	<b>17:00</b>
<b>Volume</b>	90	211	<b>272</b>	252	128	<b>346</b>
<b>P.H.F.</b>	0.64	0.89	<b>0.91</b>	0.85	0.89	<b>0.94</b>

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Oct 30, 19

LOCATION: Pasadena
NORTH & SOUTH: Sierra Bonita
EAST & WEST: Washington

PROJECT #: SC
LOCATION #: 1
CONTROL: SIGNAL

NOTES: Diagram showing traffic directions: AM, PM, MD, OTHER, OTHER with arrows for N, S, E, W.

Add U-Turns to Left Turns

Table with columns: NORTHBOUND (Sierra Bonita), SOUTHBOUND (Sierra Bonita), EASTBOUND (Washington), WESTBOUND (Washington), TOTAL. Includes sub-columns for lanes (NL, NT, NR, SL, ST, SR, EL, ET, ER, WL, WT, WR).

U-TURNS table with columns: NB, SB, EB, WB, TTL.

Main data table with time slots (7:00 AM to 5:45 PM), AM and PM sections, and summary rows for VOLUMES, APPROACH %, APP/DEPART, and BEGIN PEAK HR VOLUMES.

U-TURNS data table showing counts for NB, SB, EB, WB, TTL across various time slots.

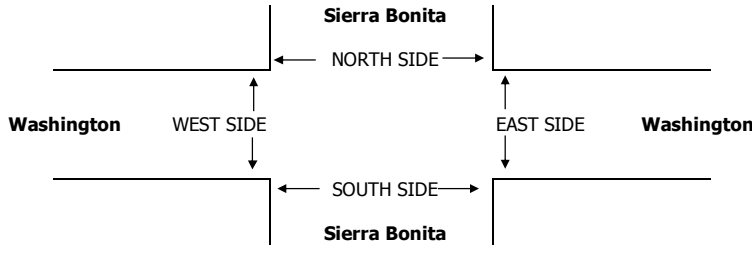
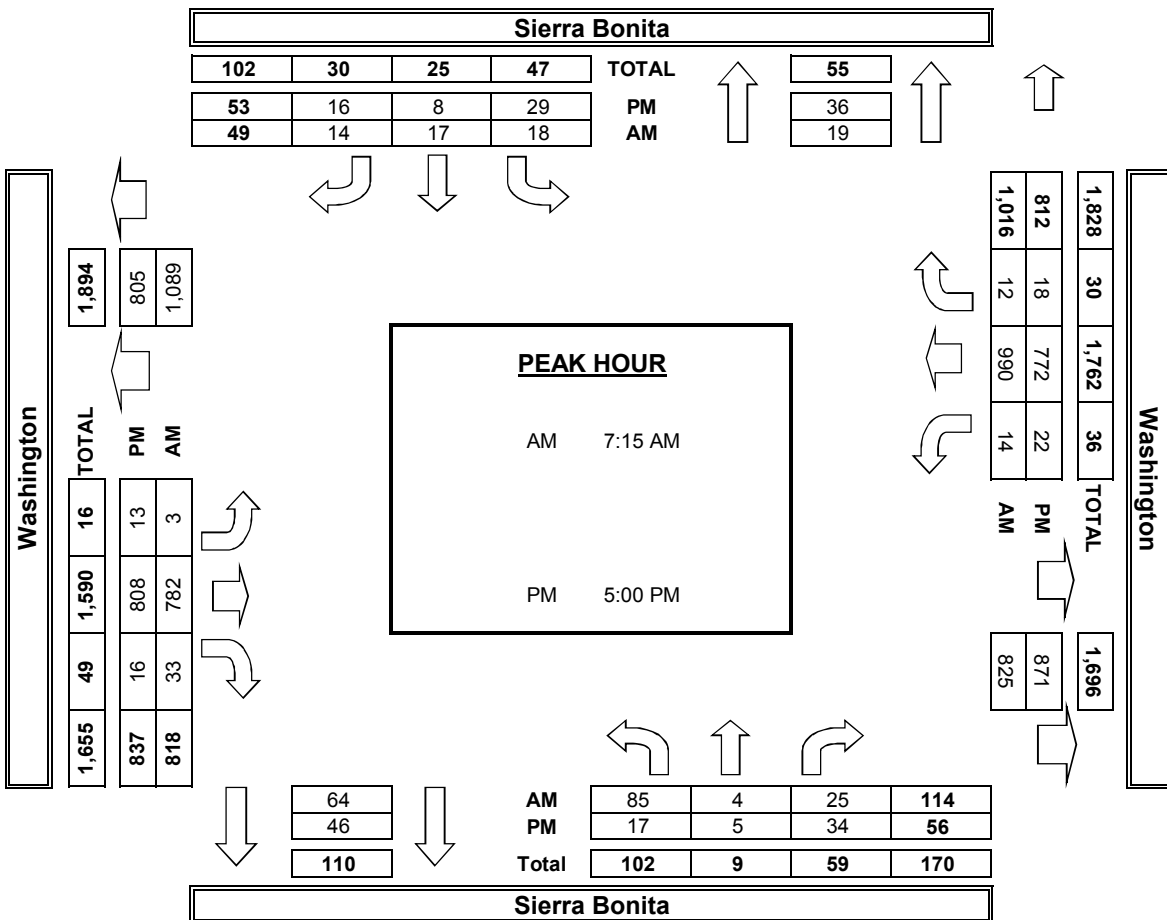
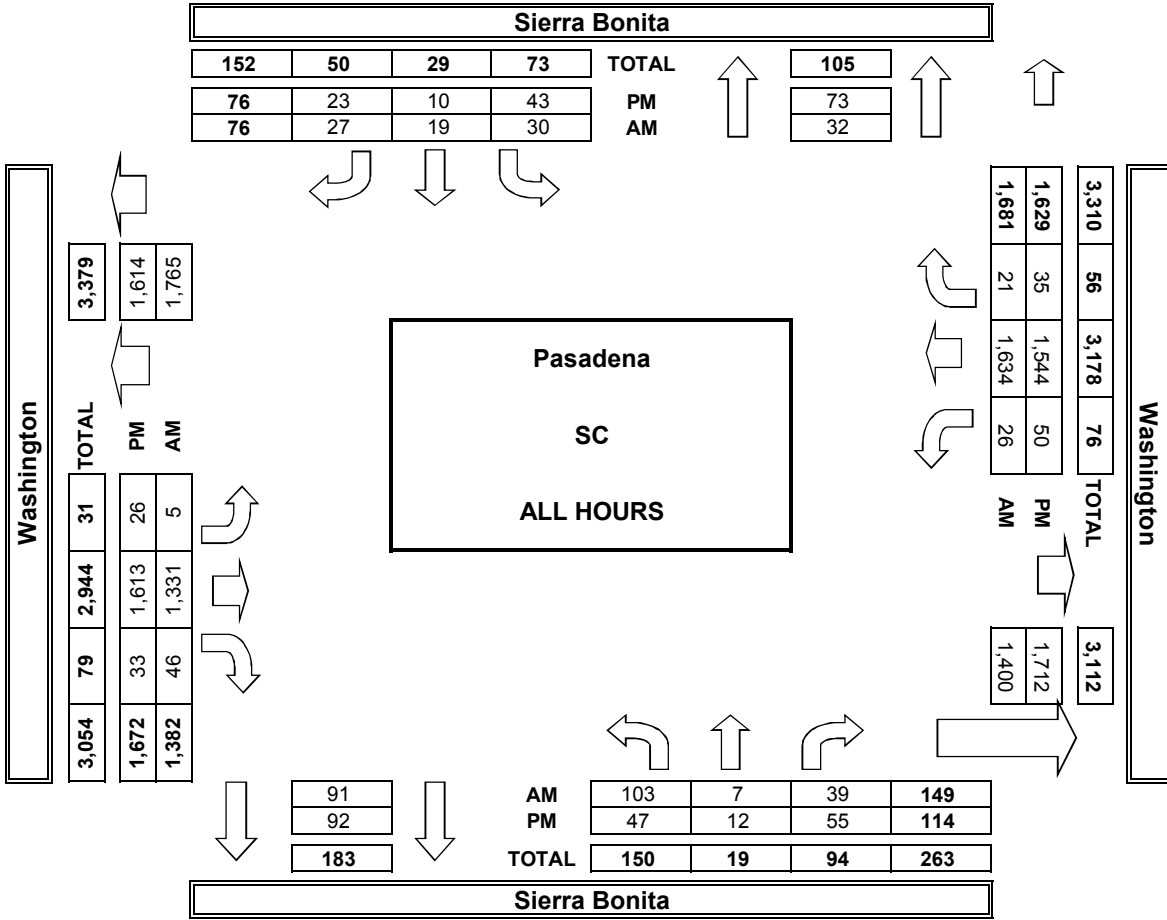


Table for Pedestrian + Bike Crossings with time slots (7:00 AM to 5:45 PM) and AM/PM sections.

Table for Pedestrian Crossings with time slots (7:00 AM to 5:45 PM) and AM/PM sections.

Table for Bicycle Crossings with time slots (7:00 AM to 5:45 PM) and AM/PM sections.

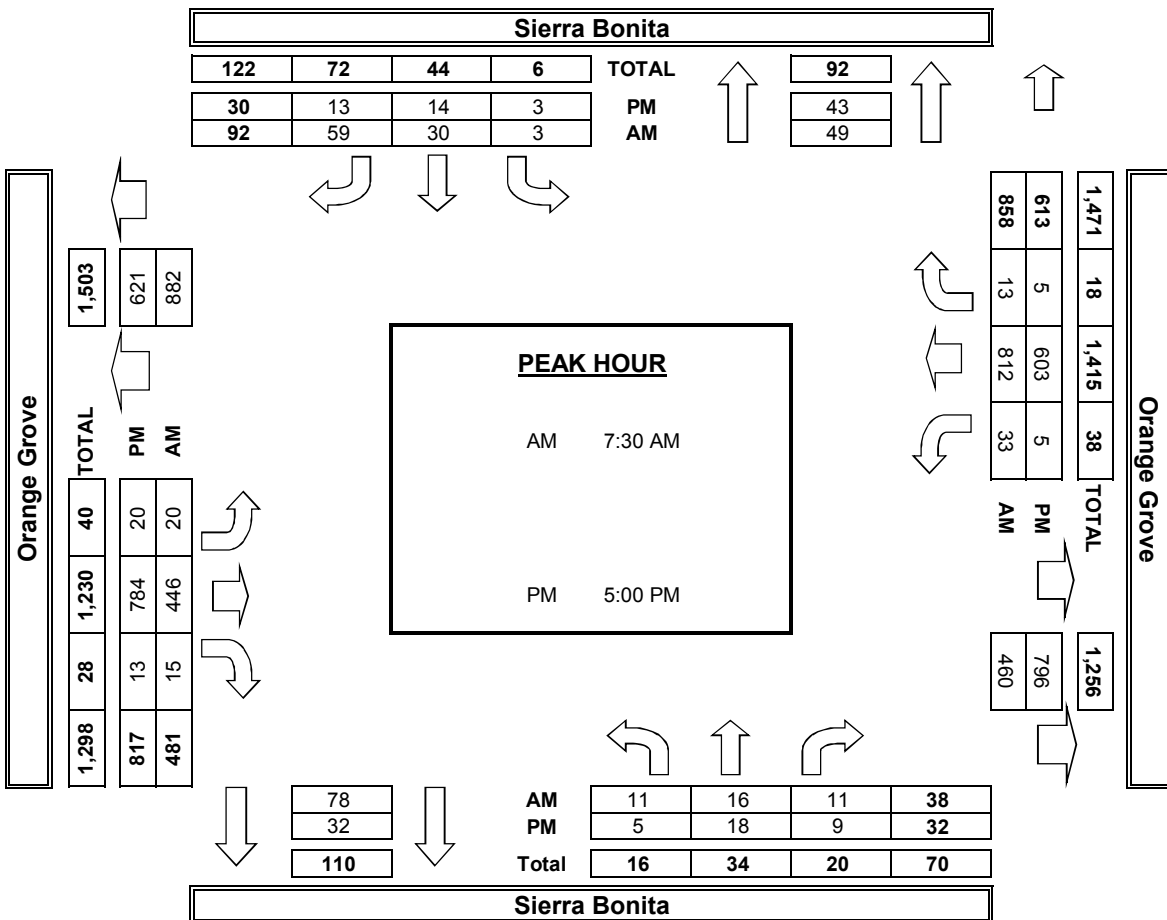
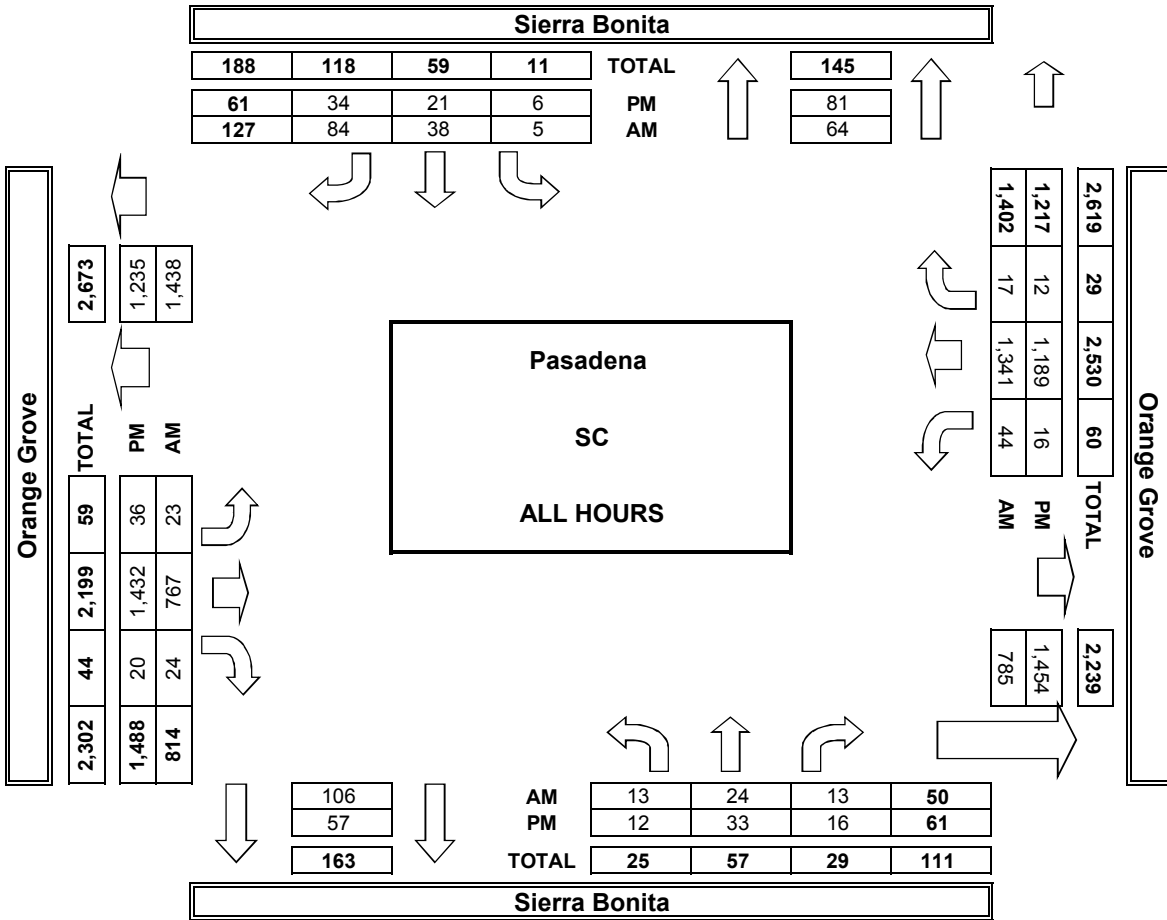
**AimTD LLC**  
TURNING MOVEMENT COUNTS







**AimTD LLC**  
TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

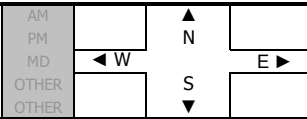
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

**DATE:**  
Wed, Oct 30, 19

**LOCATION:** Pasadena  
**NORTH & SOUTH:** Sierra Bonita  
**EAST & WEST:** Colorado

**PROJECT #:** SC  
**LOCATION #:** 3  
**CONTROL:** SIGNAL

**NOTES:**

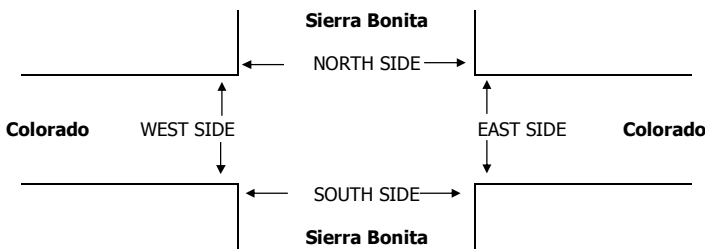


Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Sierra Bonita			Sierra Bonita			Colorado			Colorado			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
7:00 AM	0	0	0	4	0	8	2	85	0	0	125	4	228
7:15 AM	0	0	0	7	0	2	2	69	0	0	168	8	256
7:30 AM	0	0	0	3	0	7	1	74	0	0	208	4	297
7:45 AM	0	0	0	4	0	29	1	89	0	0	284	9	416
8:00 AM	0	0	0	9	0	14	4	93	0	0	262	15	397
8:15 AM	0	0	0	10	0	5	7	123	0	0	234	16	395
8:30 AM	0	0	0	17	0	6	11	129	0	0	249	9	421
8:45 AM	0	0	0	9	0	10	7	138	0	0	259	19	442
VOLUMES	0	0	0	63	0	81	35	800	0	0	1,789	84	2,856
APPROACH %	0%	0%	0%	44%	0%	56%	4%	95%	0%	0%	95%	4%	
APP/DEPART	0	/	119	144	/	0	838	/	864	1,874	/	1,873	0
BEGIN PEAK HR	8:00 AM												
VOLUMES	0	0	0	45	0	35	29	483	0	0	1,004	59	1,657
APPROACH %	0%	0%	0%	56%	0%	44%	6%	94%	0%	0%	94%	6%	
PEAK HR FACTOR	0.000			0.870			0.886			0.956			0.937
APP/DEPART	0	/	88	80	/	0	514	/	528	1,063	/	1,041	0
4:00 PM	0	0	0	8	0	8	12	209	0	0	199	19	455
4:15 PM	0	0	0	11	0	7	7	225	0	0	175	17	442
4:30 PM	0	0	0	5	0	11	7	234	0	0	187	13	457
4:45 PM	0	0	0	11	0	9	8	217	0	0	190	17	452
5:00 PM	0	0	0	15	0	11	10	217	0	0	172	16	441
5:15 PM	0	0	0	10	0	12	11	286	0	0	204	28	551
5:30 PM	0	0	0	9	0	14	10	280	0	0	185	18	516
5:45 PM	0	0	0	5	0	11	11	255	0	0	189	17	488
VOLUMES	0	0	0	74	0	83	76	1,923	0	0	1,501	145	3,812
APPROACH %	0%	0%	0%	47%	0%	53%	4%	96%	0%	0%	91%	9%	
APP/DEPART	0	/	221	157	/	0	2,006	/	2,000	1,649	/	1,591	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	0	0	0	39	0	48	42	1,038	0	0	750	79	1,999
APPROACH %	0%	0%	0%	45%	0%	55%	4%	96%	0%	0%	90%	10%	
PEAK HR FACTOR	0.000			0.837			0.908			0.894			0.905
APP/DEPART	0	/	121	87	/	0	1,082	/	1,078	830	/	800	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	3	1	4

0	0	2	1	3
0	0	1	1	2
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	0	1	1
0	0	7	3	10

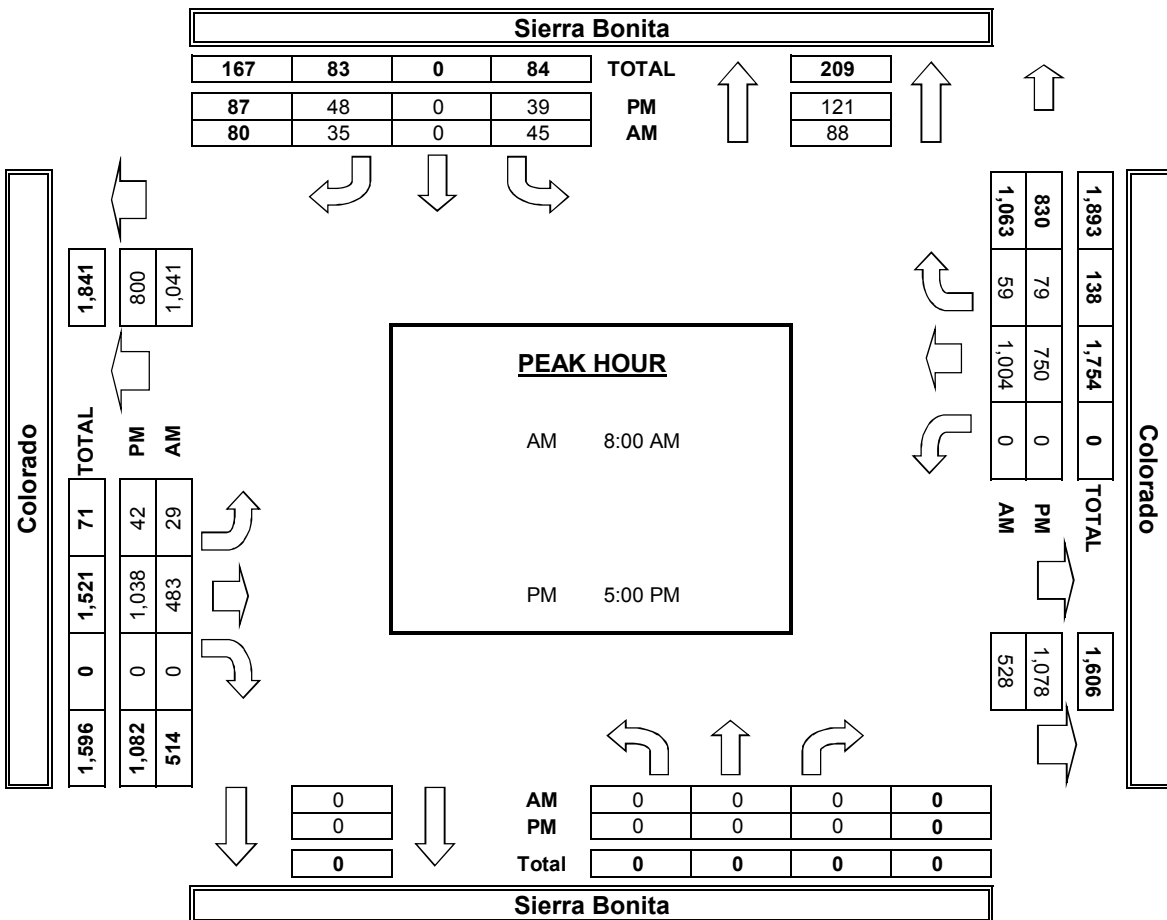
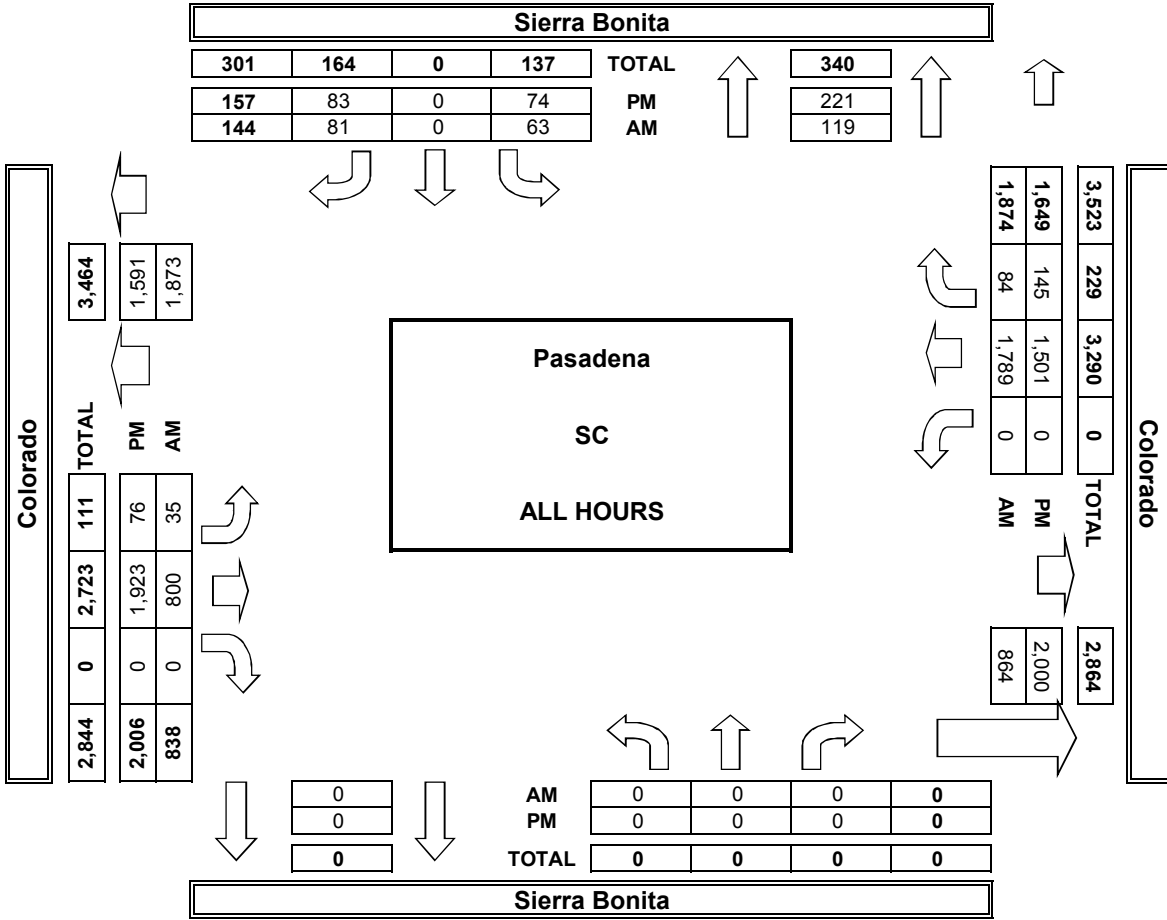


	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	8:00 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	8:00 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

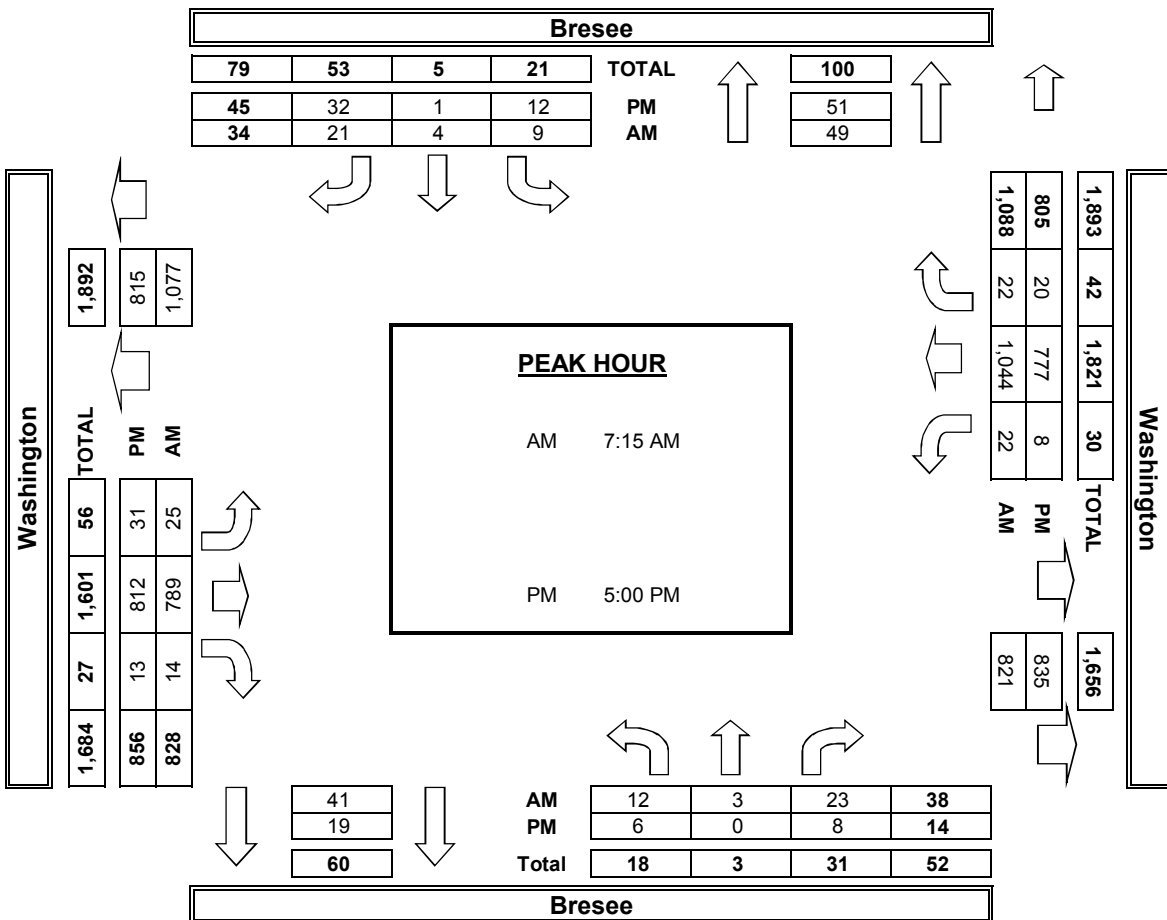
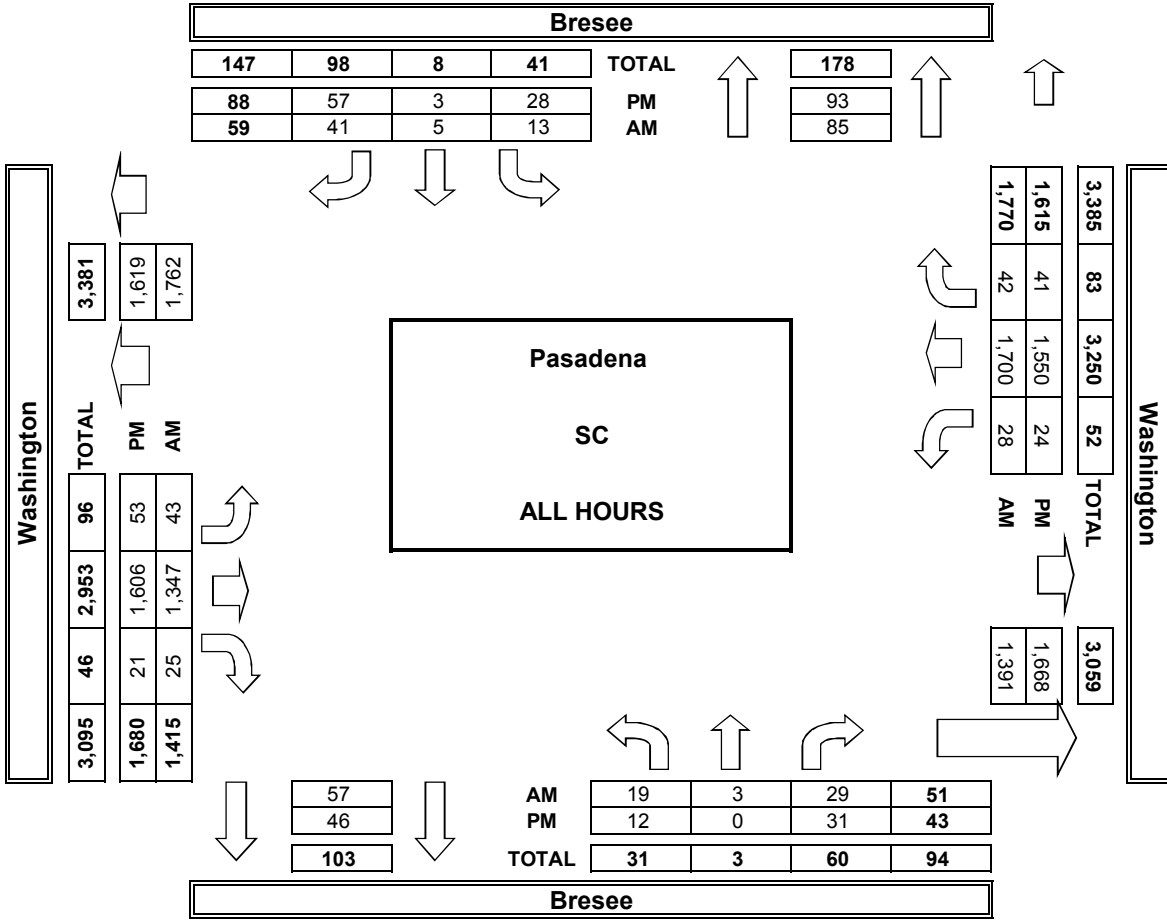
	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	8:00 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

**AimTD LLC**  
TURNING MOVEMENT COUNTS





**AimTD LLC**  
TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

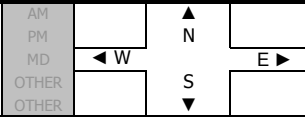
**DATE:**  
Wed, Oct 30, 19

**LOCATION:** Pasadena  
**NORTH & SOUTH:** Hamilton  
**EAST & WEST:** Orange Grove

**PROJECT #:** SC  
**LOCATION #:** 5  
**CONTROL:** STOP N/S

**NOTES:**

Queue WB AM

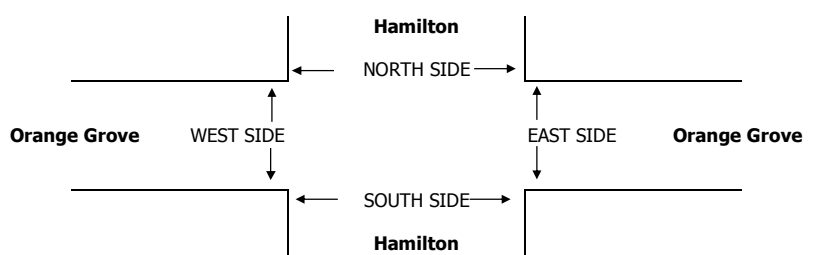


Add U-Turns to Left Turns

	NORTHBOUND <small>Hamilton</small>			SOUTHBOUND <small>Hamilton</small>			EASTBOUND <small>Orange Grove</small>			WESTBOUND <small>Orange Grove</small>			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
<b>LANES:</b>	0	1	0	0	1	0	1	2	0	1	2	0	
<b>AM</b>													
7:00 AM	2	0	0	0	0	3	0	59	0	3	85	1	153
7:15 AM	0	0	2	0	0	1	1	104	1	6	156	0	271
7:30 AM	0	1	5	0	2	4	1	167	1	29	206	2	418
7:45 AM	0	0	2	0	2	1	3	106	3	107	153	25	402
8:00 AM	0	0	2	0	0	0	6	92	0	55	125	19	299
8:15 AM	0	0	3	0	2	0	6	99	1	20	139	3	273
8:30 AM	0	0	2	0	0	1	4	95	1	23	120	1	247
8:45 AM	2	0	2	0	1	0	2	69	0	32	135	1	244
<b>VOLUMES</b>	4	1	18	0	7	10	23	791	7	275	1,119	52	2,307
<b>APPROACH %</b>	17%	4%	78%	0%	41%	59%	3%	96%	1%	19%	77%	4%	
<b>APP/DEPART</b>	23	/	74	17	/	288	821	/	810	1,446	/	1,135	0
<b>BEGIN PEAK HR</b>	7:30 AM												
<b>VOLUMES</b>	0	1	12	0	6	5	16	464	5	211	623	49	1,392
<b>APPROACH %</b>	0%	8%	92%	0%	55%	45%	3%	96%	1%	24%	71%	6%	
<b>PEAK HR FACTOR</b>	0.542			0.458			0.717			0.775			0.833
<b>APP/DEPART</b>	13	/	64	11	/	221	485	/	477	883	/	630	0
<b>PM</b>													
4:00 PM	0	0	1	1	0	1	0	147	1	1	165	1	318
4:15 PM	0	0	1	0	0	2	2	180	2	2	142	2	333
4:30 PM	0	0	1	0	0	1	0	154	2	0	149	0	307
4:45 PM	0	2	2	0	0	1	2	184	1	1	144	0	337
5:00 PM	1	0	2	0	1	1	1	189	1	0	139	0	335
5:15 PM	0	0	3	0	1	1	0	203	3	9	172	0	392
5:30 PM	2	0	7	0	0	0	2	185	5	6	149	1	357
5:45 PM	0	0	2	0	0	0	2	223	3	1	141	1	373
<b>VOLUMES</b>	3	2	19	1	2	7	9	1,465	18	20	1,201	5	2,752
<b>APPROACH %</b>	13%	8%	79%	10%	20%	70%	1%	98%	1%	2%	98%	0%	
<b>APP/DEPART</b>	24	/	12	10	/	39	1,492	/	1,486	1,226	/	1,215	0
<b>BEGIN PEAK HR</b>	5:00 PM												
<b>VOLUMES</b>	3	0	14	0	2	2	5	800	12	16	601	2	1,457
<b>APPROACH %</b>	18%	0%	82%	0%	50%	50%	1%	98%	1%	3%	97%	0%	
<b>PEAK HR FACTOR</b>	0.472			0.500			0.896			0.855			0.929
<b>APP/DEPART</b>	17	/	4	4	/	29	817	/	815	619	/	609	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	1	1	2
0	0	0	0	0
0	0	0	0	0
0	0	2	1	3

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	0	1	1
0	0	1	0	1
0	0	1	0	1
0	0	4	1	5

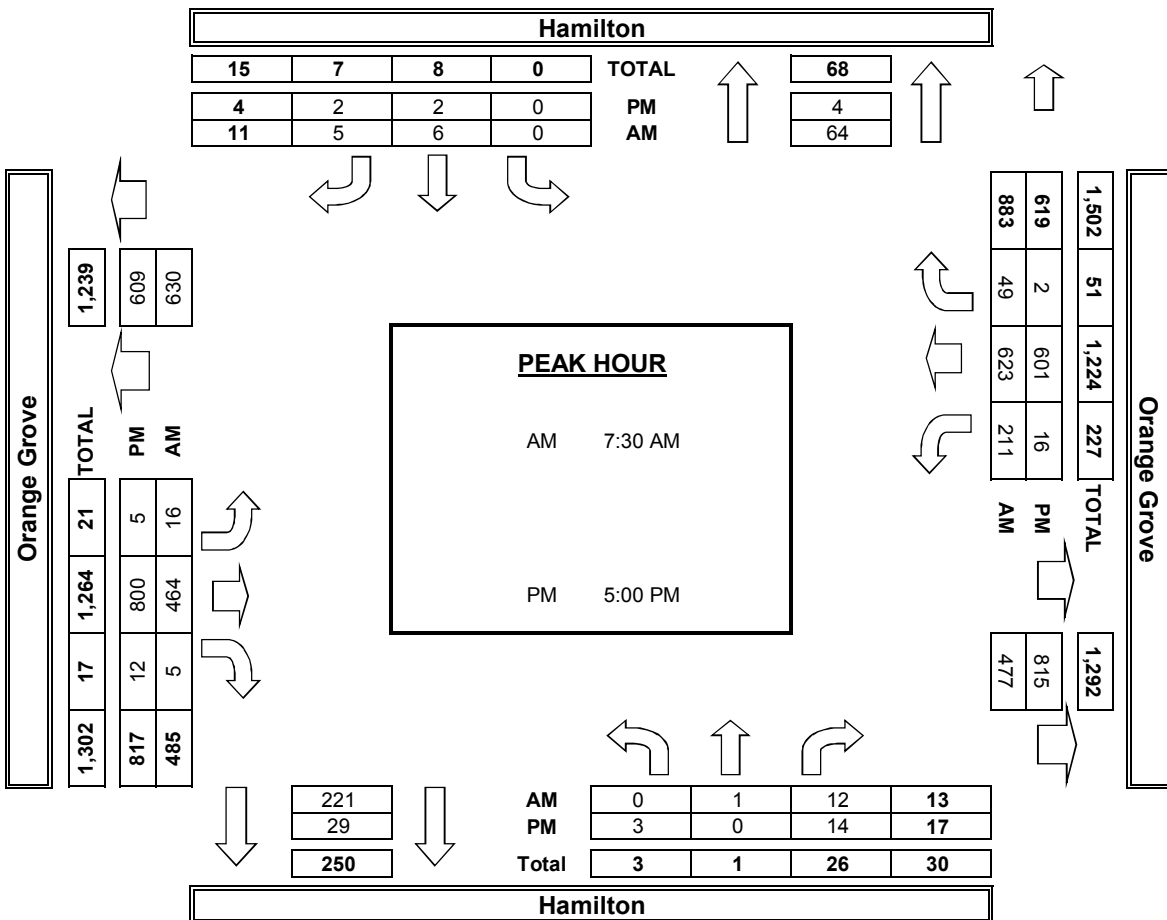
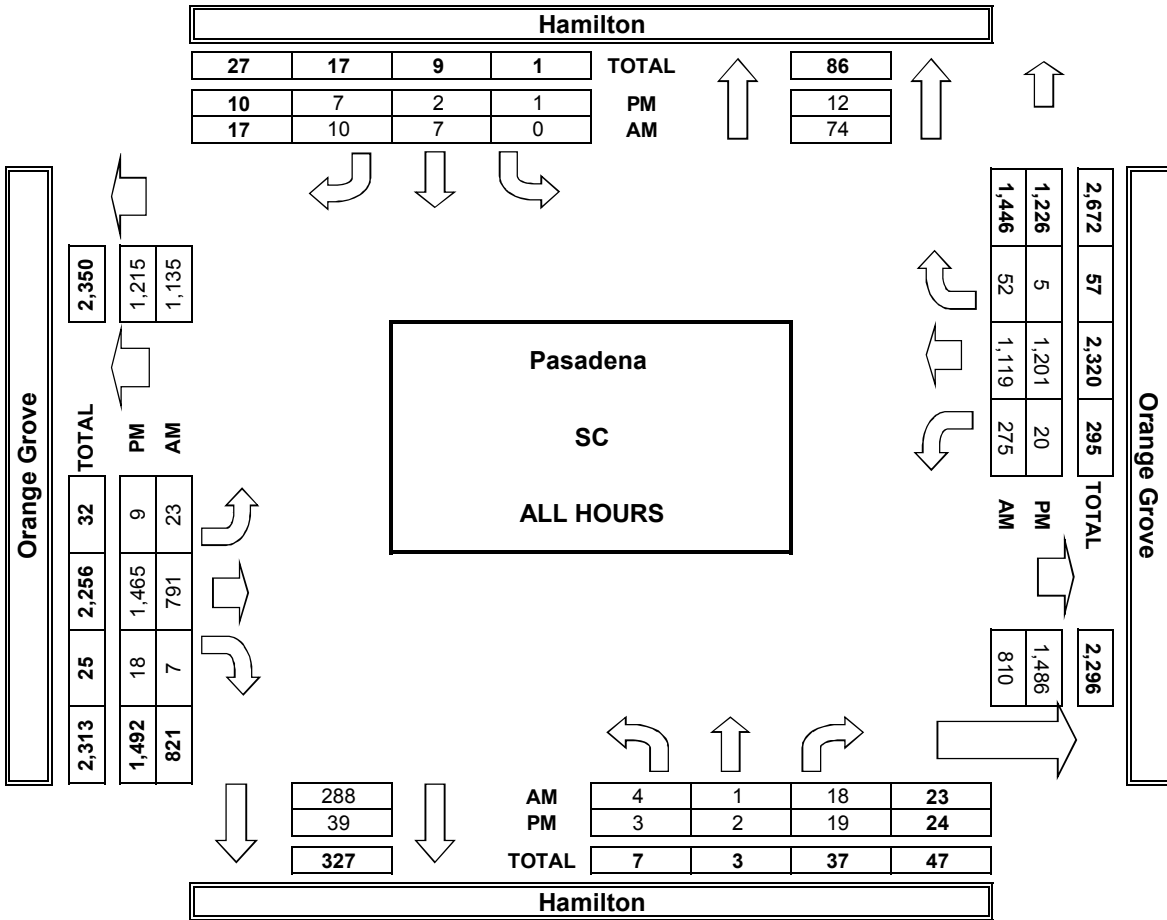


		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
<b>AM</b>	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
<b>TOTAL</b>		0	0	0	0	0
<b>AM BEGIN PEAK HR</b>		7:30 AM				
<b>PM</b>	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
<b>TOTAL</b>		0	0	0	0	0
<b>PM BEGIN PEAK HR</b>		5:00 PM				

		PEDESTRIAN CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
<b>AM</b>	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
<b>TOTAL</b>		0	0	0	0	0
<b>AM BEGIN PEAK HR</b>		7:30 AM				
<b>PM</b>	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
<b>TOTAL</b>		0	0	0	0	0
<b>PM BEGIN PEAK HR</b>		5:00 PM				

		BICYCLE CROSSINGS				
		NS	SS	ES	WS	TOTAL
<b>AM</b>	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
<b>TOTAL</b>		0	0	0	0	0
<b>AM BEGIN PEAK HR</b>		7:30 AM				
<b>PM</b>	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
<b>TOTAL</b>		0	0	0	0	0
<b>PM BEGIN PEAK HR</b>		5:00 PM				

**AimTD LLC**  
TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

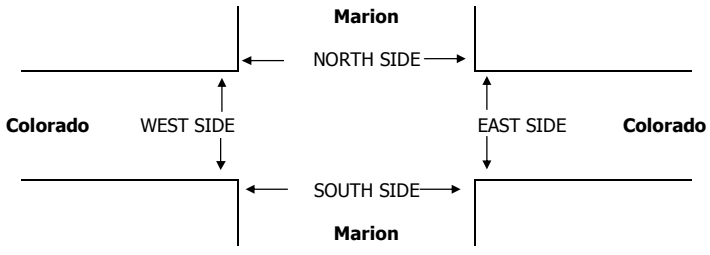
<b>DATE:</b> Wed, Oct 30, 19	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	Pasadena Marion Colorado	<b>PROJECT #:</b> SC <b>LOCATION #:</b> 6 <b>CONTROL:</b> SIGNAL
---------------------------------	--	--------------------------------	--

<b>NOTES:</b>  Queue WB AM; EB PM	<table border="1" style="margin: auto;"> <tr><td>AM</td><td></td><td>▲</td><td></td></tr> <tr><td>PM</td><td></td><td>N</td><td></td></tr> <tr><td>MD</td><td>← W</td><td></td><td>E →</td></tr> <tr><td>OTHER</td><td></td><td>S</td><td></td></tr> <tr><td>OTHER</td><td></td><td>▼</td><td></td></tr> </table>	AM		▲		PM		N		MD	← W		E →	OTHER		S		OTHER		▼		<div style="border: 1px solid black; padding: 2px; width: fit-content; margin: auto;"> <input checked="" type="checkbox"/> Add U-Turns to Left Turns         </div>
AM		▲																				
PM		N																				
MD	← W		E →																			
OTHER		S																				
OTHER		▼																				

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Marion			Marion			Colorado			Colorado			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
7:00 AM	0	0	0	2	0	10	16	86	0	0	131	3	248
7:15 AM	0	0	0	4	0	8	9	70	0	0	168	7	266
7:30 AM	0	0	0	1	0	12	7	77	0	0	210	0	307
7:45 AM	0	0	0	4	0	7	5	81	0	0	311	2	410
8:00 AM	0	0	0	1	0	13	8	97	0	0	274	3	396
8:15 AM	0	0	0	3	0	8	10	126	0	0	236	5	388
8:30 AM	0	0	0	0	0	19	15	141	0	0	237	9	421
8:45 AM	0	0	0	4	0	18	19	145	0	0	270	9	465
VOLUMES	0	0	0	19	0	95	89	823	0	0	1,837	38	2,901
APPROACH %	0%	0%	0%	17%	0%	83%	10%	90%	0%	0%	98%	2%	
APP/DEPART	0	/	114	114	/	0	912	/	842	1,875	/	1,945	0
BEGIN PEAK HR	8:00 AM												
VOLUMES	0	0	0	8	0	58	52	509	0	0	1,017	26	1,670
APPROACH %	0%	0%	0%	12%	0%	88%	9%	91%	0%	0%	98%	2%	
PEAK HR FACTOR	0.000				0.750			0.855			0.935		0.898
APP/DEPART	0	/	73	66	/	0	561	/	517	1,043	/	1,080	0
4:00 PM	0	0	0	9	0	10	11	230	0	0	192	6	458
4:15 PM	0	0	0	1	0	8	8	223	0	0	182	4	426
4:30 PM	0	0	0	7	0	2	13	233	0	0	196	7	458
4:45 PM	0	0	0	8	0	12	14	221	0	0	194	6	455
5:00 PM	0	0	0	11	0	9	11	227	0	0	182	3	443
5:15 PM	0	0	0	4	0	9	11	286	0	0	199	5	514
5:30 PM	0	0	0	5	0	13	14	287	0	0	203	2	524
5:45 PM	0	0	0	5	0	9	16	261	0	0	199	5	495
VOLUMES	0	0	0	50	0	72	98	1,968	0	0	1,547	38	3,773
APPROACH %	0%	0%	0%	41%	0%	59%	5%	95%	0%	0%	98%	2%	
APP/DEPART	0	/	130	122	/	0	2,066	/	2,018	1,585	/	1,625	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	0	0	0	25	0	40	52	1,061	0	0	783	15	1,976
APPROACH %	0%	0%	0%	38%	0%	62%	5%	95%	0%	0%	98%	2%	
PEAK HR FACTOR	0.000				0.813			0.924			0.973		0.943
APP/DEPART	0	/	65	65	/	0	1,113	/	1,086	798	/	825	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	4	0	4
0	0	2	0	2
0	0	1	0	1
0	0	1	0	1
0	0	1	0	1
0	0	2	0	2
0	0	2	0	2
0	0	0	0	0
0	0	13	0	13

0	0	3	0	3
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	6	0	6



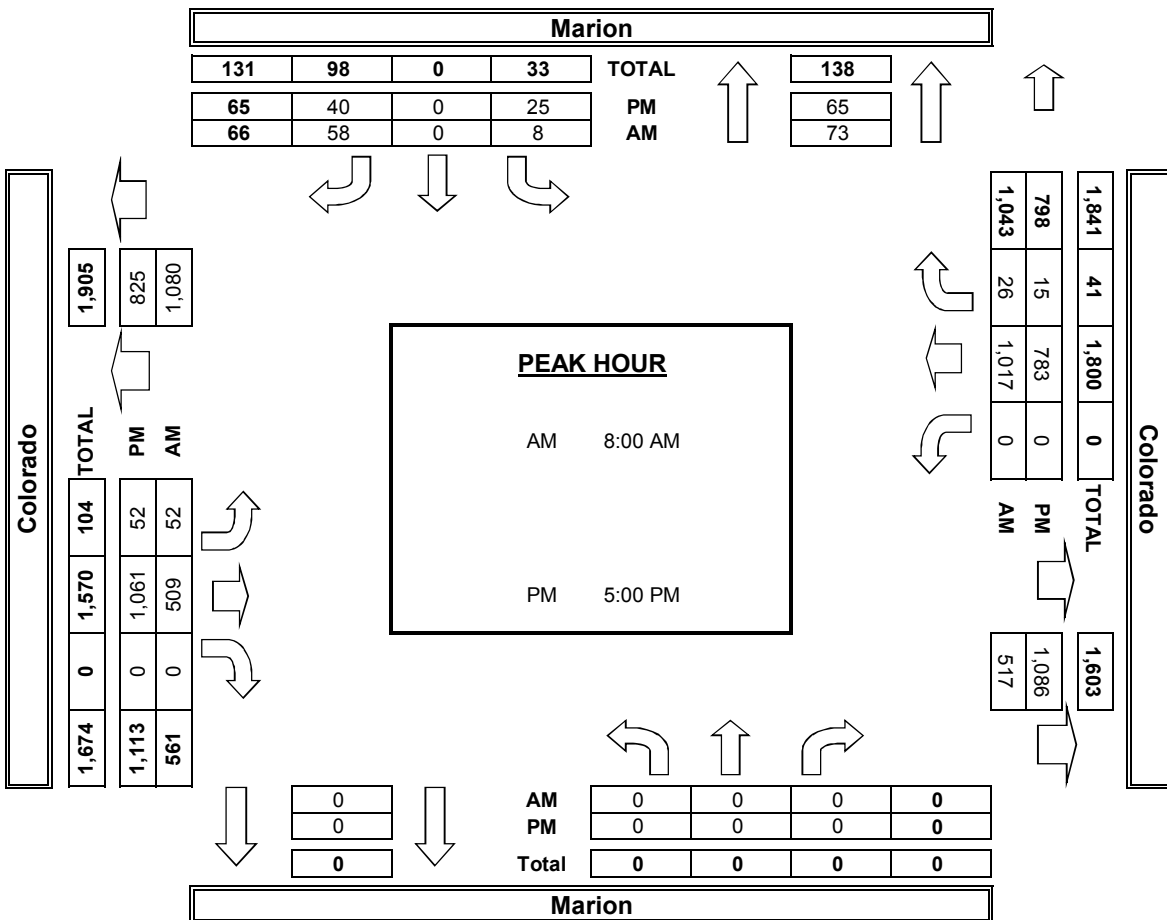
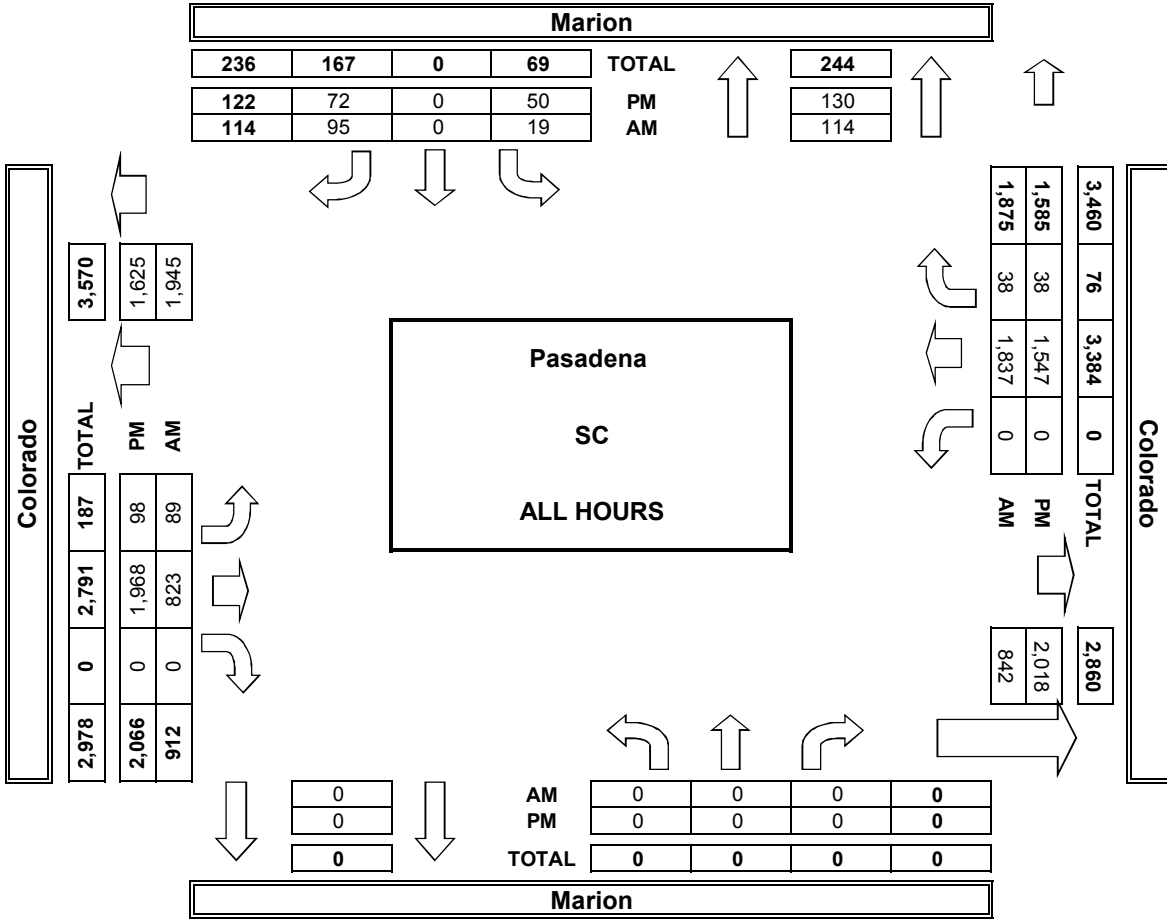
	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	8:00 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	8:00 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	8:00 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				



**AimTD LLC**  
TURNING MOVEMENT COUNTS



### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

**DATE:**  
Wed, Oct 30, 19

**LOCATION:** Pasadena  
**NORTH & SOUTH:** Oxford  
**EAST & WEST:** Washington

**PROJECT #:** SC  
**LOCATION #:** 7  
**CONTROL:** STOP N/S

**NOTES:**

AM  
PM  
MD  
OTHER  
OTHER

▲ N  
◀ W      E ▶  
S  
▼

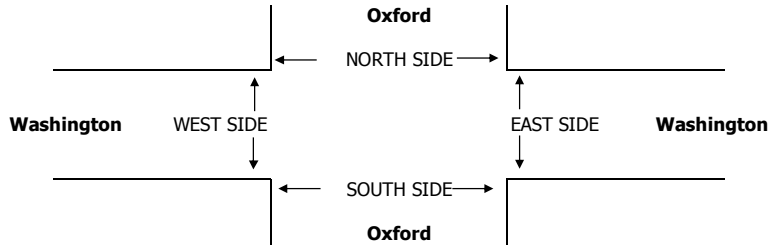
Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Oxford	Oxford	Oxford	Oxford	Oxford	Oxford	Washington	Washington	Washington	Washington	Washington		
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	2	0	0	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	1	0	1
0	0	0	1	1
0	0	0	1	1
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	3	3
0	0	1	0	1
0	0	2	6	8

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Oxford	Oxford	Oxford	Oxford	Oxford	Oxford	Washington	Washington	Washington	Washington	Washington		
<b>AM</b>													
7:00 AM	0	0	0	0	0	7	3	87	2	0	111	3	213
7:15 AM	0	0	2	2	1	7	2	199	4	1	212	0	430
7:30 AM	1	0	0	1	0	3	1	249	7	1	263	1	527
7:45 AM	0	1	2	1	0	11	4	195	2	3	308	3	530
8:00 AM	0	0	1	0	0	6	3	163	1	1	213	3	391
8:15 AM	2	0	2	0	0	7	2	179	2	1	180	0	375
8:30 AM	0	0	0	1	0	7	3	166	1	3	184	3	368
8:45 AM	2	0	2	2	0	4	3	128	0	1	161	1	304
VOLUMES	5	1	9	7	1	52	21	1,366	19	11	1,632	14	3,138
APPROACH %	33%	7%	60%	12%	2%	87%	1%	97%	1%	1%	98%	1%	
APP/DEPART	15	/	34	60	/	25	1,406	/	1,388	1,657	/	1,691	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	1	1	5	4	1	27	10	806	14	6	996	7	1,878
APPROACH %	14%	14%	71%	13%	3%	84%	1%	97%	2%	1%	99%	1%	
PEAK HR FACTOR	0.583			0.667			0.807			0.803			0.886
APP/DEPART	7	/	18	32	/	18	830	/	818	1,009	/	1,024	0
<b>PM</b>													
4:00 PM	0	0	2	2	1	6	4	203	3	0	191	3	415
4:15 PM	2	2	0	2	0	3	4	196	5	1	210	1	426
4:30 PM	2	0	3	3	1	4	6	198	2	0	199	2	420
4:45 PM	1	0	3	0	0	6	7	215	3	0	185	2	422
5:00 PM	0	0	2	2	0	6	5	216	7	2	207	6	453
5:15 PM	1	0	2	2	0	4	5	205	5	3	196	5	428
5:30 PM	0	0	3	3	0	9	6	186	4	4	179	2	396
5:45 PM	2	0	1	5	0	10	9	228	2	4	194	3	458
VOLUMES	8	2	16	19	2	48	46	1,647	31	14	1,561	24	3,418
APPROACH %	31%	8%	62%	28%	3%	70%	3%	96%	2%	1%	98%	2%	
APP/DEPART	26	/	67	69	/	44	1,724	/	1,685	1,599	/	1,622	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	3	0	8	12	0	29	25	835	18	13	776	16	1,735
APPROACH %	27%	0%	73%	29%	0%	71%	3%	95%	2%	2%	96%	2%	
PEAK HR FACTOR	0.917			0.683			0.918			0.936			0.947
APP/DEPART	11	/	38	41	/	28	878	/	858	805	/	811	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	2	2	4
0	0	0	0	0
0	0	1	1	2
0	0	0	0	0
0	0	5	3	8

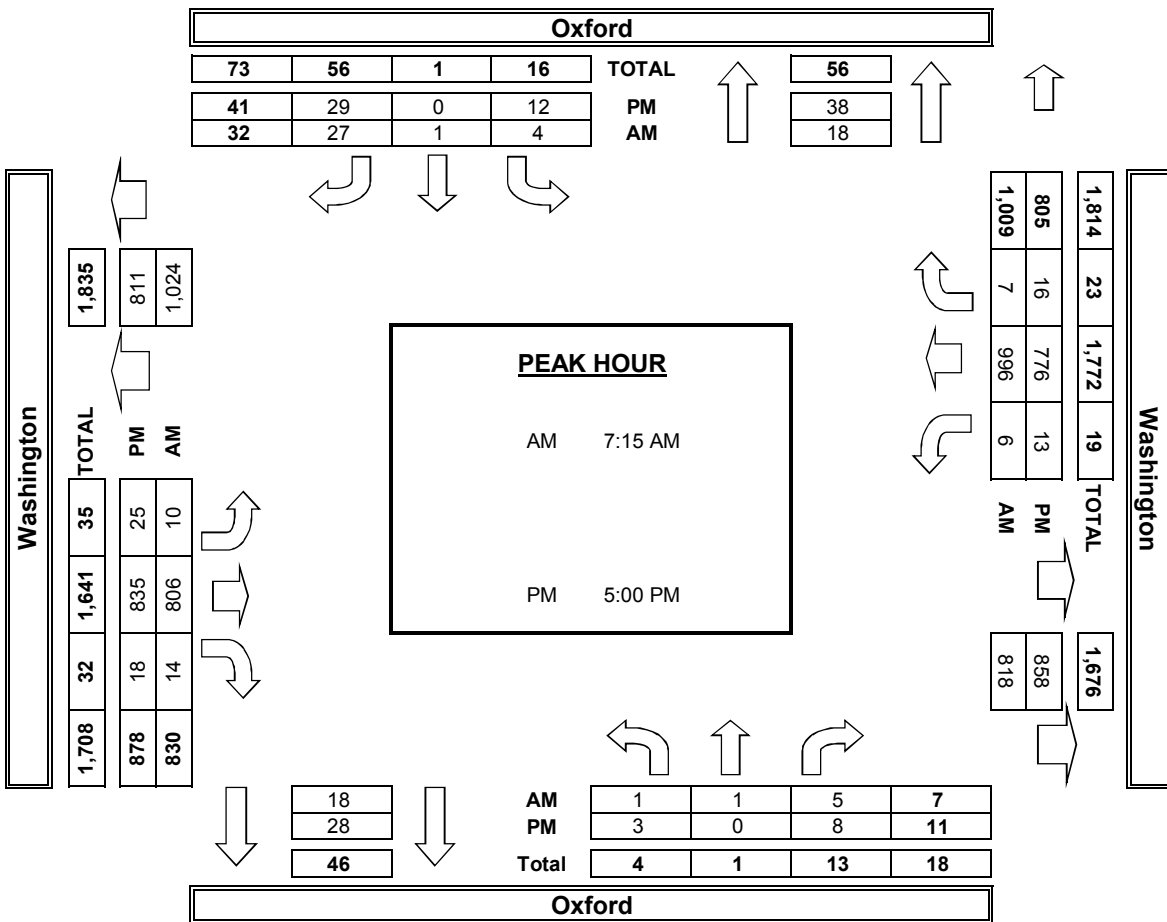
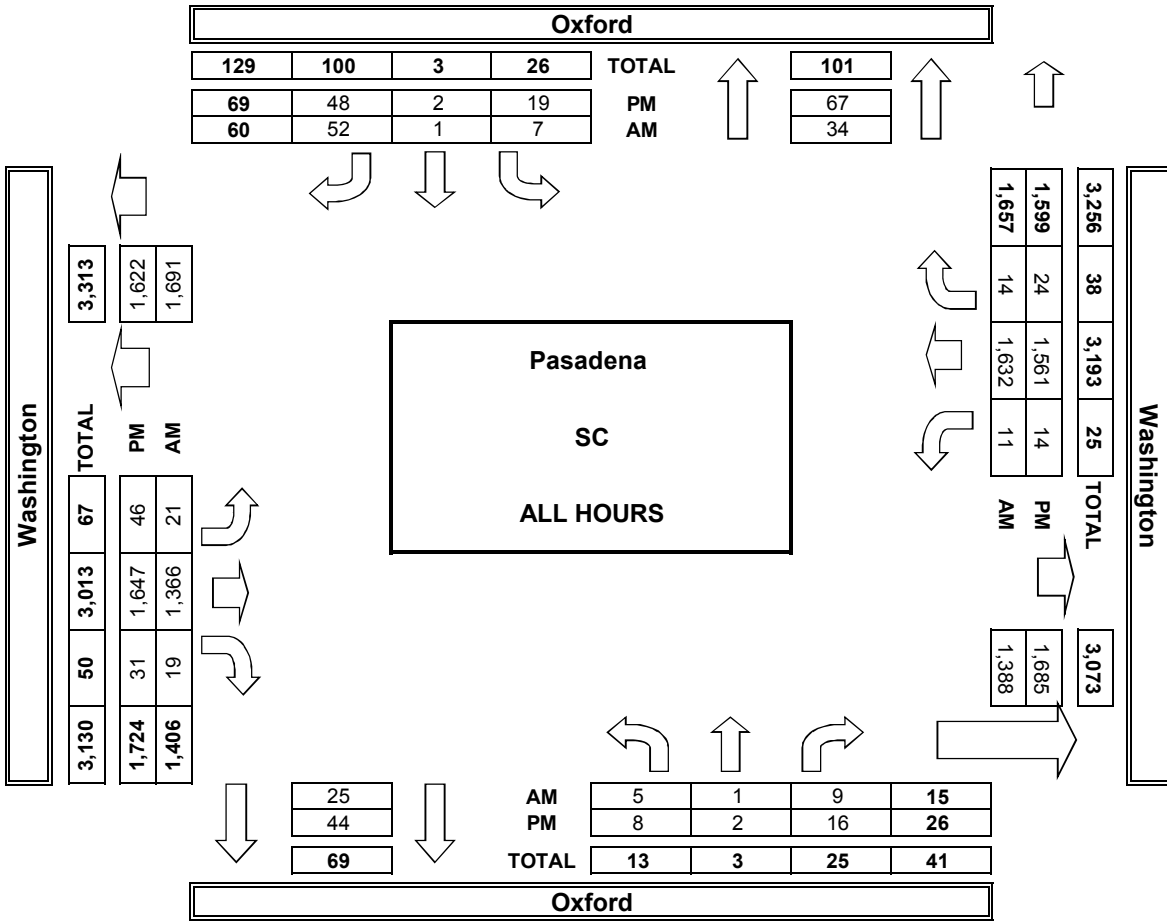


	PEDESTRIAN + BIKE CROSSINGS				TOTAL
	N SIDE	S SIDE	E SIDE	W SIDE	
<b>AM</b>					
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR					
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR					
5:00 PM	0	0	0	0	0

	PEDESTRIAN CROSSINGS				TOTAL
	N SIDE	S SIDE	E SIDE	W SIDE	
<b>AM</b>					
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR					
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR					
5:00 PM	0	0	0	0	0

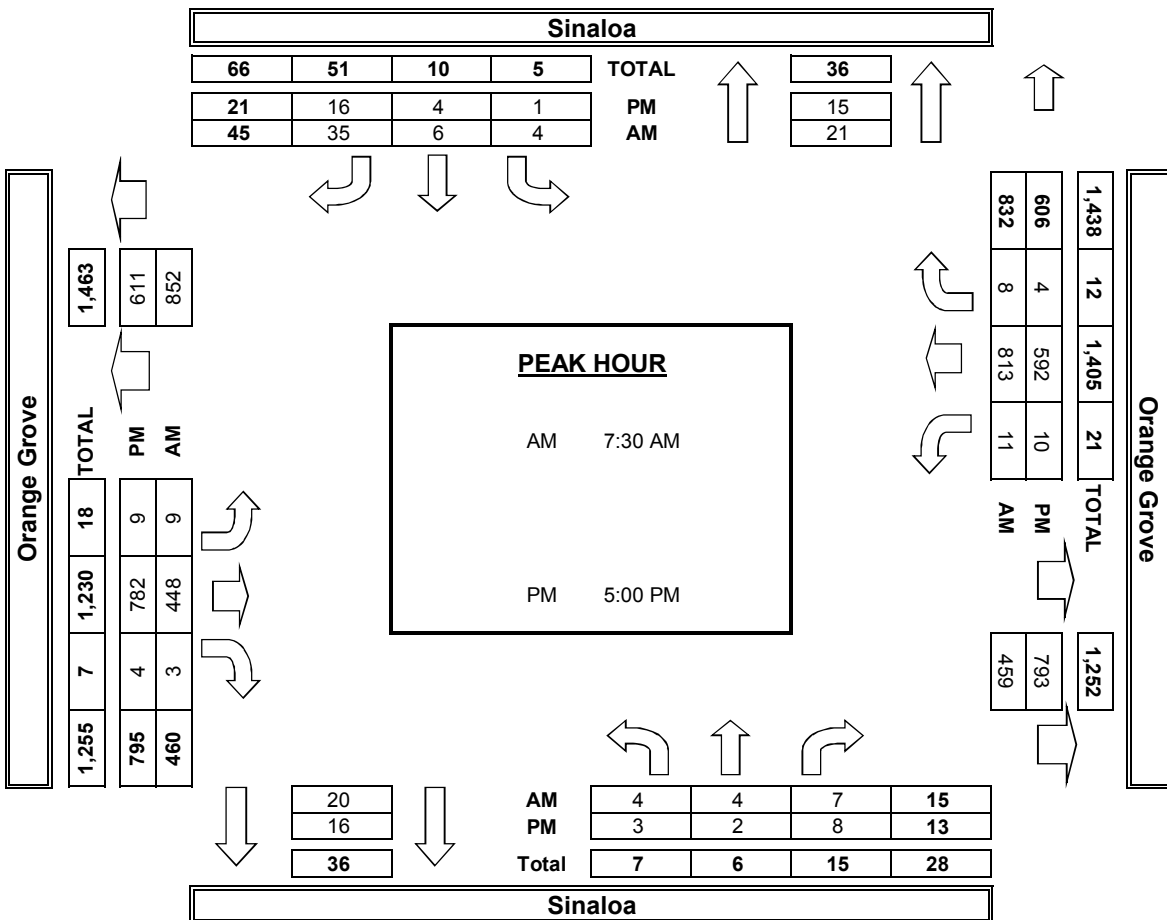
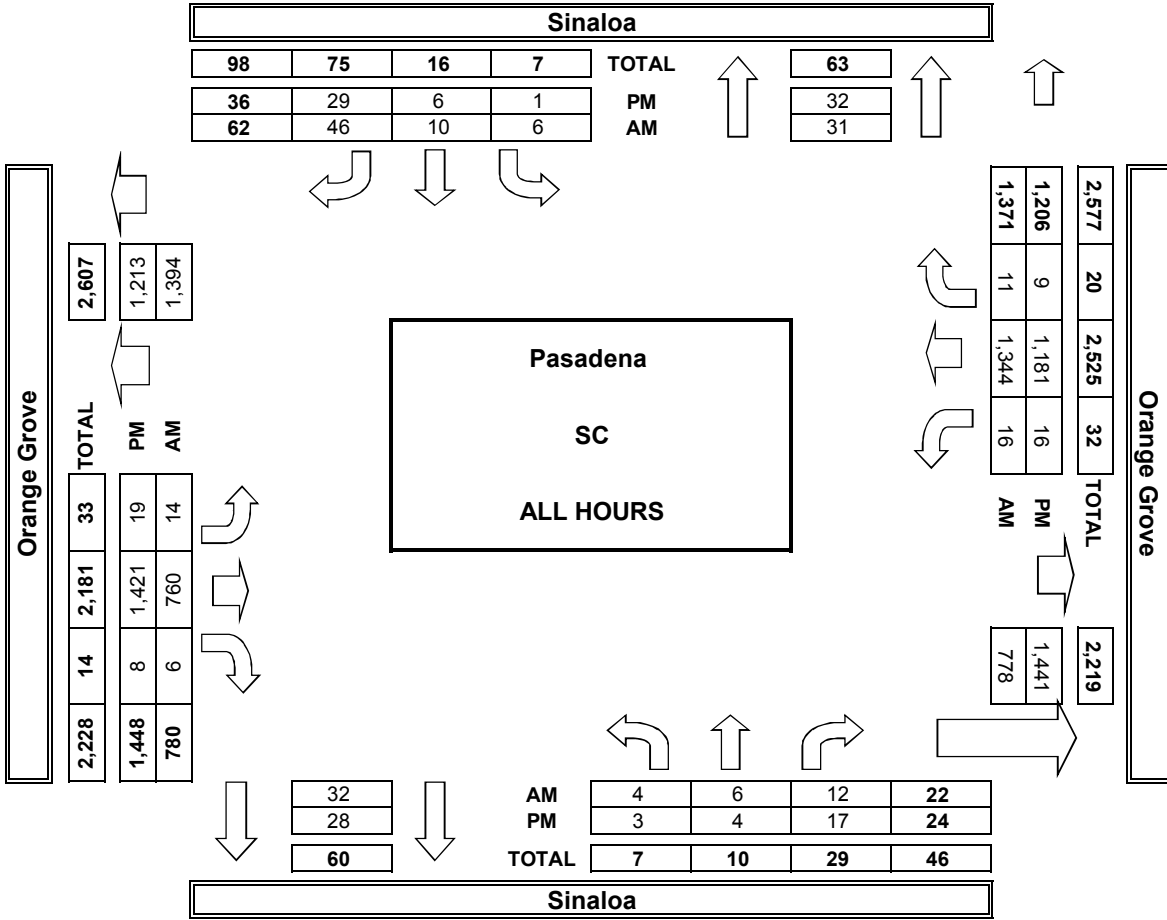
	BICYCLE CROSSINGS				TOTAL
	NS	SS	ES	WS	
<b>AM</b>					
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR					
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR					
5:00 PM	0	0	0	0	0

**AimTD LLC**  
TURNING MOVEMENT COUNTS





**AimTD LLC**  
TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

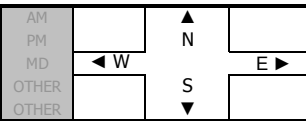
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

**DATE:**  
Wed, Oct 30, 19

**LOCATION:** Pasadena  
**NORTH & SOUTH:** Bonnie  
**EAST & WEST:** Colorado

**PROJECT #:** SC  
**LOCATION #:** 9  
**CONTROL:** SIGNAL

**NOTES:**

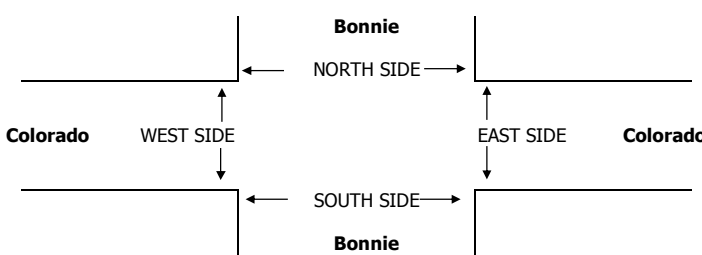


Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Bonnie			Bonnie			Colorado			Colorado			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
<b>AM</b>													
7:00 AM	9	3	6	0	35	3	4	47	36	21	119	1	284
7:15 AM	12	6	7	3	25	5	1	45	28	16	189	1	338
7:30 AM	8	3	9	2	18	3	3	55	20	11	182	1	315
7:45 AM	19	4	6	2	41	4	3	63	28	20	276	9	475
8:00 AM	21	8	10	3	39	11	2	66	34	24	245	4	467
8:15 AM	27	13	22	3	62	8	2	69	56	37	212	13	524
8:30 AM	30	11	18	3	97	4	5	83	61	34	233	4	583
8:45 AM	29	14	15	3	72	8	2	91	55	31	232	7	559
VOLUMES	155	62	93	19	389	46	22	519	318	194	1,688	40	3,545
APPROACH %	50%	20%	30%	4%	86%	10%	3%	60%	37%	10%	88%	2%	
APP/DEPART	310	/	124	454	/	901	859	/	631	1,922	/	1,889	0
BEGIN PEAK HR	8:00 AM												
VOLUMES	107	46	65	12	270	31	11	309	206	126	922	28	2,133
APPROACH %	49%	21%	30%	4%	86%	10%	2%	59%	39%	12%	86%	3%	
PEAK HR FACTOR	0.879			0.752			0.883			0.985			0.915
APP/DEPART	218	/	85	313	/	602	526	/	386	1,076	/	1,060	0
<b>PM</b>													
4:00 PM	29	18	27	6	26	16	10	176	39	12	171	15	545
4:15 PM	30	12	18	5	21	9	9	183	36	22	141	9	495
4:30 PM	37	25	28	4	22	5	10	196	34	16	160	6	543
4:45 PM	24	26	32	6	29	10	12	178	34	22	181	7	561
5:00 PM	38	26	25	9	34	12	8	187	44	15	139	7	544
5:15 PM	47	31	42	3	27	11	11	234	57	24	172	6	665
5:30 PM	34	22	27	12	43	11	13	200	62	21	149	7	601
5:45 PM	37	21	35	10	55	5	8	197	55	35	171	8	637
VOLUMES	276	181	234	55	257	79	81	1,551	361	167	1,284	65	4,591
APPROACH %	40%	26%	34%	14%	66%	20%	4%	78%	18%	11%	85%	4%	
APP/DEPART	691	/	327	391	/	783	1,993	/	1,842	1,516	/	1,639	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	156	100	129	34	159	39	40	818	218	95	631	28	2,447
APPROACH %	41%	26%	34%	15%	69%	17%	4%	76%	20%	13%	84%	4%	
PEAK HR FACTOR	0.802			0.829			0.891			0.881			0.920
APP/DEPART	385	/	168	232	/	472	1,076	/	981	754	/	826	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	2	2

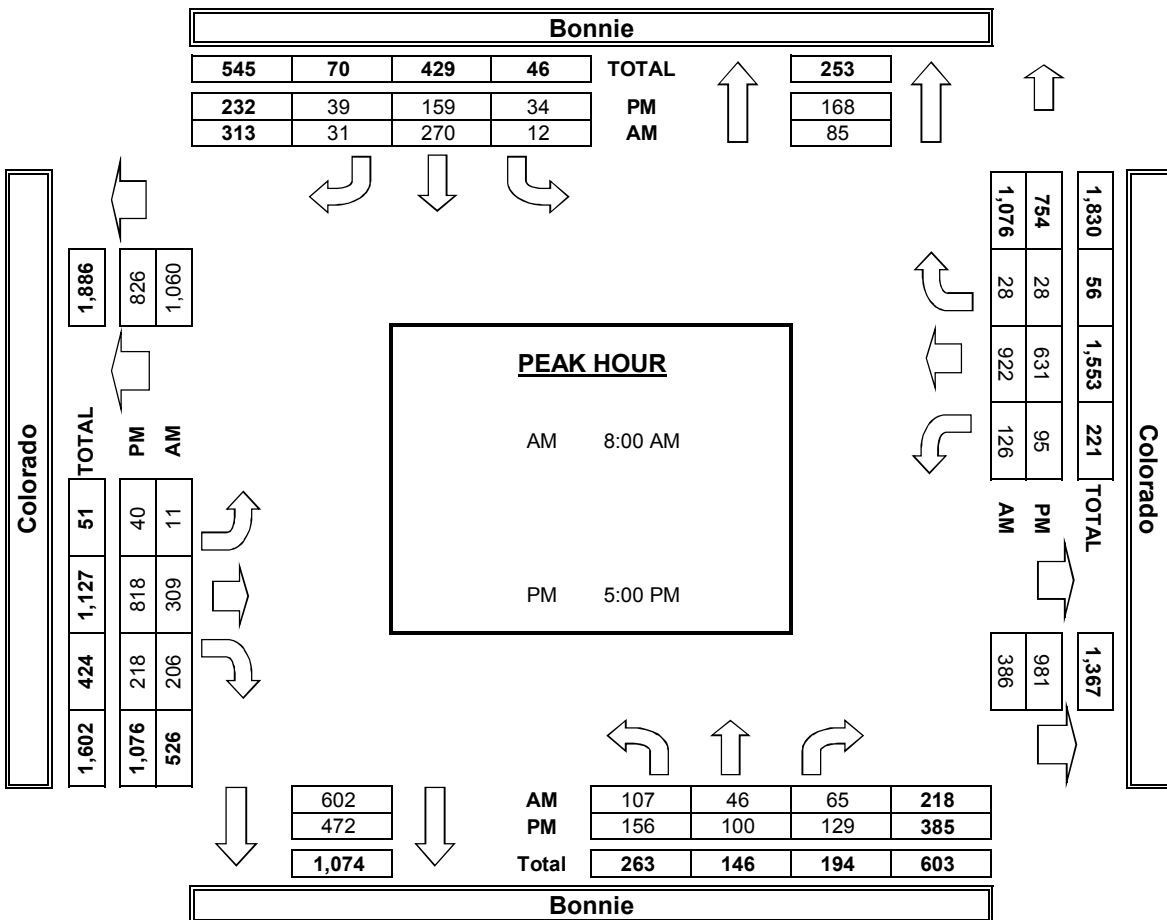
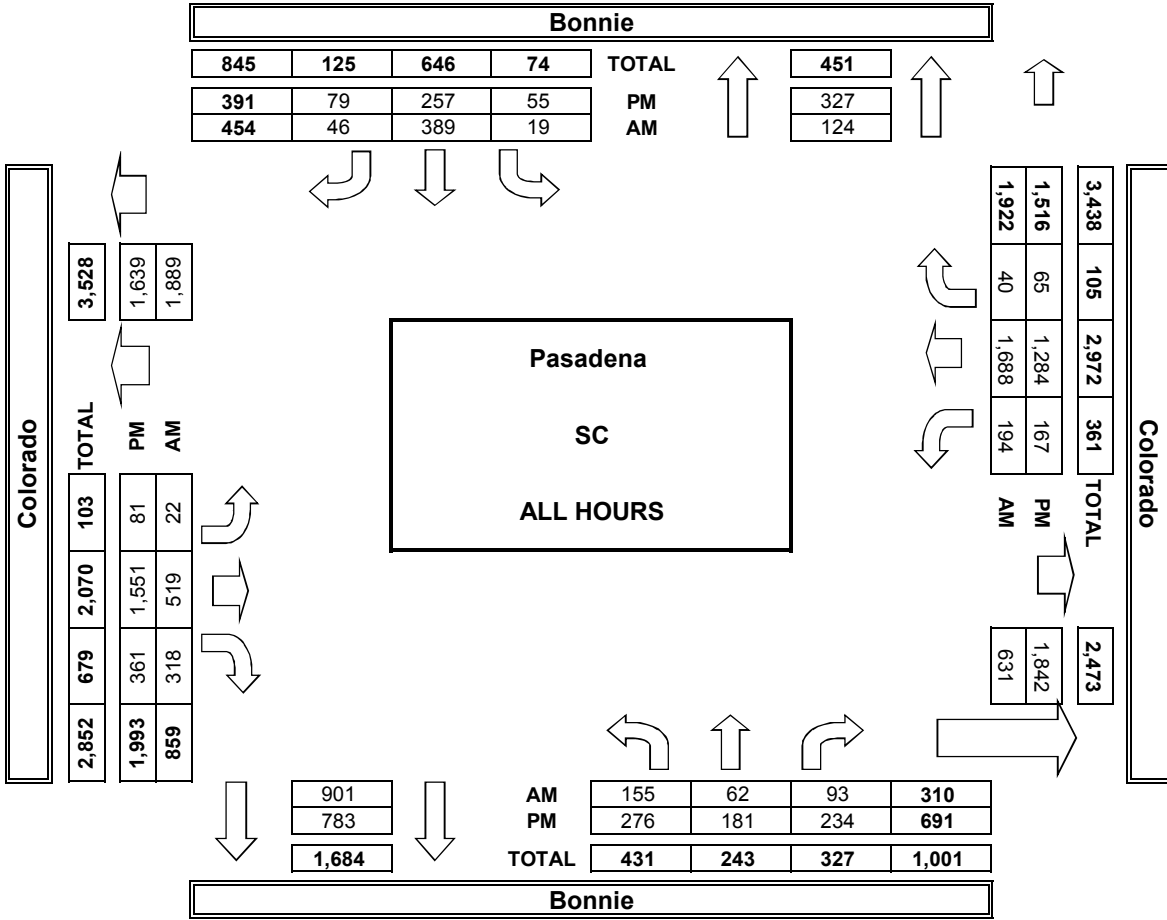


		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
<b>AM</b>	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL		0	0	0	0	0
AM BEGIN PEAK HR		8:00 AM				
<b>PM</b>	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL		0	0	0	0	0
PM BEGIN PEAK HR		5:00 PM				

		PEDESTRIAN CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
<b>AM</b>	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL		0	0	0	0	0
AM BEGIN PEAK HR		8:00 AM				
<b>PM</b>	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL		0	0	0	0	0
PM BEGIN PEAK HR		5:00 PM				

		BICYCLE CROSSINGS				
		NS	SS	ES	WS	TOTAL
<b>AM</b>	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL		0	0	0	0	0
AM BEGIN PEAK HR		8:00 AM				
<b>PM</b>	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL		0	0	0	0	0
PM BEGIN PEAK HR		5:00 PM				

**AimTD LLC**  
TURNING MOVEMENT COUNTS



Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

**ADT1 Sierra Bonita Ave between Washington Blvd and Mountain St.**

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	0	0			12:00	11	8			
0:15	2	0			12:15	7	5			
0:30	0	0			12:30	5	11			
0:45	0	2	0	0	12:45	7	30	9	33	
										63
1:00	0	0			13:00	6	7			
1:15	0	0			13:15	8	7			
1:30	0	0			13:30	6	10			
1:45	0	0	0	0	13:45	8	28	3	27	
										55
2:00	0	0			14:00	12	8			
2:15	0	0			14:15	17	8			
2:30	0	0			14:30	7	11			
2:45	0	0	0	0	14:45	10	46	3	30	
										76
3:00	0	0			15:00	29	12			
3:15	0	0			15:15	17	12			
3:30	0	0			15:30	18	10			
3:45	0	0	0	0	15:45	14	78	8	42	
										120
4:00	0	0			16:00	15	15			
4:15	0	0			16:15	14	8			
4:30	0	0			16:30	11	7			
4:45	0	0	0	0	16:45	13	53	9	39	
										92
5:00	0	0			17:00	14	7			
5:15	0	0			17:15	11	9			
5:30	0	0			17:30	17	12			
5:45	0	0	0	0	17:45	12	54	10	38	
										92
6:00	3	0			18:00	15	9			
6:15	0	3			18:15	9	11			
6:30	0	3			18:30	9	8			
6:45	0	3	0	6	18:45	13	46	6	34	
										80
7:00	4	5			19:00	12	5			
7:15	9	12			19:15	5	9			
7:30	41	33			19:30	8	4			
7:45	38	92	16	66	19:45	9	34	3	21	
										55
8:00	10	10			20:00	10	7			
8:15	6	5			20:15	6	3			
8:30	10	10			20:30	4	3			
8:45	7	33	4	29	20:45	6	26	0	13	
										39
9:00	3	5			21:00	6	0			
9:15	8	5			21:15	4	0			
9:30	6	7			21:30	0	3			
9:45	4	21	10	27	21:45	3	13	3	6	
										19
10:00	8	6			22:00	0	2			
10:15	3	8			22:15	0	3			
10:30	5	6			22:30	2	3			
10:45	5	21	7	27	22:45	0	2	0	8	
										10
11:00	6	4			23:00	2	0			
11:15	6	7			23:15	0	3			
11:30	7	8			23:30	0	0			
11:45	8	27	5	24	23:45	2	4	0	3	
										7
<b>Total Vol.</b>	199	179			<b>378</b>	414	294			<b>708</b>

Daily Totals				
NB	SB	EB	WB	Combined
613	473			<b>1086</b>

	AM			PM		
<b>Split %</b>	52.6%	47.4%	<b>34.8%</b>	58.5%	41.5%	<b>65.2%</b>
<b>Peak Hour</b>	7:15	7:15	<b>7:15</b>	15:00	15:15	<b>15:00</b>
<b>Volume</b>	98	71	<b>169</b>	78	45	<b>120</b>
<b>P.H.F.</b>	0.60	0.54	<b>0.57</b>	0.71	0.75	<b>0.73</b>



Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

**ADT2 Sierra Bonita Ave between Paloma St and Orange Grove Blvd.**

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	0	0			12:00	7	8			
0:15	0	0			12:15	10	4			
0:30	0	0			12:30	6	6			
0:45	0	0	0	0	12:45	8	31	6	24	
<hr/>										
1:00	0	0			13:00	3	0			
1:15	0	0			13:15	8	9			
1:30	0	0			13:30	4	5			
1:45	0	0	0	0	13:45	6	21	4	18	
<hr/>										
2:00	0	0			14:00	13	9			
2:15	0	0			14:15	21	12			
2:30	0	0			14:30	0	7			
2:45	0	0	0	0	14:45	7	41	5	33	
<hr/>										
3:00	0	0			15:00	6	15			
3:15	0	0			15:15	9	13			
3:30	0	0			15:30	4	10			
3:45	0	0	0	0	15:45	14	33	8	46	
<hr/>										
4:00	0	0			16:00	10	15			
4:15	0	0			16:15	10	5			
4:30	0	0			16:30	7	5			
4:45	0	0	0	0	16:45	8	35	7	32	
<hr/>										
5:00	0	0			17:00	10	7			
5:15	0	2			17:15	13	10			
5:30	0	2			17:30	11	8			
5:45	0	0	0	4	4	17:45	6	40	6	31
<hr/>										
6:00	0	0			18:00	9	8			
6:15	0	2			18:15	8	5			
6:30	0	5			18:30	9	5			
6:45	2	2	7	14	16	18:45	6	32	4	22
<hr/>										
7:00	2	5			19:00	7	6			
7:15	3	15			19:15	7	5			
7:30	13	35			19:30	6	8			
7:45	16	34	30	85	119	19:45	3	23	3	22
<hr/>										
8:00	12	17			20:00	2	4			
8:15	6	10			20:15	9	4			
8:30	6	7			20:30	4	4			
8:45	5	29	7	41	70	20:45	0	15	0	12
<hr/>										
9:00	6	6			21:00	3	2			
9:15	8	6			21:15	4	0			
9:30	4	7			21:30	0	3			
9:45	3	21	7	26	47	21:45	3	10	0	5
<hr/>										
10:00	2	5			22:00	0	0			
10:15	4	5			22:15	0	0			
10:30	3	6			22:30	2	3			
10:45	2	11	6	22	33	22:45	0	2	0	3
<hr/>										
11:00	4	4			23:00	2	0			
11:15	2	6			23:15	0	2			
11:30	11	4			23:30	0	0			
11:45	6	23	7	21	44	23:45	2	4	0	2
<hr/>										
<b>Total Vol.</b>	120	213			<b>333</b>	287	250			<b>537</b>

Daily Totals				
NB	SB	EB	WB	Combined
407	463			<b>870</b>

	AM			PM		
<b>Split %</b>	36.0%	64.0%	<b>38.3%</b>	53.4%	46.6%	<b>61.7%</b>
<b>Peak Hour</b>	7:30	7:15	<b>7:15</b>	13:30	15:00	<b>15:00</b>
<b>Volume</b>	47	97	<b>141</b>	44	46	<b>83</b>
<b>P.H.F.</b>	0.73	0.69	<b>0.73</b>	0.69	0.77	<b>0.83</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

**ADT3 Sierra Bonita Ave between Orange Grove Blvd and Las Lunas St.**

**Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	0	0			12:00	2	8			
0:15	0	0			12:15	3	3			
0:30	0	0			12:30	2	6			
0:45	0	0	0	0	12:45	6	13	10	27	
<hr/>										
1:00	0	0			13:00	0	6			
1:15	0	0			13:15	0	4			
1:30	0	0			13:30	4	7			
1:45	0	0	0	0	13:45	4	8	0	17	
<hr/>										
2:00	0	0			14:00	8	7			
2:15	0	0			14:15	17	7			
2:30	0	0			14:30	4	5			
2:45	0	0	0	0	14:45	8	37	2	21	
<hr/>										
3:00	0	0			15:00	4	6			
3:15	0	0			15:15	8	9			
3:30	0	0			15:30	4	6			
3:45	0	0	0	0	15:45	6	22	7	28	
<hr/>										
4:00	0	0			16:00	9	10			
4:15	0	0			16:15	7	7			
4:30	0	0			16:30	5	3			
4:45	0	0	3	3	3	16:45	8	29	4	24
<hr/>										
5:00	0	0			17:00	12	6			
5:15	0	0			17:15	7	9			
5:30	0	0			17:30	8	6			
5:45	0	0	0	0	17:45	5	32	12	33	
<hr/>										
6:00	0	2			18:00	12	8			
6:15	0	0			18:15	7	3			
6:30	0	0			18:30	7	2			
6:45	0	0	4	6	6	18:45	7	33	3	16
<hr/>										
7:00	2	2			19:00	9	5			
7:15	0	5			19:15	7	6			
7:30	5	30			19:30	3	9			
7:45	16	23	25	62	85	19:45	4	23	2	22
<hr/>										
8:00	7	12			20:00	4	2			
8:15	6	9			20:15	8	2			
8:30	4	13			20:30	3	4			
8:45	4	21	7	41	62	20:45	0	15	4	12
<hr/>										
9:00	0	9			21:00	3	0			
9:15	7	7			21:15	0	0			
9:30	3	5			21:30	0	0			
9:45	5	15	7	28	43	21:45	0	3	5	5
<hr/>										
10:00	0	6			22:00	0	0			
10:15	4	8			22:15	0	0			
10:30	4	4			22:30	0	2			
10:45	2	10	2	20	30	22:45	0	0	0	2
<hr/>										
11:00	2	5			23:00	0	0			
11:15	3	5			23:15	0	2			
11:30	6	3			23:30	0	0			
11:45	10	21	9	22	43	23:45	2	2	0	2
<hr/>										
<b>Total Vol.</b>	90	182			<b>272</b>	217	209			<b>426</b>

Daily Totals				
NB	SB	EB	WB	Combined
307	391			<b>698</b>

	AM			PM		
<b>Split %</b>	33.1%	66.9%	<b>39.0%</b>	50.9%	49.1%	<b>61.0%</b>
<b>Peak Hour</b>	7:30	7:30	<b>7:30</b>	14:00	17:15	<b>17:15</b>
<b>Volume</b>	34	76	<b>110</b>	37	35	<b>67</b>
<b>P.H.F.</b>	0.53	0.63	<b>0.67</b>	0.49	0.73	<b>0.84</b>

Tuesday, November 05, 2019

CITY: Pasadena

PROJECT:

**ADT4 Sierra Bonita Ave between Walnut St and Colorado Blvd.**

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB		
0:00	2	0			12:00	10	11				
0:15	2	0			12:15	11	16				
0:30	0	0			12:30	6	12				
0:45	0	4	0	0	4	12:45	7	34	14	53	87
1:00	0	0			13:00	6	11				
1:15	0	0			13:15	6	12				
1:30	0	0			13:30	10	16				
1:45	0	0	0	0	13:45	8	30	14	53	83	
2:00	0	0			14:00	17	13				
2:15	0	0			14:15	8	10				
2:30	0	0			14:30	11	12				
2:45	0	0	0	0	14:45	4	40	33	68	108	
3:00	0	0			15:00	12	31				
3:15	0	2			15:15	27	25				
3:30	0	0			15:30	16	15				
3:45	0	0	0	2	2	15:45	15	70	17	88	158
4:00	0	0			16:00	23	17				
4:15	0	0			16:15	26	15				
4:30	0	0			16:30	14	15				
4:45	0	0	0	0	16:45	21	84	20	67	151	
5:00	2	0			17:00	24	27				
5:15	0	0			17:15	17	20				
5:30	0	0			17:30	24	20				
5:45	5	7	3	3	10	17:45	17	82	15	82	164
6:00	5	4			18:00	14	15				
6:15	5	4			18:15	10	19				
6:30	2	4			18:30	8	10				
6:45	7	19	6	18	37	18:45	9	41	15	59	100
7:00	5	6			19:00	6	10				
7:15	8	7			19:15	6	10				
7:30	10	13			19:30	6	5				
7:45	11	34	24	50	84	19:45	4	22	6	31	53
8:00	16	17			20:00	5	4				
8:15	18	29			20:15	2	7				
8:30	25	46			20:30	2	5				
8:45	14	73	21	113	186	20:45	2	11	4	20	31
9:00	13	11			21:00	4	6				
9:15	7	10			21:15	2	0				
9:30	7	9			21:30	3	3				
9:45	10	37	11	41	78	21:45	5	14	3	12	26
10:00	7	10			22:00	4	4				
10:15	5	7			22:15	3	4				
10:30	6	10			22:30	3	0				
10:45	11	29	10	37	66	22:45	2	12	0	8	20
11:00	5	18			23:00	0	0				
11:15	8	15			23:15	2	3				
11:30	5	13			23:30	0	3				
11:45	12	30	12	58	88	23:45	0	2	0	6	8
<b>Total Vol.</b>	233	322			<b>555</b>	442	547			<b>989</b>	

Daily Totals				
NB	SB	EB	WB	Combined
675	869			<b>1544</b>

Split %	AM			PM		
	42.0%	58.0%	35.9%	44.7%	55.3%	64.1%
<b>Peak Hour</b>	8:00	7:45	<b>7:45</b>	16:45	14:45	<b>16:45</b>
<b>Volume</b>	73	116	<b>186</b>	86	104	<b>173</b>
<b>P.H.F.</b>	0.73	0.63	<b>0.65</b>	0.82	0.79	<b>0.85</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT5 Breesee Ave south of Washington Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	0	0			12:00	0	3			
0:15	0	0			12:15	2	3			
0:30	0	0			12:30	0	4			
0:45	0	0	0	0	12:45	2	4	5	15	
1:00	0	0			13:00	3	3			
1:15	0	0			13:15	3	0			
1:30	0	0			13:30	2	0			
1:45	0	0	0	0	13:45	2	10	4	7	
2:00	0	0			14:00	3	0			
2:15	0	0			14:15	0	2			
2:30	0	0			14:30	2	0			
2:45	0	0	0	0	14:45	3	8	3	5	
3:00	0	0			15:00	7	7			
3:15	0	0			15:15	2	5			
3:30	0	0			15:30	2	2			
3:45	0	0	0	0	15:45	6	17	0	14	
4:00	0	0			16:00	0	3			
4:15	0	0			16:15	2	0			
4:30	0	0			16:30	0	3			
4:45	0	0	0	0	16:45	0	2	2	8	
5:00	0	0			17:00	2	0			
5:15	0	0			17:15	2	0			
5:30	0	0			17:30	3	5			
5:45	0	0	0	0	17:45	4	11	0	5	
6:00	0	0			18:00	0	4			
6:15	0	0			18:15	4	5			
6:30	0	2			18:30	3	2			
6:45	2	2	0	2	18:45	5	12	4	15	
7:00	3	0			19:00	0	0			
7:15	0	3			19:15	3	0			
7:30	0	5			19:30	0	0			
7:45	6	9	3	11	19:45	0	3	0	0	
8:00	5	7			20:00	3	0			
8:15	3	0			20:15	0	2			
8:30	0	2			20:30	0	2			
8:45	0	8	4	13	20:45	2	5	0	4	
9:00	0	0			21:00	2	3			
9:15	0	2			21:15	0	0			
9:30	0	3			21:30	0	0			
9:45	0	0	3	8	21:45	3	5	0	3	
10:00	2	4			22:00	0	0			
10:15	0	2			22:15	0	0			
10:30	0	0			22:30	0	2			
10:45	2	4	4	10	22:45	0	0	0	2	
11:00	0	0			23:00	0	0			
11:15	2	2			23:15	0	2			
11:30	3	2			23:30	0	0			
11:45	0	5	2	6	23:45	0	0	0	2	
<b>Total Vol.</b>	28	50			<b>78</b>	77	80			<b>157</b>

Daily Totals				
NB	SB	EB	WB	Combined
105	130			<b>235</b>

	AM			PM		
<b>Split %</b>	35.9%	64.1%	<b>33.2%</b>	49.0%	51.0%	<b>66.8%</b>
<b>Peak Hour</b>	7:30	7:15	<b>7:15</b>	15:00	14:45	<b>14:45</b>
<b>Volume</b>	14	18	<b>29</b>	17	17	<b>31</b>
<b>P.H.F.</b>	0.58	0.64	<b>0.60</b>	0.46	0.61	<b>0.55</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT6 Hamilton Ave north of Orange Grove Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	0	0			12:00	5	3		
0:15	0	0			12:15	2	3		
0:30	0	0			12:30	3	0		
0:45	0	0	2	2	12:45	0	10	3	9
1:00	0	0			13:00	2	0		
1:15	0	0			13:15	4	0		
1:30	0	0			13:30	0	0		
1:45	0	0	0	0	13:45	0	6	0	0
2:00	0	0			14:00	0	0		
2:15	0	0			14:15	0	0		
2:30	0	0			14:30	0	0		
2:45	0	0	0	0	14:45	0	0	0	0
3:00	0	0			15:00	0	3		
3:15	0	0			15:15	2	2		
3:30	0	0			15:30	4	4		
3:45	0	0	0	0	15:45	0	6	0	9
4:00	0	0			16:00	0	3		
4:15	0	0			16:15	3	3		
4:30	0	0			16:30	0	0		
4:45	0	0	0	0	16:45	3	6	0	6
5:00	0	0			17:00	0	4		
5:15	0	0			17:15	0	2		
5:30	0	0			17:30	0	0		
5:45	0	0	0	0	17:45	4	4	0	6
6:00	0	0			18:00	2	2		
6:15	0	0			18:15	0	2		
6:30	0	0			18:30	2	0		
6:45	0	0	4	4	18:45	0	4	0	4
7:00	3	0			19:00	0	0		
7:15	7	2			19:15	3	0		
7:30	7	5			19:30	0	0		
7:45	15	32	3	10	19:45	2	5	2	2
8:00	14	0			20:00	0	0		
8:15	3	0			20:15	0	0		
8:30	7	0			20:30	0	0		
8:45	5	29	2	2	20:45	0	0	0	0
9:00	0	0			21:00	0	0		
9:15	6	0			21:15	2	0		
9:30	4	0			21:30	0	2		
9:45	3	13	0	0	21:45	0	2	0	2
10:00	3	2			22:00	0	0		
10:15	3	0			22:15	0	0		
10:30	3	0			22:30	0	0		
10:45	2	11	0	2	22:45	0	0	0	0
11:00	2	0			23:00	0	0		
11:15	2	0			23:15	0	0		
11:30	4	0			23:30	0	0		
11:45	0	8	0	0	23:45	0	0	0	0

**Total Vol.** 93 20 **113** 43 38 **81**

Daily Totals

NB	SB	EB	WB	Combined
136	58			194

AM

PM

<b>Split %</b>	82.3%	17.7%	<b>58.2%</b>	53.1%	46.9%	<b>41.8%</b>
<b>Peak Hour</b>	7:15	6:45	<b>7:15</b>	12:00	15:30	<b>12:00</b>
<b>Volume</b>	43	11	<b>53</b>	10	10	<b>19</b>
<b>P.H.F.</b>	0.72	0.55	<b>0.74</b>	0.65	0.63	<b>0.59</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT7 Hamilton Ave south of Orange Grove Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	0	0			12:00	3	4			
0:15	0	0			12:15	2	5			
0:30	0	0			12:30	3	7			
0:45	0	0	0	0	12:45	2	10	3	19	
1:00	0	0			13:00	0	3			
1:15	0	0			13:15	2	4			
1:30	0	0			13:30	2	5			
1:45	0	0	0	0	13:45	5	9	6	18	
2:00	0	0			14:00	4	3			
2:15	0	0			14:15	5	3			
2:30	0	0			14:30	3	8			
2:45	0	0	0	0	14:45	2	14	3	17	
3:00	0	0			15:00	5	6			
3:15	0	0			15:15	6	7			
3:30	0	0			15:30	3	2			
3:45	0	0	0	0	15:45	0	14	5	20	
4:00	0	0			16:00	2	4			
4:15	0	0			16:15	2	5			
4:30	0	0			16:30	0	4			
4:45	0	0	0	0	16:45	4	8	0	13	
5:00	0	0			17:00	0	2			
5:15	0	0			17:15	2	8			
5:30	0	0			17:30	7	6			
5:45	0	0	0	0	17:45	0	9	5	21	
6:00	0	0			18:00	4	4			
6:15	0	0			18:15	3	0			
6:30	0	3			18:30	2	0			
6:45	0	0	3	6	6	18:45	4	13	5	9
7:00	0	4			19:00	5	4			
7:15	0	6			19:15	2	0			
7:30	8	30			19:30	5	0			
7:45	3	11	78	118	129	19:45	2	14	0	4
8:00	0	47			20:00	3	0			
8:15	0	21			20:15	2	0			
8:30	0	22			20:30	2	0			
8:45	3	3	29	119	122	20:45	0	7	0	0
9:00	0	8			21:00	0	2			
9:15	0	16			21:15	3	0			
9:30	0	4			21:30	2	3			
9:45	2	2	8	36	38	21:45	0	5	0	5
10:00	0	3			22:00	0	0			
10:15	0	6			22:15	4	0			
10:30	2	9			22:30	0	0			
10:45	2	4	4	22	26	22:45	0	4	0	0
11:00	2	6			23:00	0	0			
11:15	2	2			23:15	0	0			
11:30	0	6			23:30	0	0			
11:45	0	4	9	23	27	23:45	0	0	0	0
<b>Total Vol.</b>	24	324			<b>348</b>	107	126			<b>233</b>

Daily Totals				
NB	SB	EB	WB	Combined
131	450			<b>581</b>

	AM			PM		
<b>Split %</b>	6.9%	93.1%	<b>59.9%</b>	45.9%	54.1%	<b>40.1%</b>
<b>Peak Hour</b>	7:00	7:30	<b>7:30</b>	13:45	14:30	<b>14:30</b>
<b>Volume</b>	11	176	<b>187</b>	17	24	<b>40</b>
<b>P.H.F.</b>	0.34	0.56	<b>0.58</b>	0.95	0.75	<b>0.77</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT8 Marion Ave north of Colorado Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	0	0			12:00	12	9			
0:15	0	0			12:15	13	7			
0:30	0	0			12:30	11	5			
0:45	0	0	0	0	12:45	6	42	4	25	
<hr/>										
1:00	0	0			13:00	14	9			
1:15	0	0			13:15	7	7			
1:30	0	0			13:30	7	6			
1:45	0	0	0	0	13:45	13	41	6	28	
<hr/>										
2:00	0	0			14:00	3	11			
2:15	0	2			14:15	8	8			
2:30	0	0			14:30	3	6			
2:45	0	0	0	2	14:45	9	23	6	31	
<hr/>										
3:00	0	0			15:00	9	9			
3:15	0	0			15:15	17	19			
3:30	0	0			15:30	27	25			
3:45	0	0	0	0	15:45	15	68	8	61	
<hr/>										
4:00	0	0			16:00	13	10			
4:15	0	0			16:15	10	13			
4:30	0	0			16:30	14	16			
4:45	0	0	0	0	16:45	25	62	13	52	
<hr/>										
5:00	0	0			17:00	13	9			
5:15	3	0			17:15	16	12			
5:30	2	0			17:30	17	13			
5:45	0	5	0	0	17:45	13	59	13	47	
<hr/>										
6:00	2	2			18:00	12	13			
6:15	0	2			18:15	12	12			
6:30	4	2			18:30	13	12			
6:45	15	21	7	13	18:45	8	45	13	50	
<hr/>										
7:00	9	5			19:00	6	14			
7:15	20	15			19:15	4	6			
7:30	5	8			19:30	8	7			
7:45	3	37	10	38	19:45	5	23	3	30	
<hr/>										
8:00	9	19			20:00	8	2			
8:15	11	9			20:15	9	5			
8:30	23	35			20:30	7	4			
8:45	24	67	20	83	20:45	4	28	5	16	
<hr/>										
9:00	13	10			21:00	11	2			
9:15	6	3			21:15	11	6			
9:30	4	4			21:30	4	2			
9:45	10	33	3	20	21:45	5	31	2	12	
<hr/>										
10:00	10	6			22:00	4	2			
10:15	10	8			22:15	4	0			
10:30	14	6			22:30	2	4			
10:45	9	43	6	26	22:45	0	10	0	6	
<hr/>										
11:00	10	9			23:00	0	4			
11:15	7	4			23:15	3	0			
11:30	3	8			23:30	0	0			
11:45	8	28	6	27	23:45	0	3	0	4	
<hr/>										
<b>Total Vol.</b>	234	209			<b>443</b>	435	362			<b>797</b>

	Daily Totals				Combined	
	NB	SB	EB	WB		
	669	571			<b>1240</b>	
	<b>AM</b>		<b>PM</b>			
<b>Split %</b>	52.8%	47.2%	<b>35.7%</b>	54.6%	45.4%	<b>64.3%</b>
<b>Peak Hour</b>	8:15	8:00	<b>8:00</b>	15:15	15:15	<b>15:15</b>
<b>Volume</b>	71	83	<b>150</b>	72	62	<b>134</b>
<b>P.H.F.</b>	0.74	0.59	<b>0.65</b>	0.69	0.62	<b>0.64</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT9 Oxford Ave south of Washington Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	0	0			12:00	5	2		
0:15	0	0			12:15	5	0		
0:30	0	0			12:30	3	8		
0:45	0	0	0		12:45	0	13	3	13
<hr/>									
1:00	0	0			13:00	0	0		
1:15	0	0			13:15	0	0		
1:30	0	0			13:30	0	2		
1:45	0	0	0		13:45	0	0	3	5
<hr/>									
2:00	0	2			14:00	0	5		
2:15	0	0			14:15	6	0		
2:30	0	0			14:30	3	3		
2:45	0	0	0	2	14:45	0	9	2	10
<hr/>									
3:00	0	0			15:00	7	5		
3:15	0	0			15:15	4	5		
3:30	0	0			15:30	3	6		
3:45	0	0	0	0	15:45	4	18	4	20
<hr/>									
4:00	0	0			16:00	2	6		
4:15	0	0			16:15	3	4		
4:30	0	0			16:30	3	3		
4:45	0	0	0	0	16:45	5	13	4	17
<hr/>									
5:00	0	0			17:00	5	8		
5:15	0	0			17:15	2	6		
5:30	0	0			17:30	2	4		
5:45	0	0	0	0	17:45	2	11	6	24
<hr/>									
6:00	2	0			18:00	3	4		
6:15	0	3			18:15	0	3		
6:30	0	0			18:30	2	0		
6:45	0	2	0	3	18:45	4	9	2	9
<hr/>									
7:00	0	0			19:00	2	4		
7:15	3	8			19:15	0	3		
7:30	0	11			19:30	0	5		
7:45	3	6	5	24	19:45	5	7	0	12
<hr/>									
8:00	2	3			20:00	2	0		
8:15	2	2			20:15	0	0		
8:30	3	3			20:30	0	3		
8:45	6	13	2	10	20:45	0	2	0	3
<hr/>									
9:00	0	0			21:00	0	2		
9:15	2	2			21:15	0	2		
9:30	2	0			21:30	0	0		
9:45	3	7	0	2	21:45	2	2	0	4
<hr/>									
10:00	3	2			22:00	0	0		
10:15	2	7			22:15	0	0		
10:30	0	0			22:30	0	0		
10:45	2	7	2	11	22:45	0	0	0	0
<hr/>									
11:00	3	4			23:00	0	0		
11:15	2	5			23:15	0	0		
11:30	4	5			23:30	0	0		
11:45	3	12	3	17	23:45	0	0	0	0
<hr/>									
<b>Total Vol.</b>	47	69		<b>116</b>		84	117		<b>201</b>

Daily Totals				
NB	SB	EB	WB	Combined
131	186			<b>317</b>

	AM			PM		
<b>Split %</b>	40.5%	59.5%	<b>36.6%</b>	41.8%	58.2%	<b>63.4%</b>
<b>Peak Hour</b>	11:30	7:15	<b>7:15</b>	15:00	17:00	<b>15:00</b>
<b>Volume</b>	17	27	<b>35</b>	18	24	<b>38</b>
<b>P.H.F.</b>	0.85	0.61	<b>0.80</b>	0.61	0.75	<b>0.79</b>



Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT10 Sinaloa Ave north of Orange Grove Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	0	0			12:00	3	2			
0:15	0	0			12:15	0	0			
0:30	0	0			12:30	0	0			
0:45	0	0	0	0	12:45	3	6	3	5	
<hr/>										
1:00	0	0			13:00	2	5			
1:15	0	0			13:15	0	0			
1:30	0	0			13:30	2	2			
1:45	0	0	0	0	13:45	2	6	2	9	
<hr/>										
2:00	0	0			14:00	0	2			
2:15	0	0			14:15	4	0			
2:30	0	0			14:30	7	0			
2:45	0	0	0	0	14:45	3	14	0	2	
<hr/>										
3:00	0	0			15:00	11	21			
3:15	0	0			15:15	0	14			
3:30	0	0			15:30	5	3			
3:45	0	0	0	0	15:45	4	20	6	44	
<hr/>										
4:00	0	0			16:00	5	8			
4:15	0	0			16:15	4	3			
4:30	0	0			16:30	2	0			
4:45	0	0	0	0	16:45	2	13	4	15	
<hr/>										
5:00	0	0			17:00	2	2			
5:15	0	0			17:15	9	3			
5:30	0	0			17:30	3	5			
5:45	0	0	0	0	17:45	0	14	3	13	
<hr/>										
6:00	0	0			18:00	2	0			
6:15	0	0			18:15	2	5			
6:30	0	4			18:30	6	0			
6:45	0	0	3	7	7	18:45	2	12	2	7
<hr/>										
7:00	0	4			19:00	0	0			
7:15	5	9			19:15	3	0			
7:30	4	33			19:30	0	0			
7:45	4	13	26	72	85	19:45	0	3	0	0
<hr/>										
8:00	4	5			20:00	0	0			
8:15	0	3			20:15	0	0			
8:30	2	4			20:30	0	0			
8:45	0	6	0	12	18	20:45	0	0	0	0
<hr/>										
9:00	2	2			21:00	2	2			
9:15	2	0			21:15	3	0			
9:30	2	2			21:30	0	0			
9:45	0	6	4	8	14	21:45	0	5	0	2
<hr/>										
10:00	3	0			22:00	0	0			
10:15	0	0			22:15	0	0			
10:30	3	0			22:30	0	0			
10:45	0	6	0	0	6	22:45	0	0	0	0
<hr/>										
11:00	0	0			23:00	0	0			
11:15	0	0			23:15	0	0			
11:30	2	0			23:30	0	0			
11:45	0	2	0	0	2	23:45	0	0	0	0
<hr/>										
<b>Total Vol.</b>	33	99			<b>132</b>	93	97			<b>190</b>

Daily Totals				
NB	SB	EB	WB	Combined
126	196			<b>322</b>

	AM			PM		
<b>Split %</b>	25.0%	75.0%	<b>41.0%</b>	48.9%	51.1%	<b>59.0%</b>
<b>Peak Hour</b>	7:15	7:15	<b>7:15</b>	14:15	15:00	<b>15:00</b>
<b>Volume</b>	17	73	<b>90</b>	25	44	<b>64</b>
<b>P.H.F.</b>	0.85	0.55	<b>0.61</b>	0.61	0.52	<b>0.50</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT11 Sinaloa Ave south of Orange Grove Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	0	0			12:00	3	2			
0:15	0	0			12:15	2	0			
0:30	0	0			12:30	0	0			
0:45	0	0	0	0	12:45	2	7	0	2	
1:00	0	0			13:00	2	4			
1:15	0	0			13:15	2	3			
1:30	0	0			13:30	0	3			
1:45	0	0	0	0	13:45	0	4	0	10	
2:00	0	0			14:00	4	4			
2:15	0	0			14:15	0	0			
2:30	0	0			14:30	7	3			
2:45	0	0	0	0	14:45	2	13	0	7	
3:00	0	0			15:00	3	2			
3:15	0	0			15:15	3	8			
3:30	0	0			15:30	2	3			
3:45	0	0	0	0	15:45	4	12	3	16	
4:00	0	0			16:00	3	2			
4:15	0	0			16:15	0	3			
4:30	0	0			16:30	0	3			
4:45	0	0	0	0	16:45	3	6	3	11	
5:00	0	0			17:00	2	4			
5:15	0	0			17:15	2	3			
5:30	0	0			17:30	2	4			
5:45	0	0	0	0	17:45	6	12	4	15	
6:00	2	0			18:00	2	2			
6:15	0	2			18:15	4	4			
6:30	0	2			18:30	2	5			
6:45	0	2	0	4	6	18:45	2	10	3	14
7:00	2	2			19:00	0	3			
7:15	0	4			19:15	0	3			
7:30	4	7			19:30	3	2			
7:45	5	11	7	20	31	19:45	4	7	0	8
8:00	2	3			20:00	0	0			
8:15	0	3			20:15	4	3			
8:30	3	6			20:30	0	0			
8:45	2	7	0	12	19	20:45	0	4	0	3
9:00	0	0			21:00	2	0			
9:15	0	0			21:15	3	0			
9:30	0	4			21:30	0	0			
9:45	0	0	2	6	6	21:45	0	5	0	0
10:00	0	2			22:00	0	0			
10:15	2	3			22:15	0	0			
10:30	0	0			22:30	0	0			
10:45	3	5	0	5	10	22:45	0	0	0	0
11:00	2	2			23:00	0	0			
11:15	0	4			23:15	2	0			
11:30	0	2			23:30	0	0			
11:45	2	4	0	8	12	23:45	0	2	0	0
<b>Total Vol.</b>	29	55			<b>84</b>	82	86			<b>168</b>

Daily Totals				
NB	SB	EB	WB	Combined
111	141			<b>252</b>

	AM			PM		
<b>Split %</b>	34.5%	65.5%	<b>33.3%</b>	48.8%	51.2%	<b>66.7%</b>
<b>Peak Hour</b>	7:00	7:15	<b>7:15</b>	14:30	15:00	<b>17:45</b>
<b>Volume</b>	11	21	<b>32</b>	15	16	<b>29</b>
<b>P.H.F.</b>	0.55	0.75	<b>0.67</b>	0.54	0.50	<b>0.73</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT12 Bonnie Av north of Colorado Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	0	2			12:00	56	77			
0:15	2	3			12:15	28	54			
0:30	3	3			12:30	26	49			
0:45	0	5	0	8	12:45	19	129	46	226	
										355
1:00	0	0			13:00	33	41			
1:15	2	0			13:15	29	43			
1:30	0	0			13:30	38	54			
1:45	0	2	0	0	13:45	30	130	58	196	
										326
2:00	0	0			14:00	25	40			
2:15	0	0			14:15	20	30			
2:30	0	0			14:30	33	20			
2:45	0	0	0	0	14:45	23	101	29	119	
										220
3:00	0	0			15:00	35	43			
3:15	0	0			15:15	42	45			
3:30	0	0			15:30	42	83			
3:45	0	0	0	0	15:45	26	145	52	223	
										368
4:00	0	0			16:00	43	48			
4:15	0	0			16:15	29	36			
4:30	0	2			16:30	37	41			
4:45	0	0	2	4	16:45	43	152	44	169	
										321
5:00	0	2			17:00	41	50			
5:15	4	4			17:15	47	45			
5:30	3	6			17:30	40	49			
5:45	0	7	5	17	17:45	36	164	65	209	
										373
6:00	0	8			18:00	32	64			
6:15	2	13			18:15	33	34			
6:30	7	40			18:30	18	36			
6:45	5	14	73	134	18:45	26	109	31	165	
										274
7:00	9	37			19:00	26	31			
7:15	9	32			19:15	26	18			
7:30	6	24			19:30	25	27			
7:45	11	35	44	137	19:45	33	110	22	98	
										208
8:00	14	45			20:00	26	22			
8:15	20	62			20:15	27	18			
8:30	15	97			20:30	22	12			
8:45	18	67	81	285	20:45	19	94	7	59	
										153
9:00	10	40			21:00	39	10			
9:15	18	56			21:15	37	15			
9:30	15	40			21:30	20	8			
9:45	12	55	45	181	21:45	16	112	5	38	
										150
10:00	17	56			22:00	16	6			
10:15	31	69			22:15	6	2			
10:30	21	35			22:30	9	7			
10:45	16	85	29	189	22:45	6	37	7	22	
										59
11:00	19	31			23:00	3	4			
11:15	21	40			23:15	3	2			
11:30	33	53			23:30	3	0			
11:45	37	110	82	206	23:45	3	12	2	8	
										20
<b>Total Vol.</b>	380	1161		<b>1541</b>		1295	1532		<b>2827</b>	

Daily Totals				
NB	SB	EB	WB	Combined
1675	2693			<b>4368</b>

	AM			PM		
<b>Split %</b>	24.7%	75.3%	<b>35.3%</b>	45.8%	54.2%	<b>64.7%</b>
<b>Peak Hour</b>	11:30	8:00	<b>11:30</b>	16:45	15:15	<b>15:15</b>
<b>Volume</b>	154	285	<b>420</b>	171	228	<b>381</b>
<b>P.H.F.</b>	0.69	0.73	<b>0.79</b>	0.95	0.69	<b>0.76</b>

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

**DATE:**  
Thu, Nov 7, 19

**LOCATION:** Pasadena  
NORTH & SOUTH: Craig  
EAST & WEST: Orange Grove

**PROJECT #:** SC  
**LOCATION #:** 1  
**CONTROL:** STOP N/S

**NOTES:**

NT, NL Illegal

AM

PM

MD

OTHER

OTHER

◀ W

▶ E

▲ N

▼ S

Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Craig	Craig	Craig	Craig	Craig	Craig	Orange Grove	Orange Grove	Orange Grove	Orange Grove	Orange Grove		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	X	X	1	0	1	0	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Craig	Craig	Craig	Craig	Craig	Craig	Orange Grove	Orange Grove	Orange Grove	Orange Grove	Orange Grove		
7:00 AM	0	0	2	2	2	5	0	41	1	1	96	2	152
7:15 AM	0	1	7	1	8	9	2	85	3	4	149	6	275
7:30 AM	0	1	7	3	11	15	9	132	1	9	229	9	426
7:45 AM	0	2	5	3	16	19	2	98	5	6	258	7	421
8:00 AM	0	0	10	2	8	5	5	78	5	8	182	2	305
8:15 AM	0	0	9	1	4	5	2	88	6	10	169	1	295
8:30 AM	0	0	4	1	4	5	0	81	5	6	158	4	268
8:45 AM	1	0	2	5	4	5	0	64	3	7	166	5	262
VOLUMES	1	4	46	18	57	68	20	667	29	51	1,407	36	2,404
APPROACH %	2%	8%	90%	13%	40%	48%	3%	93%	4%	3%	94%	2%	
APP/DEPART	51	/	60	143	/	137	716	/	731	1,494	/	1,476	0

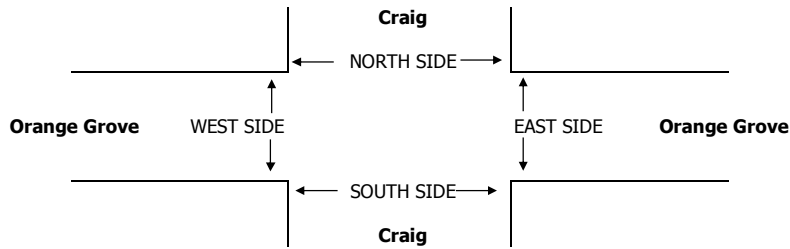
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Craig	Craig	Craig	Craig	Craig	Craig	Orange Grove	Orange Grove	Orange Grove	Orange Grove	Orange Grove		
	0	3	31	9	39	44	18	396	17	33	838	19	1,447
APPROACH %	0%	9%	91%	10%	42%	48%	4%	92%	4%	4%	94%	2%	
PEAK HR FACTOR	0.850			0.605			0.759			0.821			0.849
APP/DEPART	34	/	40	92	/	89	431	/	436	890	/	882	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Craig	Craig	Craig	Craig	Craig	Craig	Orange Grove	Orange Grove	Orange Grove	Orange Grove	Orange Grove		
4:00 PM	0	1	11	1	3	2	5	148	0	5	120	1	297
4:15 PM	0	1	16	1	2	3	4	157	7	2	127	2	322
4:30 PM	4	0	12	1	3	3	4	140	4	2	130	5	308
4:45 PM	2	0	13	0	2	6	4	163	4	6	127	3	330
5:00 PM	1	3	13	0	2	7	6	194	1	1	142	1	371
5:15 PM	1	2	9	0	3	3	2	200	6	2	131	7	366
5:30 PM	0	3	14	1	6	4	5	191	3	4	129	5	365
5:45 PM	0	2	9	1	1	5	4	169	3	4	140	5	343
VOLUMES	8	12	97	5	22	33	34	1,362	28	26	1,046	29	2,702
APPROACH %	7%	10%	83%	8%	37%	55%	2%	96%	2%	2%	95%	3%	
APP/DEPART	117	/	74	60	/	76	1,424	/	1,464	1,101	/	1,088	0
BEGIN PEAK HR	5:00 PM			5:00 PM			5:00 PM			5:00 PM			
VOLUMES	2	10	45	2	12	19	17	754	13	11	542	18	1,445
APPROACH %	4%	18%	79%	6%	36%	58%	2%	96%	2%	2%	95%	3%	
PEAK HR FACTOR	0.838			0.750			0.942			0.958			0.974
APP/DEPART	57	/	45	33	/	36	784	/	801	571	/	563	0

0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	1	0	1

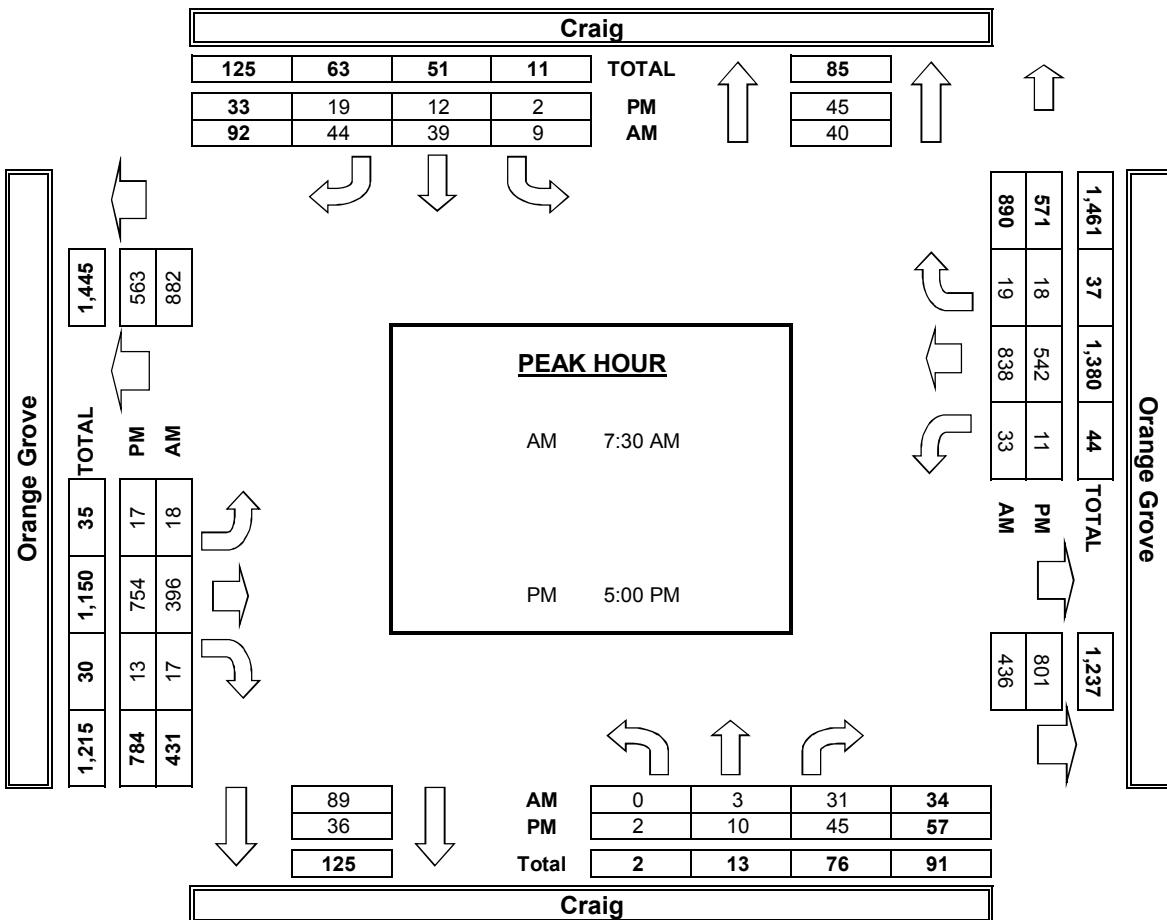
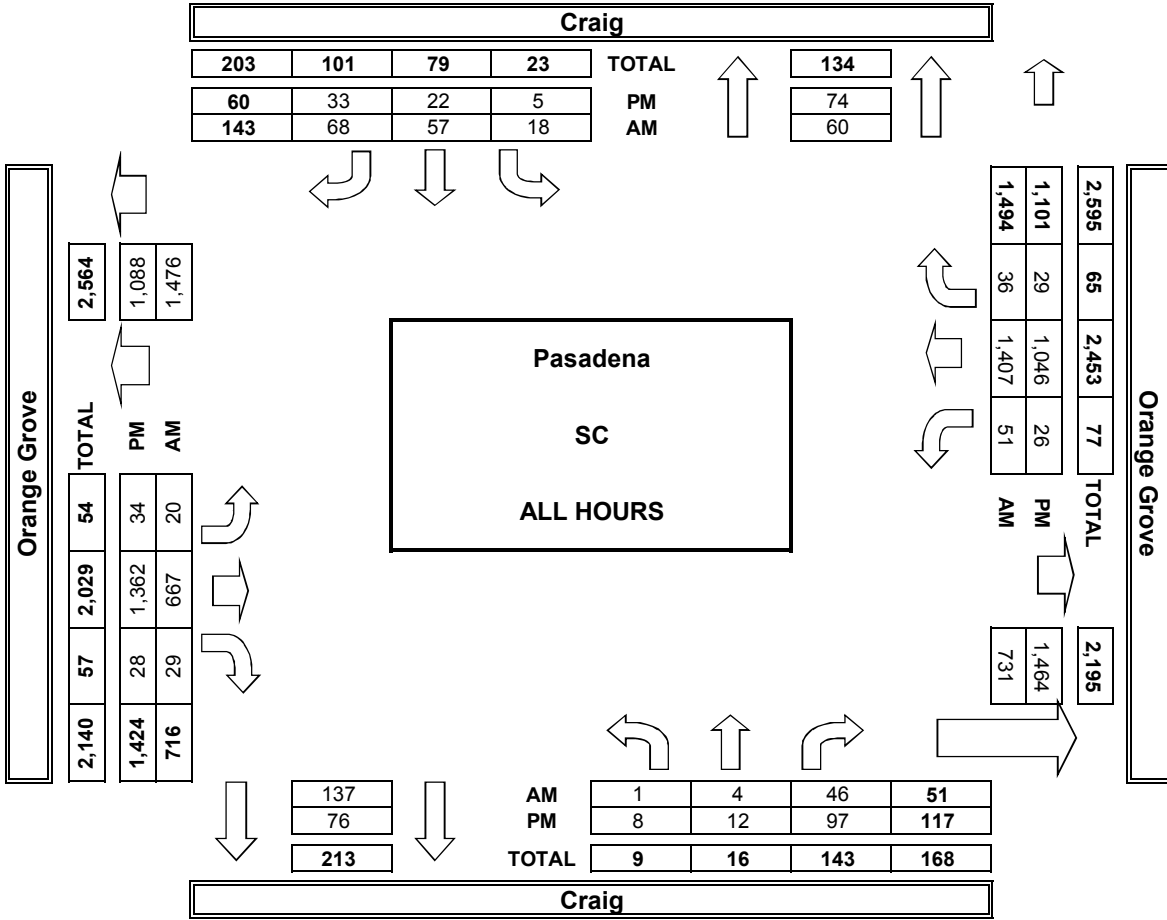


AM	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:30 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

AM	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:30 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

AM	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:30 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

**AimTD LLC**  
TURNING MOVEMENT COUNTS



### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Sat, Nov 30, 19

LOCATION:  
NORTH & SOUTH: Pasadena  
EAST & WEST: Craig  
Walnut

PROJECT #: SC  
LOCATION #: 2  
CONTROL: STOP ALL

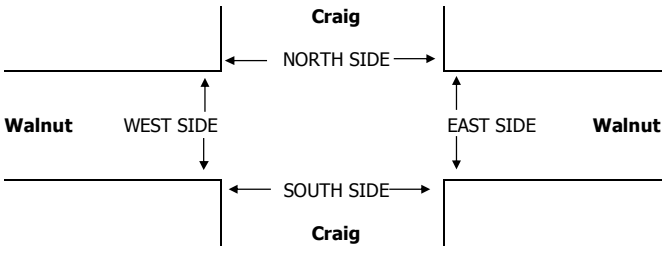


Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Craig			Craig			Walnut			Walnut			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
<b>AM</b>													
7:00 AM	1	7	2	1	4	3	6	13	1	1	21	4	64
7:15 AM	5	13	1	4	7	1	2	26	3	0	29	5	96
7:30 AM	12	26	2	10	19	2	2	19	2	2	53	5	154
7:45 AM	9	16	5	13	22	4	4	38	4	4	47	8	174
8:00 AM	4	22	3	10	13	4	4	38	3	8	78	11	198
8:15 AM	3	21	4	10	27	5	5	23	10	3	49	9	169
8:30 AM	11	29	1	13	19	6	2	50	4	4	55	9	203
8:45 AM	6	28	3	11	7	10	3	29	1	4	51	15	168
VOLUMES	51	162	21	72	118	35	28	236	28	26	383	66	1,226
APPROACH %	22%	69%	9%	32%	52%	16%	10%	81%	10%	5%	81%	14%	
APP/DEPART	234	/	256	225	/	172	292	/	329	475	/	469	0
BEGIN PEAK HR	7:45 AM												
VOLUMES	27	88	13	46	81	19	15	149	21	19	229	37	744
APPROACH %	21%	69%	10%	32%	55%	13%	8%	81%	11%	7%	80%	13%	
PEAK HR FACTOR	0.780			0.869			0.826			0.735			0.916
APP/DEPART	128	/	140	146	/	121	185	/	208	285	/	275	0
<b>PM</b>													
4:00 PM	2	19	4	13	16	9	2	60	10	4	46	10	195
4:15 PM	7	11	5	5	20	7	5	76	6	6	52	9	209
4:30 PM	1	21	2	11	27	4	7	79	6	8	48	8	222
4:45 PM	1	18	2	7	14	6	3	76	11	4	46	7	195
5:00 PM	5	21	3	12	16	7	9	83	8	3	56	10	233
5:15 PM	4	19	3	10	24	9	4	90	6	5	45	12	231
5:30 PM	1	17	3	8	25	6	6	80	9	5	36	14	210
5:45 PM	3	22	6	7	24	13	3	78	8	0	38	13	215
VOLUMES	24	148	28	73	166	61	39	622	64	35	367	83	1,710
APPROACH %	12%	74%	14%	24%	55%	20%	5%	86%	9%	7%	76%	17%	
APP/DEPART	200	/	271	300	/	264	725	/	723	485	/	452	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	13	79	15	37	89	35	22	331	31	13	175	49	889
APPROACH %	12%	74%	14%	23%	55%	22%	6%	86%	8%	5%	74%	21%	
PEAK HR FACTOR	0.863			0.915			0.960			0.859			0.954
APP/DEPART	107	/	151	161	/	132	384	/	383	237	/	223	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	1	1
0	1	0	0	1
0	0	0	0	0
0	1	0	1	2

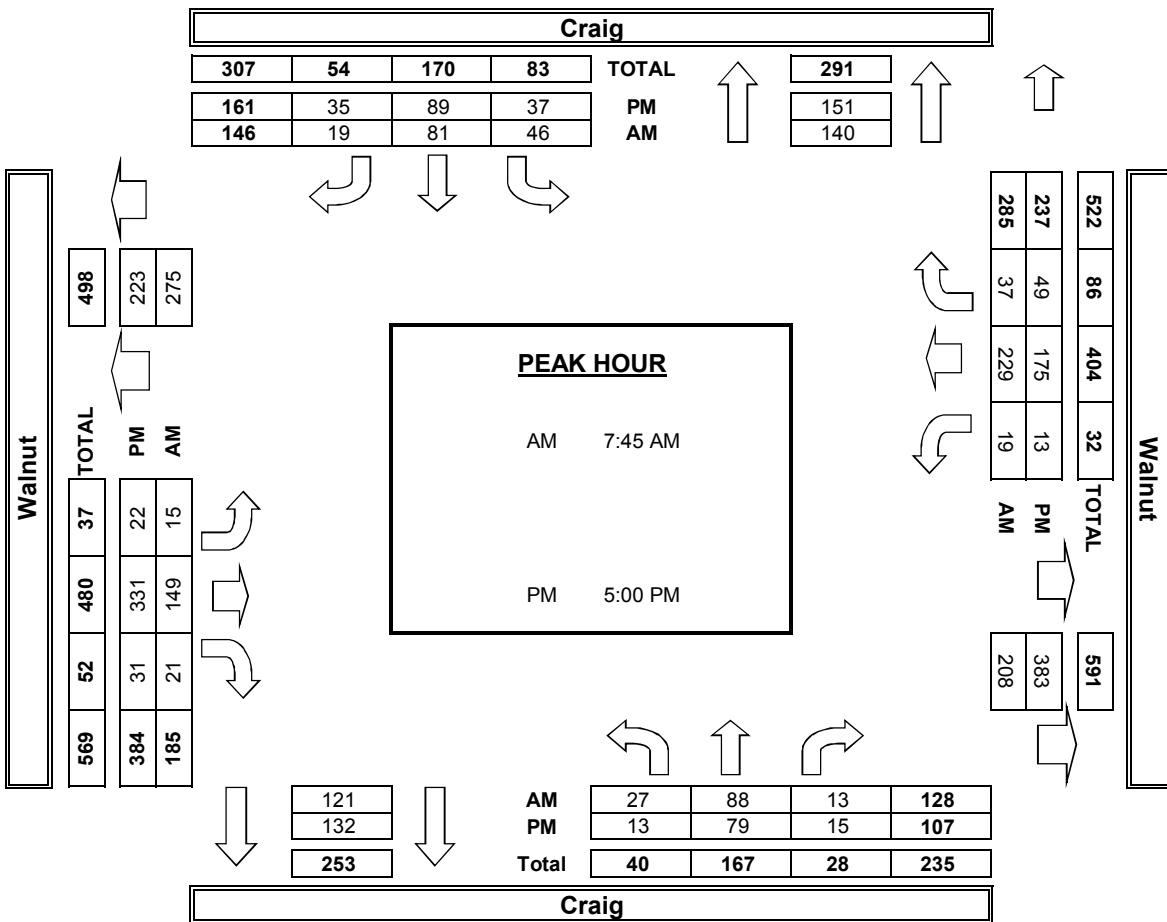
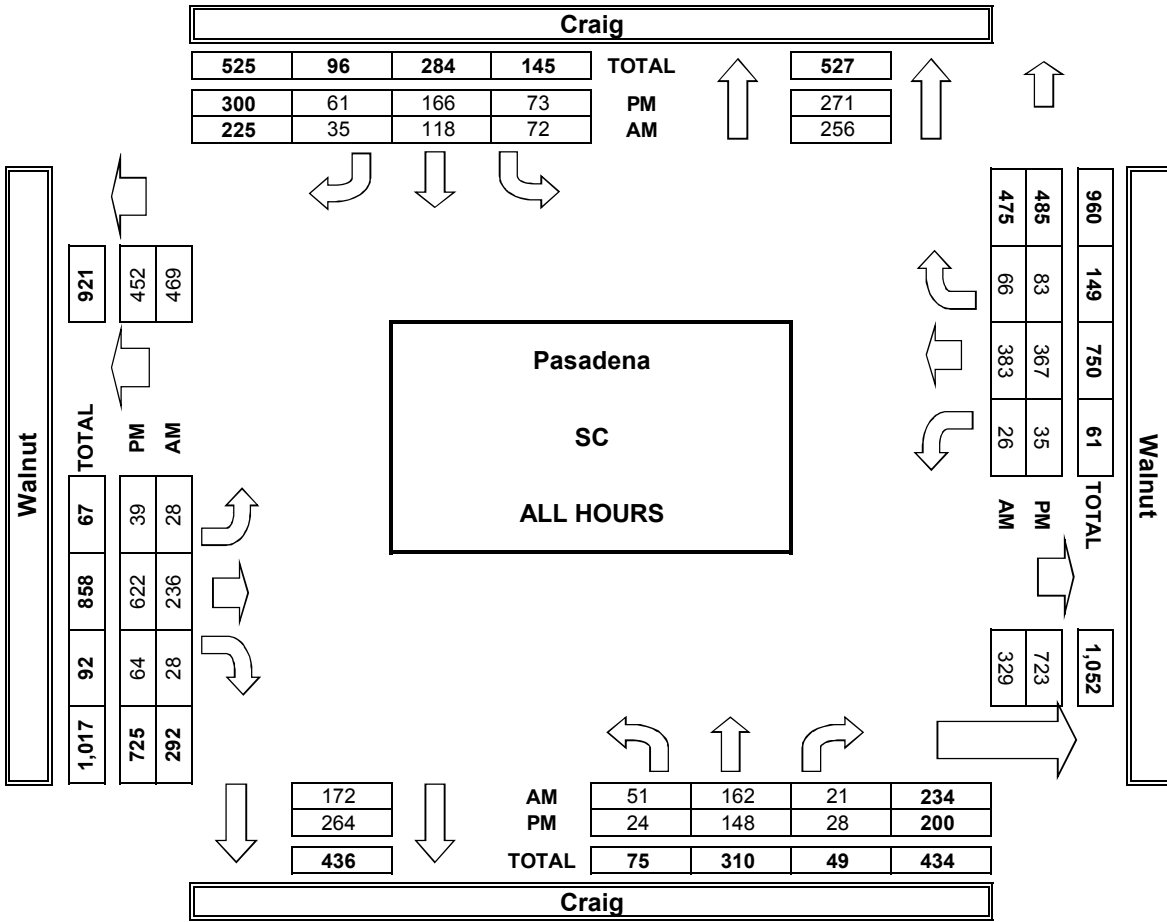


	PEDESTRIAN + BIKE CROSSINGS				TOTAL
	N SIDE	S SIDE	E SIDE	W SIDE	
<b>AM</b>					
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:45 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

	PEDESTRIAN CROSSINGS				TOTAL
	N SIDE	S SIDE	E SIDE	W SIDE	
<b>AM</b>					
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:45 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

	BICYCLE CROSSINGS				TOTAL
	NS	SS	ES	WS	
<b>AM</b>					
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:45 AM				
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	5:00 PM				

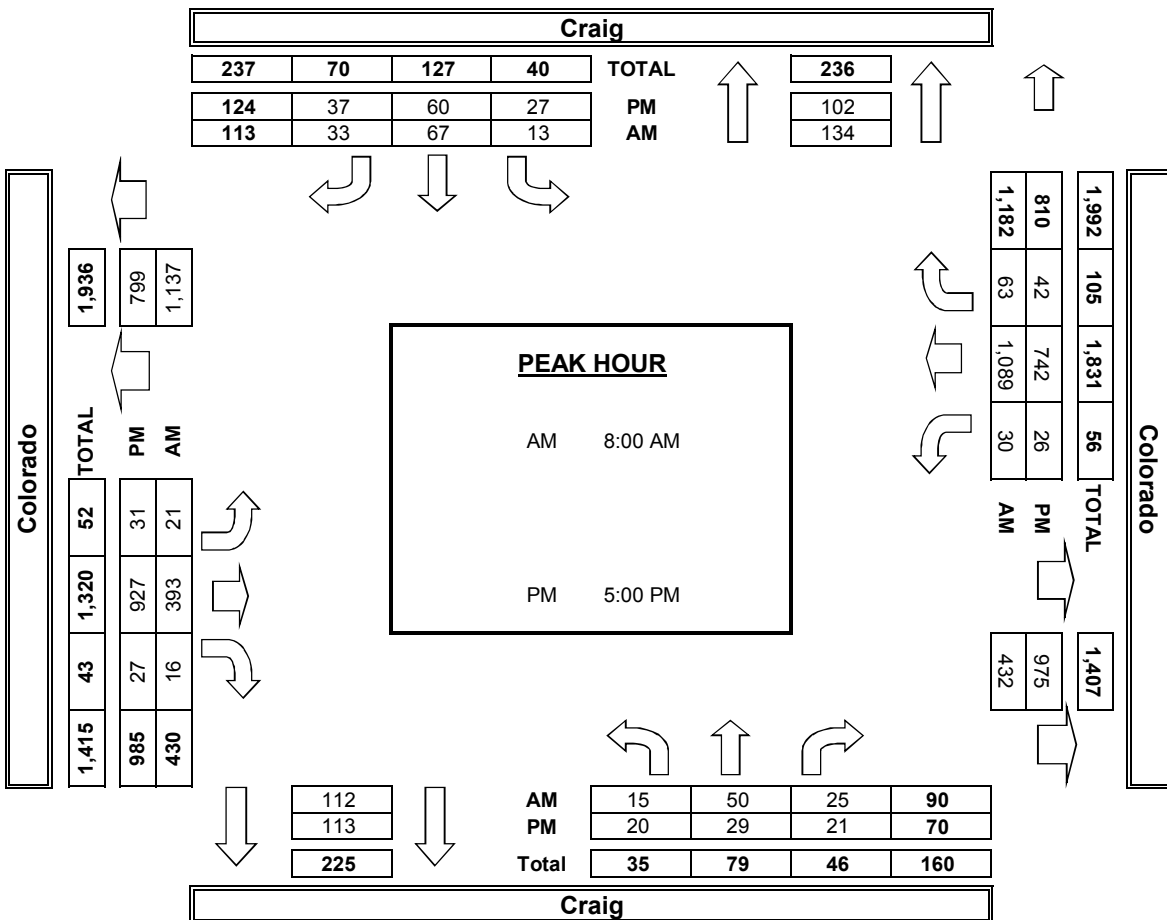
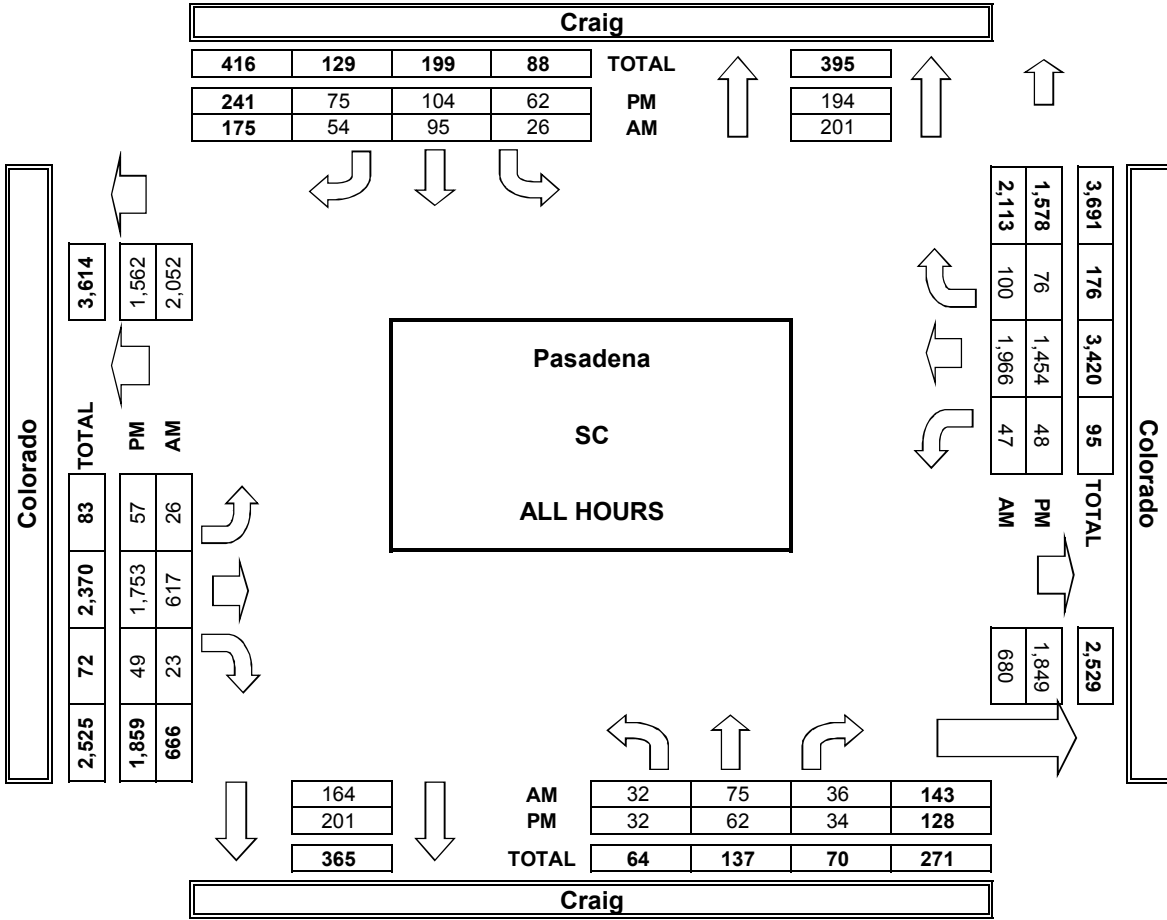
**AimTD LLC**  
TURNING MOVEMENT COUNTS





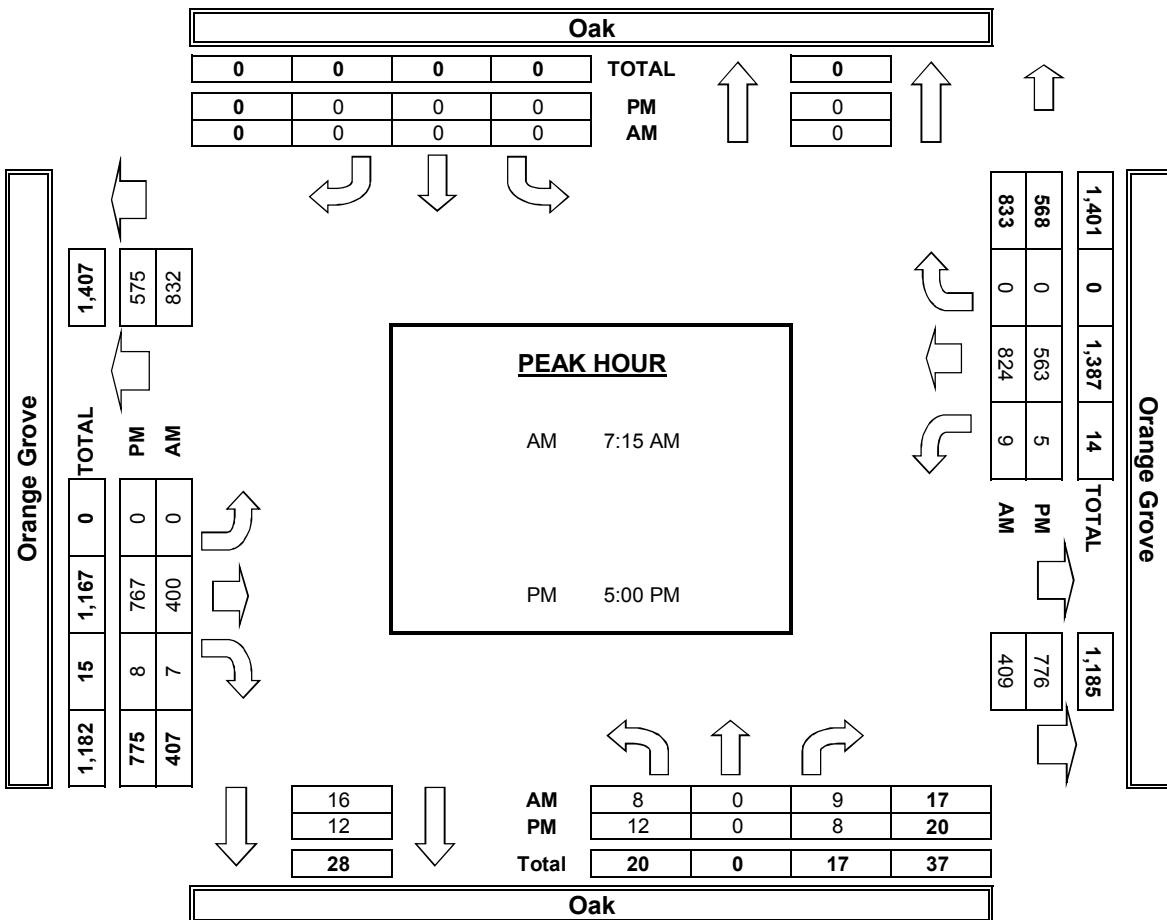
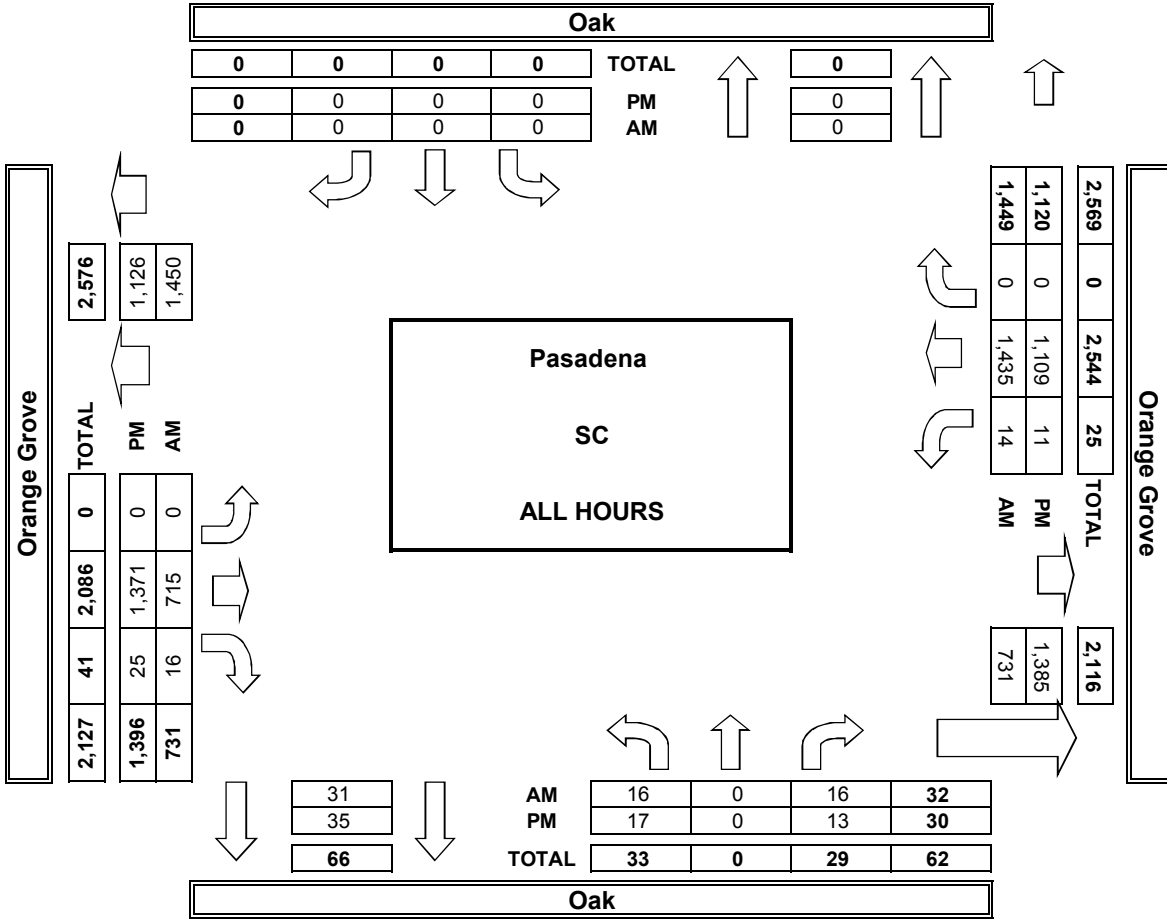


**AimTD LLC**  
TURNING MOVEMENT COUNTS





**AimTD LLC**  
TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

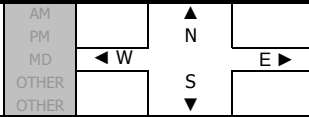
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

**DATE:**  
Wed, Oct 30, 19

**LOCATION:** Pasadena  
**NORTH & SOUTH:** Oak  
**EAST & WEST:** Walnut

**PROJECT #:** SC  
**LOCATION #:** 5  
**CONTROL:** STOP N

**NOTES:**

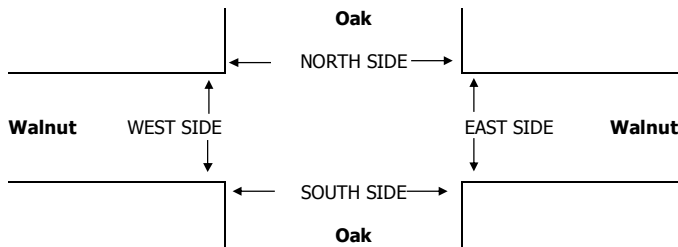


Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Oak			Oak			Walnut			Walnut			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
7:00 AM	6	0	12	0	0	0	0	9	0	2	25	0	54
7:15 AM	2	0	1	0	0	0	0	29	4	0	34	0	70
7:30 AM	4	0	3	0	0	0	0	21	1	1	62	0	92
7:45 AM	4	0	2	0	0	0	0	40	7	3	54	0	110
8:00 AM	9	0	7	0	0	0	0	39	5	4	81	0	145
8:15 AM	12	0	6	0	0	0	0	38	6	4	55	0	121
8:30 AM	10	0	3	0	0	0	0	54	3	8	57	0	135
8:45 AM	1	0	1	0	0	0	0	34	11	6	62	0	115
VOLUMES	48	0	35	0	0	0	0	264	37	28	430	0	842
APPROACH %	58%	0%	42%	0%	0%	0%	0%	88%	12%	6%	94%	0%	
APP/DEPART	83	/	0	0	/	64	301	/	300	458	/	478	0
BEGIN PEAK HR	8:00 AM												
VOLUMES	32	0	17	0	0	0	0	165	25	22	255	0	516
APPROACH %	65%	0%	35%	0%	0%	0%	0%	87%	13%	8%	92%	0%	
PEAK HR FACTOR	0.681			0.000			0.833			0.815			0.890
APP/DEPART	49	/	0	0	/	46	190	/	183	277	/	287	0
4:00 PM	2	0	4	0	0	0	0	64	5	3	54	0	132
4:15 PM	0	0	3	0	0	0	0	86	5	6	57	0	157
4:30 PM	1	0	3	0	0	0	0	81	9	4	52	0	150
4:45 PM	1	0	3	0	0	0	0	88	6	3	53	0	154
5:00 PM	6	0	13	0	0	0	0	80	7	4	59	0	169
5:15 PM	4	0	8	0	0	0	0	96	7	7	53	0	175
5:30 PM	2	0	5	0	0	0	0	88	9	3	39	0	146
5:45 PM	2	0	4	0	0	0	0	84	7	1	54	0	152
VOLUMES	18	0	43	0	0	0	0	667	55	31	421	0	1,235
APPROACH %	30%	0%	70%	0%	0%	0%	0%	92%	8%	7%	93%	0%	
APP/DEPART	61	/	0	0	/	86	722	/	710	452	/	439	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	12	0	27	0	0	0	0	345	29	18	217	0	648
APPROACH %	31%	0%	69%	0%	0%	0%	0%	92%	8%	8%	92%	0%	
PEAK HR FACTOR	0.513			0.000			0.908			0.933			0.926
APP/DEPART	39	/	0	0	/	47	374	/	372	235	/	229	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

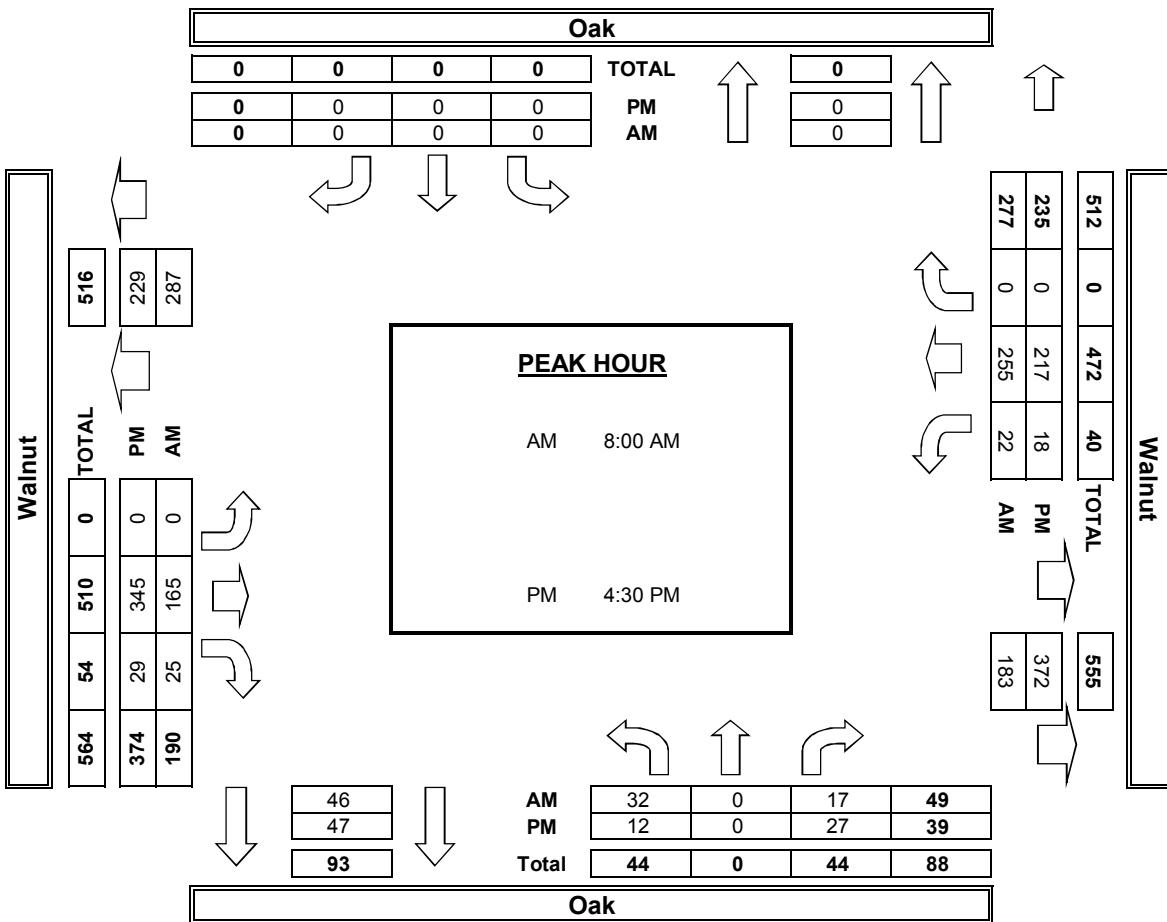
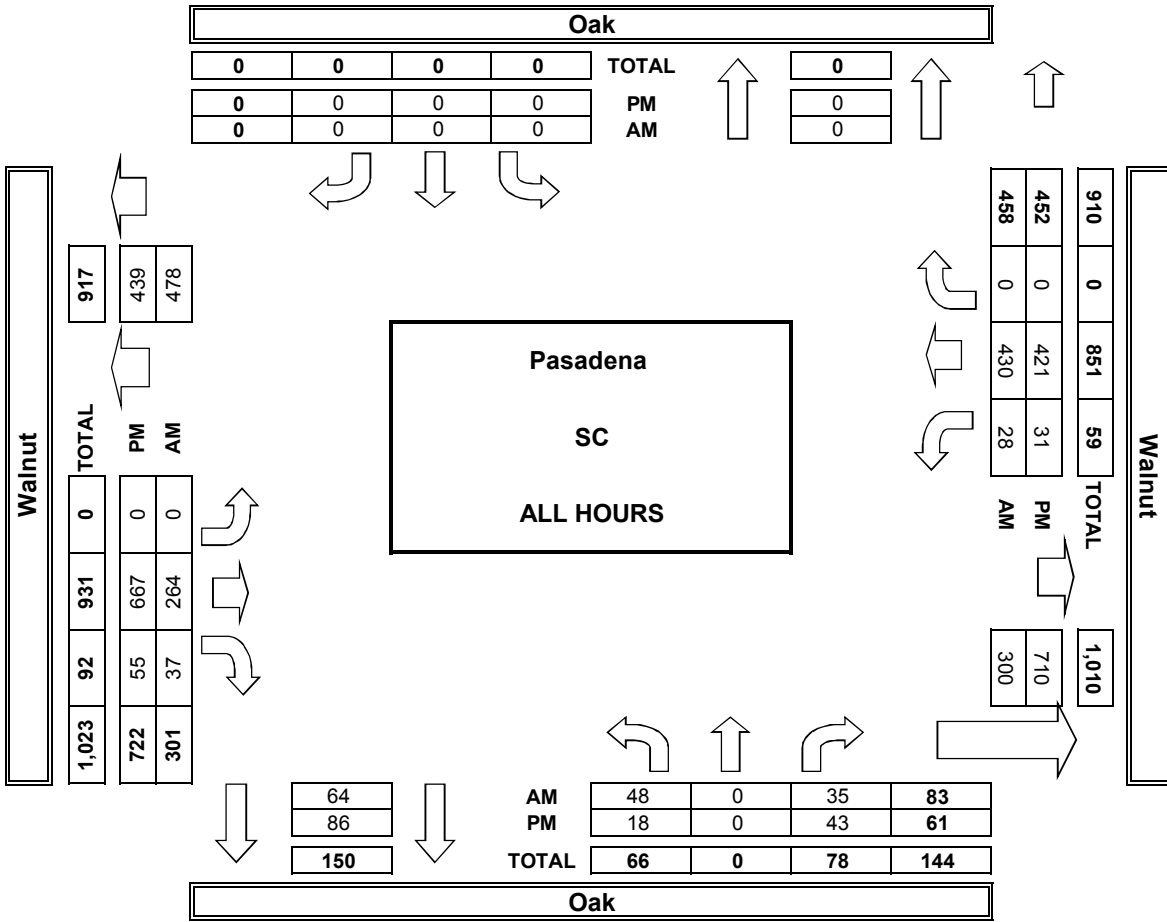


		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL		0	0	0	0	0
AM BEGIN PEAK HR		8:00 AM				
PM	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL		0	0	0	0	0
PM BEGIN PEAK HR		4:30 PM				

		PEDESTRIAN CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL		0	0	0	0	0
AM BEGIN PEAK HR		8:00 AM				
PM	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL		0	0	0	0	0
PM BEGIN PEAK HR		4:30 PM				

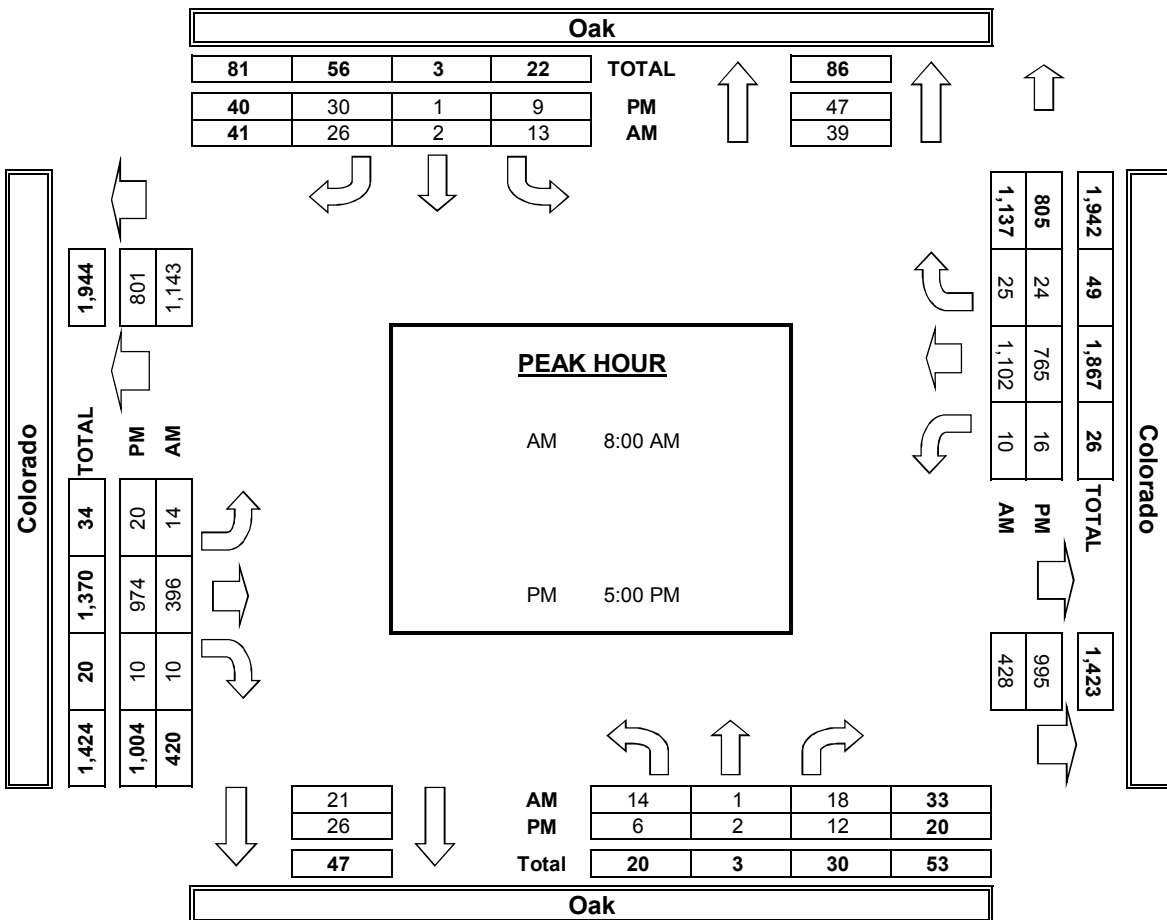
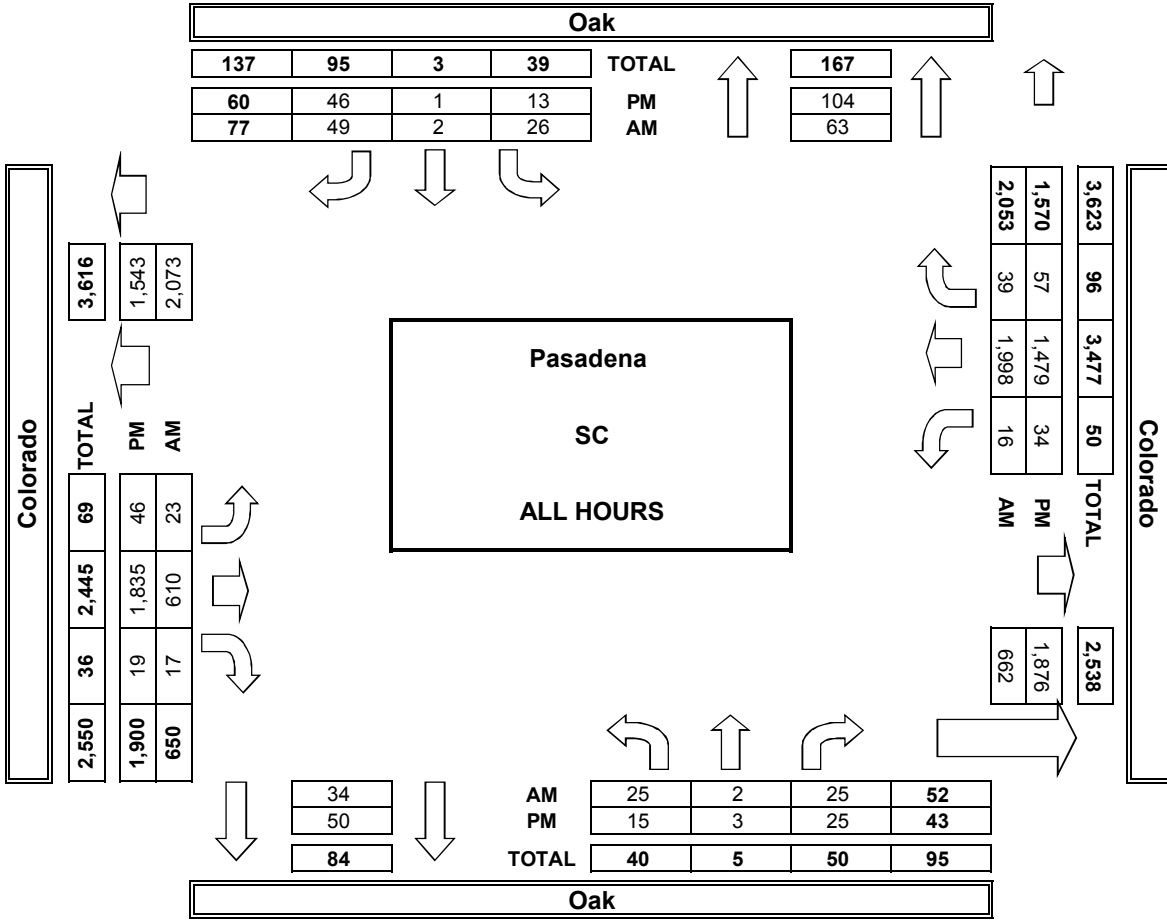
		BICYCLE CROSSINGS				
		NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL		0	0	0	0	0
AM BEGIN PEAK HR		8:00 AM				
PM	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL		0	0	0	0	0
PM BEGIN PEAK HR		4:30 PM				

**AimTD LLC**  
TURNING MOVEMENT COUNTS





**AimTD LLC**  
TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

**DATE:**  
Wed, Oct 30, 19

**LOCATION:** Pasadena  
**NORTH & SOUTH:** Martelo  
**EAST & WEST:** Orange Grove

**PROJECT #:** SC  
**LOCATION #:** 7  
**CONTROL:** STOP N/S

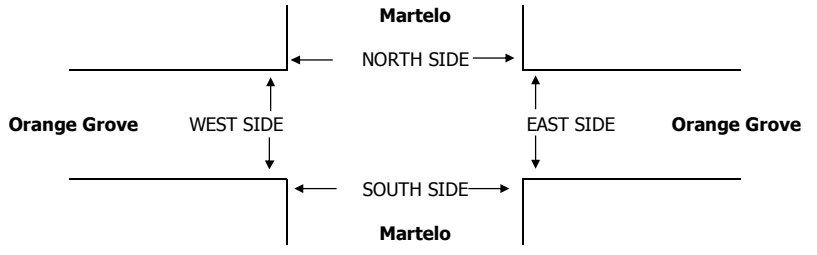
<b>NOTES:</b>  	AM PM MD OTHER OTHER	◀ W S ▶	▲ N S ▼	E ▶
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Add U-Turns to Left Turns

LANES:	NORTHBOUND <small>Martelo</small>			SOUTHBOUND <small>Martelo</small>			EASTBOUND <small>Orange Grove</small>			WESTBOUND <small>Orange Grove</small>			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	

U-TURNS				
NB	SB	EB	WB	TTL

<b>AM</b>	7:00 AM	0	1	1	1	1	5	1	46	0	1	96	1	154	0	0	0	0	0
	7:15 AM	1	1	2	2	3	8	0	73	0	0	149	3	242	0	0	0	0	0
	7:30 AM	0	2	6	6	4	9	5	123	2	1	225	3	386	0	0	1	0	1
	7:45 AM	0	1	4	3	2	14	4	97	2	4	226	4	361	0	0	0	0	0
	8:00 AM	0	0	0	2	2	9	3	79	0	3	196	0	294	0	0	0	0	0
	8:15 AM	0	0	0	1	3	4	1	110	0	3	154	0	276	0	0	0	0	0
	8:30 AM	1	0	2	2	1	0	5	96	0	1	155	3	266	0	0	0	0	0
	8:45 AM	2	0	0	2	0	10	3	91	1	2	159	2	272	1	0	0	0	1
	<b>VOLUMES</b>	4	5	15	19	16	59	22	715	5	15	1,360	16	2,251	1	0	1	0	2
	<b>APPROACH %</b>	17%	21%	63%	20%	17%	63%	3%	96%	1%	1%	98%	1%						
<b>APP/DEPART</b>	24	/	42	94	/	37	742	/	749	1,391	/	1,423	0						
<b>BEGIN PEAK HR</b>	7:30 AM																		
<b>VOLUMES</b>	0	3	10	12	11	36	13	409	4	11	801	7	1,317						
<b>APPROACH %</b>	0%	23%	77%	20%	19%	61%	3%	96%	1%	1%	98%	1%							
<b>PEAK HR FACTOR</b>	0.406			0.776			0.819			0.875			0.853						
<b>APP/DEPART</b>	13	/	22	59	/	26	426	/	431	819	/	838	0						
<b>PM</b>	4:00 PM	0	1	0	1	1	7	6	145	0	0	139	4	304	0	0	0	0	0
	4:15 PM	0	1	2	1	1	2	3	153	0	1	128	1	293	0	0	0	0	0
	4:30 PM	0	1	1	2	1	3	5	112	1	3	136	2	267	0	0	0	1	1
	4:45 PM	2	0	1	1	3	3	8	172	0	1	140	1	332	0	0	0	0	0
	5:00 PM	1	0	3	0	1	3	4	169	2	1	130	1	315	0	0	0	0	0
	5:15 PM	0	1	4	2	1	3	8	192	1	2	161	2	377	0	0	0	0	0
	5:30 PM	1	2	0	0	2	0	4	179	2	2	132	3	327	0	0	0	0	0
	5:45 PM	0	0	2	0	1	4	5	190	0	3	131	2	338	0	0	0	0	0
	<b>VOLUMES</b>	4	6	13	7	11	25	43	1,312	6	13	1,097	16	2,553	0	0	0	1	1
	<b>APPROACH %</b>	17%	26%	57%	16%	26%	58%	3%	96%	0%	1%	97%	1%						
<b>APP/DEPART</b>	23	/	65	43	/	29	1,361	/	1,333	1,126	/	1,126	0						
<b>BEGIN PEAK HR</b>	5:00 PM																		
<b>VOLUMES</b>	2	3	9	2	5	10	21	730	5	8	554	8	1,357						
<b>APPROACH %</b>	14%	21%	64%	12%	29%	59%	3%	97%	1%	1%	97%	1%							
<b>PEAK HR FACTOR</b>	0.700			0.708			0.940			0.864			0.900						
<b>APP/DEPART</b>	14	/	32	17	/	18	756	/	741	570	/	566	0						



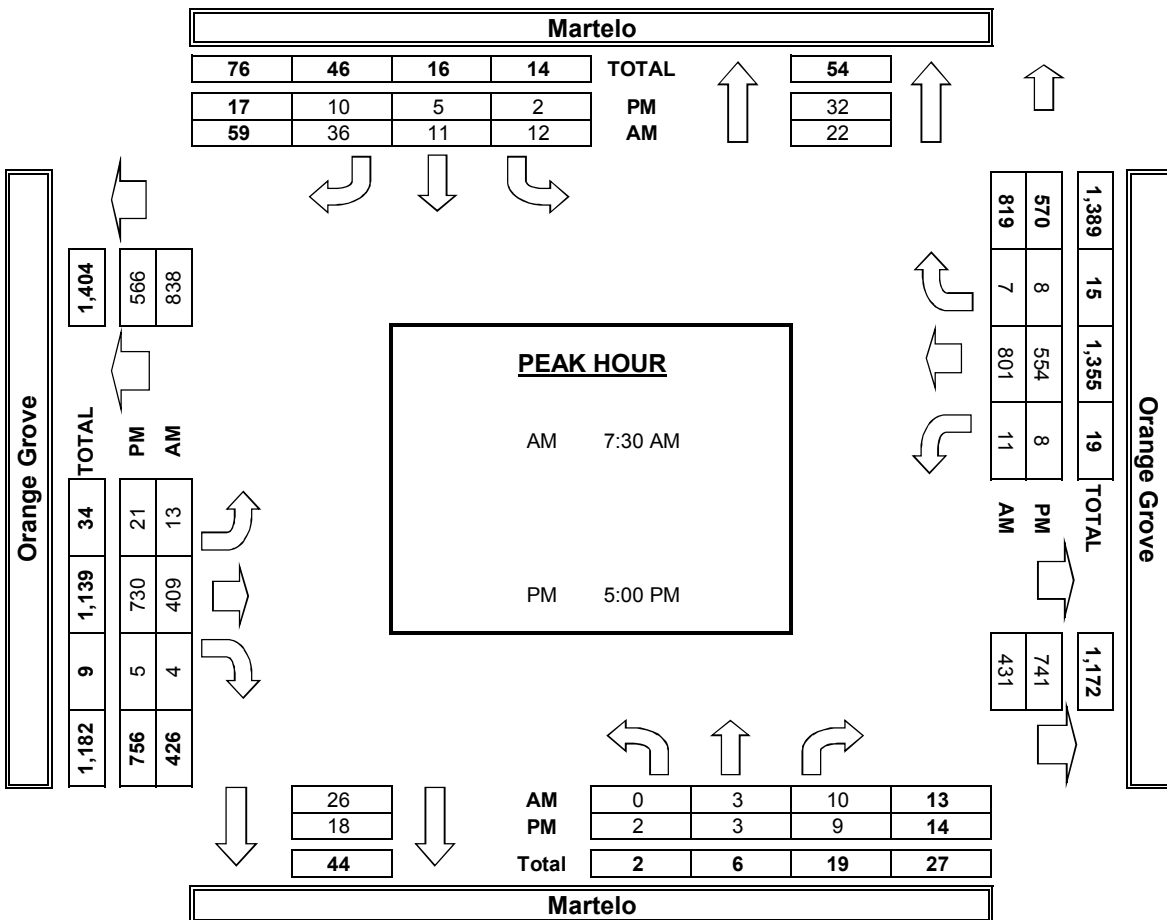
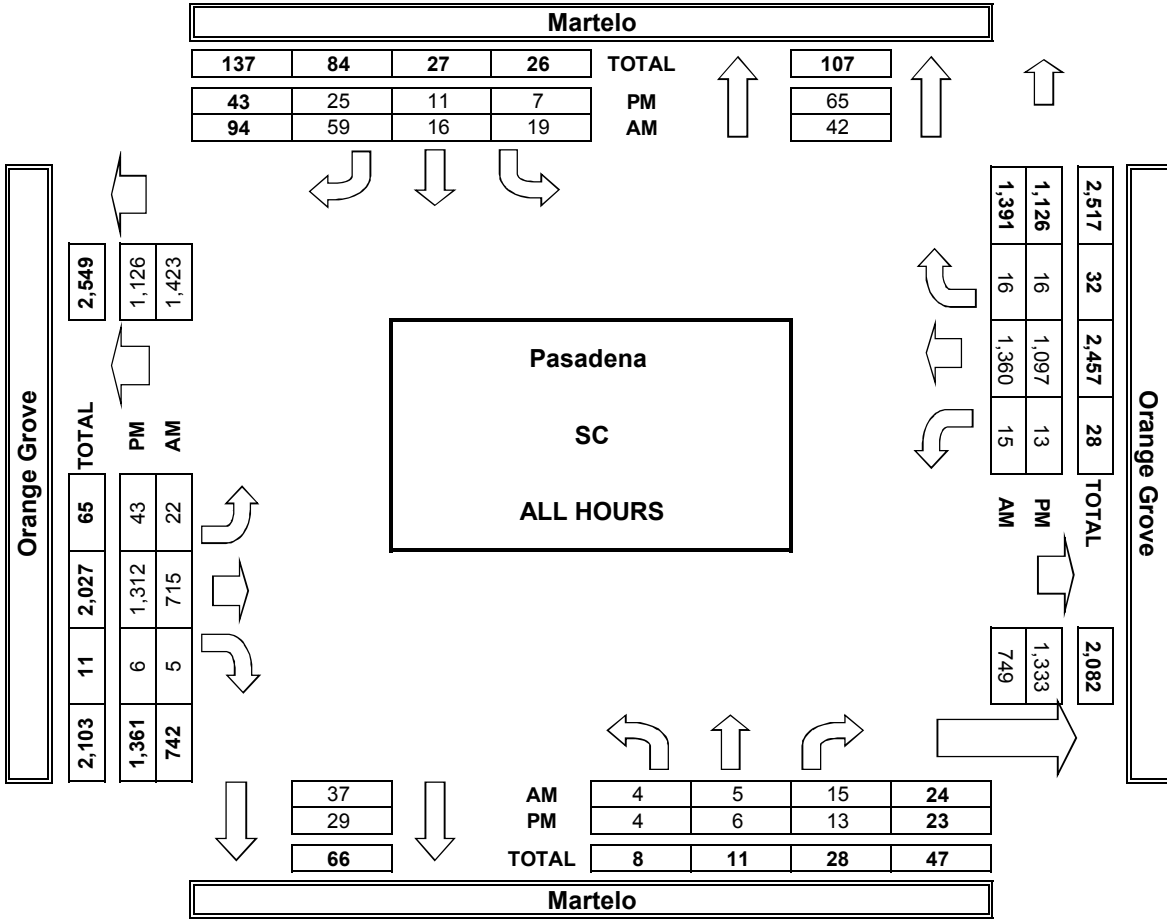
	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
<b>AM</b>	7:00 AM	0	0	0	0
	7:15 AM	0	0	0	0
	7:30 AM	0	0	0	0
	7:45 AM	0	0	0	0
	8:00 AM	0	0	0	0
	8:15 AM	0	0	0	0
	8:30 AM	0	0	0	0
	8:45 AM	0	0	0	0
<b>TOTAL</b>	0	0	0	0	0
<b>AM BEGIN PEAK HR</b>	7:30 AM				
<b>PM</b>	4:00 PM	0	0	0	0
	4:15 PM	0	0	0	0
	4:30 PM	0	0	0	0
	4:45 PM	0	0	0	0
	5:00 PM	0	0	0	0
	5:15 PM	0	0	0	0
	5:30 PM	0	0	0	0
	5:45 PM	0	0	0	0
<b>TOTAL</b>	0	0	0	0	0
<b>PM BEGIN PEAK HR</b>	5:00 PM				

	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
<b>AM</b>	7:00 AM	0	0	0	0
	7:15 AM	0	0	0	0
	7:30 AM	0	0	0	0
	7:45 AM	0	0	0	0
	8:00 AM	0	0	0	0
	8:15 AM	0	0	0	0
	8:30 AM	0	0	0	0
	8:45 AM	0	0	0	0
<b>TOTAL</b>	0	0	0	0	0
<b>AM BEGIN PEAK HR</b>	7:30 AM				
<b>PM</b>	4:00 PM	0	0	0	0
	4:15 PM	0	0	0	0
	4:30 PM	0	0	0	0
	4:45 PM	0	0	0	0
	5:00 PM	0	0	0	0
	5:15 PM	0	0	0	0
	5:30 PM	0	0	0	0
	5:45 PM	0	0	0	0
<b>TOTAL</b>	0	0	0	0	0
<b>PM BEGIN PEAK HR</b>	5:00 PM				

	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
<b>AM</b>	7:00 AM	0	0	0	0
	7:15 AM	0	0	0	0
	7:30 AM	0	0	0	0
	7:45 AM	0	0	0	0
	8:00 AM	0	0	0	0
	8:15 AM	0	0	0	0
	8:30 AM	0	0	0	0
	8:45 AM	0	0	0	0
<b>TOTAL</b>	0	0	0	0	0
<b>AM BEGIN PEAK HR</b>	7:30 AM				
<b>PM</b>	4:00 PM	0	0	0	0
	4:15 PM	0	0	0	0
	4:30 PM	0	0	0	0
	4:45 PM	0	0	0	0
	5:00 PM	0	0	0	0
	5:15 PM	0	0	0	0
	5:30 PM	0	0	0	0
	5:45 PM	0	0	0	0
<b>TOTAL</b>	0	0	0	0	0
<b>PM BEGIN PEAK HR</b>	5:00 PM				

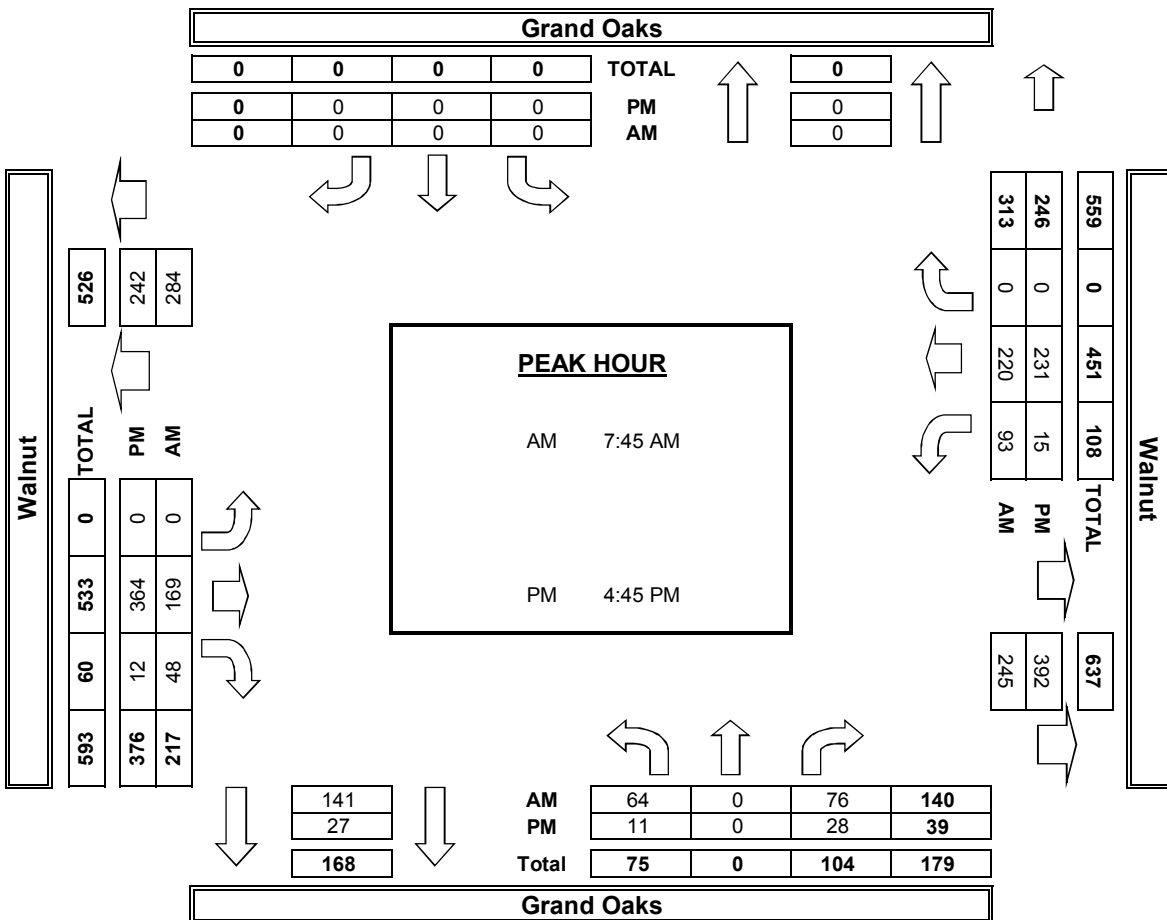
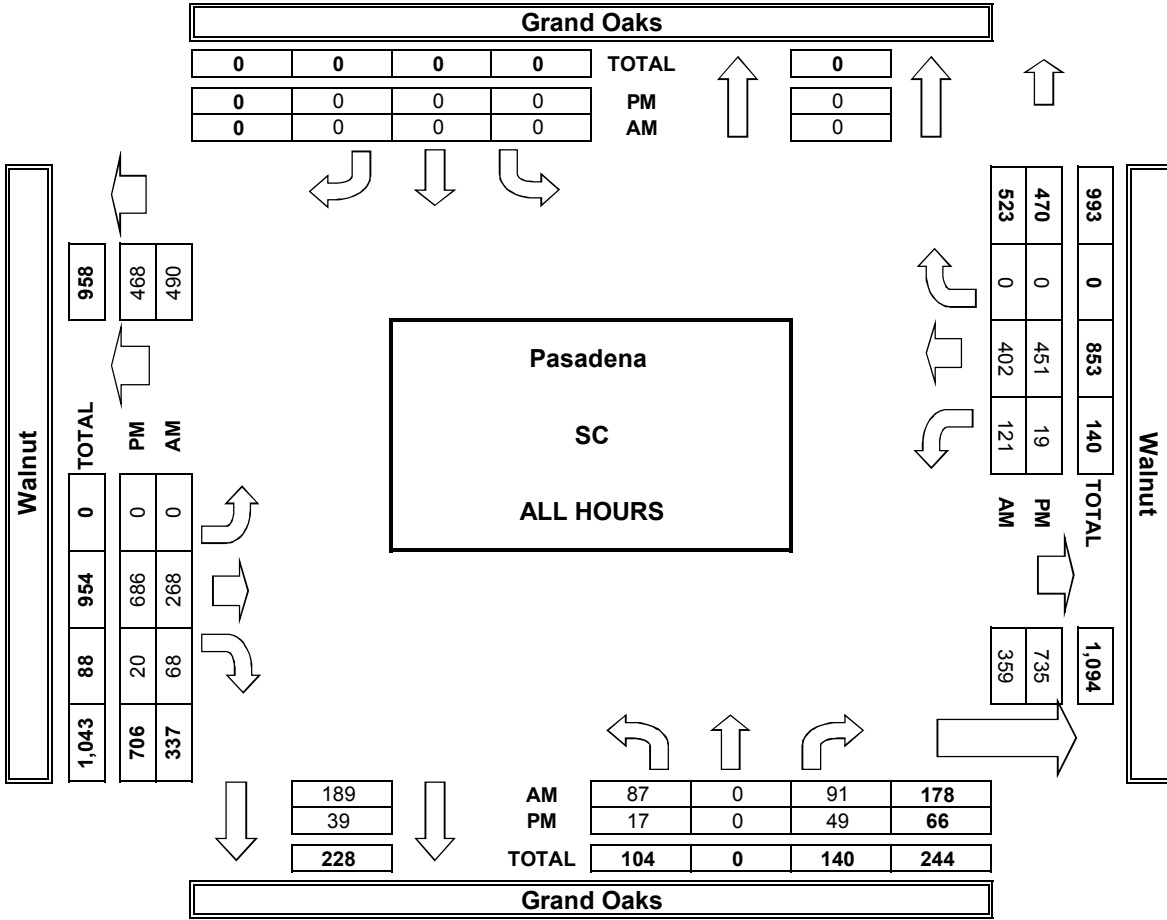


**AimTD LLC**  
TURNING MOVEMENT COUNTS



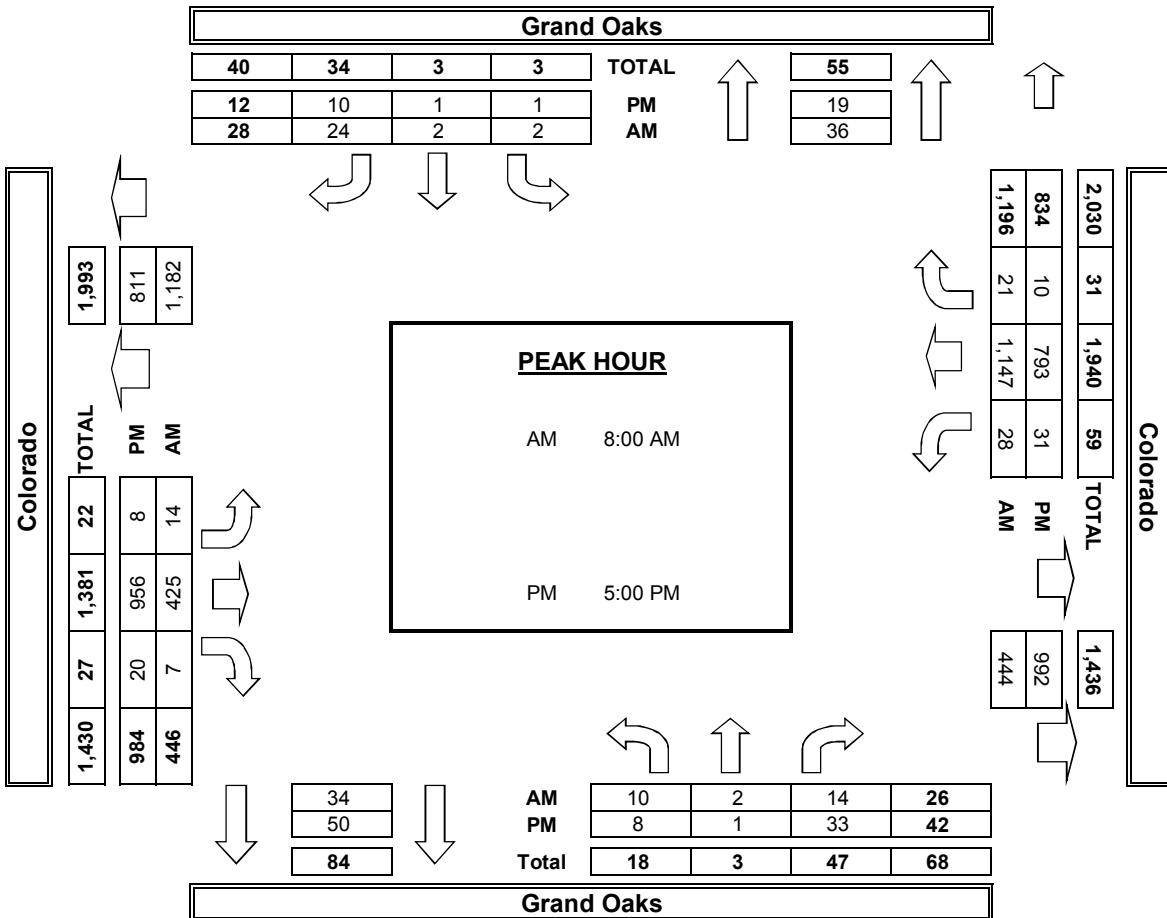
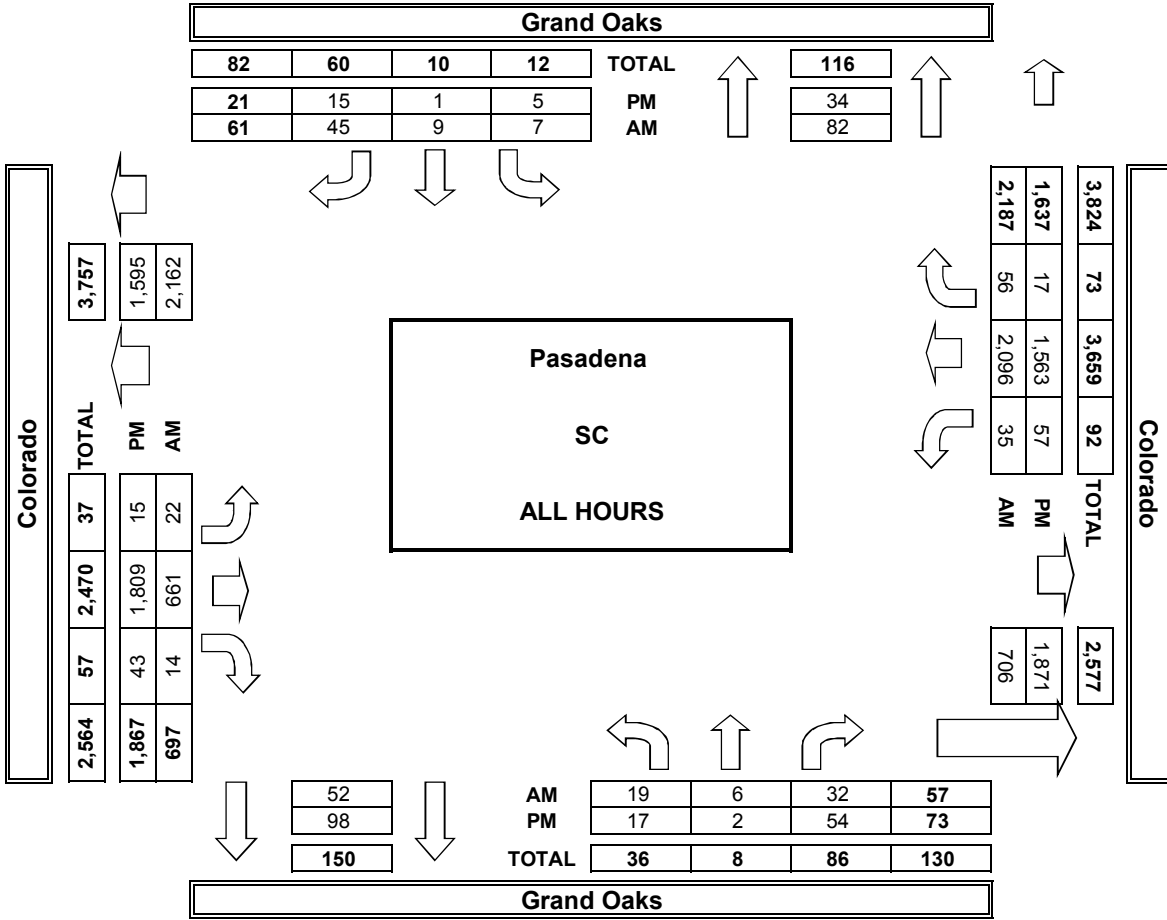


**AimTD LLC**  
TURNING MOVEMENT COUNTS





**AimTD LLC**  
TURNING MOVEMENT COUNTS



Tuesday, November 05, 2019

CITY: Pasadena

PROJECT:

**ADT1 Craig Ave between Orange Grove Blvd and Villa St.**

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	0	0			12:00	13	9			
0:15	0	0			12:15	14	13			
0:30	0	0			12:30	8	6			
0:45	0	0	0	0	12:45	7	42	10	38	
1:00	0	0			13:00	9	8			
1:15	0	0			13:15	7	11			
1:30	0	0			13:30	11	12			
1:45	0	0	0	0	13:45	11	38	6	37	
2:00	0	0			14:00	12	10			
2:15	0	0			14:15	7	4			
2:30	0	0			14:30	15	17			
2:45	0	0	0	0	14:45	9	43	9	40	
3:00	0	0			15:00	25	24			
3:15	0	0			15:15	17	17			
3:30	0	0			15:30	20	20			
3:45	0	0	0	0	15:45	13	75	11	72	
4:00	0	0			16:00	18	9			
4:15	0	0			16:15	17	14			
4:30	0	0			16:30	19	14			
4:45	0	0	0	0	16:45	19	73	10	47	
5:00	0	0			17:00	18	13			
5:15	0	0			17:15	19	13			
5:30	0	2			17:30	18	18			
5:45	2	2	3	5	7	17:45	13	68	13	57
6:00	0	2			18:00	19	6			
6:15	0	4			18:15	18	14			
6:30	2	5			18:30	9	0			
6:45	0	2	5	16	18	18:45	9	55	7	27
7:00	3	12			19:00	7	3			
7:15	3	13			19:15	7	4			
7:30	16	32			19:30	5	8			
7:45	15	37	37	94	131	19:45	5	24	6	21
8:00	10	18			20:00	7	5			
8:15	10	27			20:15	2	5			
8:30	8	23			20:30	3	3			
8:45	12	40	22	90	130	20:45	2	14	0	13
9:00	6	9			21:00	3	8			
9:15	10	13			21:15	4	4			
9:30	9	7			21:30	5	4			
9:45	10	35	11	40	75	21:45	2	14	2	18
10:00	7	7			22:00	0	0			
10:15	6	11			22:15	0	0			
10:30	6	8			22:30	2	0			
10:45	9	28	2	28	56	22:45	2	4	0	0
11:00	6	10			23:00	3	0			
11:15	5	7			23:15	0	0			
11:30	9	13			23:30	0	0			
11:45	9	29	16	46	75	23:45	0	3	0	0
<b>Total Vol.</b>	173	319			<b>492</b>	453	370			<b>823</b>

Daily Totals				
NB	SB	EB	WB	Combined
626	689			<b>1315</b>

	AM			PM		
<b>Split %</b>	35.2%	64.8%	<b>37.4%</b>	55.0%	45.0%	<b>62.6%</b>
<b>Peak Hour</b>	7:30	7:30	<b>7:30</b>	15:00	15:00	<b>15:00</b>
<b>Volume</b>	51	114	<b>165</b>	75	72	<b>147</b>
<b>P.H.F.</b>	0.80	0.77	<b>0.79</b>	0.82	0.75	<b>0.75</b>

Wednesday, October 30, 2019

CITY: Pasadena

PROJECT:

ADT2 Craig Ave between Colorado Blvd and Del Mar Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	0	0			12:00	28	15		
0:15	0	0			12:15	26	23		
0:30	0	0			12:30	14	11		
0:45	0	0	0	0	12:45	11	79	18	67
1:00	0	0			13:00	19	16		
1:15	0	0			13:15	15	12		
1:30	0	0			13:30	21	18		
1:45	0	0	0	0	13:45	22	77	21	67
2:00	0	0			14:00	26	16		
2:15	0	0			14:15	17	16		
2:30	0	0			14:30	22	21		
2:45	0	0	0	0	14:45	11	76	18	71
3:00	0	0			15:00	23	26		
3:15	0	2			15:15	25	23		
3:30	0	0			15:30	36	25		
3:45	0	0	0	2	15:45	25	109	15	89
4:00	0	0			16:00	30	14		
4:15	0	0			16:15	22	19		
4:30	0	0			16:30	16	17		
4:45	0	0	0	0	16:45	17	85	19	69
5:00	0	0			17:00	26	25		
5:15	0	2			17:15	34	22		
5:30	2	0			17:30	27	29		
5:45	4	6	0	2	17:45	25	112	18	94
6:00	4	4			18:00	32	23		
6:15	4	2			18:15	25	24		
6:30	9	0			18:30	14	17		
6:45	14	31	8	14	18:45	15	86	15	79
7:00	6	9			19:00	22	8		
7:15	12	6			19:15	13	14		
7:30	7	7			19:30	20	13		
7:45	9	34	33	55	19:45	9	64	13	48
8:00	16	14			20:00	15	14		
8:15	24	13			20:15	19	9		
8:30	15	18			20:30	13	6		
8:45	26	81	20	65	20:45	13	60	8	37
9:00	17	11			21:00	16	13		
9:15	20	13			21:15	9	8		
9:30	13	7			21:30	10	10		
9:45	18	68	7	38	21:45	5	40	9	40
10:00	15	14			22:00	9	4		
10:15	20	16			22:15	5	4		
10:30	15	8			22:30	3	3		
10:45	17	67	10	48	22:45	0	17	3	14
11:00	9	9			23:00	3	2		
11:15	16	12			23:15	2	2		
11:30	19	12			23:30	2	3		
11:45	17	61	20	53	23:45	2	9	2	9
<b>Total Vol.</b>	348	277			<b>625</b>	814	684		<b>1498</b>

	Daily Totals				Combined	
	NB	SB	EB	WB		
	1162	961			<b>2123</b>	
	<b>AM</b>		<b>PM</b>			
<b>Split %</b>	55.7%	44.3%	<b>29.4%</b>	54.3%	45.7%	<b>70.6%</b>
<b>Peak Hour</b>	11:30	7:45	<b>11:30</b>	17:15	16:45	<b>17:15</b>
<b>Volume</b>	90	78	<b>160</b>	118	95	<b>210</b>
<b>P.H.F.</b>	0.80	0.59	<b>0.82</b>	0.82	0.82	<b>0.94</b>

Tuesday, November 05, 2019

CITY: Pasadena

PROJECT:

ADT3 Oak Ave south of Orange Grove Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	0	0			12:00	2	7		
0:15	0	2			12:15	4	3		
0:30	0	0			12:30	0	0		
0:45	0	0	2		12:45	0	6	2	12
<hr/>									
1:00	0	0			13:00	2	3		
1:15	0	0			13:15	4	6		
1:30	0	0			13:30	6	3		
1:45	0	0	0	0	13:45	0	12	4	16
<hr/>									
2:00	0	0			14:00	4	2		
2:15	0	0			14:15	5	2		
2:30	0	0			14:30	3	7		
2:45	0	0	0	0	14:45	4	16	0	11
<hr/>									
3:00	0	0			15:00	3	3		
3:15	0	0			15:15	0	3		
3:30	0	0			15:30	2	5		
3:45	0	0	0	0	15:45	0	5	4	15
<hr/>									
4:00	0	0			16:00	0	3		
4:15	0	0			16:15	2	5		
4:30	0	0			16:30	3	2		
4:45	0	0	0	0	16:45	4	9	0	10
<hr/>									
5:00	0	0			17:00	3	2		
5:15	0	0			17:15	2	4		
5:30	0	0			17:30	2	0		
5:45	0	0	0	0	17:45	2	9	0	6
<hr/>									
6:00	0	0			18:00	4	2		
6:15	0	0			18:15	6	2		
6:30	0	5			18:30	0	6		
6:45	2	2	3	8	18:45	5	15	2	12
<hr/>									
7:00	0	7			19:00	3	2		
7:15	3	3			19:15	0	0		
7:30	5	2			19:30	0	2		
7:45	0	8	2	14	19:45	0	3	2	6
<hr/>									
8:00	3	6			20:00	2	0		
8:15	3	9			20:15	0	0		
8:30	0	4			20:30	0	0		
8:45	2	8	9	28	20:45	0	2	0	0
<hr/>									
9:00	0	0			21:00	4	0		
9:15	0	0			21:15	0	0		
9:30	0	2			21:30	2	2		
9:45	0	0	3	5	21:45	0	6	0	2
<hr/>									
10:00	3	2			22:00	0	0		
10:15	2	0			22:15	0	0		
10:30	5	2			22:30	0	0		
10:45	4	14	2	6	22:45	0	0	0	0
<hr/>									
11:00	3	4			23:00	0	0		
11:15	2	0			23:15	0	0		
11:30	0	2			23:30	0	0		
11:45	0	5	2	8	23:45	0	0	0	0
<hr/>									
<b>Total Vol.</b>	37	71		<b>108</b>		83	90		<b>173</b>

Daily Totals				
NB	SB	EB	WB	Combined
120	161			<b>281</b>

	AM			PM		
<b>Split %</b>	34.3%	65.7%	<b>38.4%</b>	48.0%	52.0%	<b>61.6%</b>
<b>Peak Hour</b>	10:00	8:00	<b>8:00</b>	14:00	15:30	<b>13:15</b>
<b>Volume</b>	14	28	<b>36</b>	16	17	<b>29</b>
<b>P.H.F.</b>	0.70	0.78	<b>0.75</b>	0.75	0.85	<b>0.73</b>



Tuesday, November 05, 2019

CITY: Pasadena

PROJECT:

ADT4 Oak Ave between Walnut St and Colorado Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	0	0			12:00	13	6		
0:15	0	0			12:15	9	5		
0:30	2	0			12:30	9	4		
0:45	0	2	0	0	12:45	5	36	6	21
					57				
1:00	0	0			13:00	9	4		
1:15	0	0			13:15	5	7		
1:30	0	0			13:30	7	0		
1:45	0	0	0	0	13:45	4	25	7	18
					43				
2:00	0	0			14:00	4	5		
2:15	0	0			14:15	5	3		
2:30	0	0			14:30	11	2		
2:45	0	0	0	0	14:45	4	24	4	14
					38				
3:00	0	0			15:00	7	6		
3:15	0	0			15:15	5	0		
3:30	0	0			15:30	6	11		
3:45	0	0	0	0	15:45	11	29	10	27
					56				
4:00	0	0			16:00	9	17		
4:15	0	0			16:15	7	5		
4:30	2	3			16:30	10	3		
4:45	0	2	7	10	16:45	11	37	9	34
					71				
5:00	0	0			17:00	11	8		
5:15	2	0			17:15	13	11		
5:30	0	2			17:30	4	6		
5:45	0	2	8	10	17:45	0	28	4	29
					57				
6:00	9	8			18:00	13	6		
6:15	0	8			18:15	15	10		
6:30	3	0			18:30	19	8		
6:45	6	18	0	16	18:45	6	53	4	28
					81				
7:00	18	4			19:00	6	9		
7:15	9	4			19:15	0	4		
7:30	13	9			19:30	11	10		
7:45	10	50	10	27	19:45	16	33	14	37
					70				
8:00	9	7			20:00	7	7		
8:15	8	6			20:15	7	3		
8:30	12	9			20:30	3	0		
8:45	11	40	13	35	20:45	3	20	0	10
					30				
9:00	3	5			21:00	8	4		
9:15	4	3			21:15	4	4		
9:30	12	8			21:30	11	0		
9:45	4	23	2	18	21:45	0	23	3	11
					34				
10:00	4	5			22:00	0	3		
10:15	6	2			22:15	0	0		
10:30	13	12			22:30	0	2		
10:45	27	50	17	36	22:45	0	0	2	7
					7				
11:00	11	0			23:00	0	0		
11:15	6	4			23:15	0	2		
11:30	3	7			23:30	0	0		
11:45	8	28	6	17	23:45	0	0	0	2
					2				
<b>Total Vol.</b>	215	169		<b>384</b>		308	238		<b>546</b>

Daily Totals				
NB	SB	EB	WB	Combined
523	407			<b>930</b>

	AM			PM		
<b>Split %</b>	56.0%	44.0%	<b>41.3%</b>	56.4%	43.6%	<b>58.7%</b>
<b>Peak Hour</b>	10:15	10:00	<b>10:30</b>	18:00	15:30	<b>18:00</b>
<b>Volume</b>	57	36	<b>90</b>	53	43	<b>81</b>
<b>P.H.F.</b>	0.53	0.53	<b>0.51</b>	0.87	0.63	<b>0.75</b>

Tuesday, November 05, 2019

CITY: Pasadena

PROJECT:

ADT5 Oak Ave south of Colorado Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	0	0			12:00	3	7			
0:15	0	0			12:15	4	7			
0:30	0	0			12:30	5	10			
0:45	0	0	0	0	12:45	3	15	6	30	
1:00	0	0			13:00	0	6			
1:15	0	2			13:15	7	0			
1:30	0	0			13:30	6	0			
1:45	0	0	0	2	2	13:45	4	17	8	14
2:00	0	0			14:00	6	5			
2:15	0	0			14:15	0	3			
2:30	0	0			14:30	10	3			
2:45	0	0	0	0	14:45	6	22	0	11	
3:00	0	0			15:00	6	7			
3:15	0	0			15:15	5	5			
3:30	0	2			15:30	2	2			
3:45	0	0	0	2	2	15:45	4	17	6	20
4:00	0	0			16:00	4	3			
4:15	0	0			16:15	3	2			
4:30	0	0			16:30	0	8			
4:45	0	0	0	0	16:45	5	12	4	17	
5:00	0	0			17:00	7	11			
5:15	0	0			17:15	6	8			
5:30	0	0			17:30	5	8			
5:45	2	2	0	0	2	17:45	6	24	3	30
6:00	0	0			18:00	3	4			
6:15	0	0			18:15	2	6			
6:30	0	2			18:30	4	4			
6:45	0	0	0	2	2	18:45	3	12	2	16
7:00	6	0			19:00	4	4			
7:15	4	2			19:15	2	5			
7:30	3	4			19:30	7	4			
7:45	2	15	9	15	30	19:45	0	13	3	16
8:00	5	9			20:00	0	4			
8:15	13	2			20:15	0	3			
8:30	12	8			20:30	3	3			
8:45	4	34	5	24	58	20:45	2	5	0	10
9:00	5	6			21:00	3	2			
9:15	2	0			21:15	2	0			
9:30	0	4			21:30	0	3			
9:45	4	11	4	14	25	21:45	0	5	0	5
10:00	0	6			22:00	2	3			
10:15	6	0			22:15	0	0			
10:30	4	2			22:30	0	0			
10:45	5	15	3	11	26	22:45	0	2	0	3
11:00	14	7			23:00	0	0			
11:15	2	5			23:15	0	0			
11:30	2	7			23:30	0	0			
11:45	4	22	4	23	45	23:45	0	0	0	0
<b>Total Vol.</b>	99	93			<b>192</b>	144	172			<b>316</b>

Daily Totals

NB	SB	EB	WB	Combined
243	265			<b>508</b>

AM

PM

<b>Split %</b>	51.6%	48.4%	<b>37.8%</b>	45.6%	54.4%	<b>62.2%</b>
<b>Peak Hour</b>	8:00	7:45	<b>7:45</b>	14:30	16:30	<b>16:45</b>
<b>Volume</b>	34	28	<b>60</b>	27	31	<b>54</b>
<b>P.H.F.</b>	0.65	0.78	<b>0.75</b>	0.70	0.70	<b>0.75</b>

Tuesday, November 05, 2019

CITY: Pasadena

PROJECT:

ADT6 Martelo Ave south of Orange Grove Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	0	0			12:00	0	4		
0:15	0	0			12:15	2	3		
0:30	0	0			12:30	0	4		
0:45	0	0	0	0	12:45	2	4	3	14
1:00	0	0			13:00	2	5		
1:15	0	0			13:15	2	2		
1:30	0	0			13:30	0	0		
1:45	0	0	0	0	13:45	2	6	3	10
2:00	0	0			14:00	5	0		
2:15	0	0			14:15	2	0		
2:30	0	0			14:30	0	0		
2:45	0	0	0	0	14:45	6	13	4	4
3:00	0	0			15:00	2	4		
3:15	0	0			15:15	0	3		
3:30	0	0			15:30	2	2		
3:45	0	0	0	0	15:45	0	4	2	11
4:00	0	0			16:00	0	0		
4:15	0	0			16:15	3	0		
4:30	0	0			16:30	2	4		
4:45	0	0	0	0	16:45	0	5	2	6
5:00	0	0			17:00	0	2		
5:15	0	0			17:15	3	6		
5:30	0	0			17:30	0	3		
5:45	0	0	0	0	17:45	0	3	0	11
6:00	0	0			18:00	0	3		
6:15	0	2			18:15	2	3		
6:30	0	0			18:30	0	5		
6:45	0	0	0	2	18:45	2	4	0	11
7:00	2	0			19:00	0	0		
7:15	0	2			19:15	0	0		
7:30	6	7			19:30	2	2		
7:45	3	11	4	13	19:45	3	5	0	2
8:00	0	3			20:00	0	2		
8:15	0	8			20:15	0	0		
8:30	2	0			20:30	2	0		
8:45	3	5	3	14	20:45	0	2	0	2
9:00	0	2			21:00	0	0		
9:15	3	3			21:15	0	0		
9:30	0	0			21:30	0	0		
9:45	0	3	4	9	21:45	0	0	0	0
10:00	0	3			22:00	0	0		
10:15	0	0			22:15	0	0		
10:30	0	0			22:30	0	0		
10:45	0	0	2	5	22:45	0	0	0	0
11:00	0	0			23:00	0	0		
11:15	0	2			23:15	0	0		
11:30	0	2			23:30	0	0		
11:45	0	0	2	6	23:45	0	0	0	0
<b>Total Vol.</b>	19	49		<b>68</b>		46	71		<b>117</b>

Daily Totals				
NB	SB	EB	WB	Combined
65	120			<b>185</b>

	AM			PM		
<b>Split %</b>	27.9%	72.1%	<b>36.8%</b>	39.3%	60.7%	<b>63.2%</b>
<b>Peak Hour</b>	7:00	7:30	<b>7:30</b>	14:00	12:15	<b>14:45</b>
<b>Volume</b>	11	22	<b>31</b>	13	15	<b>23</b>
<b>P.H.F.</b>	0.46	0.69	<b>0.60</b>	0.35	0.75	<b>0.58</b>

Tuesday, November 05, 2019

CITY: Pasadena

PROJECT:

ADT7 Grand Oaks Ave between Walnut St and Colorado Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	0	0			12:00	4	4			
0:15	0	0			12:15	7	7			
0:30	0	0			12:30	5	0			
0:45	0	0	0	0	12:45	6	22	4	15	
<hr/>										
1:00	0	0			13:00	6	4			
1:15	0	0			13:15	4	2			
1:30	0	0			13:30	7	6			
1:45	0	0	0	0	13:45	3	20	8	20	
<hr/>										
2:00	0	0			14:00	3	3			
2:15	0	0			14:15	15	13			
2:30	0	0			14:30	8	21			
2:45	0	0	0	0	14:45	15	41	23	60	
<hr/>										
3:00	0	0			15:00	50	36			
3:15	0	0			15:15	44	30			
3:30	0	0			15:30	14	4			
3:45	0	0	0	0	15:45	5	113	2	72	
<hr/>										
4:00	0	0			16:00	16	0			
4:15	0	0			16:15	14	7			
4:30	0	0			16:30	12	10			
4:45	0	0	0	0	16:45	15	57	12	29	
<hr/>										
5:00	2	0			17:00	17	3			
5:15	0	0			17:15	5	8			
5:30	0	0			17:30	11	0			
5:45	0	2	3	3	5	17:45	0	33	3	14
<hr/>										
6:00	0	3			18:00	3	2			
6:15	0	0			18:15	3	4			
6:30	0	0			18:30	4	6			
6:45	0	0	5	8	8	18:45	2	12	12	24
<hr/>										
7:00	3	5			19:00	4	6			
7:15	7	12			19:15	3	5			
7:30	17	29			19:30	0	0			
7:45	47	74	64	110	184	19:45	0	7	5	16
<hr/>										
8:00	50	33			20:00	6	0			
8:15	20	14			20:15	0	3			
8:30	15	10			20:30	3	3			
8:45	10	95	6	63	158	20:45	0	9	0	6
<hr/>										
9:00	4	7			21:00	0	0			
9:15	2	5			21:15	0	2			
9:30	3	2			21:30	0	2			
9:45	6	15	6	20	35	21:45	0	0	2	6
<hr/>										
10:00	7	0			22:00	0	0			
10:15	4	0			22:15	0	0			
10:30	4	0			22:30	2	2			
10:45	6	21	7	7	28	22:45	0	2	2	4
<hr/>										
11:00	5	5			23:00	11	0			
11:15	9	3			23:15	0	0			
11:30	7	0			23:30	0	0			
11:45	5	26	3	11	37	23:45	2	13	0	0
<hr/>										
<b>Total Vol.</b>	233	222			<b>455</b>	329	266			<b>595</b>

Daily Totals				
NB	SB	EB	WB	Combined
562	488			<b>1050</b>

	AM			PM		
<b>Split %</b>	51.2%	48.8%	<b>43.3%</b>	55.3%	44.7%	<b>56.7%</b>
<b>Peak Hour</b>	7:30	7:30	<b>7:30</b>	14:45	14:30	<b>14:30</b>
<b>Volume</b>	134	140	<b>274</b>	123	110	<b>227</b>
<b>P.H.F.</b>	0.67	0.55	<b>0.62</b>	0.77	0.76	<b>0.66</b>

Thursday, November 07, 2019

CITY: Pasadena

PROJECT:

ADT8 Grand Oaks Ave south of Colorado Blvd.

Prepared by AimTD tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	0	4			12:00	11	35			
0:15	0	7			12:15	17	26			
0:30	0	2			12:30	26	25			
0:45	0	0	0	13	12:45	18	72	41	127	
										199
1:00	0	0			13:00	12	41			
1:15	0	0			13:15	17	35			
1:30	0	0			13:30	12	30			
1:45	2	2	2	2	13:45	16	57	25	131	
										188
2:00	0	0			14:00	18	29			
2:15	0	0			14:15	13	36			
2:30	0	0			14:30	13	37			
2:45	0	0	0	0	14:45	24	68	36	138	
										206
3:00	0	2			15:00	23	41			
3:15	0	0			15:15	17	40			
3:30	0	0			15:30	21	39			
3:45	0	0	0	2	15:45	18	79	41	161	
										240
4:00	0	0			16:00	11	51			
4:15	0	0			16:15	18	35			
4:30	0	3			16:30	15	42			
4:45	0	0	3	6	16:45	16	60	45	173	
										233
5:00	0	2			17:00	11	60			
5:15	0	2			17:15	23	49			
5:30	0	7			17:30	9	30			
5:45	7	7	3	14	17:45	18	61	50	189	
										250
6:00	0	2			18:00	27	43			
6:15	3	12			18:15	15	43			
6:30	2	16			18:30	14	38			
6:45	8	13	11	41	18:45	14	70	37	161	
										231
7:00	7	8			19:00	19	27			
7:15	8	19			19:15	6	24			
7:30	7	22			19:30	10	19			
7:45	19	41	26	75	19:45	7	42	26	96	
										138
8:00	16	34			20:00	8	16			
8:15	21	41			20:15	4	18			
8:30	29	33			20:30	10	22			
8:45	33	99	32	140	20:45	4	26	26	82	
										108
9:00	14	27			21:00	6	16			
9:15	10	15			21:15	3	20			
9:30	4	19			21:30	4	12			
9:45	20	48	23	84	21:45	7	20	17	65	
										85
10:00	17	21			22:00	4	13			
10:15	14	18			22:15	3	14			
10:30	8	19			22:30	0	12			
10:45	9	48	18	76	22:45	3	10	7	46	
										56
11:00	10	20			23:00	4	14			
11:15	9	25			23:15	0	4			
11:30	10	25			23:30	0	5			
11:45	15	44	40	110	23:45	2	6	2	25	
										31
<b>Total Vol.</b>	302	563			<b>865</b>	571	1394			<b>1965</b>

Daily Totals

NB	SB	EB	WB	Combined
873	1957			<b>2830</b>

AM

PM

<b>Split %</b>	34.9%	65.1%	<b>30.6%</b>	29.1%	70.9%	<b>69.4%</b>
<b>Peak Hour</b>	8:00	8:00	<b>8:00</b>	14:45	16:30	<b>16:30</b>
<b>Volume</b>	99	140	<b>239</b>	85	196	<b>261</b>
<b>P.H.F.</b>	0.75	0.85	<b>0.92</b>	0.84	0.82	<b>0.91</b>

Monday 3/23/2020 2:35:45 PM

## Travel Time & Delay Report for El Molino

### Legend:

#### CTT:

Summarized Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Summarized Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Cumulative Summary of runs Northbound from 1\_El Molino/ Bonita

5 Before-type runs, 5 of unverifiable origin, collected  
Thursday 1/30/2020 to Wednesday 2/5/2020, over day  
(s) Wed, Thu, with starting times during 6:57:55 AM to  
8:39:24 AM

	CTT	CTL	CAS	CStops
<b>to 20_El Molino/ Atchison</b>				
Average Before (n=5)	922	20174	15.1	15.6
Std Dev Before (n=5)	119	46	2.0	1.1

### Cumulative Summary of runs Southbound from 20\_El Molino/ Atchison

5 Before-type runs, 5 of unverifiable origin, collected  
Thursday 1/30/2020 to Wednesday 2/5/2020, over day  
(s) Wed, Thu, with starting times during 7:11:55 AM to  
8:57:44 AM

	CTT	CTL	CAS	CStops
<b>to 1_El Molino/ Bonita</b>				
Average Before (n=5)	1132	24388	14.7	22.0
Std Dev Before (n=5)	53	378	0.8	1.6

### Cumulative Summary of all runs, either direction through artery

10 Before-type runs, 10 of unverifiable origin, collected  
Thursday 1/30/2020 to Wednesday 2/5/2020, over day  
(s) Wed, Thu, with starting times during 7:10:41 AM to  
9:15:07 AM

	CTT	CTL	CAS	CStops
<b>to End of Artery</b>				
Average Before (n=10)	1027	22281	14.9	18.8
Std Dev Before (n=10)	141	2236	1.5	3.6
Difference	0	0	0.0	0.0
Std Dev Difference	141	2236	1.5	3.6
% Difference	0%	0%	0.0%	0.0%

Monday 3/23/2020 2:35:45 PM

## Travel Time & Delay Report for El Molino

### Legend:

#### NCT:

Node Crossing Time

#### Dir:

Direction of Travel (NB, SB, EB, or WB)

#### NID:

Node ID

#### CTT:

Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Contents:

[\(imported\) AM NB 1](#), [\(imported\) AM NB 2](#), [\(imported\) AM NB 3](#), [\(imported\) AM NB 4](#), [\(imported\) AM NB 5](#), [Cumulative Reports](#)  
[-] Collapse All

### **[\[-\] Before-type Trip Log "\(imported\) AM NB 1", Other-period, started Thursday 1/30/2020 7:58:25](#)**

**AM** [↑Contents](#)

**Entered artery 8:00:44 am (140 seconds) traveling Northbound  
from 1\_El Molino/ Bonita**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_El Molino/ Pinehurst	8:01:27 am	NB	0	42	1186	19.1	1
to 3_El Molino/ Glenarm	8:02:18 am	NB	0	94	2460	17.9	2
to 4_El Molino/ Alpine	8:02:50 am	NB	0	125	3148	17.1	3
to 5_El Molino/ California	8:04:51 am	NB	0	247	5507	15.2	5
to 6_El Molino/ Del Mar	8:06:31 am	NB	0	346	7171	14.1	6
to 7_El Molino/ Cordova	8:07:21 am	NB	0	397	7970	13.7	7
to 8_El Molino/ Green	8:07:41 am	NB	0	416	8687	14.2	7
to 9_El Molino/ Colorado	8:07:58 am	NB	0	433	9181	14.4	7
to 10_El Molino/ Union	8:08:19 am	NB	0	455	9683	14.5	8
to 11_El Molino/ Walnut	8:08:45 am	NB	0	481	10531	14.9	8
to 12_El Molino/ Corson	8:09:13 am	NB	0	508	11137	14.9	9
to 13_El Molino/ Maple	8:09:29 am	NB	0	524	11561	15.0	9
to 14_El Molino/ Villa	8:10:35 am	NB	0	590	12269	14.2	10
to 15_El Molino/ Orange Grove	8:12:22 am	NB	0	698	13573	13.3	11
to 16_El Molino/ Mountain	8:13:42 am	NB	0	778	14949	13.1	12
to 17_El Molino/ Claremont	8:14:52 am	NB	0	848	16900	13.6	13

to 18_El Molino/ Washington	8:15:30 am	NB	0	885	17655	13.6	14
to 19_El Molino/ Elizabeth	8:16:28 am	NB	0	944	19334	14.0	15
to 20_El Molino/ Atchison	8:17:01 am	NB	0	977	20171	14.1	16

**[\[-\] Before-type Trip Log "\(imported\) AM NB 2", Other-period, started Thursday 1/30/2020 8:38:37](#)**

**AM** [↑Contents](#)

**Entered artery 8:39:24 am (47 seconds) traveling Northbound from 1\_El Molino/ Bonita**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_El Molino/ Pinehurst	8:40:10 am	NB	0	46	1161	17.2	1
to 3_El Molino/ Glenarm	8:41:01 am	NB	0	98	2448	17.1	2
to 4_El Molino/ Alpine	8:41:28 am	NB	0	124	3135	17.2	3
to 5_El Molino/ California	8:43:51 am	NB	0	267	5498	14.0	5
to 6_El Molino/ Del Mar	8:45:08 am	NB	0	345	7158	14.2	6
to 7_El Molino/ Cordova	8:47:04 am	NB	0	460	7959	11.8	7
to 8_El Molino/ Green	8:47:39 am	NB	0	495	8682	12.0	8
to 9_El Molino/ Colorado	8:48:37 am	NB	0	553	9190	11.3	9
to 10_El Molino/ Union	8:49:20 am	NB	0	597	9735	11.1	10
to 11_El Molino/ Walnut	8:50:37 am	NB	0	673	10598	10.7	11
to 12_El Molino/ Corson	8:51:07 am	NB	0	703	11214	10.9	12
to 13_El Molino/ Maple	8:51:19 am	NB	0	715	11622	11.1	12
to 14_El Molino/ Villa	8:51:38 am	NB	0	735	12310	11.4	12
to 15_El Molino/ Orange Grove	8:52:25 am	NB	0	782	13607	11.9	12
to 16_El Molino/ Mountain	8:53:42 am	NB	0	858	14997	11.9	13
to 17_El Molino/ Claremont	8:54:47 am	NB	0	924	16947	12.5	14
to 18_El Molino/ Washington	8:55:22 am	NB	0	958	17698	12.6	15
to 19_El Molino/ Elizabeth	8:56:16 am	NB	0	1013	19378	13.0	16
to 20_El Molino/ Atchison	8:56:51 am	NB	0	1047	20216	13.2	17

**[\[-\] Before-type Trip Log "\(imported\) AM NB 3", Other-period, started Wednesday 2/5/2020](#)**

**6:57:02 AM** [↑Contents](#)

**Entered artery 6:57:55 am (54 seconds) traveling Northbound from 1\_El Molino/ Bonita**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_El Molino/ Pinehurst	6:58:42 am	NB	0	47	1190	17.4	1
to 3_El Molino/ Glenarm	6:59:27 am	NB	0	91	2466	18.4	2
to 4_El Molino/ Alpine	6:59:53 am	NB	0	117	3158	18.3	3
to 5_El Molino/ California	7:01:20 am	NB	0	205	5505	18.3	5
to 6_El Molino/ Del Mar	7:02:10 am	NB	0	254	7161	19.2	5
to 7_El Molino/ Cordova	7:02:44 am	NB	0	289	7958	18.8	6
to 8_El Molino/ Green	7:03:35 am	NB	0	340	8685	17.4	7



to 9_El Molino/ Colorado	7:04:16 am	NB	0	380	9179	16.5	8
to 10_El Molino/ Union	7:04:33 am	NB	0	397	9683	16.6	8
to 11_El Molino/ Walnut	7:05:08 am	NB	0	433	10540	16.6	9
to 12_El Molino/ Corson	7:05:36 am	NB	0	460	11157	16.5	10
to 13_El Molino/ Maple	7:05:47 am	NB	0	471	11565	16.7	10
to 14_El Molino/ Villa	7:06:21 am	NB	0	506	12264	16.5	11
to 15_El Molino/ Orange Grove	7:06:55 am	NB	0	540	13556	17.1	11
to 16_El Molino/ Mountain	7:08:05 am	NB	0	609	14937	16.7	12
to 17_El Molino/ Claremont	7:09:09 am	NB	0	673	16890	17.1	13
to 18_El Molino/ Washington	7:09:42 am	NB	0	707	17642	17.0	13
to 19_El Molino/ Elizabeth	7:10:41 am	NB	0	766	19323	17.2	14
to 20_El Molino/ Atchison	7:11:11 am	NB	0	796	20159	17.3	15

**[\[-\] Before-type Trip Log "\(imported\) AM NB 4", Other-period, started Wednesday 2/5/2020](#)**

**7:30:50 AM** [↑Contents](#)

**Entered artery 7:31:20 am (30 seconds) traveling Northbound  
from 1\_El Molino/ Bonita**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_El Molino/ Pinehurst	7:32:04 am	NB	0	44	1171	18.2	1
to 3_El Molino/ Glenarm	7:32:51 am	NB	0	91	2437	18.2	2
to 4_El Molino/ Alpine	7:33:19 am	NB	0	119	3132	17.9	3
to 5_El Molino/California	7:34:43 am	NB	0	203	5481	18.4	5
to 6_El Molino/ Del Mar	7:35:31 am	NB	0	251	7137	19.4	5
to 7_El Molino/ Cordova	7:35:52 am	NB	0	273	7924	19.8	5
to 8_El Molino/ Green	7:36:40 am	NB	0	320	8660	18.5	6
to 9_El Molino/ Colorado	7:37:05 am	NB	0	345	9154	18.1	7
to 10_El Molino/ Union	7:37:23 am	NB	0	363	9660	18.1	7
to 11_El Molino/ Walnut	7:38:00 am	NB	0	400	10514	17.9	8
to 12_El Molino/ Corson	7:38:21 am	NB	0	422	11126	18.0	8
to 13_El Molino/ Maple	7:38:32 am	NB	0	432	11534	18.2	8
to 14_El Molino/ Villa	7:39:21 am	NB	0	481	12222	17.3	9
to 15_El Molino/ Orange Grove	7:40:10 am	NB	0	530	13524	17.4	10
to 16_El Molino/ Mountain	7:41:31 am	NB	0	611	14903	16.6	11
to 17_El Molino/ Claremont	7:42:33 am	NB	0	673	16853	17.1	12
to 18_El Molino/ Washington	7:43:07 am	NB	0	708	17603	17.0	12
to 19_El Molino/ Elizabeth	7:44:00 am	NB	0	760	19281	17.3	13
to 20_El Molino/ Atchison	7:44:33 am	NB	0	793	20106	17.3	14

**[\[-\] Before-type Trip Log "\(imported\) AM NB 5", Other-period, started Wednesday 2/5/2020](#)**

**8:05:54 AM** [↑Contents](#)

**Entered artery 8:06:26 am (33 seconds) traveling Northbound  
from 1\_El Molino/ Bonita**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_El Molino/ Pinehurst	8:07:07 am	NB	0	41	1182	19.8	0
to 3_El Molino/ Glenarm	8:07:50 am	NB	0	84	2457	20.0	1
to 4_El Molino/ Alpine	8:08:17 am	NB	0	110	3147	19.5	2
to 5_El Molino/California	8:10:23 am	NB	0	237	5495	15.8	4
to 6_El Molino/ Del Mar	8:11:41 am	NB	0	314	7154	15.5	5
to 7_El Molino/ Cordova	8:12:04 am	NB	0	337	7942	16.1	5
to 8_El Molino/ Green	8:12:42 am	NB	0	376	8663	15.7	6
to 9_El Molino/ Colorado	8:13:27 am	NB	0	420	9170	14.9	7
to 10_El Molino/ Union	8:14:21 am	NB	0	475	9706	13.9	8
to 11_El Molino/ Walnut	8:15:23 am	NB	0	536	10531	13.4	9
to 12_El Molino/ Corson	8:16:44 am	NB	0	617	11201	12.4	11
to 13_El Molino/ Maple	8:16:55 am	NB	0	628	11613	12.6	11
to 14_El Molino/ Villa	8:17:22 am	NB	0	656	12304	12.8	12
to 15_El Molino/ Orange Grove	8:18:50 am	NB	0	743	13608	12.5	13
to 16_El Molino/ Mountain	8:20:02 am	NB	0	815	15016	12.6	14
to 17_El Molino/ Claremont	8:21:10 am	NB	0	884	16975	13.1	15
to 18_El Molino/ Washington	8:21:46 am	NB	0	919	17732	13.2	15
to 19_El Molino/ Elizabeth	8:22:38 am	NB	0	972	19409	13.6	16
to 20_El Molino/ Atchison	8:23:03 am	NB	0	996	20217	13.8	16

## Cumulative Reports

**[\[-\] Before-type Trip Log "\(imported\) AM NB 1", Other-period, started Thursday 1/30/2020 7:58:25 AM](#)**

**Entered artery 8:00:44 am (140 seconds) traveling  
Northbound from 1\_El Molino/ Bonita**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 20_El Molino/ Atchison	8:17:01 am	NB	977	20171	14.1	16

**[\[-\] Before-type Trip Log "\(imported\) AM NB 2", Other-period, started Thursday 1/30/2020 8:38:37 AM](#)**

**Entered artery 8:39:24 am (47 seconds) traveling  
Northbound from 1\_El Molino/ Bonita**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 20_El Molino/ Atchison	8:56:51 am	NB	1047	20216	13.2	17

**[\[-\] Before-type Trip Log "\(imported\) AM NB 3", Other-period, started Wednesday 2/5/2020 6:57:02 AM](#)** [↑Contents](#)

**Entered artery 6:57:55 am (54 seconds) traveling  
Northbound from 1\_El Molino/ Bonita**

<b>Node</b>	<b><a href="#">NCT</a></b>	<b><a href="#">Dir</a></b>	<b><a href="#">CTT</a></b>	<b><a href="#">CTL</a></b>	<b><a href="#">CAS</a></b>	<b><a href="#">CStops</a></b>
to 20_El Molino/ Atchison	7:11:11 am	NB	796	20159	17.3	15

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**[\[-\] Before-type Trip Log "\(imported\) AM NB 4", Other-period, started Wednesday 2/5/2020 7:30:50 AM](#)** [↑Contents](#)

**Entered artery 7:31:20 am (30 seconds) traveling  
Northbound from 1\_El Molino/ Bonita**

<b>Node</b>	<b><a href="#">NCT</a></b>	<b><a href="#">Dir</a></b>	<b><a href="#">CTT</a></b>	<b><a href="#">CTL</a></b>	<b><a href="#">CAS</a></b>	<b><a href="#">CStops</a></b>
to 20_El Molino/ Atchison	7:44:33 am	NB	793	20106	17.3	14

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**[\[-\] Before-type Trip Log "\(imported\) AM NB 5", Other-period, started Wednesday 2/5/2020 8:05:54 AM](#)** [↑Contents](#)

**Entered artery 8:06:26 am (33 seconds) traveling  
Northbound from 1\_El Molino/ Bonita**

<b>Node</b>	<b><a href="#">NCT</a></b>	<b><a href="#">Dir</a></b>	<b><a href="#">CTT</a></b>	<b><a href="#">CTL</a></b>	<b><a href="#">CAS</a></b>	<b><a href="#">CStops</a></b>
to 20_El Molino/ Atchison	8:23:03 am	NB	996	20217	13.8	16

Monday 3/23/2020 2:35:45 PM

## Travel Time & Delay Report for El Molino

### Legend:

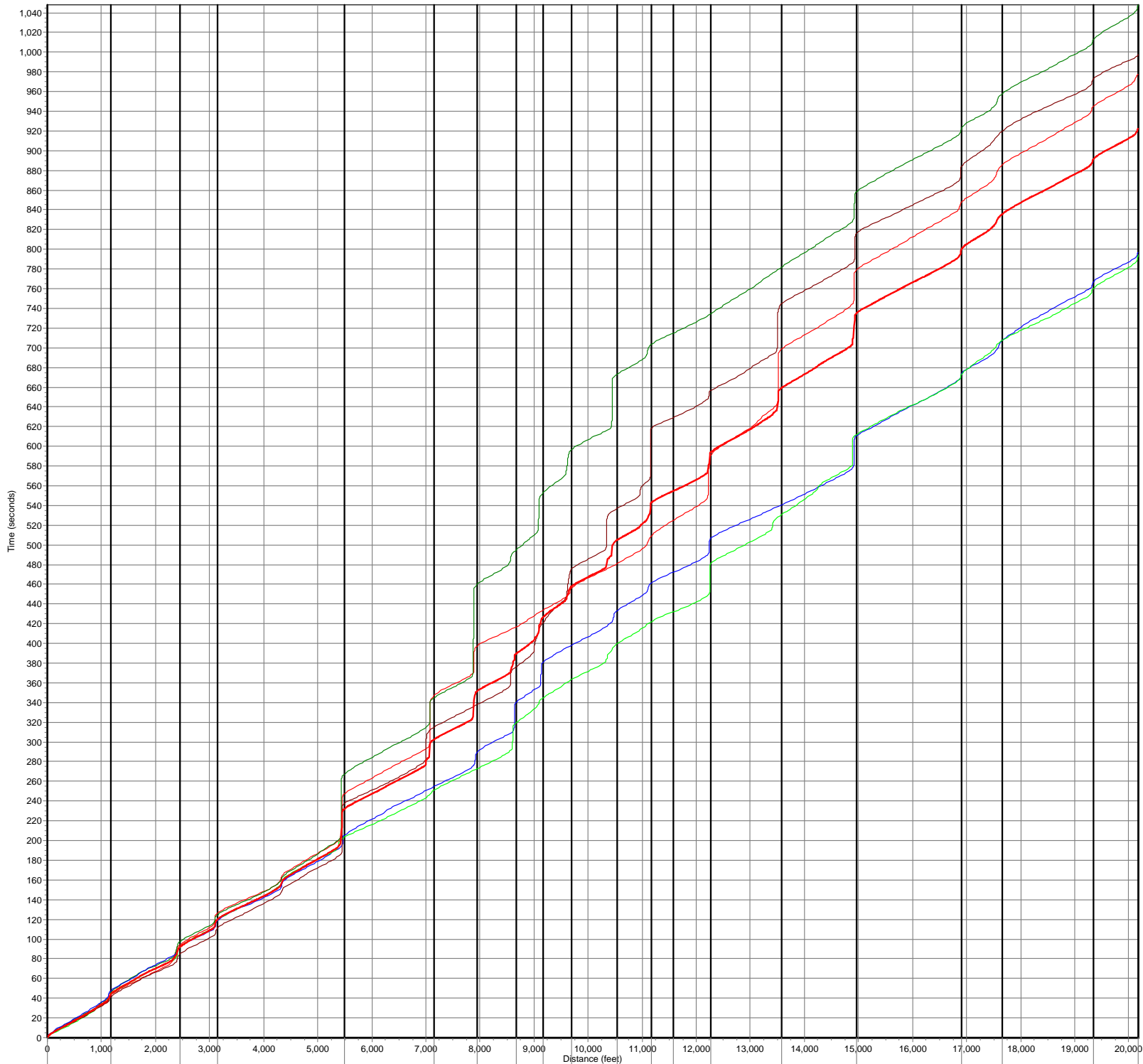
- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Northbound from 1\_El Molino/ Bonita

5 Before-type runs, 5 of unverifiable origin, collected Thursday 1/30/2020 to Wednesday 2/5/2020, over day(s) Wed, Thu, with starting times during 6:57:55 AM to 8:39:24 AM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 2_El Molino/ Pinehurst</b>						
Average Before (n=5)	NB	0	44	1178	18.4	0.8
Std Dev Before (n=5)	NB	0	3	12	1.1	0.4
<b>to 3_El Molino/ Glenarm</b>						
Average Before (n=5)	NB	0	92	2453	18.3	1.8
Std Dev Before (n=5)	NB	0	5	11	1.0	0.4
<b>to 4_El Molino/ Alpine</b>						
Average Before (n=5)	NB	0	119	3144	18.0	2.8
Std Dev Before (n=5)	NB	0	6	10	1.0	0.4
<b>to 5_El Molino/California</b>						
Average Before (n=5)	NB	0	232	5497	16.4	4.8
Std Dev Before (n=5)	NB	0	28	10	1.9	0.4
<b>to 6_El Molino/ Del Mar</b>						
Average Before (n=5)	NB	0	302	7156	16.5	5.4
Std Dev Before (n=5)	NB	0	47	12	2.6	0.5
<b>to 7_El Molino/ Cordova</b>						
Average Before (n=5)	NB	0	351	7951	16.0	6.0
Std Dev Before (n=5)	NB	0	78	18	3.4	1.0
<b>to 8_El Molino/ Green</b>						
Average Before (n=5)	NB	0	389	8676	15.6	6.8
Std Dev Before (n=5)	NB	0	70	13	2.6	0.8

<b>to 9_EI Molino/ Colorado</b>						
Average Before (n=5)	NB	0	426	9175	15.0	7.6
Std Dev Before (n=5)	NB	0	79	13	2.5	0.9
<b>to 10_EI Molino/ Union</b>						
Average Before (n=5)	NB	0	457	9693	14.9	8.2
Std Dev Before (n=5)	NB	0	90	28	2.7	1.1
<b>to 11_EI Molino/ Walnut</b>						
Average Before (n=5)	NB	0	505	10543	14.7	9.0
Std Dev Before (n=5)	NB	0	107	32	2.8	1.2
<b>to 12_EI Molino/ Corson</b>						
Average Before (n=5)	NB	0	542	11167	14.5	10.0
Std Dev Before (n=5)	NB	0	116	39	2.9	1.6
<b>to 13_EI Molino/ Maple</b>						
Average Before (n=5)	NB	0	554	11579	14.7	10.0
Std Dev Before (n=5)	NB	0	116	37	2.9	1.6
<b>to 14_EI Molino/ Villa</b>						
Average Before (n=5)	NB	0	594	12274	14.4	10.8
Std Dev Before (n=5)	NB	0	105	36	2.5	1.3
<b>to 15_EI Molino/ Orange Grove</b>						
Average Before (n=5)	NB	0	659	13574	14.4	11.4
Std Dev Before (n=5)	NB	0	117	36	2.6	1.1
<b>to 16_EI Molino/ Mountain</b>						
Average Before (n=5)	NB	0	734	14960	14.2	12.4
Std Dev Before (n=5)	NB	0	117	46	2.3	1.1
<b>to 17_EI Molino/ Claremont</b>						
Average Before (n=5)	NB	0	800	16913	14.7	13.4
Std Dev Before (n=5)	NB	0	119	48	2.2	1.1
<b>to 18_EI Molino/ Washington</b>						
Average Before (n=5)	NB	0	835	17666	14.7	13.8
Std Dev Before (n=5)	NB	0	120	50	2.2	1.3
<b>to 19_EI Molino/ Elizabeth</b>						
Average Before (n=5)	NB	0	891	19345	15.0	14.8
Std Dev Before (n=5)	NB	0	119	50	2.1	1.3
<b>to 20_EI Molino/ Atchison</b>						
Average Before (n=5)	NB	0	922	20174	15.1	15.6
Std Dev Before (n=5)	NB	0	119	46	2.0	1.1



- (imported) AM NB 1 Run 2 started 8:00 AM 1/30/2020
- (imported) AM NB 2 Run 1 started 8:39 AM 1/30/2020
- (imported) AM NB 3 Run 1 started 6:57 AM 2/5/2020
- (imported) AM NB 4 Run 1 started 7:31 AM 2/5/2020
- (imported) AM NB 5 Run 1 started 8:06 AM 2/5/2020
- Average Instantaneous Time

1\_El Molino/ Bonita 2\_El Molino/ Pinehurst 3\_El Molino/ Glenarrn 4\_El Molino/ Alpine 5\_El Molino/ California 6\_El Molino/ Del Mar 7\_El Molino/ Cord 8\_El Molino/ G10 9\_El Molino/ Colorac 10\_El Molino/ Union 11\_El Molino/ W13 12\_El Molino/ Maple 13\_El Molino/ Orange Grove 14\_El Molino/ Villa 15\_El Molino/ Mountain 16\_El Molino/ Claremont 17\_El Molino/ Washington 18\_El Molino/ Elizabeth 19\_El Molino/ Atchison 20\_El Molino/ Atchison

Monday 3/23/2020 2:35:45 PM

## Travel Time & Delay Report for El Molino

### Legend:

#### NCT:

Node Crossing Time

#### Dir:

Direction of Travel (NB, SB, EB, or WB)

#### NID:

Node ID

#### CTT:

Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Contents:

[\(imported\) AM NB 1](#), [\(imported\) AM SB 1](#), [\(imported\) AM SB 2](#), [\(imported\) AM SB 3](#), [\(imported\) AM SB 4](#), [\(imported\) AM SB 5](#), [Cumulative Reports](#)

[\[-\] Collapse All](#)

### [\[-\] Before-type Trip Log "\(imported\) AM NB 1", Other-period, started Thursday 1/30/2020 7:58:25 AM](#) [↑Contents](#)

**Entered artery 7:58:30 am (5 seconds) traveling Southbound  
from 2\_EI Molino/ Pinehurst**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 1_EI Molino/ Bonita	7:59:15 am	SB	0	45	1171	17.8	1

### [\[-\] Before-type Trip Log "\(imported\) AM SB 1", Other-period, started Thursday 1/30/2020 8:17:08 AM](#) [↑Contents](#)

**Entered artery 8:17:58 am (50 seconds) traveling Southbound  
from 20\_EI Molino/ Atchison**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 19_EI Molino/ Elizabeth	8:18:30 am	SB	0	32	836	17.7	1
to 18_EI Molino/ Washington	8:19:47 am	SB	0	109	2475	15.5	2
to 17_EI Molino/ Claremont	8:22:51 am	SB	0	294	5965	13.9	5
to 16_EI Molino/ Mountain	8:24:23 am	SB	0	386	7915	14.0	6
to 15_EI Molino/ Orange Grove	8:25:43 am	SB	0	465	9297	13.6	7
to 14_EI Molino/ Villa	8:26:26 am	SB	0	509	10591	14.2	7
to 13_EI Molino/ Maple	8:26:59 am	SB	0	541	11291	14.2	8

to 12_El Molino/ Corson	8:27:37 am	SB	0	580	11694	13.8	9
to 11_El Molino/ Walnut	8:29:40 am	SB	0	702	13629	13.2	11
to 10_El Molino/ Union	8:30:25 am	SB	0	747	14486	13.2	12
to 9_El Molino/ Colorado	8:31:07 am	SB	0	789	15013	13.0	13
to 8_El Molino/ Green	8:32:33 am	SB	0	875	15531	12.1	14
to 7_El Molino/ Cordova	8:33:02 am	SB	0	904	16255	12.3	15
to 6_El Molino/ Del Mar	8:33:26 am	SB	0	929	17044	12.5	15
to 5_El Molino/California	8:34:51 am	SB	0	1014	18700	12.6	16
to 4_El Molino/ Alpine	8:36:18 am	SB	0	1100	21054	13.1	18
to 3_El Molino/ Glenarm	8:36:47 am	SB	0	1129	21743	13.1	19
to 2_El Molino/ Pinehurst	8:37:28 am	SB	0	1170	23016	13.4	20
to 1_El Molino/ Bonita	8:38:09 am	SB	0	1211	24177	13.6	21

**[\[-\] Before-type Trip Log "\(imported\) AM SB 2", Other-period, started Thursday 1/30/2020 8:57:06](#)**

**AM** [↑Contents](#)

**Entered artery 8:57:44 am (38 seconds) traveling Southbound  
from 20\_El Molino/ Atchison**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>NID</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 19_El Molino/ Elizabeth	8:58:15 am	SB	0	31	837	18.2	1
to 18_El Molino/ Washington	8:59:37 am	SB	0	113	2490	15.1	2
to 17_El Molino/ Claremont	9:01:47 am	SB	0	243	5992	16.8	4
to 16_El Molino/ Mountain	9:03:03 am	SB	0	319	7952	17.0	5
to 15_El Molino/ Orange Grove	9:04:10 am	SB	0	386	9305	16.4	6
to 14_El Molino/ Villa	9:05:59 am	SB	0	495	11497	15.8	10
to 13_El Molino/ Maple	9:06:31 am	SB	0	527	12197	15.8	11
to 12_El Molino/ Corson	9:07:08 am	SB	0	564	12595	15.2	12
to 11_El Molino/ Walnut	9:09:16 am	SB	0	692	14558	14.3	13
to 10_El Molino/ Union	9:09:42 am	SB	0	718	15405	14.6	13
to 9_El Molino/ Colorado	9:10:04 am	SB	0	740	15912	14.7	14
to 8_El Molino/ Green	9:10:38 am	SB	0	775	16412	14.4	15
to 7_El Molino/ Cordova	9:11:30 am	SB	0	827	17140	14.1	16
to 6_El Molino/ Del Mar	9:11:50 am	SB	0	846	17927	14.4	16
to 5_El Molino/California	9:12:29 am	SB	0	886	19582	15.1	16
to 4_El Molino/ Alpine	9:13:47 am	SB	0	963	21933	15.5	18
to 3_El Molino/ Glenarm	9:14:19 am	SB	0	995	22616	15.5	19
to 2_El Molino/ Pinehurst	9:15:07 am	SB	0	1044	23901	15.6	21
to 1_El Molino/ Bonita	9:15:48 am	SB	0	1085	25063	15.8	22

**[\[-\] Before-type Trip Log "\(imported\) AM SB 3", Other-period, started Wednesday 2/5/2020](#)**

**7:11:27 AM** [↑Contents](#)

**Entered artery 7:11:55 am (28 seconds) traveling Southbound**



**from 20\_El Molino/ Atchison**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>NID</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 19_El Molino/ Elizabeth	7:12:24 am	SB	0	30	837	19.2	1
to 18_El Molino/ Washington	7:13:21 am	SB	0	86	2516	19.9	2
to 17_El Molino/ Claremont	7:15:35 am	SB	0	221	6034	18.6	4
to 16_El Molino/ Mountain	7:17:23 am	SB	0	328	7990	16.6	5
to 15_El Molino/ Orange Grove	7:18:40 am	SB	0	405	9375	15.8	6
to 14_El Molino/ Villa	7:19:22 am	SB	0	447	10669	16.3	7
to 13_El Molino/ Maple	7:19:51 am	SB	0	476	11360	16.3	8
to 12_El Molino/ Corson	7:20:29 am	SB	0	515	11760	15.6	9
to 11_El Molino/ Walnut	7:22:36 am	SB	0	641	13694	14.6	11
to 10_El Molino/ Union	7:23:20 am	SB	0	685	14554	14.5	12
to 9_El Molino/ Colorado	7:24:06 am	SB	0	732	15068	14.0	13
to 8_El Molino/ Green	7:24:36 am	SB	0	762	15562	13.9	14
to 7_El Molino/ Cordova	7:24:57 am	SB	0	783	16283	14.2	14
to 6_El Molino/ Del Mar	7:26:09 am	SB	0	854	17089	13.6	15
to 5_El Molino/California	7:26:58 am	SB	0	904	18745	14.1	15
to 4_El Molino/ Alpine	7:28:20 am	SB	0	985	21097	14.6	17
to 3_El Molino/ Glenarm	7:28:44 am	SB	0	1010	21776	14.7	18
to 2_El Molino/ Pinehurst	7:29:27 am	SB	0	1053	23065	14.9	19
to 1_El Molino/ Bonita	7:30:06 am	SB	0	1091	24225	15.1	20

**[\[-\] Before-type Trip Log "\(imported\) AM SB 4", Other-period, started Wednesday 2/5/2020 7:45:10 AM](#)** [↑Contents](#)

**Entered artery 7:45:46 am (36 seconds) traveling Southbound from 20\_El Molino/ Atchison**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>NID</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 19_El Molino/ Elizabeth	7:46:14 am	SB	0	28	844	20.3	1
to 18_El Molino/ Washington	7:47:21 am	SB	0	95	2517	18.0	2
to 17_El Molino/ Claremont	7:50:32 am	SB	0	286	6028	14.3	5
to 16_El Molino/ Mountain	7:52:08 am	SB	0	382	7978	14.2	6
to 15_El Molino/ Orange Grove	7:53:23 am	SB	0	457	9361	14.0	7
to 14_El Molino/ Villa	7:54:25 am	SB	0	519	10655	14.0	8
to 13_El Molino/ Maple	7:55:00 am	SB	0	555	11344	13.9	9
to 12_El Molino/ Corson	7:55:36 am	SB	0	590	11728	13.6	10
to 11_El Molino/ Walnut	7:57:39 am	SB	0	713	13701	13.1	13
to 10_El Molino/ Union	7:58:28 am	SB	0	763	14550	13.0	14
to 9_El Molino/ Colorado	7:59:10 am	SB	0	804	15069	12.8	15
to 8_El Molino/ Green	7:59:39 am	SB	0	834	15572	12.7	16
to 7_El Molino/ Cordova	8:00:17 am	SB	0	871	16306	12.8	17
to 6_El Molino/ Del Mar	8:00:54 am	SB	0	908	17101	12.8	18

to 5_El Molino/California	8:01:45 am	SB	0	959	18757	13.3	18
to 4_El Molino/ Alpine	8:03:10 am	SB	0	1044	21106	13.8	20
to 3_El Molino/ Glenarm	8:03:42 am	SB	0	1076	21789	13.8	21
to 2_El Molino/ Pinehurst	8:04:24 am	SB	0	1118	23078	14.1	22
to 1_El Molino/ Bonita	8:05:04 am	SB	0	1158	24249	14.3	23

**[\[-\] Before-type Trip Log "\(imported\) AM SB 5", Other-period, started Wednesday 2/5/2020 8:23:22 AM](#)** [↑Contents](#)

**Entered artery 8:23:48 am (27 seconds) traveling Southbound from 20\_El Molino/ Atchison**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 19_El Molino/ Elizabeth	8:24:17 am	SB	0	29	836	19.8	1
to 18_El Molino/ Washington	8:25:19 am	SB	0	91	2506	18.8	2
to 17_El Molino/ Claremont	8:28:12 am	SB	0	264	5996	15.5	6
to 16_El Molino/ Mountain	8:29:43 am	SB	0	355	7962	15.3	7
to 15_El Molino/ Orange Grove	8:30:43 am	SB	0	415	9340	15.3	8
to 14_El Molino/ Villa	8:31:30 am	SB	0	462	10637	15.7	9
to 13_El Molino/ Maple	8:32:14 am	SB	0	505	11330	15.3	10
to 12_El Molino/ Corson	8:32:52 am	SB	0	543	11713	14.7	11
to 11_El Molino/ Walnut	8:34:55 am	SB	0	667	13689	14.0	14
to 10_El Molino/ Union	8:35:28 am	SB	0	700	14539	14.2	15
to 9_El Molino/ Colorado	8:36:34 am	SB	0	765	15068	13.4	17
to 8_El Molino/ Green	8:36:54 am	SB	0	785	15561	13.5	17
to 7_El Molino/ Cordova	8:37:19 am	SB	0	810	16281	13.7	17
to 6_El Molino/ Del Mar	8:38:16 am	SB	0	867	17074	13.4	18
to 5_El Molino/California	8:39:15 am	SB	0	927	18735	13.8	19
to 4_El Molino/ Alpine	8:40:29 am	SB	0	1001	21086	14.4	21
to 3_El Molino/ Glenarm	8:40:59 am	SB	0	1031	21776	14.4	22
to 2_El Molino/ Pinehurst	8:41:41 am	SB	0	1073	23056	14.7	23
to 1_El Molino/ Bonita	8:42:22 am	SB	0	1114	24229	14.8	24

## Cumulative Reports

**[\[-\] Before-type Trip Log "\(imported\) AM NB 1", Other-period, started Thursday 1/30/2020 7:58:25 AM](#)** [↑Contents](#)

**Entered artery 7:58:30 am (5 seconds) traveling Southbound from 2\_El Molino/ Pinehurst**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_El Molino/ Bonita	7:59:15 am	SB	45	1171	17.8	1

**[\[-\] Before-type Trip Log "\(imported\) AM SB 1", Other-period, started Thursday 1/30/2020 8:17:08 AM](#)** [↑Contents](#)

**Entered artery 8:17:58 am (50 seconds) traveling Southbound from 20\_El Molino/ Atchison**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_El Molino/ Bonita	8:38:09 am	SB	1211	24177	13.6	21

**[\[-\] Before-type Trip Log "\(imported\) AM SB 2", Other-period, started Thursday 1/30/2020 8:57:06 AM](#)** [↑Contents](#)

**Entered artery 8:57:44 am (38 seconds) traveling Southbound from 20\_El Molino/ Atchison**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_El Molino/ Bonita	9:15:48 am	SB	1085	25063	15.8	22

**[\[-\] Before-type Trip Log "\(imported\) AM SB 3", Other-period, started Wednesday 2/5/2020 7:11:27 AM](#)** [↑Contents](#)

**Entered artery 7:11:55 am (28 seconds) traveling Southbound from 20\_El Molino/ Atchison**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_El Molino/ Bonita	7:30:06 am	SB	1091	24225	15.1	20

**[\[-\] Before-type Trip Log "\(imported\) AM SB 4", Other-period, started Wednesday 2/5/2020 7:45:10 AM](#)** [↑Contents](#)

**Entered artery 7:45:46 am (36 seconds) traveling Southbound from 20\_El Molino/ Atchison**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_El Molino/ Bonita	8:05:04 am	SB	1158	24249	14.3	23

**[\[-\] Before-type Trip Log "\(imported\) AM SB 5", Other-period, started Wednesday 2/5/2020 8:23:22 AM](#)** [↑Contents](#)

**Entered artery 8:23:48 am (27 seconds) traveling Southbound from 20\_El Molino/ Atchison**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_El Molino/ Bonita	8:42:22 am	SB	1114	24229	14.8	24

Monday 3/23/2020 2:35:45 PM

## Travel Time & Delay Report for El Molino

### Legend:

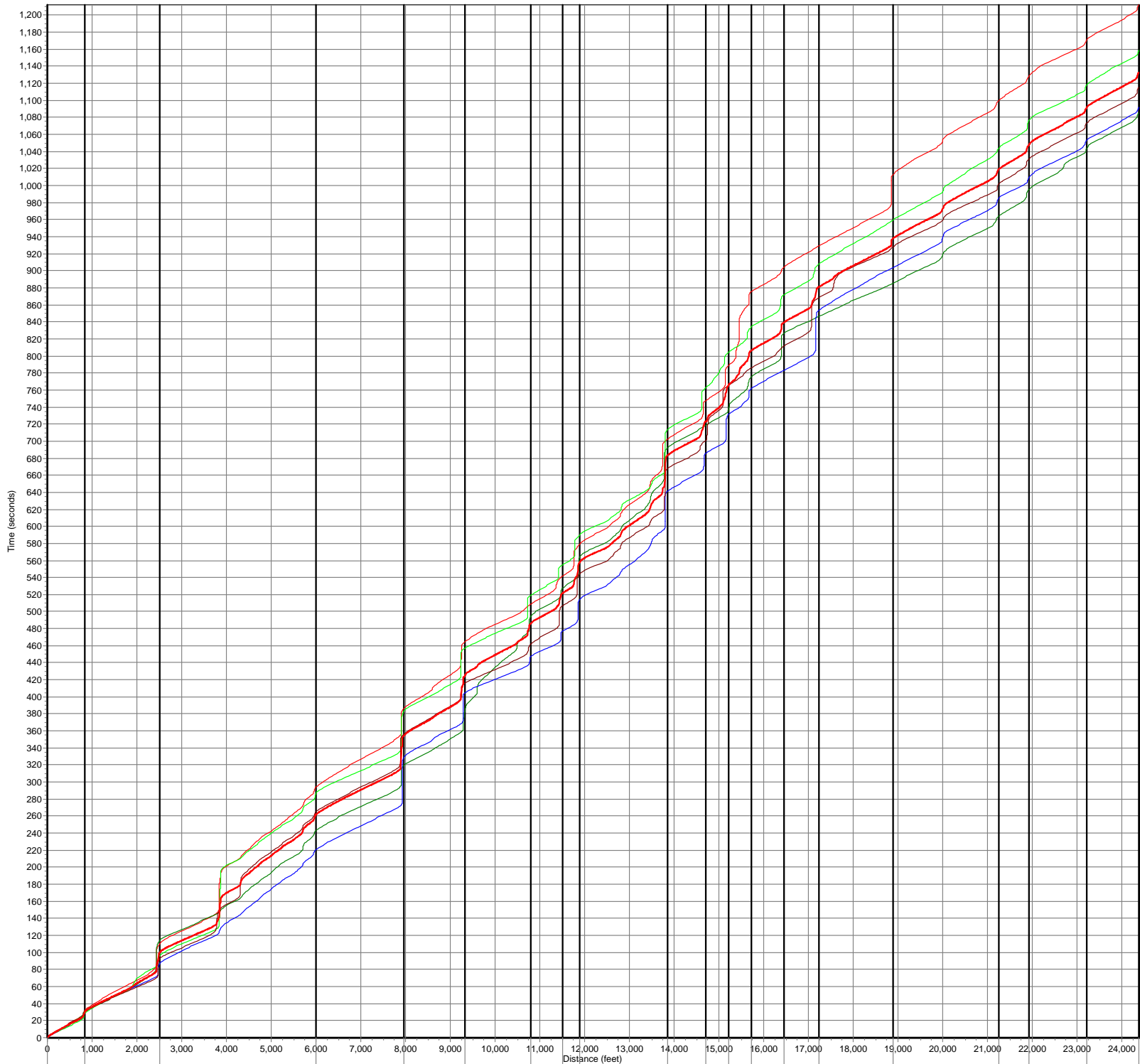
- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Southbound from 20\_El Molino/ Atchison

5 Before-type runs, 5 of unverifiable origin, collected Thursday 1/30/2020 to Wednesday 2/5/2020, over day(s) Wed, Thu, with starting times during 7:11:55 AM to 8:57:44 AM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 19_El Molino/ Elizabeth</b>						
Average Before (n=5)	SB	0	30	838	19.1	1.0
Std Dev Before (n=5)	SB	0	2	3	1.1	0.0
<b>to 18_El Molino/ Washington</b>						
Average Before (n=5)	SB	0	99	2501	17.5	2.0
Std Dev Before (n=5)	SB	0	12	18	2.1	0.0
<b>to 17_El Molino/ Claremont</b>						
Average Before (n=5)	SB	0	262	6003	15.8	4.8
Std Dev Before (n=5)	SB	0	30	28	1.9	0.8
<b>to 16_El Molino/ Mountain</b>						
Average Before (n=5)	SB	0	354	7959	15.4	5.8
Std Dev Before (n=5)	SB	0	30	29	1.4	0.8
<b>to 15_El Molino/ Orange Grove</b>						
Average Before (n=5)	SB	0	426	9336	15.0	6.8
Std Dev Before (n=5)	SB	0	34	34	1.2	0.8
<b>to 14_El Molino/ Villa</b>						
Average Before (n=5)	SB	0	486	10810	15.2	8.2
Std Dev Before (n=5)	SB	0	31	385	1.0	1.3
<b>to 13_El Molino/ Maple</b>						
Average Before (n=5)	SB	0	521	11505	15.1	9.2
Std Dev Before (n=5)	SB	0	31	388	1.0	1.3

<b>to 12_El Molino/ Corson</b>						
Average Before (n=5)	SB	0	558	11898	14.6	10.2
Std Dev Before (n=5)	SB	0	30	390	0.9	1.3
<b>to 11_El Molino/ Walnut</b>						
Average Before (n=5)	SB	0	683	13854	13.8	12.4
Std Dev Before (n=5)	SB	0	29	394	0.7	1.3
<b>to 10_El Molino/ Union</b>						
Average Before (n=5)	SB	0	723	14707	13.9	13.2
Std Dev Before (n=5)	SB	0	32	391	0.7	1.3
<b>to 9_El Molino/ Colorado</b>						
Average Before (n=5)	SB	0	766	15226	13.6	14.4
Std Dev Before (n=5)	SB	0	31	384	0.8	1.7
<b>to 8_El Molino/ Green</b>						
Average Before (n=5)	SB	0	806	15728	13.3	15.2
Std Dev Before (n=5)	SB	0	47	383	0.9	1.3
<b>to 7_El Molino/ Cordova</b>						
Average Before (n=5)	SB	0	839	16453	13.4	15.8
Std Dev Before (n=5)	SB	0	48	384	0.9	1.3
<b>to 6_El Molino/ Del Mar</b>						
Average Before (n=5)	SB	0	881	17247	13.4	16.4
Std Dev Before (n=5)	SB	0	36	381	0.7	1.5
<b>to 5_El Molino/California</b>						
Average Before (n=5)	SB	0	938	18904	13.8	16.8
Std Dev Before (n=5)	SB	0	51	380	0.9	1.6
<b>to 4_El Molino/ Alpine</b>						
Average Before (n=5)	SB	0	1019	21255	14.3	18.8
Std Dev Before (n=5)	SB	0	54	379	0.9	1.6
<b>to 3_El Molino/ Glenarm</b>						
Average Before (n=5)	SB	0	1048	21940	14.3	19.8
Std Dev Before (n=5)	SB	0	55	378	0.9	1.6
<b>to 2_El Molino/ Pinehurst</b>						
Average Before (n=5)	SB	0	1091	23223	14.5	21.0
Std Dev Before (n=5)	SB	0	52	380	0.8	1.6
<b>to 1_El Molino/ Bonita</b>						
Average Before (n=5)	SB	0	1132	24388	14.7	22.0
Std Dev Before (n=5)	SB	0	53	378	0.8	1.6



- (imported) AM SB 1 Run 1 started 8:17 AM 1/30/2020
- (imported) AM SB 2 Run 1 started 8:57 AM 1/30/2020
- (imported) AM SB 3 Run 1 started 7:11 AM 2/5/2020
- (imported) AM SB 4 Run 1 started 7:45 AM 2/5/2020
- (imported) AM SB 5 Run 1 started 8:23 AM 2/5/2020
- Average Instantaneous Time

20\_El Molino/ Atchison 18\_El Molino/ Washington 16\_El Molino/ Mountain 14\_El Molino/ Corson 10\_El Molino/ Gre6\_El Molino/ Del Mar 4\_El Molino/ Alpine 2\_El Molino/ Pinehurst  
19\_El Molino/ Elizabeth 17\_El Molino/ Claremont 15\_El Molino/ Orange Grove 13\_El Molino/ Maple 11\_El Molino/ W9\_El Molino/ C7\_El Molino/ Cordova 5\_El Molino/ California 3\_El Molino/ Glenarm 1\_El Molino/ Bonita

Monday 3/23/2020 2:40:43 PM

## Travel Time & Delay Report for El Molino

### Legend:

#### CTT:

Summarized Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Summarized Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Cumulative Summary of runs Northbound from 1\_EI Molino/ Bonita

5 Before-type runs, 5 of unverifiable origin, collected  
Thursday 1/30/2020 to Thursday 2/6/2020, over day(s)  
Thu, with starting times during 4:04:01 PM to 6:00:34  
PM

	CTI	CTL	CAS	CStops
<b>to 20_EI Molino/ Atchison</b>				
Average Before (n=5)	869	20061	15.8	16.0
Std Dev Before (n=5)	71	31	1.3	1.2

### Cumulative Summary of runs Southbound from 20\_EI Molino/ Atchison

5 Before-type runs, 5 of unverifiable origin, collected  
Thursday 1/30/2020 to Thursday 2/6/2020, over day(s)  
Thu, with starting times during 3:59:55 PM to 5:39:20  
PM

	CTI	CTL	CAS	CStops
<b>to 1_EI Molino/ Bonita</b>				
Average Before (n=5)	1015	22750	15.4	16.0
Std Dev Before (n=5)	82	11	1.3	3.1

### Cumulative Summary of all runs, either direction through artery

10 Before-type runs, 10 of unverifiable origin, collected  
Thursday 1/30/2020 to Thursday 2/6/2020, over day(s)  
Thu, with starting times during 4:14:39 PM to 6:14:01  
PM

	CTI	CTL	CAS	CStops
<b>to End of Artery</b>				
Average Before (n=10)	942	21405	15.6	16.0
Std Dev Before (n=10)	105	1417	1.2	2.2
Difference	0	0	0.0	0.0
Std Dev Difference	105	1417	1.2	2.2
% Difference	0%	0%	0.0%	0.0%

Monday 3/23/2020 2:40:43 PM

## Travel Time & Delay Report for El Molino

### Legend:

#### NCT:

Node Crossing Time

#### Dir:

Direction of Travel (NB, SB, EB, or WB)

#### NID:

Node ID

#### CTT:

Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Contents:

[\(imported\) PM NB 1](#), [\(imported\) PM NB 2](#), [\(imported\) PM NB 3](#), [\(imported\) PM NB 4](#), [\(imported\) PM NB 5](#), [Cumulative Reports](#)  
[-] Collapse All

### **[\[-\] Before-type Trip Log "\(imported\) PM NB 1", Other-period, started Thursday 1/30/2020 4:16:14](#)**

**[PM](#)** [↑Contents](#)

**Entered artery 4:16:41 pm (28 seconds) traveling Northbound  
from 1\_El Molino/ Bonita**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_El Molino/ Pinehurst	4:17:21 pm	NB	0	40	1166	20.0	1
to 3_El Molino/ Glenarm	4:18:01 pm	NB	0	80	2432	20.7	2
to 4_El Molino/ Alpine	4:18:24 pm	NB	0	102	3114	20.8	2
to 5_El Molino/ California	4:19:37 pm	NB	0	175	5455	21.2	3
to 6_El Molino/ Del Mar	4:20:26 pm	NB	0	224	7108	21.6	3
to 7_El Molino/ Cordova	4:21:12 pm	NB	0	271	7894	19.9	4
to 8_El Molino/ Green	4:21:56 pm	NB	0	314	8614	18.7	5
to 9_El Molino/ Colorado	4:22:16 pm	NB	0	335	9105	18.5	5
to 10_El Molino/ Union	4:22:31 pm	NB	0	349	9607	18.8	5
to 11_El Molino/ Walnut	4:23:02 pm	NB	0	381	10452	18.7	5
to 12_El Molino/ Corson	4:24:08 pm	NB	0	447	11066	16.9	6
to 13_El Molino/ Maple	4:24:19 pm	NB	0	458	11474	17.1	6
to 14_El Molino/ Villa	4:24:35 pm	NB	0	474	12160	17.5	6
to 15_El Molino/ Orange Grove	4:25:40 pm	NB	0	539	13454	17.0	7
to 16_El Molino/ Mountain	4:26:22 pm	NB	0	580	14824	17.4	10
to 17_El Molino/ Claremont	4:27:14 pm	NB	0	633	16767	18.1	11



to 18_El Molino/ Washington	4:28:08 pm	NB	0	687	17517	17.4	12
to 19_El Molino/ Elizabeth	4:28:59 pm	NB	0	738	19191	17.7	13
to 20_El Molino/ Atchison	4:29:33 pm	NB	0	771	20024	17.7	14

**[\[-\] Before-type Trip Log "\(imported\) PM NB 2", Other-period, started Thursday 1/30/2020 4:46:20](#)**

**PM** [↑Contents](#)

**Entered artery 4:46:55 pm (35 seconds) traveling Northbound  
from 1\_El Molino/ Bonita**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_El Molino/ Pinehurst	4:47:39 pm	NB	0	45	1184	18.1	1
to 3_El Molino/ Glenarm	4:48:19 pm	NB	0	84	2449	19.9	2
to 4_El Molino/ Alpine	4:49:07 pm	NB	0	132	3134	16.2	4
to 5_El Molino/ California	4:51:05 pm	NB	0	250	5483	15.0	6
to 6_El Molino/ Del Mar	4:51:50 pm	NB	0	295	7134	16.5	6
to 7_El Molino/ Cordova	4:52:37 pm	NB	0	342	7925	15.8	7
to 8_El Molino/ Green	4:52:58 pm	NB	0	363	8643	16.2	7
to 9_El Molino/ Colorado	4:53:44 pm	NB	0	409	9139	15.2	8
to 10_El Molino/ Union	4:54:12 pm	NB	0	437	9643	15.1	9
to 11_El Molino/ Walnut	4:55:23 pm	NB	0	508	10491	14.1	10
to 12_El Molino/ Corson	4:55:42 pm	NB	0	527	11100	14.4	10
to 13_El Molino/ Maple	4:55:52 pm	NB	0	538	11507	14.6	10
to 14_El Molino/ Villa	4:56:25 pm	NB	0	570	12194	14.6	11
to 15_El Molino/ Orange Grove	4:57:34 pm	NB	0	639	13486	14.4	12
to 16_El Molino/ Mountain	4:58:39 pm	NB	0	704	14858	14.4	13
to 17_El Molino/ Claremont	4:59:48 pm	NB	0	773	16804	14.8	14
to 18_El Molino/ Washington	5:01:28 pm	NB	0	873	17558	13.7	15
to 19_El Molino/ Elizabeth	5:02:15 pm	NB	0	920	19232	14.3	16
to 20_El Molino/ Atchison	5:02:42 pm	NB	0	947	20064	14.4	17

**[\[-\] Before-type Trip Log "\(imported\) PM NB 3", Other-period, started Thursday 1/30/2020 5:22:04](#)**

**PM** [↑Contents](#)

**Entered artery 5:23:11 pm (68 seconds) traveling Northbound  
from 1\_El Molino/ Bonita**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_El Molino/ Pinehurst	5:23:54 pm	NB	0	42	1177	19.0	1
to 3_El Molino/ Glenarm	5:24:32 pm	NB	0	80	2443	20.8	2
to 4_El Molino/ Alpine	5:24:57 pm	NB	0	105	3129	20.3	3
to 5_El Molino/ California	5:26:53 pm	NB	0	222	5474	16.8	4
to 6_El Molino/ Del Mar	5:27:57 pm	NB	0	286	7130	17.0	5
to 7_El Molino/ Cordova	5:28:49 pm	NB	0	338	7918	16.0	6
to 8_El Molino/ Green	5:29:12 pm	NB	0	361	8636	16.3	6

to 9_El Molino/ Colorado	5:29:56 pm	NB	0	404	9131	15.4	7
to 10_El Molino/ Union	5:30:31 pm	NB	0	440	9643	14.9	8
to 11_El Molino/ Walnut	5:31:37 pm	NB	0	505	10495	14.2	9
to 12_El Molino/ Corson	5:32:56 pm	NB	0	585	11105	13.0	10
to 13_El Molino/ Maple	5:33:11 pm	NB	0	600	11513	13.1	10
to 14_El Molino/ Villa	5:33:29 pm	NB	0	618	12199	13.5	10
to 15_El Molino/ Orange Grove	5:34:59 pm	NB	0	708	13500	13.0	11
to 16_El Molino/ Mountain	5:35:48 pm	NB	0	757	14870	13.4	12
to 17_El Molino/ Claremont	5:36:42 pm	NB	0	810	16813	14.2	13
to 18_El Molino/ Washington	5:37:21 pm	NB	0	850	17567	14.1	14
to 19_El Molino/ Elizabeth	5:38:10 pm	NB	0	898	19241	14.6	15
to 20_El Molino/ Atchison	5:38:37 pm	NB	0	925	20075	14.8	16

**[\[-\] Before-type Trip Log "\(imported\) PM NB 4", Other-period, started Thursday 1/30/2020 5:58:22](#)**

**PM** [↑Contents](#)

**Entered artery 6:00:34 pm (132 seconds) traveling Northbound from 1\_El Molino/ Bonita**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_El Molino/ Pinehurst	6:01:17 pm	NB	0	43	1174	18.6	0
to 3_El Molino/ Glenarm	6:02:00 pm	NB	0	86	2443	19.3	2
to 4_El Molino/ Alpine	6:02:26 pm	NB	0	112	3126	19.0	3
to 5_El Molino/California	6:04:23 pm	NB	0	230	5476	16.3	5
to 6_El Molino/ Del Mar	6:05:20 pm	NB	0	286	7130	17.0	6
to 7_El Molino/ Cordova	6:06:04 pm	NB	0	330	7917	16.3	7
to 8_El Molino/ Green	6:06:51 pm	NB	0	377	8636	15.6	8
to 9_El Molino/ Colorado	6:07:19 pm	NB	0	405	9129	15.4	9
to 10_El Molino/ Union	6:08:12 pm	NB	0	458	9675	14.4	10
to 11_El Molino/ Walnut	6:09:00 pm	NB	0	507	10528	14.2	11
to 12_El Molino/ Corson	6:09:18 pm	NB	0	524	11137	14.5	11
to 13_El Molino/ Maple	6:09:28 pm	NB	0	534	11546	14.8	11
to 14_El Molino/ Villa	6:10:15 pm	NB	0	581	12235	14.3	12
to 15_El Molino/ Orange Grove	6:10:54 pm	NB	0	620	13526	14.9	12
to 16_El Molino/ Mountain	6:11:55 pm	NB	0	681	14901	14.9	13
to 17_El Molino/ Claremont	6:12:50 pm	NB	0	736	16846	15.6	14
to 18_El Molino/ Washington	6:13:18 pm	NB	0	764	17595	15.7	14
to 19_El Molino/ Elizabeth	6:14:01 pm	NB	0	807	19268	16.3	15
to 20_El Molino/ Atchison	6:14:27 pm	NB	0	833	20103	16.5	17

**[\[-\] Before-type Trip Log "\(imported\) PM NB 5", Other-period, started Thursday 2/6/2020 4:02:40](#)**

**PM** [↑Contents](#)

**Entered artery 4:04:01 pm (82 seconds) traveling Northbound  
from 1\_El Molino/ Bonita**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_El Molino/ Pinehurst	4:04:34 pm	NB	0	33	1168	24.2	1
to 3_El Molino/ Glenarm	4:05:08 pm	NB	0	67	2433	24.8	2
to 4_El Molino/ Alpine	4:05:34 pm	NB	0	92	3116	23.0	3
to 5_El Molino/California	4:07:34 pm	NB	0	213	5461	17.5	5
to 6_El Molino/ Del Mar	4:08:27 pm	NB	0	266	7114	18.3	5
to 7_El Molino/ Cordova	4:09:22 pm	NB	0	321	7901	16.8	6
to 8_El Molino/ Green	4:10:07 pm	NB	0	366	8620	16.1	7
to 9_El Molino/ Colorado	4:11:08 pm	NB	0	427	9118	14.6	8
to 10_El Molino/ Union	4:11:22 pm	NB	0	441	9618	14.9	8
to 11_El Molino/ Walnut	4:12:13 pm	NB	0	492	10468	14.5	9
to 12_El Molino/ Corson	4:12:28 pm	NB	0	507	11077	14.9	9
to 13_El Molino/ Maple	4:12:38 pm	NB	0	516	11485	15.2	9
to 14_El Molino/ Villa	4:13:18 pm	NB	0	557	12171	14.9	10
to 15_El Molino/ Orange Grove	4:14:47 pm	NB	0	645	13464	14.2	11
to 16_El Molino/ Mountain	4:15:45 pm	NB	0	703	14835	14.4	12
to 17_El Molino/ Claremont	4:16:41 pm	NB	0	759	16781	15.1	13
to 18_El Molino/ Washington	4:17:18 pm	NB	0	797	17530	15.0	14
to 19_El Molino/ Elizabeth	4:18:03 pm	NB	0	842	19203	15.6	15
to 20_El Molino/ Atchison	4:18:32 pm	NB	0	871	20037	15.7	16

## Cumulative Reports

**[\[-\] Before-type Trip Log "\(imported\) PM NB 1", Other-period, started Thursday 1/30/2020 4:16:14 PM](#)**

**Entered artery 4:16:41 pm (28 seconds) traveling  
Northbound from 1\_El Molino/ Bonita**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 20_El Molino/ Atchison	4:29:33 pm	NB	771	20024	17.7	14

**[\[-\] Before-type Trip Log "\(imported\) PM NB 2", Other-period, started Thursday 1/30/2020 4:46:20 PM](#)**

**Entered artery 4:46:55 pm (35 seconds) traveling  
Northbound from 1\_El Molino/ Bonita**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 20_El Molino/ Atchison	5:02:42 pm	NB	947	20064	14.4	17

**[\[-\] Before-type Trip Log "\(imported\) PM NB 3", Other-period, started Thursday 1/30/2020 5:22:04 PM](#)** [↑Contents](#)

**Entered artery 5:23:11 pm (68 seconds) traveling  
Northbound from 1\_El Molino/ Bonita**

<b>Node</b>	<b><a href="#">NCT</a></b>	<b><a href="#">Dir</a></b>	<b><a href="#">CTT</a></b>	<b><a href="#">CTL</a></b>	<b><a href="#">CAS</a></b>	<b><a href="#">CStops</a></b>
to 20_El Molino/ Atchison	5:38:37 pm	NB	925	20075	14.8	16

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**[\[-\] Before-type Trip Log "\(imported\) PM NB 4", Other-period, started Thursday 1/30/2020 5:58:22 PM](#)** [↑Contents](#)

**Entered artery 6:00:34 pm (132 seconds) traveling  
Northbound from 1\_El Molino/ Bonita**

<b>Node</b>	<b><a href="#">NCT</a></b>	<b><a href="#">Dir</a></b>	<b><a href="#">CTT</a></b>	<b><a href="#">CTL</a></b>	<b><a href="#">CAS</a></b>	<b><a href="#">CStops</a></b>
to 20_El Molino/ Atchison	6:14:27 pm	NB	833	20103	16.5	17

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**[\[-\] Before-type Trip Log "\(imported\) PM NB 5", Other-period, started Thursday 2/6/2020 4:02:40 PM](#)** [↑Contents](#)

**Entered artery 4:04:01 pm (82 seconds) traveling  
Northbound from 1\_El Molino/ Bonita**

<b>Node</b>	<b><a href="#">NCT</a></b>	<b><a href="#">Dir</a></b>	<b><a href="#">CTT</a></b>	<b><a href="#">CTL</a></b>	<b><a href="#">CAS</a></b>	<b><a href="#">CStops</a></b>
to 20_El Molino/ Atchison	4:18:32 pm	NB	871	20037	15.7	16

Monday 3/23/2020 2:40:43 PM

## Travel Time & Delay Report for El Molino

### Legend:

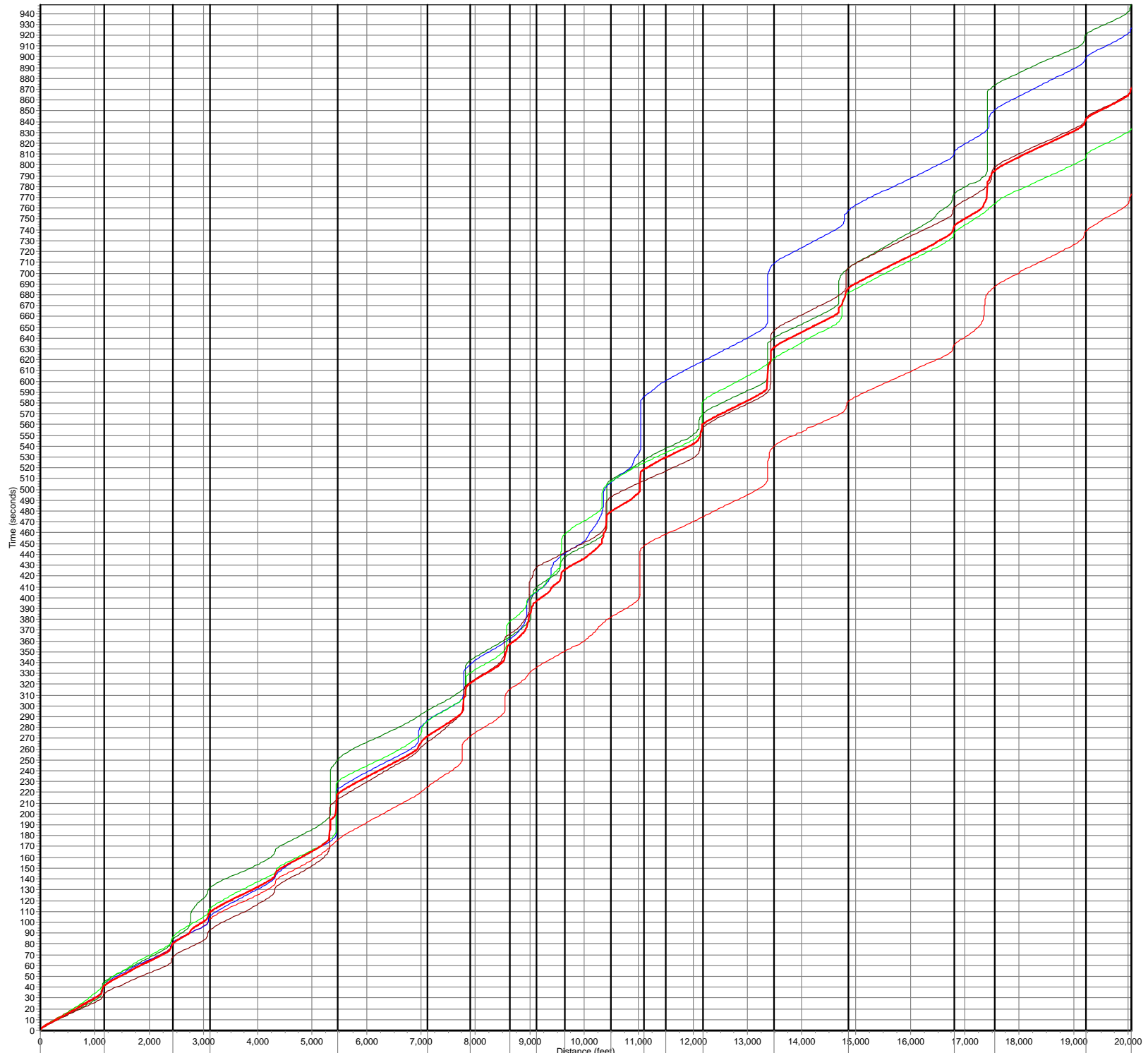
- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Northbound from 1\_El Molino/ Bonita

5 Before-type runs, 5 of unverifiable origin, collected Thursday 1/30/2020 to Thursday 2/6/2020, over day(s) Thu, with starting times during 4:04:01 PM to 6:00:34 PM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 2_El Molino/ Pinehurst</b>						
Average Before (n=5)	NB	0	40	1174	20.0	0.8
Std Dev Before (n=5)	NB	0	5	7	2.4	0.4
<b>to 3_El Molino/ Glenarm</b>						
Average Before (n=5)	NB	0	79	2440	21.1	2.0
Std Dev Before (n=5)	NB	0	7	7	2.1	0.0
<b>to 4_El Molino/ Alpine</b>						
Average Before (n=5)	NB	0	109	3124	19.9	3.0
Std Dev Before (n=5)	NB	0	15	9	2.5	0.7
<b>to 5_El Molino/California</b>						
Average Before (n=5)	NB	0	218	5470	17.4	4.6
Std Dev Before (n=5)	NB	0	28	11	2.4	1.1
<b>to 6_El Molino/ Del Mar</b>						
Average Before (n=5)	NB	0	271	7123	18.1	5.0
Std Dev Before (n=5)	NB	0	28	12	2.1	1.2
<b>to 7_El Molino/ Cordova</b>						
Average Before (n=5)	NB	0	320	7911	17.0	6.0
Std Dev Before (n=5)	NB	0	29	13	1.7	1.2
<b>to 8_El Molino/ Green</b>						
Average Before (n=5)	NB	0	356	8630	16.6	6.6
Std Dev Before (n=5)	NB	0	24	12	1.2	1.1

<b>to 9_EI Molino/ Colorado</b>						
Average Before (n=5)	NB	0	396	9124	15.8	7.4
Std Dev Before (n=5)	NB	0	36	13	1.6	1.5
<b>to 10_EI Molino/ Union</b>						
Average Before (n=5)	NB	0	425	9637	15.6	8.0
Std Dev Before (n=5)	NB	0	43	26	1.8	1.9
<b>to 11_EI Molino/ Walnut</b>						
Average Before (n=5)	NB	0	479	10487	15.1	8.8
Std Dev Before (n=5)	NB	0	55	29	2.0	2.3
<b>to 12_EI Molino/ Corson</b>						
Average Before (n=5)	NB	0	518	11097	14.7	9.2
Std Dev Before (n=5)	NB	0	49	28	1.4	1.9
<b>to 13_EI Molino/ Maple</b>						
Average Before (n=5)	NB	0	529	11505	14.9	9.2
Std Dev Before (n=5)	NB	0	51	28	1.4	1.9
<b>to 14_EI Molino/ Villa</b>						
Average Before (n=5)	NB	0	560	12192	15.0	9.8
Std Dev Before (n=5)	NB	0	53	29	1.5	2.3
<b>to 15_EI Molino/ Orange Grove</b>						
Average Before (n=5)	NB	0	630	13486	14.7	10.6
Std Dev Before (n=5)	NB	0	61	29	1.5	2.1
<b>to 16_EI Molino/ Mountain</b>						
Average Before (n=5)	NB	0	685	14858	14.9	12.0
Std Dev Before (n=5)	NB	0	65	31	1.5	1.2
<b>to 17_EI Molino/ Claremont</b>						
Average Before (n=5)	NB	0	742	16802	15.5	13.0
Std Dev Before (n=5)	NB	0	67	30	1.5	1.2
<b>to 18_EI Molino/ Washington</b>						
Average Before (n=5)	NB	0	794	17554	15.2	13.8
Std Dev Before (n=5)	NB	0	74	31	1.5	1.1
<b>to 19_EI Molino/ Elizabeth</b>						
Average Before (n=5)	NB	0	841	19227	15.7	14.8
Std Dev Before (n=5)	NB	0	73	31	1.4	1.1
<b>to 20_EI Molino/ Atchison</b>						
Average Before (n=5)	NB	0	869	20061	15.8	16.0
Std Dev Before (n=5)	NB	0	71	31	1.3	1.2



- (imported) PM NB 1 Run 1 started 4:16 PM 1/30/2020
- (imported) PM NB 2 Run 1 started 4:46 PM 1/30/2020
- (imported) PM NB 3 Run 1 started 5:23 PM 1/30/2020
- (imported) PM NB 4 Run 1 started 6:00 PM 1/30/2020
- (imported) PM NB 5 Run 1 started 4:04 PM 2/6/2020
- Average Instantaneous Time

1\_El Molino/ Bonita 2\_El Molino/ Pinehurst 3\_El Molino/ Glenarm 4\_El Molino/ Alpine 5\_El Molino/ California 6\_El Molino/ Del Mar 7\_El Molino/ Cord9\_El Molino/ Colorado 8\_El Molino/ G10\_El Molino/ Union 9\_El Molino/ V13\_El Molino/ Maple 10\_El Molino/ Cor14\_El Molino/ Villa 11\_El Molino/ Orange Grove 12\_El Molino/ Mountain 13\_El Molino/ Claremont 14\_El Molino/ Washington 15\_El Molino/ Elizabeth 16\_El Molino/ Atchison

Monday 3/23/2020 2:40:43 PM

## Travel Time & Delay Report for El Molino

### Legend:

#### NCT:

Node Crossing Time

#### Dir:

Direction of Travel (NB, SB, EB, or WB)

#### NID:

Node ID

#### CTT:

Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Contents:

[\(imported\) PM SB 1](#), [\(imported\) PM SB 2](#), [\(imported\) PM SB 3](#), [\(imported\) PM SB 4](#), [\(imported\) PM SB 5](#), [Cumulative Reports](#)  
[-] Collapse All

### [\[-\] Before-type Trip Log "\(imported\) PM SB 1", Other-period, started Thursday 1/30/2020 3:57:30 PM](#) [↑Contents](#)

**Entered artery 3:59:55 pm (145 seconds) traveling  
Southbound from 20\_El Molino/ Atchison**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 19_El Molino/ Elizabeth	4:00:21 pm	SB	0	26	818	21.8	0
to 18_El Molino/ Washington	4:01:04 pm	SB	0	69	2484	24.7	1
to 17_El Molino/ Claremont	4:03:57 pm	SB	0	242	5979	16.9	4
to 16_El Molino/ Mountain	4:05:02 pm	SB	0	307	7924	17.6	5
to 15_El Molino/ Orange Grove	4:05:36 pm	SB	0	341	9294	18.6	5
to 14_El Molino/ Villa	4:06:18 pm	SB	0	383	10585	18.9	6
to 13_El Molino/ Maple	4:06:43 pm	SB	0	408	11271	18.8	6
to 12_El Molino/ Corson	4:07:26 pm	SB	0	451	11681	17.7	7
to 11_El Molino/ Walnut	4:07:42 pm	SB	0	467	12289	17.9	7
to 10_El Molino/ Union	4:08:16 pm	SB	0	501	13135	17.9	8
to 9_El Molino/ Colorado	4:08:40 pm	SB	0	525	13637	17.7	9
to 8_El Molino/ Green	4:09:13 pm	SB	0	558	14130	17.3	10
to 7_El Molino/ Cordova	4:09:32 pm	SB	0	577	14849	17.5	10
to 6_El Molino/ Del Mar	4:11:21 pm	SB	0	686	15636	15.5	11
to 5_El Molino/California	4:12:09 pm	SB	0	734	17288	16.1	11
to 4_El Molino/ Alpine	4:13:28 pm	SB	0	813	19634	16.5	13



to 3_El Molino/ Glenarm	4:14:03 pm	SB	0	848	20316	16.3	14
to 2_El Molino/ Pinehurst	4:14:39 pm	SB	0	884	21592	16.7	14
to 1_El Molino/ Bonita	4:15:17 pm	SB	0	922	22753	16.8	14

**[\[-\] Before-type Trip Log "\(imported\) PM SB 2", Other-period, started Thursday 1/30/2020 4:29:38](#)**

**PM** [↑Contents](#)

**Entered artery 4:30:00 pm (23 seconds) traveling Southbound  
from 20\_El Molino/ Atchison**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 19_El Molino/ Elizabeth	4:30:29 pm	SB	0	29	833	19.6	1
to 18_El Molino/ Washington	4:31:35 pm	SB	0	95	2497	17.9	2
to 17_El Molino/ Claremont	4:33:33 pm	SB	0	213	5965	19.1	2
to 16_El Molino/ Mountain	4:34:26 pm	SB	0	266	7909	20.3	2
to 15_El Molino/ Orange Grove	4:36:07 pm	SB	0	367	9280	17.3	3
to 14_El Molino/ Villa	4:36:41 pm	SB	0	401	10571	18.0	3
to 13_El Molino/ Maple	4:37:20 pm	SB	0	440	11258	17.5	4
to 12_El Molino/ Corson	4:37:50 pm	SB	0	470	11665	16.9	5
to 11_El Molino/ Walnut	4:38:07 pm	SB	0	487	12273	17.2	5
to 10_El Molino/ Union	4:38:30 pm	SB	0	510	13118	17.6	5
to 9_El Molino/ Colorado	4:38:44 pm	SB	0	524	13618	17.7	5
to 8_El Molino/ Green	4:39:11 pm	SB	0	550	14111	17.5	5
to 7_El Molino/ Cordova	4:39:47 pm	SB	0	587	14830	17.2	7
to 6_El Molino/ Del Mar	4:41:34 pm	SB	0	693	15617	15.4	8
to 5_El Molino/California	4:42:16 pm	SB	0	736	17270	16.0	8
to 4_El Molino/ Alpine	4:43:39 pm	SB	0	819	19611	16.3	10
to 3_El Molino/ Glenarm	4:44:03 pm	SB	0	843	20291	16.4	10
to 2_El Molino/ Pinehurst	4:44:49 pm	SB	0	888	21572	16.6	11
to 1_El Molino/ Bonita	4:45:34 pm	SB	0	934	22733	16.6	12

**[\[-\] Before-type Trip Log "\(imported\) PM SB 3", Other-period, started Thursday 1/30/2020 5:02:52](#)**

**PM** [↑Contents](#)

**Entered artery 5:03:17 pm (26 seconds) traveling Southbound  
from 20\_El Molino/ Atchison**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 19_El Molino/ Elizabeth	5:03:45 pm	SB	0	28	833	20.5	0
to 18_El Molino/ Washington	5:04:26 pm	SB	0	68	2478	24.8	0
to 17_El Molino/ Claremont	5:06:53 pm	SB	0	215	5967	18.9	2
to 16_El Molino/ Mountain	5:07:41 pm	SB	0	264	7911	20.4	2
to 15_El Molino/ Orange Grove	5:08:17 pm	SB	0	300	9280	21.1	2
to 14_El Molino/ Villa	5:09:16 pm	SB	0	359	10574	20.1	3

to 13_El Molino/ Maple	5:10:00 pm	SB	0	402	11262	19.1	4
to 12_El Molino/ Corson	5:10:32 pm	SB	0	434	11669	18.3	5
to 11_El Molino/ Walnut	5:10:48 pm	SB	0	451	12277	18.6	5
to 10_El Molino/ Union	5:11:12 pm	SB	0	475	13122	18.8	5
to 9_El Molino/ Colorado	5:12:13 pm	SB	0	536	13627	17.3	6
to 8_El Molino/ Green	5:13:04 pm	SB	0	587	14123	16.4	7
to 7_El Molino/ Cordova	5:13:41 pm	SB	0	624	14843	16.2	8
to 6_El Molino/ Del Mar	5:15:48 pm	SB	0	751	15632	14.2	10
to 5_El Molino/California	5:18:12 pm	SB	0	894	17302	13.2	12
to 4_El Molino/ Alpine	5:19:37 pm	SB	0	980	19643	13.7	14
to 3_El Molino/ Glenarm	5:20:03 pm	SB	0	1006	20322	13.8	15
to 2_El Molino/ Pinehurst	5:20:44 pm	SB	0	1046	21598	14.1	16
to 1_El Molino/ Bonita	5:21:21 pm	SB	0	1084	22759	14.3	17

**[\[-\] Before-type Trip Log "\(imported\) PM SB 4", Other-period, started Thursday 1/30/2020 5:38:47 PM](#)**  
[PM](#) [↑Contents](#)

**Entered artery 5:39:20 pm (34 seconds) traveling Southbound  
from 20\_El Molino/ Atchison**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 19_El Molino/ Elizabeth	5:39:54 pm	SB	0	34	833	16.7	1
to 18_El Molino/ Washington	5:41:18 pm	SB	0	117	2478	14.4	2
to 17_El Molino/ Claremont	5:43:59 pm	SB	0	278	5965	14.6	4
to 16_El Molino/ Mountain	5:45:02 pm	SB	0	342	7910	15.8	5
to 15_El Molino/ Orange Grove	5:45:47 pm	SB	0	387	9284	16.4	6
to 14_El Molino/ Villa	5:46:21 pm	SB	0	420	10542	17.1	8
to 13_El Molino/ Maple	5:47:22 pm	SB	0	482	11262	15.9	9
to 12_El Molino/ Corson	5:47:52 pm	SB	0	512	11671	15.5	10
to 11_El Molino/ Walnut	5:48:09 pm	SB	0	529	12278	15.8	10
to 10_El Molino/ Union	5:49:13 pm	SB	0	592	13125	15.1	11
to 9_El Molino/ Colorado	5:49:37 pm	SB	0	617	13629	15.1	11
to 8_El Molino/ Green	5:50:50 pm	SB	0	690	14126	14.0	12
to 7_El Molino/ Cordova	5:51:11 pm	SB	0	711	14844	14.2	12
to 6_El Molino/ Del Mar	5:53:32 pm	SB	0	852	15636	12.5	13
to 5_El Molino/California	5:54:21 pm	SB	0	901	17289	13.1	13
to 4_El Molino/ Alpine	5:55:52 pm	SB	0	992	19632	13.5	15
to 3_El Molino/ Glenarm	5:56:20 pm	SB	0	1020	20310	13.6	16
to 2_El Molino/ Pinehurst	5:57:00 pm	SB	0	1060	21595	13.9	17
to 1_El Molino/ Bonita	5:57:37 pm	SB	0	1097	22758	14.1	17

**[\[-\] Before-type Trip Log "\(imported\) PM SB 5", Other-period, started Thursday 2/6/2020 4:18:41 PM](#)**  
[PM](#) [↑Contents](#)

**Entered artery 4:19:04 pm (24 seconds) traveling Southbound  
from 20\_El Molino/ Atchison**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 19_El Molino/ Elizabeth	4:19:29 pm	SB	0	25	833	23.2	1
to 18_El Molino/ Washington	4:20:24 pm	SB	0	79	2491	21.4	2
to 17_El Molino/ Claremont	4:22:46 pm	SB	0	222	5964	18.3	6
to 16_El Molino/ Mountain	4:23:41 pm	SB	0	277	7907	19.5	7
to 15_El Molino/ Orange Grove	4:24:20 pm	SB	0	316	9277	20.0	7
to 14_El Molino/ Villa	4:25:19 pm	SB	0	375	10568	19.2	8
to 13_El Molino/ Maple	4:25:42 pm	SB	0	398	11254	19.3	8
to 12_El Molino/ Corson	4:26:15 pm	SB	0	431	11662	18.5	9
to 11_El Molino/ Walnut	4:27:24 pm	SB	0	500	12271	16.7	10
to 10_El Molino/ Union	4:28:14 pm	SB	0	549	13117	16.3	11
to 9_El Molino/ Colorado	4:29:10 pm	SB	0	606	13626	15.3	12
to 8_El Molino/ Green	4:29:56 pm	SB	0	652	14122	14.8	13
to 7_El Molino/ Cordova	4:30:30 pm	SB	0	686	14842	14.8	14
to 6_El Molino/ Del Mar	4:31:00 pm	SB	0	716	15629	14.9	14
to 5_El Molino/California	4:33:02 pm	SB	0	838	17286	14.1	15
to 4_El Molino/ Alpine	4:34:35 pm	SB	0	931	19628	14.4	17
to 3_El Molino/ Glenarm	4:35:09 pm	SB	0	965	20311	14.3	18
to 2_El Molino/ Pinehurst	4:35:46 pm	SB	0	1002	21584	14.7	19
to 1_El Molino/ Bonita	4:36:20 pm	SB	0	1036	22744	15.0	20

## Cumulative Reports

**[\[-\] Before-type Trip Log "\(imported\) PM SB 1", Other-period, started Thursday 1/30/2020 3:57:30 PM](#)**

**Entered artery 3:59:55 pm (145 seconds) traveling  
Southbound from 20\_El Molino/ Atchison**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_El Molino/ Bonita	4:15:17 pm	SB	922	22753	16.8	14

**[\[-\] Before-type Trip Log "\(imported\) PM SB 2", Other-period, started Thursday 1/30/2020 4:29:38 PM](#)**

**Entered artery 4:30:00 pm (23 seconds) traveling  
Southbound from 20\_El Molino/ Atchison**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_El Molino/ Bonita	4:45:34 pm	SB	934	22733	16.6	12

**[\[-\] Before-type Trip Log "\(imported\) PM SB 3", Other-period, started Thursday 1/30/2020 5:02:52 PM](#)** [↑Contents](#)

**Entered artery 5:03:17 pm (26 seconds) traveling  
Southbound from 20\_El Molino/ Atchison**

<b>Node</b>	<b><a href="#">NCT</a></b>	<b><a href="#">Dir</a></b>	<b><a href="#">CTT</a></b>	<b><a href="#">CTL</a></b>	<b><a href="#">CAS</a></b>	<b><a href="#">CStops</a></b>
to 1_El Molino/ Bonita	5:21:21 pm	SB	1084	22759	14.3	17

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**[\[-\] Before-type Trip Log "\(imported\) PM SB 4", Other-period, started Thursday 1/30/2020 5:38:47 PM](#)** [↑Contents](#)

**Entered artery 5:39:20 pm (34 seconds) traveling  
Southbound from 20\_El Molino/ Atchison**

<b>Node</b>	<b><a href="#">NCT</a></b>	<b><a href="#">Dir</a></b>	<b><a href="#">CTT</a></b>	<b><a href="#">CTL</a></b>	<b><a href="#">CAS</a></b>	<b><a href="#">CStops</a></b>
to 1_El Molino/ Bonita	5:57:37 pm	SB	1097	22758	14.1	17

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**[\[-\] Before-type Trip Log "\(imported\) PM SB 5", Other-period, started Thursday 2/6/2020 4:18:41 PM](#)** [↑Contents](#)

**Entered artery 4:19:04 pm (24 seconds) traveling  
Southbound from 20\_El Molino/ Atchison**

<b>Node</b>	<b><a href="#">NCT</a></b>	<b><a href="#">Dir</a></b>	<b><a href="#">CTT</a></b>	<b><a href="#">CTL</a></b>	<b><a href="#">CAS</a></b>	<b><a href="#">CStops</a></b>
to 1_El Molino/ Bonita	4:36:20 pm	SB	1036	22744	15.0	20

Monday 3/23/2020 2:40:43 PM

## Travel Time & Delay Report for El Molino

### Legend:

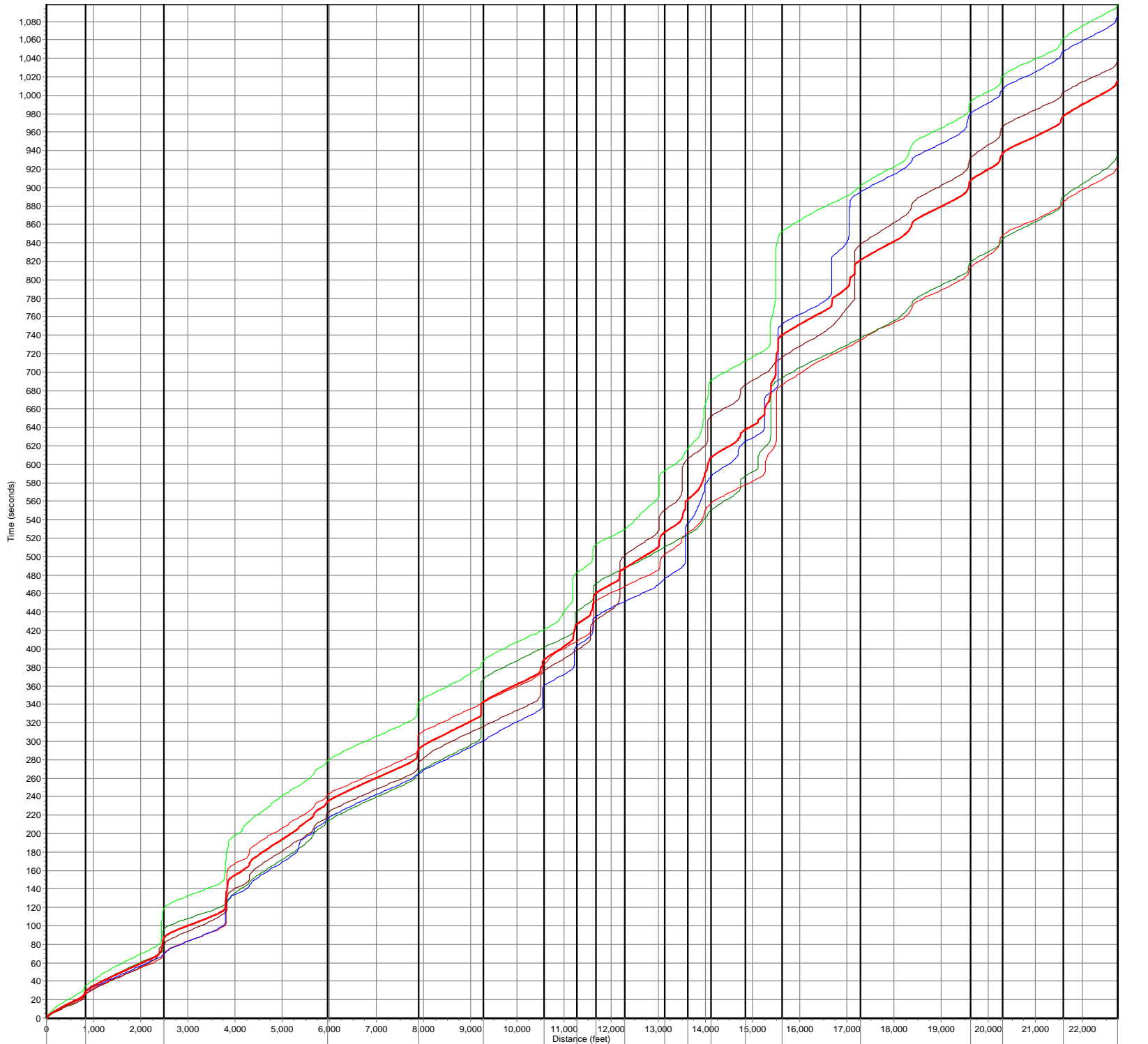
- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Southbound from 20\_El Molino/ Atchison

5 Before-type runs, 5 of unverifiable origin, collected Thursday 1/30/2020 to Thursday 2/6/2020, over day(s) Thu, with starting times during 3:59:55 PM to 5:39:20 PM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 19_El Molino/ Elizabeth</b>						
Average Before (n=5)	SB	0	28	830	20.4	0.6
Std Dev Before (n=5)	SB	0	4	7	2.5	0.5
<b>to 18_El Molino/ Washington</b>						
Average Before (n=5)	SB	0	86	2486	20.6	1.4
Std Dev Before (n=5)	SB	0	21	8	4.5	0.9
<b>to 17_El Molino/ Claremont</b>						
Average Before (n=5)	SB	0	234	5968	17.6	3.6
Std Dev Before (n=5)	SB	0	27	6	1.9	1.7
<b>to 16_El Molino/ Mountain</b>						
Average Before (n=5)	SB	0	291	7912	18.7	4.2
Std Dev Before (n=5)	SB	0	33	7	2.0	2.2
<b>to 15_El Molino/ Orange Grove</b>						
Average Before (n=5)	SB	0	342	9283	18.7	4.6
Std Dev Before (n=5)	SB	0	36	6	1.9	2.1
<b>to 14_El Molino/ Villa</b>						
Average Before (n=5)	SB	0	388	10568	18.6	5.6
Std Dev Before (n=5)	SB	0	24	16	1.1	2.5
<b>to 13_El Molino/ Maple</b>						
Average Before (n=5)	SB	0	426	11261	18.1	6.2
Std Dev Before (n=5)	SB	0	35	6	1.4	2.3

<b>to 12_EI Molino/ Corson</b>						
Average Before (n=5)	SB	0	460	11670	17.4	7.2
Std Dev Before (n=5)	SB	0	33	7	1.2	2.3
<b>to 11_EI Molino/ Walnut</b>						
Average Before (n=5)	SB	0	487	12278	17.3	7.4
Std Dev Before (n=5)	SB	0	30	7	1.1	2.5
<b>to 10_EI Molino/ Union</b>						
Average Before (n=5)	SB	0	525	13123	17.1	8.0
Std Dev Before (n=5)	SB	0	46	7	1.5	3.0
<b>to 9_EI Molino/ Colorado</b>						
Average Before (n=5)	SB	0	562	13628	16.6	8.6
Std Dev Before (n=5)	SB	0	46	7	1.3	3.0
<b>to 8_EI Molino/ Green</b>						
Average Before (n=5)	SB	0	607	14123	16.0	9.4
Std Dev Before (n=5)	SB	0	61	7	1.6	3.4
<b>to 7_EI Molino/ Cordova</b>						
Average Before (n=5)	SB	0	637	14842	16.0	10.2
Std Dev Before (n=5)	SB	0	59	7	1.5	2.9
<b>to 6_EI Molino/ Del Mar</b>						
Average Before (n=5)	SB	0	740	15630	14.5	11.2
Std Dev Before (n=5)	SB	0	68	8	1.2	2.4
<b>to 5_EI Molino/California</b>						
Average Before (n=5)	SB	0	821	17287	14.5	11.8
Std Dev Before (n=5)	SB	0	82	11	1.5	2.6
<b>to 4_EI Molino/ Alpine</b>						
Average Before (n=5)	SB	0	907	19630	14.9	13.8
Std Dev Before (n=5)	SB	0	86	12	1.4	2.6
<b>to 3_EI Molino/ Glenarm</b>						
Average Before (n=5)	SB	0	936	20310	14.9	14.6
Std Dev Before (n=5)	SB	0	85	12	1.4	3.0
<b>to 2_EI Molino/ Pinehurst</b>						
Average Before (n=5)	SB	0	976	21588	15.2	15.4
Std Dev Before (n=5)	SB	0	85	11	1.3	3.0
<b>to 1_EI Molino/ Bonita</b>						
Average Before (n=5)	SB	0	1015	22750	15.4	16.0
Std Dev Before (n=5)	SB	0	82	11	1.3	3.1



- (imported) PM SB 1 Run 1 started 3:59 PM 1/30/2020
- (imported) PM SB 2 Run 1 started 4:30 PM 1/30/2020
- (imported) PM SB 3 Run 1 started 5:03 PM 1/30/2020
- (imported) PM SB 4 Run 1 started 5:39 PM 1/30/2020
- (imported) PM SB 5 Run 1 started 4:19 PM 2/6/2020
- Average Instantaneous Time

20\_El Molino/ Atchison 18\_El Molino/ Washington 17\_El Molino/ Claremont 16\_El Molino/ Mountain 15\_El Molino/ Orange Grove 14\_El Molino/12\_El Molino/ Corsc10\_El Molino/8\_El Molino/ Green6\_El Molino/ Del Mar 5\_El Molino/California 4\_El Molino/ Alpine 3\_El Molino/ Glenarm 2\_El Molino/ Pinehurst 1\_El Molino/ Bonita

Monday 3/23/2020 1:30:26 PM

## Travel Time & Delay Report for Artery #1

### Legend:

#### CTT:

Summarized Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Summarized Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Cumulative Summary of runs Northbound from 1\_Wilson/ California

5 Before-type runs, 5 of unverifiable origin, collected  
Thursday 1/16/2020 to Thursday 1/16/2020, over day  
(s) Thu, with starting times during 7:02:52 AM to  
8:37:37 AM

	CTI	CTL	CAS	CStops
<b>to 14_Wilson/ Washington</b>				
Average Before (n=5)	616	12134	13.5	10.2
Std Dev Before (n=5)	32	23	0.7	1.3

### Cumulative Summary of runs Southbound from 14\_Wilson/ Washington

5 Before-type runs, 5 of unverifiable origin, collected  
Thursday 1/16/2020 to Thursday 1/16/2020, over day  
(s) Thu, with starting times during 7:14:58 AM to  
8:48:42 AM

	CTI	CTL	CAS	CStops
<b>to 1_Wilson/ California</b>				
Average Before (n=5)	627	12169	13.3	9.4
Std Dev Before (n=5)	67	54	1.4	1.1

### Cumulative Summary of all runs, either direction through artery

10 Before-type runs, 10 of unverifiable origin, collected  
Thursday 1/16/2020 to Thursday 1/16/2020, over day  
(s) Thu, with starting times during 7:11:59 AM to  
8:58:30 AM

	CTI	CTL	CAS	CStops
<b>to End of Artery</b>				
Average Before (n=10)	622	12151	13.4	9.8
Std Dev Before (n=10)	50	43	1.0	1.2
Difference	0	0	0.0	0.0
Std Dev Difference	50	43	1.0	1.2
% Difference	0%	0%	0.0%	0.0%



Monday 3/23/2020 1:30:26 PM

## Travel Time & Delay Report for Artery #1

### Legend:

#### NCT:

Node Crossing Time

#### Dir:

Direction of Travel (NB, SB, EB, or WB)

#### NID:

Node ID

#### CTT:

Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Contents:

[\(imported\) AM NB 1](#), [\(imported\) AM NB 2](#), [\(imported\) AM NB 3](#), [\(imported\) AM NB 4](#), [\(imported\) AM NB 5](#), [Cumulative Reports](#)  
[-] Collapse All

### [\[-\] Before-type Trip Log "\(imported\) AM NB 1", Other-period, started Thursday 1/16/2020 7:00:27](#)

[AM](#) [↑Contents](#)

Entered artery 7:02:52 am (145 seconds) traveling  
Northbound from 1\_Wilson/ California

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Wilson/ San Pasqual	7:03:21 am	NB	0	29	694	16.4	1
to 3_Wilson/ Del Mar	7:04:30 am	NB	0	98	1867	13.0	3
to 4_Wilson/ Cordova	7:04:55 am	NB	0	123	2586	14.3	3
to 5_Wilson/ Green	7:05:27 am	NB	0	155	3205	14.1	4
to 6_Wilson/ Colorado	7:05:47 am	NB	0	175	3696	14.4	4
to 7_Wilson/ Union	7:06:40 am	NB	0	228	4476	13.4	5
to 8_Wilson/ Walnut	7:07:52 am	NB	0	301	5058	11.5	6
to 9_Wilson/ Corson	7:08:31 am	NB	0	339	5689	11.4	7
to 10_Wilson/ Maple	7:09:20 am	NB	0	388	6095	10.7	8
to 11_Wilson/ Villa	7:09:46 am	NB	0	415	6799	11.2	9
to 12_Wilson/ Orange Grove	7:10:53 am	NB	0	481	8075	11.4	10
to 13_Wilson/ Mountain	7:11:59 am	NB	0	547	9490	11.8	11
to 14_Wilson/ Washington	7:13:57 am	NB	0	665	12174	12.5	12

### [\[-\] Before-type Trip Log "\(imported\) AM NB 2", Other-period, started Thursday 1/16/2020 7:24:28](#)

[AM](#) [↑Contents](#)

**Entered artery 7:25:23 am (55 seconds) traveling  
Northbound from 1\_Wilson/ California**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>NID</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 2_Wilson/ San Pasqual	7:25:51 am	NB	0	29	717	17.0	1
to 3_Wilson/ Del Mar	7:27:09 am	NB	0	106	1852	11.9	2
to 4_Wilson/ Cordova	7:28:05 am	NB	0	163	2577	10.8	3
to 5_Wilson/ Green	7:28:21 am	NB	0	178	3183	12.2	3
to 6_Wilson/ Colorado	7:29:04 am	NB	0	222	3681	11.3	4
to 7_Wilson/ Union	7:29:44 am	NB	0	261	4481	11.7	5
to 8_Wilson/ Walnut	7:30:12 am	NB	0	290	5039	11.9	6
to 9_Wilson/ Corson	7:30:40 am	NB	0	317	5671	12.2	7
to 10_Wilson/ Maple	7:30:51 am	NB	0	328	6061	12.6	7
to 11_Wilson/ Villa	7:31:29 am	NB	0	367	6765	12.6	8
to 12_Wilson/ Orange Grove	7:32:18 am	NB	0	415	8031	13.2	9
to 13_Wilson/ Mountain	7:33:18 am	NB	0	475	9441	13.5	10
to 14_Wilson/ Washington	7:35:18 am	NB	0	595	12117	13.9	11

**[\[-\] Before-type Trip Log "\(imported\) AM NB 3", Other-period, started Thursday 1/16/2020 7:48:26 AM](#)**  
[AM](#) [↑Contents](#)

**Entered artery 7:49:26 am (61 seconds) traveling  
Northbound from 1\_Wilson/ California**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>NID</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 2_Wilson/ San Pasqual	7:49:53 am	NB	0	27	720	18.4	1
to 3_Wilson/ Del Mar	7:51:09 am	NB	0	103	1867	12.3	2
to 4_Wilson/ Cordova	7:51:27 am	NB	0	121	2587	14.6	2
to 5_Wilson/ Green	7:52:23 am	NB	0	177	3197	12.3	3
to 6_Wilson/ Colorado	7:52:35 am	NB	0	189	3687	13.3	3
to 7_Wilson/ Union	7:52:58 am	NB	0	212	4477	14.4	3
to 8_Wilson/ Walnut	7:53:26 am	NB	0	239	5036	14.3	4
to 9_Wilson/ Corson	7:54:01 am	NB	0	275	5665	14.0	5
to 10_Wilson/ Maple	7:54:11 am	NB	0	285	6060	14.5	5
to 11_Wilson/ Villa	7:54:29 am	NB	0	303	6756	15.2	5
to 12_Wilson/ Orange Grove	7:56:13 am	NB	0	407	8031	13.5	7
to 13_Wilson/ Mountain	7:57:21 am	NB	0	475	9442	13.5	8
to 14_Wilson/ Washington	7:59:23 am	NB	0	597	12122	13.8	9

**[\[-\] Before-type Trip Log "\(imported\) AM NB 4", Other-period, started Thursday 1/16/2020 8:13:40 AM](#)**  
[AM](#) [↑Contents](#)

**Entered artery 8:14:41 am (62 seconds) traveling  
Northbound from 1\_Wilson/ California**

Node	NCT	Dir	NID	CTI	CTL	CAS	CStops
to 2_Wilson/ San Pasqual	8:15:07 am	NB	0	26	714	18.9	1
to 3_Wilson/ Del Mar	8:16:29 am	NB	0	108	1865	11.8	2
to 4_Wilson/ Cordova	8:17:01 am	NB	0	140	2593	12.6	3
to 5_Wilson/ Green	8:17:21 am	NB	0	160	3199	13.6	3
to 6_Wilson/ Colorado	8:18:05 am	NB	0	204	3694	12.3	4
to 7_Wilson/ Union	8:18:41 am	NB	0	240	4492	12.7	5
to 8_Wilson/ Walnut	8:19:00 am	NB	0	259	5049	13.3	5
to 9_Wilson/ Corson	8:19:41 am	NB	0	300	5675	12.9	6
to 10_Wilson/ Maple	8:19:51 am	NB	0	310	6073	13.4	6
to 11_Wilson/ Villa	8:20:19 am	NB	0	338	6772	13.6	7
to 12_Wilson/ Orange Grove	8:21:40 am	NB	0	419	8038	13.1	8
to 13_Wilson/ Mountain	8:22:37 am	NB	0	476	9444	13.5	8
to 14_Wilson/ Washington	8:24:32 am	NB	0	591	12138	14.0	9

**[\[-\] Before-type Trip Log "\(imported\) AM NB 5", Other-period, started Thursday 1/16/2020 8:36:49 AM](#)** [↑Contents](#)

**Entered artery 8:37:37 am (49 seconds) traveling Northbound from 1\_Wilson/ California**

Node	NCT	Dir	NID	CTI	CTL	CAS	CStops
to 2_Wilson/ San Pasqual	8:38:10 am	NB	0	33	716	14.8	1
to 3_Wilson/ Del Mar	8:39:20 am	NB	0	103	1850	12.3	2
to 4_Wilson/ Cordova	8:40:21 am	NB	0	164	2582	10.7	3
to 5_Wilson/ Green	8:40:37 am	NB	0	180	3188	12.1	3
to 6_Wilson/ Colorado	8:41:28 am	NB	0	231	3686	10.9	4
to 7_Wilson/ Union	8:41:52 am	NB	0	255	4477	12.0	4
to 8_Wilson/ Walnut	8:42:24 am	NB	0	286	5034	12.0	5
to 9_Wilson/ Corson	8:42:59 am	NB	0	322	5662	12.0	6
to 10_Wilson/ Maple	8:43:09 am	NB	0	331	6058	12.5	6
to 11_Wilson/ Villa	8:44:03 am	NB	0	386	6755	11.9	7
to 12_Wilson/ Orange Grove	8:45:32 am	NB	0	474	8028	11.5	8
to 13_Wilson/ Mountain	8:46:27 am	NB	0	529	9435	12.2	9
to 14_Wilson/ Washington	8:48:09 am	NB	0	632	12120	13.1	10

## Cumulative Reports

**[\[-\] Before-type Trip Log "\(imported\) AM NB 1", Other-period, started Thursday 1/16/2020 7:00:27 AM](#)** [↑Contents](#)

**Entered artery 7:02:52 am (145 seconds) traveling**

**Northbound from 1\_Wilson/ California**

Node	<a href="#">NCT</a>	<a href="#">Dir</a>	<a href="#">CTT</a>	<a href="#">CTL</a>	<a href="#">CAS</a>	<a href="#">CStops</a>
to 14_Wilson/ Washington	7:13:57 am	NB	665	12174	12.5	12

**[\[-\] Before-type Trip Log "\(imported\) AM NB 2", Other-period, started Thursday 1/16/2020 7:24:28](#)****AM** [↑Contents](#)**Entered artery 7:25:23 am (55 seconds) traveling  
Northbound from 1\_Wilson/ California**

Node	<a href="#">NCT</a>	<a href="#">Dir</a>	<a href="#">CTT</a>	<a href="#">CTL</a>	<a href="#">CAS</a>	<a href="#">CStops</a>
to 14_Wilson/ Washington	7:35:18 am	NB	595	12117	13.9	11

**[\[-\] Before-type Trip Log "\(imported\) AM NB 3", Other-period, started Thursday 1/16/2020 7:48:26](#)****AM** [↑Contents](#)**Entered artery 7:49:26 am (61 seconds) traveling  
Northbound from 1\_Wilson/ California**

Node	<a href="#">NCT</a>	<a href="#">Dir</a>	<a href="#">CTT</a>	<a href="#">CTL</a>	<a href="#">CAS</a>	<a href="#">CStops</a>
to 14_Wilson/ Washington	7:59:23 am	NB	597	12122	13.8	9

**[\[-\] Before-type Trip Log "\(imported\) AM NB 4", Other-period, started Thursday 1/16/2020 8:13:40](#)****AM** [↑Contents](#)**Entered artery 8:14:41 am (62 seconds) traveling  
Northbound from 1\_Wilson/ California**

Node	<a href="#">NCT</a>	<a href="#">Dir</a>	<a href="#">CTT</a>	<a href="#">CTL</a>	<a href="#">CAS</a>	<a href="#">CStops</a>
to 14_Wilson/ Washington	8:24:32 am	NB	591	12138	14.0	9

**[\[-\] Before-type Trip Log "\(imported\) AM NB 5", Other-period, started Thursday 1/16/2020 8:36:49](#)****AM** [↑Contents](#)**Entered artery 8:37:37 am (49 seconds) traveling  
Northbound from 1\_Wilson/ California**

Node	<a href="#">NCT</a>	<a href="#">Dir</a>	<a href="#">CTT</a>	<a href="#">CTL</a>	<a href="#">CAS</a>	<a href="#">CStops</a>
to 14_Wilson/ Washington	8:48:09 am	NB	632	12120	13.1	10

Monday 3/23/2020 1:30:26 PM

## Travel Time & Delay Report for Artery #1

### Legend:

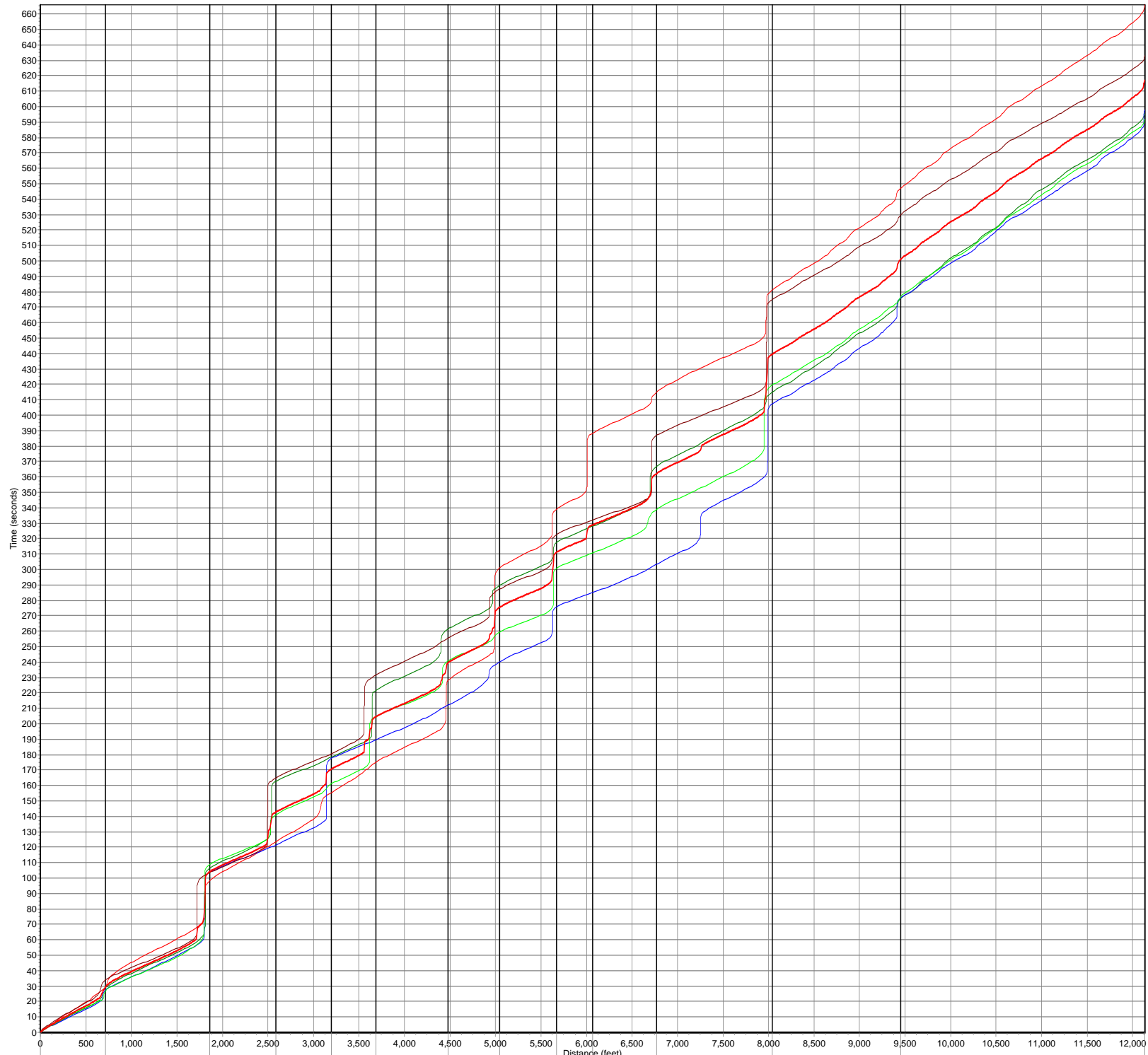
- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Northbound from 1\_Wilson/ California

5 Before-type runs, 5 of unverifiable origin, collected Thursday 1/16/2020 to Thursday 1/16/2020, over day(s) Thu, with starting times during 7:02:52 AM to 8:37:37 AM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 2_Wilson/ San Pasqual</b>						
Average Before (n=5)	NB	0	29	712	17.1	1.0
Std Dev Before (n=5)	NB	0	3	10	1.6	0.0
<b>to 3_Wilson/ Del Mar</b>						
Average Before (n=5)	NB	0	104	1860	12.2	2.2
Std Dev Before (n=5)	NB	0	4	8	0.5	0.4
<b>to 4_Wilson/ Cordova</b>						
Average Before (n=5)	NB	0	142	2585	12.6	2.8
Std Dev Before (n=5)	NB	0	21	6	1.8	0.4
<b>to 5_Wilson/ Green</b>						
Average Before (n=5)	NB	0	170	3194	12.9	3.2
Std Dev Before (n=5)	NB	0	11	9	0.9	0.4
<b>to 6_Wilson/ Colorado</b>						
Average Before (n=5)	NB	0	204	3689	12.4	3.8
Std Dev Before (n=5)	NB	0	23	6	1.4	0.4
<b>to 7_Wilson/ Union</b>						
Average Before (n=5)	NB	0	239	4480	12.8	4.4
Std Dev Before (n=5)	NB	0	20	7	1.1	0.9
<b>to 8_Wilson/ Walnut</b>						
Average Before (n=5)	NB	0	275	5043	12.6	5.2
Std Dev Before (n=5)	NB	0	25	10	1.2	0.8

<b>to 9_Wilson/ Corson</b>						
Average Before (n=5)	NB	0	311	5672	12.5	6.2
Std Dev Before (n=5)	NB	0	24	11	1.0	0.8
<b>to 10_Wilson/ Maple</b>						
Average Before (n=5)	NB	0	328	6069	12.7	6.4
Std Dev Before (n=5)	NB	0	38	15	1.4	1.1
<b>to 11_Wilson/ Villa</b>						
Average Before (n=5)	NB	0	362	6769	12.9	7.2
Std Dev Before (n=5)	NB	0	43	18	1.6	1.5
<b>to 12_Wilson/ Orange Grove</b>						
Average Before (n=5)	NB	0	439	8041	12.5	8.4
Std Dev Before (n=5)	NB	0	35	19	1.0	1.1
<b>to 13_Wilson/ Mountain</b>						
Average Before (n=5)	NB	0	501	9450	12.9	9.2
Std Dev Before (n=5)	NB	0	35	22	0.9	1.3
<b>to 14_Wilson/ Washington</b>						
Average Before (n=5)	NB	0	616	12134	13.5	10.2
Std Dev Before (n=5)	NB	0	32	23	0.7	1.3



- (imported) AM NB 1 Run 1 started 7:02 AM 1/16/2020
- (imported) AM NB 2 Run 1 started 7:25 AM 1/16/2020
- (imported) AM NB 3 Run 1 started 7:49 AM 1/16/2020
- (imported) AM NB 4 Run 1 started 8:14 AM 1/16/2020
- (imported) AM NB 5 Run 1 started 8:37 AM 1/16/2020
- Average Instantaneous Time

1\_Wilson/ California      3\_Wilson/ Del Mar      5\_Wilson/ Green      7\_Wilson/ Union      9\_Wilson/ Corson      11\_Wilson/ Villa  
2\_Wilson/ San Pasqual      4\_Wilson/ Cordova      6\_Wilson/ Colorado      8\_Wilson/ Walnut      10\_Wilson/ Maple      12\_Wilson/ Orange Grove      13\_Wilson/ Mountain      14\_Wilson/ Washington

Monday 3/23/2020 1:30:26 PM

## Travel Time & Delay Report for Artery #1

### Legend:

#### NCT:

Node Crossing Time

#### Dir:

Direction of Travel (NB, SB, EB, or WB)

#### NID:

Node ID

#### CTT:

Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Contents:

[\(imported\) AM SB 1](#), [\(imported\) AM SB 2](#), [\(imported\) AM SB 3](#), [\(imported\) AM SB 4](#), [\(imported\) AM SB 5](#), [Cumulative Reports](#)  
[\[-\] Collapse All](#)

### [\[-\] Before-type Trip Log "\(imported\) AM SB 1", Other-period, started Thursday 1/16/2020 7:14:54](#)

[AM](#) [↑Contents](#)

**Entered artery 7:14:58 am (4 seconds) traveling Southbound  
from 14\_Wilson/ Washington**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 13_Wilson/ Mountain	7:16:44 am	SB	0	107	2699	17.3	1
to 12_Wilson/ Orange Grove	7:17:39 am	SB	0	161	4105	17.4	1
to 11_Wilson/ Villa	7:18:31 am	SB	0	213	5366	17.2	2
to 10_Wilson/ Maple	7:18:52 am	SB	0	235	6063	17.6	2
to 9_Wilson/ Corson	7:19:03 am	SB	0	245	6456	18.0	2
to 8_Wilson/ Walnut	7:19:32 am	SB	0	275	7091	17.6	3
to 7_Wilson/ Union	7:19:49 am	SB	0	292	7648	17.9	3
to 6_Wilson/ Colorado	7:21:00 am	SB	0	362	8455	15.9	4
to 5_Wilson/ Green	7:21:27 am	SB	0	389	8951	15.7	5
to 4_Wilson/ Cordova	7:22:16 am	SB	0	438	9563	14.9	6
to 3_Wilson/ Del Mar	7:23:13 am	SB	0	495	10297	14.2	7
to 2_Wilson/ San Pasqual	7:23:50 am	SB	0	533	11432	14.6	8
to 1_Wilson/ California	7:24:09 am	SB	0	551	12139	15.0	8

### [\[-\] Before-type Trip Log "\(imported\) AM SB 2", Other-period, started Thursday 1/16/2020 7:36:33](#)

[AM](#) [↑Contents](#)



**Entered artery 7:36:44 am (11 seconds) traveling  
Southbound from 14\_Wilson/ Washington**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>NID</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 13_Wilson/ Mountain	7:38:30 am	SB	0	107	2697	17.3	1
to 12_Wilson/ Orange Grove	7:40:19 am	SB	0	215	4118	13.1	2
to 11_Wilson/ Villa	7:41:21 am	SB	0	277	5389	13.3	3
to 10_Wilson/ Maple	7:42:17 am	SB	0	333	6097	12.5	4
to 9_Wilson/ Corson	7:42:27 am	SB	0	343	6490	12.9	4
to 8_Wilson/ Walnut	7:42:56 am	SB	0	372	7119	13.1	5
to 7_Wilson/ Union	7:43:40 am	SB	0	416	7678	12.6	6
to 6_Wilson/ Colorado	7:44:17 am	SB	0	453	8480	12.8	7
to 5_Wilson/ Green	7:44:31 am	SB	0	467	8972	13.1	7
to 4_Wilson/ Cordova	7:45:35 am	SB	0	531	9580	12.3	8
to 3_Wilson/ Del Mar	7:45:58 am	SB	0	555	10300	12.7	8
to 2_Wilson/ San Pasqual	7:46:52 am	SB	0	608	11435	12.8	9
to 1_Wilson/ California	7:48:02 am	SB	0	678	12156	12.2	10

**[\[-\] Before-type Trip Log "\(imported\) AM SB 3", Other-period, started Thursday 1/16/2020 8:01:22 AM](#)** [↑Contents](#)

**Entered artery 8:01:30 am (8 seconds) traveling Southbound  
from 14\_Wilson/ Washington**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>NID</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 13_Wilson/ Mountain	8:03:20 am	SB	0	110	2700	16.7	1
to 12_Wilson/ Orange Grove	8:05:33 am	SB	0	244	4127	11.5	2
to 11_Wilson/ Villa	8:06:06 am	SB	0	276	5386	13.3	2
to 10_Wilson/ Maple	8:06:43 am	SB	0	314	6100	13.3	3
to 9_Wilson/ Corson	8:06:53 am	SB	0	323	6493	13.7	3
to 8_Wilson/ Walnut	8:07:29 am	SB	0	360	7142	13.5	4
to 7_Wilson/ Union	8:07:48 am	SB	0	379	7699	13.9	4
to 6_Wilson/ Colorado	8:08:47 am	SB	0	438	8508	13.3	5
to 5_Wilson/ Green	8:09:25 am	SB	0	476	9002	12.9	6
to 4_Wilson/ Cordova	8:10:03 am	SB	0	514	9617	12.8	7
to 3_Wilson/ Del Mar	8:11:12 am	SB	0	583	10352	12.1	8
to 2_Wilson/ San Pasqual	8:11:55 am	SB	0	626	11485	12.5	9
to 1_Wilson/ California	8:13:22 am	SB	0	713	12196	11.7	11

**[\[-\] Before-type Trip Log "\(imported\) AM SB 4", Other-period, started Thursday 1/16/2020 8:26:31 AM](#)** [↑Contents](#)

**Entered artery 8:26:35 am (5 seconds) traveling Southbound  
from 14\_Wilson/ Washington**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 13_Wilson/ Mountain	8:28:21 am	SB	0	106	2695	17.3	1
to 12_Wilson/ Orange Grove	8:29:37 am	SB	0	182	4104	15.4	2
to 11_Wilson/ Villa	8:30:11 am	SB	0	215	5364	17.0	2
to 10_Wilson/ Maple	8:31:15 am	SB	0	280	6071	14.8	3
to 9_Wilson/ Corson	8:31:25 am	SB	0	290	6464	15.2	3
to 8_Wilson/ Walnut	8:31:53 am	SB	0	318	7098	15.2	4
to 7_Wilson/ Union	8:32:42 am	SB	0	366	7670	14.3	5
to 6_Wilson/ Colorado	8:33:19 am	SB	0	404	8493	14.3	6
to 5_Wilson/ Green	8:33:32 am	SB	0	417	8984	14.7	6
to 4_Wilson/ Cordova	8:34:33 am	SB	0	478	9648	13.8	7
to 3_Wilson/ Del Mar	8:35:14 am	SB	0	519	10401	13.7	8
to 2_Wilson/ San Pasqual	8:35:53 am	SB	0	557	11535	14.1	9
to 1_Wilson/ California	8:36:15 am	SB	0	580	12245	14.4	9

**[\[-\] Before-type Trip Log "\(imported\) AM SB 5", Other-period, started Thursday 1/16/2020 8:48:37 AM](#)** [↑Contents](#)

**Entered artery 8:48:42 am (6 seconds) traveling Southbound from 14\_Wilson/ Washington**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 13_Wilson/ Mountain	8:50:28 am	SB	0	106	2687	17.3	1
to 12_Wilson/ Orange Grove	8:52:13 am	SB	0	210	4098	13.3	2
to 11_Wilson/ Villa	8:52:46 am	SB	0	243	5357	15.0	2
to 10_Wilson/ Maple	8:53:22 am	SB	0	280	6053	14.8	3
to 9_Wilson/ Corson	8:53:32 am	SB	0	290	6449	15.2	3
to 8_Wilson/ Walnut	8:54:06 am	SB	0	324	7077	14.9	4
to 7_Wilson/ Union	8:54:42 am	SB	0	360	7637	14.5	5
to 6_Wilson/ Colorado	8:55:24 am	SB	0	401	8404	14.3	6
to 5_Wilson/ Green	8:56:21 am	SB	0	459	8932	13.3	7
to 4_Wilson/ Cordova	8:56:39 am	SB	0	477	9536	13.6	7
to 3_Wilson/ Del Mar	8:57:49 am	SB	0	547	10257	12.8	8
to 2_Wilson/ San Pasqual	8:58:30 am	SB	0	587	11397	13.2	9
to 1_Wilson/ California	8:58:58 am	SB	0	615	12106	13.4	9

## Cumulative Reports

**[\[-\] Before-type Trip Log "\(imported\) AM SB 1", Other-period, started Thursday 1/16/2020 7:14:54 AM](#)** [↑Contents](#)

**Entered artery 7:14:58 am (4 seconds) traveling**

**Southbound from 14\_Wilson/ Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Wilson/ California	7:24:09 am	SB	551	12139	15.0	8

**[\[-\] Before-type Trip Log "\(imported\) AM SB 2", Other-period, started Thursday 1/16/2020 7:36:33](#)****AM** [↑Contents](#)

**Entered artery 7:36:44 am (11 seconds) traveling  
Southbound from 14\_Wilson/ Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Wilson/ California	7:48:02 am	SB	678	12156	12.2	10

**[\[-\] Before-type Trip Log "\(imported\) AM SB 3", Other-period, started Thursday 1/16/2020 8:01:22](#)****AM** [↑Contents](#)

**Entered artery 8:01:30 am (8 seconds) traveling  
Southbound from 14\_Wilson/ Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Wilson/ California	8:13:22 am	SB	713	12196	11.7	11

**[\[-\] Before-type Trip Log "\(imported\) AM SB 4", Other-period, started Thursday 1/16/2020 8:26:31](#)****AM** [↑Contents](#)

**Entered artery 8:26:35 am (5 seconds) traveling  
Southbound from 14\_Wilson/ Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Wilson/ California	8:36:15 am	SB	580	12245	14.4	9

**[\[-\] Before-type Trip Log "\(imported\) AM SB 5", Other-period, started Thursday 1/16/2020 8:48:37](#)****AM** [↑Contents](#)

**Entered artery 8:48:42 am (6 seconds) traveling  
Southbound from 14\_Wilson/ Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Wilson/ California	8:58:58 am	SB	615	12106	13.4	9

Monday 3/23/2020 1:30:26 PM

## Travel Time & Delay Report for Artery #1

### Legend:

- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Southbound from 14\_Wilson/ Washington

5 Before-type runs, 5 of unverifiable origin, collected Thursday 1/16/2020 to Thursday 1/16/2020, over day(s) Thu, with starting times during 7:14:58 AM to 8:48:42 AM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 13_Wilson/ Mountain</b>						
Average Before (n=5)	SB	0	107	2696	17.2	1.0
Std Dev Before (n=5)	SB	0	2	5	0.3	0.0
<b>to 12_Wilson/ Orange Grove</b>						
Average Before (n=5)	SB	0	202	4111	14.1	1.8
Std Dev Before (n=5)	SB	0	32	12	2.3	0.4
<b>to 11_Wilson/ Villa</b>						
Average Before (n=5)	SB	0	245	5372	15.2	2.2
Std Dev Before (n=5)	SB	0	31	14	1.9	0.4
<b>to 10_Wilson/ Maple</b>						
Average Before (n=5)	SB	0	288	6077	14.6	3.0
Std Dev Before (n=5)	SB	0	38	21	2.0	0.7
<b>to 9_Wilson/ Corson</b>						
Average Before (n=5)	SB	0	298	6470	15.0	3.0
Std Dev Before (n=5)	SB	0	38	20	1.9	0.7
<b>to 8_Wilson/ Walnut</b>						
Average Before (n=5)	SB	0	330	7105	14.9	4.0
Std Dev Before (n=5)	SB	0	38	25	1.8	0.7
<b>to 7_Wilson/ Union</b>						
Average Before (n=5)	SB	0	363	7667	14.6	4.6
Std Dev Before (n=5)	SB	0	45	25	2.0	1.1

<b>to 6_Wilson/ Colorado</b>						
Average Before (n=5)	SB	0	412	8468	14.1	5.6
Std Dev Before (n=5)	SB	0	35	41	1.2	1.1
<b>to 5_Wilson/ Green</b>						
Average Before (n=5)	SB	0	441	8968	13.9	6.2
Std Dev Before (n=5)	SB	0	37	27	1.2	0.8
<b>to 4_Wilson/ Cordova</b>						
Average Before (n=5)	SB	0	488	9589	13.5	7.0
Std Dev Before (n=5)	SB	0	36	44	1.0	0.7
<b>to 3_Wilson/ Del Mar</b>						
Average Before (n=5)	SB	0	539	10321	13.1	7.8
Std Dev Before (n=5)	SB	0	34	56	0.8	0.4
<b>to 2_Wilson/ San Pasqual</b>						
Average Before (n=5)	SB	0	582	11457	13.5	8.8
Std Dev Before (n=5)	SB	0	38	54	0.9	0.4
<b>to 1_Wilson/ California</b>						
Average Before (n=5)	SB	0	627	12169	13.3	9.4
Std Dev Before (n=5)	SB	0	67	54	1.4	1.1



- (imported) AM SB 1 Run 1 started 7:14 AM 1/16/2020
- (imported) AM SB 2 Run 1 started 7:36 AM 1/16/2020
- (imported) AM SB 3 Run 1 started 8:01 AM 1/16/2020
- (imported) AM SB 4 Run 1 started 8:26 AM 1/16/2020
- (imported) AM SB 5 Run 1 started 8:48 AM 1/16/2020
- Average Instantaneous Time

Monday 3/23/2020 1:34:40 PM

## Travel Time & Delay Report for Artery #1

### Legend:

#### CTT:

Summarized Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Summarized Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Cumulative Summary of runs Northbound from 1\_Wilson/ California

5 Before-type runs, 5 of unverifiable origin, collected  
Tuesday 1/14/2020 to Tuesday 1/28/2020, over day(s)  
Tue, with starting times during 4:17:40 PM to 5:29:00  
PM

	CTI	CTL	CAS	CStops
<b>to 14_Wilson/ Washington</b>				
Average Before (n=5)	601	12071	13.8	9.6
Std Dev Before (n=5)	67	28	1.6	2.5

### Cumulative Summary of runs Southbound from 14\_Wilson/ Washington

5 Before-type runs, 5 of unverifiable origin, collected  
Tuesday 1/14/2020 to Tuesday 1/14/2020, over day(s)  
Tue, with starting times during 4:13:41 PM to 5:45:48  
PM

	CTI	CTL	CAS	CStops
<b>to 1_Wilson/ California</b>				
Average Before (n=5)	568	12062	14.5	8.0
Std Dev Before (n=5)	35	3	0.9	2.1

### Cumulative Summary of all runs, either direction through artery

10 Before-type runs, 10 of unverifiable origin, collected  
Tuesday 1/14/2020 to Tuesday 1/28/2020, over day(s)  
Tue, with starting times during 4:21:59 PM to 5:54:23  
PM

	CTI	CTL	CAS	CStops
<b>to End of Artery</b>				
Average Before (n=10)	585	12067	14.2	8.8
Std Dev Before (n=10)	53	20	1.3	2.3
Difference	0	0	0.0	0.0
Std Dev Difference	53	20	1.3	2.3
% Difference	0%	0%	0.0%	0.0%

Monday 3/23/2020 1:34:40 PM

## Travel Time & Delay Report for Artery #1

### Legend:

#### NCT:

Node Crossing Time

#### Dir:

Direction of Travel (NB, SB, EB, or WB)

#### NID:

Node ID

#### CTT:

Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Contents:

[\(imported\) PM NB 1](#), [\(imported\) PM NB 2](#), [\(imported\) PM NB 3](#), [\(imported\) PM NB 4](#), [\(imported\) PM NB 5](#), [Cumulative Reports](#)  
[-] Collapse All

### [\[-\] Before-type Trip Log "\(imported\) PM NB 1", Other-period, started Tuesday 1/14/2020 4:22:56 PM](#) [↑Contents](#)

**Entered artery 4:23:43 pm (48 seconds) traveling  
Northbound from 1\_Wilson/ California**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Wilson/ San Pasqual	4:24:09 pm	NB	0	25	713	19.1	0
to 3_Wilson/ Del Mar	4:24:41 pm	NB	0	58	1842	21.5	0
to 4_Wilson/ Cordova	4:25:08 pm	NB	0	84	2560	20.7	0
to 5_Wilson/ Green	4:25:35 pm	NB	0	112	3166	19.3	1
to 6_Wilson/ Colorado	4:26:11 pm	NB	0	148	3656	16.9	2
to 7_Wilson/ Union	4:26:55 pm	NB	0	192	4445	15.8	4
to 8_Wilson/ Walnut	4:27:30 pm	NB	0	227	5002	15.0	5
to 9_Wilson/ Corson	4:28:16 pm	NB	0	273	5628	14.0	6
to 10_Wilson/ Maple	4:28:26 pm	NB	0	283	6021	14.5	6
to 11_Wilson/ Villa	4:28:56 pm	NB	0	313	6717	14.6	7
to 12_Wilson/ Orange Grove	4:30:09 pm	NB	0	386	7975	14.1	8
to 13_Wilson/ Mountain	4:30:58 pm	NB	0	435	9377	14.7	9
to 14_Wilson/ Washington	4:32:35 pm	NB	0	531	12058	15.5	10

### [\[-\] Before-type Trip Log "\(imported\) PM NB 2", Other-period, started Tuesday 1/14/2020 4:44:31 PM](#) [↑Contents](#)



**Entered artery 4:45:14 pm (43 seconds) traveling  
Northbound from 1\_Wilson/ California**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>NID</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 2_Wilson/ San Pasqual	4:45:41 pm	NB	0	27	712	17.9	0
to 3_Wilson/ Del Mar	4:46:58 pm	NB	0	104	1845	12.1	1
to 4_Wilson/ Cordova	4:47:15 pm	NB	0	122	2562	14.4	1
to 5_Wilson/ Green	4:47:34 pm	NB	0	141	3167	15.3	1
to 6_Wilson/ Colorado	4:48:17 pm	NB	0	184	3658	13.6	2
to 7_Wilson/ Union	4:48:46 pm	NB	0	213	4445	14.2	2
to 8_Wilson/ Walnut	4:49:43 pm	NB	0	269	5002	12.7	3
to 9_Wilson/ Corson	4:50:25 pm	NB	0	312	5630	12.3	4
to 10_Wilson/ Maple	4:50:35 pm	NB	0	322	6024	12.8	4
to 11_Wilson/ Villa	4:50:52 pm	NB	0	338	6718	13.5	4
to 12_Wilson/ Orange Grove	4:51:29 pm	NB	0	375	7975	14.5	4
to 13_Wilson/ Mountain	4:52:17 pm	NB	0	424	9378	15.1	5
to 14_Wilson/ Washington	4:53:58 pm	NB	0	525	12058	15.7	6

**[\[-\] Before-type Trip Log "\(imported\) PM NB 3", Other-period, started Tuesday 1/14/2020 5:05:55 PM](#)**

**Entered artery 5:06:15 pm (20 seconds) traveling  
Northbound from 1\_Wilson/ California**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>NID</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 2_Wilson/ San Pasqual	5:06:53 pm	NB	0	38	712	12.7	1
to 3_Wilson/ Del Mar	5:08:06 pm	NB	0	111	1846	11.4	2
to 4_Wilson/ Cordova	5:08:24 pm	NB	0	129	2563	13.6	2
to 5_Wilson/ Green	5:09:27 pm	NB	0	192	3168	11.2	4
to 6_Wilson/ Colorado	5:10:24 pm	NB	0	250	3660	10.0	5
to 7_Wilson/ Union	5:10:50 pm	NB	0	275	4447	11.0	5
to 8_Wilson/ Walnut	5:11:45 pm	NB	0	331	5005	10.3	7
to 9_Wilson/ Corson	5:12:36 pm	NB	0	381	5632	10.1	8
to 10_Wilson/ Maple	5:12:45 pm	NB	0	390	6025	10.5	8
to 11_Wilson/ Villa	5:13:23 pm	NB	0	428	6722	10.7	9
to 12_Wilson/ Orange Grove	5:14:14 pm	NB	0	479	7981	11.4	10
to 13_Wilson/ Mountain	5:15:27 pm	NB	0	552	9387	11.6	12
to 14_Wilson/ Washington	5:17:04 pm	NB	0	649	12057	12.7	13

**[\[-\] Before-type Trip Log "\(imported\) PM NB 4", Other-period, started Tuesday 1/14/2020 5:28:40 PM](#)**

**Entered artery 5:29:00 pm (20 seconds) traveling  
Northbound from 1\_Wilson/ California**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Wilson/ San Pasqual	5:29:33 pm	NB	0	34	714	14.5	1
to 3_Wilson/ Del Mar	5:30:40 pm	NB	0	100	1849	12.6	2
to 4_Wilson/ Cordova	5:31:34 pm	NB	0	155	2574	11.3	3
to 5_Wilson/ Green	5:32:31 pm	NB	0	212	3180	10.2	4
to 6_Wilson/ Colorado	5:32:45 pm	NB	0	225	3670	11.1	4
to 7_Wilson/ Union	5:33:06 pm	NB	0	246	4457	12.3	4
to 8_Wilson/ Walnut	5:34:03 pm	NB	0	303	5013	11.3	5
to 9_Wilson/ Corson	5:34:48 pm	NB	0	348	5638	11.0	6
to 10_Wilson/ Maple	5:34:57 pm	NB	0	357	6032	11.5	6
to 11_Wilson/ Villa	5:35:15 pm	NB	0	376	6726	12.2	6
to 12_Wilson/ Orange Grove	5:36:52 pm	NB	0	472	7986	11.5	7
to 13_Wilson/ Mountain	5:37:50 pm	NB	0	530	9388	12.1	8
to 14_Wilson/ Washington	5:39:54 pm	NB	0	654	12061	12.6	9

**[\[-\] Before-type Trip Log "\(imported\) PM NB 5", Other-period, started Tuesday 1/28/2020 4:17:32 PM](#)** [↑Contents](#)

**Entered artery 4:17:40 pm (8 seconds) traveling Northbound from 1\_Wilson/ California**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Wilson/ San Pasqual	4:18:00 pm	NB	0	20	713	23.9	0
to 3_Wilson/ Del Mar	4:19:10 pm	NB	0	91	1847	13.9	1
to 4_Wilson/ Cordova	4:19:29 pm	NB	0	110	2567	16.0	1
to 5_Wilson/ Green	4:20:21 pm	NB	0	161	3180	13.4	2
to 6_Wilson/ Colorado	4:20:38 pm	NB	0	178	3671	14.0	2
to 7_Wilson/ Union	4:21:02 pm	NB	0	202	4461	15.1	2
to 8_Wilson/ Walnut	4:21:30 pm	NB	0	230	5022	14.9	3
to 9_Wilson/ Corson	4:22:09 pm	NB	0	269	5648	14.3	4
to 10_Wilson/ Maple	4:22:18 pm	NB	0	278	6042	14.8	4
to 11_Wilson/ Villa	4:22:45 pm	NB	0	305	6741	15.1	5
to 12_Wilson/ Orange Grove	4:24:09 pm	NB	0	390	8018	14.0	6
to 13_Wilson/ Mountain	4:27:13 pm	NB	0	573	9444	11.2	9
to 14_Wilson/ Washington	4:28:27 pm	NB	0	647	12122	12.8	10

## Cumulative Reports

**[\[-\] Before-type Trip Log "\(imported\) PM NB 1", Other-period, started Tuesday 1/14/2020 4:22:56 PM](#)** [↑Contents](#)

**Entered artery 4:23:43 pm (48 seconds) traveling**

**Northbound from 1\_Wilson/ California**

Node	<a href="#">NCT</a>	<a href="#">Dir</a>	<a href="#">CTT</a>	<a href="#">CTL</a>	<a href="#">CAS</a>	<a href="#">CStops</a>
to 14_Wilson/ Washington	4:32:35 pm	NB	531	12058	15.5	10

**[\[-\] Before-type Trip Log "\(imported\) PM NB 2", Other-period, started Tuesday 1/14/2020 4:44:31](#)****PM** [↑Contents](#)

**Entered artery 4:45:14 pm (43 seconds) traveling  
Northbound from 1\_Wilson/ California**

Node	<a href="#">NCT</a>	<a href="#">Dir</a>	<a href="#">CTT</a>	<a href="#">CTL</a>	<a href="#">CAS</a>	<a href="#">CStops</a>
to 14_Wilson/ Washington	4:53:58 pm	NB	525	12058	15.7	6

**[\[-\] Before-type Trip Log "\(imported\) PM NB 3", Other-period, started Tuesday 1/14/2020 5:05:55](#)****PM** [↑Contents](#)

**Entered artery 5:06:15 pm (20 seconds) traveling  
Northbound from 1\_Wilson/ California**

Node	<a href="#">NCT</a>	<a href="#">Dir</a>	<a href="#">CTT</a>	<a href="#">CTL</a>	<a href="#">CAS</a>	<a href="#">CStops</a>
to 14_Wilson/ Washington	5:17:04 pm	NB	649	12057	12.7	13

**[\[-\] Before-type Trip Log "\(imported\) PM NB 4", Other-period, started Tuesday 1/14/2020 5:28:40](#)****PM** [↑Contents](#)

**Entered artery 5:29:00 pm (20 seconds) traveling  
Northbound from 1\_Wilson/ California**

Node	<a href="#">NCT</a>	<a href="#">Dir</a>	<a href="#">CTT</a>	<a href="#">CTL</a>	<a href="#">CAS</a>	<a href="#">CStops</a>
to 14_Wilson/ Washington	5:39:54 pm	NB	654	12061	12.6	9

**[\[-\] Before-type Trip Log "\(imported\) PM NB 5", Other-period, started Tuesday 1/28/2020 4:17:32](#)****PM** [↑Contents](#)

**Entered artery 4:17:40 pm (8 seconds) traveling  
Northbound from 1\_Wilson/ California**

Node	<a href="#">NCT</a>	<a href="#">Dir</a>	<a href="#">CTT</a>	<a href="#">CTL</a>	<a href="#">CAS</a>	<a href="#">CStops</a>
to 14_Wilson/ Washington	4:28:27 pm	NB	647	12122	12.8	10

Monday 3/23/2020 1:34:40 PM

## Travel Time & Delay Report for Artery #1

### Legend:

- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Northbound from 1\_Wilson/ California

5 Before-type runs, 5 of unverifiable origin, collected Tuesday 1/14/2020 to Tuesday 1/28/2020, over day(s) Tue, with starting times during 4:17:40 PM to 5:29:00 PM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 2_Wilson/ San Pasqual</b>						
Average Before (n=5)	NB	0	29	713	17.6	0.4
Std Dev Before (n=5)	NB	0	7	1	4.3	0.5
<b>to 3_Wilson/ Del Mar</b>						
Average Before (n=5)	NB	0	93	1846	14.3	1.2
Std Dev Before (n=5)	NB	0	21	3	4.2	0.8
<b>to 4_Wilson/ Cordova</b>						
Average Before (n=5)	NB	0	120	2565	15.2	1.4
Std Dev Before (n=5)	NB	0	26	6	3.5	1.1
<b>to 5_Wilson/ Green</b>						
Average Before (n=5)	NB	0	164	3172	13.9	2.4
Std Dev Before (n=5)	NB	0	40	7	3.6	1.5
<b>to 6_Wilson/ Colorado</b>						
Average Before (n=5)	NB	0	197	3663	13.1	3.0
Std Dev Before (n=5)	NB	0	40	7	2.7	1.4
<b>to 7_Wilson/ Union</b>						
Average Before (n=5)	NB	0	225	4451	13.7	3.4
Std Dev Before (n=5)	NB	0	35	7	2.0	1.3
<b>to 8_Wilson/ Walnut</b>						
Average Before (n=5)	NB	0	272	5009	12.8	4.6
Std Dev Before (n=5)	NB	0	45	9	2.1	1.7

<b>to 9_Wilson/ Corson</b>						
Average Before (n=5)	NB	0	316	5635	12.4	5.6
Std Dev Before (n=5)	NB	0	48	8	1.8	1.7
<b>to 10_Wilson/ Maple</b>						
Average Before (n=5)	NB	0	326	6029	12.8	5.6
Std Dev Before (n=5)	NB	0	48	8	1.9	1.7
<b>to 11_Wilson/ Villa</b>						
Average Before (n=5)	NB	0	352	6725	13.2	6.2
Std Dev Before (n=5)	NB	0	51	10	1.8	1.9
<b>to 12_Wilson/ Orange Grove</b>						
Average Before (n=5)	NB	0	420	7987	13.1	7.0
Std Dev Before (n=5)	NB	0	51	18	1.5	2.2
<b>to 13_Wilson/ Mountain</b>						
Average Before (n=5)	NB	0	503	9394	12.9	8.6
Std Dev Before (n=5)	NB	0	69	28	1.8	2.5
<b>to 14_Wilson/ Washington</b>						
Average Before (n=5)	NB	0	601	12071	13.8	9.6
Std Dev Before (n=5)	NB	0	67	28	1.6	2.5



- (imported) PM NB 1 Run 1 started 4:23 PM 1/14/2020
- (imported) PM NB 2 Run 1 started 4:45 PM 1/14/2020
- (imported) PM NB 3 Run 1 started 5:06 PM 1/14/2020
- (imported) PM NB 4 Run 1 started 5:29 PM 1/14/2020
- (imported) PM NB 5 Run 1 started 4:17 PM 1/28/2020
- Average Instantaneous Time

1\_Wilson/ California      3\_Wilson/ Del Mar      5\_Wilson/ Green      7\_Wilson/ Union      9\_Wilson/ Corson I      11\_Wilson/ Villa  
2\_Wilson/ San Pasqual      4\_Wilson/ Cordova      6\_Wilson/ Colorado      8\_Wilson/ Walnut      10\_Wilson/ Maple      12\_Wilson/ Orange Grove      13\_Wilson/ Mountain      14\_Wilson/ Washington

Monday 3/23/2020 1:34:40 PM

## Travel Time & Delay Report for Artery #1

### Legend:

#### NCT:

Node Crossing Time

#### Dir:

Direction of Travel (NB, SB, EB, or WB)

#### NID:

Node ID

#### CTT:

Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Contents:

[\(imported\) PM SB 1](#), [\(imported\) PM SB 2](#), [\(imported\) PM SB 3](#), [\(imported\) PM SB 4](#), [\(imported\) PM SB 5](#), [Cumulative Reports](#)  
[\[-\] Collapse All](#)

### [\[-\] Before-type Trip Log "\(imported\) PM SB 1", Other-period, started Tuesday 1/14/2020 4:12:09 PM](#) [↑Contents](#)

**Entered artery 4:13:41 pm (93 seconds) traveling  
Southbound from 14\_Wilson/ Washington**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 13_Wilson/ Mountain	4:15:19 pm	SB	0	98	2677	18.7	1
to 12_Wilson/ Orange Grove	4:16:46 pm	SB	0	184	4080	15.1	2
to 11_Wilson/ Villa	4:17:13 pm	SB	0	212	5338	17.2	2
to 10_Wilson/ Maple	4:17:33 pm	SB	0	232	6033	17.7	2
to 9_Wilson/ Corson	4:17:45 pm	SB	0	243	6426	18.0	2
to 8_Wilson/ Walnut	4:18:08 pm	SB	0	267	7052	18.0	2
to 7_Wilson/ Union	4:18:51 pm	SB	0	309	7612	16.8	3
to 6_Wilson/ Colorado	4:19:12 pm	SB	0	331	8399	17.3	3
to 5_Wilson/ Green	4:19:34 pm	SB	0	353	8893	17.2	4
to 4_Wilson/ Cordova	4:20:18 pm	SB	0	396	9500	16.3	5
to 3_Wilson/ Del Mar	4:21:27 pm	SB	0	465	10222	15.0	6
to 2_Wilson/ San Pasqual	4:21:59 pm	SB	0	498	11353	15.5	6
to 1_Wilson/ California	4:22:20 pm	SB	0	519	12060	15.8	6

### [\[-\] Before-type Trip Log "\(imported\) PM SB 2", Other-period, started Tuesday 1/14/2020 4:34:04 PM](#) [↑Contents](#)

**Entered artery 4:34:39 pm (35 seconds) traveling  
Southbound from 14\_Wilson/ Washington**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>NID</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 13_Wilson/ Mountain	4:36:19 pm	SB	0	101	2688	18.2	1
to 12_Wilson/ Orange Grove	4:37:04 pm	SB	0	146	4090	19.1	1
to 11_Wilson/ Villa	4:37:41 pm	SB	0	183	5349	20.0	1
to 10_Wilson/ Maple	4:38:50 pm	SB	0	251	6048	16.4	2
to 9_Wilson/ Corson	4:39:00 pm	SB	0	261	6440	16.8	2
to 8_Wilson/ Walnut	4:39:13 pm	SB	0	275	7065	17.5	2
to 7_Wilson/ Union	4:39:48 pm	SB	0	309	7621	16.8	3
to 6_Wilson/ Colorado	4:40:10 pm	SB	0	331	8409	17.3	3
to 5_Wilson/ Green	4:40:29 pm	SB	0	350	8899	17.3	3
to 4_Wilson/ Cordova	4:41:20 pm	SB	0	401	9506	16.2	4
to 3_Wilson/ Del Mar	4:42:30 pm	SB	0	471	10229	14.8	5
to 2_Wilson/ San Pasqual	4:43:22 pm	SB	0	523	11360	14.8	6
to 1_Wilson/ California	4:43:45 pm	SB	0	547	12066	15.0	6

**[\[-\] Before-type Trip Log "\(imported\) PM SB 3", Other-period, started Tuesday 1/14/2020 4:54:35 PM](#)**  
[↑Contents](#)

**Entered artery 4:55:05 pm (31 seconds) traveling  
Southbound from 14\_Wilson/ Washington**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>NID</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 13_Wilson/ Mountain	4:56:40 pm	SB	0	94	2679	19.4	0
to 12_Wilson/ Orange Grove	4:58:05 pm	SB	0	179	4083	15.5	2
to 11_Wilson/ Villa	4:59:09 pm	SB	0	243	5345	15.0	3
to 10_Wilson/ Maple	4:59:49 pm	SB	0	283	6040	14.5	4
to 9_Wilson/ Corson	4:59:58 pm	SB	0	292	6433	15.0	4
to 8_Wilson/ Walnut	5:00:17 pm	SB	0	311	7058	15.5	4
to 7_Wilson/ Union	5:00:52 pm	SB	0	346	7618	15.0	5
to 6_Wilson/ Colorado	5:01:15 pm	SB	0	369	8405	15.5	5
to 5_Wilson/ Green	5:01:35 pm	SB	0	390	8896	15.6	5
to 4_Wilson/ Cordova	5:02:27 pm	SB	0	441	9502	14.7	6
to 3_Wilson/ Del Mar	5:03:35 pm	SB	0	510	10221	13.7	7
to 2_Wilson/ San Pasqual	5:04:34 pm	SB	0	569	11351	13.6	8
to 1_Wilson/ California	5:05:14 pm	SB	0	608	12060	13.5	9

**[\[-\] Before-type Trip Log "\(imported\) PM SB 4", Other-period, started Tuesday 1/14/2020 5:17:55 PM](#)**  
[↑Contents](#)

**Entered artery 5:18:08 pm (13 seconds) traveling  
Southbound from 14\_Wilson/ Washington**



Node	NCT	Dir	NID	CTI	CTL	CAS	CStops
to 13_Wilson/ Mountain	5:19:53 pm	SB	0	105	2688	17.5	0
to 12_Wilson/ Orange Grove	5:20:47 pm	SB	0	159	4090	17.5	0
to 11_Wilson/ Villa	5:21:56 pm	SB	0	228	5349	16.0	1
to 10_Wilson/ Maple	5:22:14 pm	SB	0	246	6043	16.7	1
to 9_Wilson/ Corson	5:22:52 pm	SB	0	284	6440	15.5	2
to 8_Wilson/ Walnut	5:23:22 pm	SB	0	314	7068	15.3	3
to 7_Wilson/ Union	5:23:49 pm	SB	0	342	7625	15.2	4
to 6_Wilson/ Colorado	5:24:25 pm	SB	0	377	8413	15.2	5
to 5_Wilson/ Green	5:24:41 pm	SB	0	394	8902	15.4	5
to 4_Wilson/ Cordova	5:25:38 pm	SB	0	451	9508	14.4	6
to 3_Wilson/ Del Mar	5:26:02 pm	SB	0	475	10227	14.7	6
to 2_Wilson/ San Pasqual	5:26:46 pm	SB	0	518	11357	14.9	7
to 1_Wilson/ California	5:27:44 pm	SB	0	577	12064	14.3	8

**[\[-\] Before-type Trip Log "\(imported\) PM SB 5", Other-period, started Tuesday 1/14/2020 5:44:52 PM](#)** [↑Contents](#)

**Entered artery 5:45:48 pm (56 seconds) traveling Southbound from 14\_Wilson/ Washington**

Node	NCT	Dir	NID	CTI	CTL	CAS	CStops
to 13_Wilson/ Mountain	5:47:35 pm	SB	0	108	2685	17.0	3
to 12_Wilson/ Orange Grove	5:48:45 pm	SB	0	177	4087	15.7	5
to 11_Wilson/ Villa	5:49:17 pm	SB	0	209	5344	17.4	5
to 10_Wilson/ Maple	5:50:01 pm	SB	0	253	6038	16.2	6
to 9_Wilson/ Corson	5:50:10 pm	SB	0	263	6432	16.7	6
to 8_Wilson/ Walnut	5:50:25 pm	SB	0	277	7057	17.4	6
to 7_Wilson/ Union	5:50:55 pm	SB	0	307	7617	16.9	7
to 6_Wilson/ Colorado	5:51:20 pm	SB	0	333	8405	17.2	7
to 5_Wilson/ Green	5:51:36 pm	SB	0	348	8895	17.4	7
to 4_Wilson/ Cordova	5:52:33 pm	SB	0	406	9501	16.0	8
to 3_Wilson/ Del Mar	5:53:16 pm	SB	0	448	10222	15.5	9
to 2_Wilson/ San Pasqual	5:54:23 pm	SB	0	516	11353	15.0	10
to 1_Wilson/ California	5:55:36 pm	SB	0	589	12061	14.0	11

## Cumulative Reports

**[\[-\] Before-type Trip Log "\(imported\) PM SB 1", Other-period, started Tuesday 1/14/2020 4:12:09 PM](#)** [↑Contents](#)

**Entered artery 4:13:41 pm (93 seconds) traveling**

**Southbound from 14\_Wilson/ Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Wilson/ California	4:22:20 pm	SB	519	12060	15.8	6

**[\[-\] Before-type Trip Log "\(imported\) PM SB 2", Other-period, started Tuesday 1/14/2020 4:34:04](#)****PM** [↑Contents](#)

**Entered artery 4:34:39 pm (35 seconds) traveling  
Southbound from 14\_Wilson/ Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Wilson/ California	4:43:45 pm	SB	547	12066	15.0	6

**[\[-\] Before-type Trip Log "\(imported\) PM SB 3", Other-period, started Tuesday 1/14/2020 4:54:35](#)****PM** [↑Contents](#)

**Entered artery 4:55:05 pm (31 seconds) traveling  
Southbound from 14\_Wilson/ Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Wilson/ California	5:05:14 pm	SB	608	12060	13.5	9

**[\[-\] Before-type Trip Log "\(imported\) PM SB 4", Other-period, started Tuesday 1/14/2020 5:17:55](#)****PM** [↑Contents](#)

**Entered artery 5:18:08 pm (13 seconds) traveling  
Southbound from 14\_Wilson/ Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Wilson/ California	5:27:44 pm	SB	577	12064	14.3	8

**[\[-\] Before-type Trip Log "\(imported\) PM SB 5", Other-period, started Tuesday 1/14/2020 5:44:52](#)****PM** [↑Contents](#)

**Entered artery 5:45:48 pm (56 seconds) traveling  
Southbound from 14\_Wilson/ Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Wilson/ California	5:55:36 pm	SB	589	12061	14.0	11

Monday 3/23/2020 1:34:40 PM

## Travel Time & Delay Report for Artery #1

### Legend:

- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Southbound from 14\_Wilson/ Washington

5 Before-type runs, 5 of unverifiable origin, collected Tuesday 1/14/2020 to Tuesday 1/14/2020, over day(s) Tue, with starting times during 4:13:41 PM to 5:45:48 PM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 13_Wilson/ Mountain</b>						
Average Before (n=5)	SB	0	101	2683	18.1	1.0
Std Dev Before (n=5)	SB	0	5	5	1.0	1.2
<b>to 12_Wilson/ Orange Grove</b>						
Average Before (n=5)	SB	0	169	4086	16.6	2.0
Std Dev Before (n=5)	SB	0	16	4	1.7	1.9
<b>to 11_Wilson/ Villa</b>						
Average Before (n=5)	SB	0	215	5345	17.1	2.4
Std Dev Before (n=5)	SB	0	23	5	1.9	1.7
<b>to 10_Wilson/ Maple</b>						
Average Before (n=5)	SB	0	253	6040	16.3	3.0
Std Dev Before (n=5)	SB	0	19	6	1.2	2.0
<b>to 9_Wilson/ Corson</b>						
Average Before (n=5)	SB	0	269	6434	16.4	3.2
Std Dev Before (n=5)	SB	0	20	6	1.2	1.8
<b>to 8_Wilson/ Walnut</b>						
Average Before (n=5)	SB	0	289	7060	16.7	3.4
Std Dev Before (n=5)	SB	0	22	6	1.3	1.7
<b>to 7_Wilson/ Union</b>						
Average Before (n=5)	SB	0	323	7619	16.1	4.4
Std Dev Before (n=5)	SB	0	19	5	0.9	1.7

<b>to 6_Wilson/ Colorado</b>						
Average Before (n=5)	SB	0	348	8406	16.5	4.6
Std Dev Before (n=5)	SB	0	23	5	1.1	1.7
<b>to 5_Wilson/ Green</b>						
Average Before (n=5)	SB	0	367	8897	16.6	4.8
Std Dev Before (n=5)	SB	0	23	4	1.0	1.5
<b>to 4_Wilson/ Cordova</b>						
Average Before (n=5)	SB	0	419	9503	15.5	5.8
Std Dev Before (n=5)	SB	0	25	4	0.9	1.5
<b>to 3_Wilson/ Del Mar</b>						
Average Before (n=5)	SB	0	474	10224	14.7	6.6
Std Dev Before (n=5)	SB	0	22	4	0.7	1.5
<b>to 2_Wilson/ San Pasqual</b>						
Average Before (n=5)	SB	0	525	11355	14.8	7.4
Std Dev Before (n=5)	SB	0	26	4	0.7	1.7
<b>to 1_Wilson/ California</b>						
Average Before (n=5)	SB	0	568	12062	14.5	8.0
Std Dev Before (n=5)	SB	0	35	3	0.9	2.1



- (imported) PM SB 1 Run 1 started 4:13 PM 1/14/2020
- (imported) PM SB 2 Run 1 started 4:34 PM 1/14/2020
- (imported) PM SB 3 Run 1 started 4:55 PM 1/14/2020
- (imported) PM SB 4 Run 1 started 5:18 PM 1/14/2020
- (imported) PM SB 5 Run 1 started 5:45 PM 1/14/2020
- Average Instantaneous Time

14\_Wilson/ Washington      13\_Wilson/ Mountain      12\_Wilson/ Orange Grove      11\_Wilson/ Villa      10\_Wilson/ Maple      9\_Wilson/ Corson      8\_Wilson/ Walnut      7\_Wilson/ Union      6\_Wilson/ Colorado      5\_Wilson/ Green      4\_Wilson/ Cordova      3\_Wilson/ Del Mar      2\_Wilson/ San Pasqual      1\_Wilson/ California

## Travel Time & Delay Report for Sierra Bointa

**Legend:**

- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

**Cumulative Summary of runs  
Northbound from 1\_Sierra  
Bonita/Colorado**

4 Before-type runs, 4 of unverifiable origin, collected Tuesday 1/28/2020 to Tuesday 1/28/2020, over day (s) Tue, with starting times during 7:00:09 AM to 8:38:33 AM

	CTT	CTL	CAS	CStops
<b>to 9_Sierra Bonita/Washington</b>				
Average Before (n=4)	334	8527	17.4	6.3
Std Dev Before (n=4)	13	35	0.7	0.5

**Cumulative Summary of runs  
Southbound from 9\_Sierra  
Bonita/Washington**

5 Before-type runs, 5 of unverifiable origin, collected Tuesday 1/28/2020 to Tuesday 1/28/2020, over day (s) Tue, with starting times during 7:08:06 AM to 8:45:35 AM

	CTT	CTL	CAS	CStops
<b>to 1_Sierra Bonita/Colorado</b>				
Average Before (n=5)	341	8547	17.2	5.4
Std Dev Before (n=5)	31	15	1.7	1.5

**Cumulative Summary of all runs, either  
direction through artery**

9 Before-type runs, 9 of unverifiable origin, collected Tuesday 1/28/2020 to Tuesday 1/28/2020, over day (s) Tue, with starting times during 7:03:53 AM to 8:50:23 AM

	CTT	CTL	CAS	CStops

<b>to End of Artery</b>				
<i>Average Before (n=9)</i>	338	8538	17.3	5.8
<i>Std Dev Before (n=9)</i>	24	26	1.3	1.2
Difference	0	0	0.0	0.0
<i>Std Dev Difference</i>	24	26	1.3	1.2
% Difference	0%	0%	0.0%	0.0%

Monday 3/23/2020 12:11:52 PM

## Travel Time & Delay Report for Sierra Bointa

### Legend:

#### NCT:

Node Crossing Time

#### Dir:

Direction of Travel (NB, SB, EB, or WB)

#### NID:

Node ID

#### CTT:

Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Contents:

[\(imported\) AM NB 1](#), [\(imported\) AM NB 2](#), [\(imported\) AM NB 3](#), [\(imported\) AM NB 4](#), [\(imported\) AM NB 5](#), [Cumulative Reports](#)  
[-] Collapse All

### **[\[-\] Before-type Trip Log "\(imported\) AM NB 1", Other-period, started Tuesday 1/28/2020 7:00:07](#)**

**AM** [↑Contents](#)

**Entered artery 7:00:09 am (2 seconds) traveling Northbound  
from 1\_Sierra Bonita/Colorado**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Sierra Bonita/Walnut	7:01:28 am	NB	0	80	1318	11.3	1
to 3_Sierra Bonita/Corson	7:01:47 am	NB	0	98	2136	14.8	1
to 4_Sierra Bonita/Maple	7:02:14 am	NB	0	125	2546	13.9	2
to 5_Sierra Bonita/Villa	7:02:40 am	NB	0	151	3160	14.2	3
to 6_Sierra Bonita/Orange Grove	7:03:18 am	NB	0	189	4447	16.0	4
to 7_Sierra Bonita/Paloma	7:03:32 am	NB	0	203	4921	16.5	5
to 8_Sierra Bonita/Mountain	7:03:53 am	NB	0	225	5864	17.8	5
to 9_Sierra Bonita/Washington	7:05:49 am	NB	0	340	8570	17.2	6

### **[\[-\] Before-type Trip Log "\(imported\) AM NB 2", Other-period, started Tuesday 1/28/2020 7:13:03](#)**

**AM** [↑Contents](#)

**Entered artery 7:13:11 am (8 seconds) traveling Northbound  
from 1\_Sierra Bonita/Colorado**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Sierra Bonita/Walnut	7:14:24 am	NB	0	73	1292	12.0	1



to 3_Sierra Bonita/Corson	7:14:41 am	NB	0	90	2110	16.0	1
to 4_Sierra Bonita/Maple	7:15:21 am	NB	0	130	2529	13.2	2
to 5_Sierra Bonita/Villa	7:15:42 am	NB	0	152	3123	14.0	3
to 6_Sierra Bonita/Orange Grove	7:16:25 am	NB	0	195	4415	15.5	4
to 7_Sierra Bonita/Paloma	7:16:40 am	NB	0	209	4890	15.9	4
to 8_Sierra Bonita/Mountain	7:17:32 am	NB	0	261	5835	15.2	5

**[\[-\] Before-type Trip Log "\(imported\) AM NB 3", Other-period, started Tuesday 1/28/2020 7:47:20 AM](#)** [↑Contents](#)

**Entered artery 7:47:29 am (9 seconds) traveling Northbound from 1\_Sierra Bonita/Colorado**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Sierra Bonita/Walnut	7:48:20 am	NB	0	51	1290	17.2	1
to 3_Sierra Bonita/Corson	7:48:36 am	NB	0	67	2109	21.4	1
to 4_Sierra Bonita/Maple	7:49:18 am	NB	0	110	2518	15.6	2
to 5_Sierra Bonita/Villa	7:49:42 am	NB	0	133	3116	16.0	3
to 6_Sierra Bonita/Orange Grove	7:50:42 am	NB	0	194	4414	15.5	4
to 7_Sierra Bonita/Paloma	7:51:00 am	NB	0	211	4888	15.8	5
to 8_Sierra Bonita/Mountain	7:51:26 am	NB	0	237	5832	16.7	5
to 9_Sierra Bonita/Washington	7:53:11 am	NB	0	342	8520	17.0	6

**[\[-\] Before-type Trip Log "\(imported\) AM NB 4", Other-period, started Tuesday 1/28/2020 8:17:00 AM](#)** [↑Contents](#)

**Entered artery 8:25:26 am (506 seconds) traveling Northbound from 1\_Sierra Bonita/Colorado**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Sierra Bonita/Walnut	8:25:58 am	NB	0	32	1266	26.8	0
to 3_Sierra Bonita/Corson	8:26:32 am	NB	0	67	2085	21.4	1
to 4_Sierra Bonita/Maple	8:26:42 am	NB	0	77	2492	22.2	1
to 5_Sierra Bonita/Villa	8:27:13 am	NB	0	107	3081	19.7	2
to 6_Sierra Bonita/Orange Grove	8:28:00 am	NB	0	154	4376	19.4	4
to 7_Sierra Bonita/Paloma	8:28:18 am	NB	0	172	4851	19.3	5
to 8_Sierra Bonita/Mountain	8:28:49 am	NB	0	203	5797	19.4	6
to 9_Sierra Bonita/Washington	8:30:40 am	NB	0	315	8485	18.4	7

**[\[-\] Before-type Trip Log "\(imported\) AM NB 5", Other-period, started Tuesday 1/28/2020 8:38:16 AM](#)** [↑Contents](#)

**Entered artery 8:38:33 am (17 seconds) traveling Northbound**

## from 1\_Sierra Bonita/Colorado

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Sierra Bonita/Walnut	8:39:43 am	NB	0	71	1291	12.4	1
to 3_Sierra Bonita/Corson	8:40:03 am	NB	0	91	2110	15.9	1
to 4_Sierra Bonita/Maple	8:40:41 am	NB	0	128	2545	13.5	2
to 5_Sierra Bonita/Villa	8:41:13 am	NB	0	160	3139	13.3	3
to 6_Sierra Bonita/Orange Grove	8:42:12 am	NB	0	219	4429	13.8	4
to 7_Sierra Bonita/Paloma	8:42:35 am	NB	0	242	4907	13.8	5
to 8_Sierra Bonita/Mountain	8:43:02 am	NB	0	269	5851	14.8	6
to 9_Sierra Bonita/Washington	8:44:12 am	NB	0	339	8532	17.1	6

## Cumulative Reports

**[\[-\] Before-type Trip Log "\(imported\) AM NB 1", Other-period, started Tuesday 1/28/2020 7:00:07 AM](#)** [↑Contents](#)

Entered artery 7:00:09 am (2 seconds) traveling  
Northbound from 1\_Sierra Bonita/Colorado

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 9_Sierra Bonita/Washington	7:05:49 am	NB	340	8570	17.2	6

**[\[-\] Before-type Trip Log "\(imported\) AM NB 2", Other-period, started Tuesday 1/28/2020 7:13:03 AM](#)** [↑Contents](#)

Entered artery 7:13:11 am (8 seconds) traveling  
Northbound from 1\_Sierra Bonita/Colorado

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 8_Sierra Bonita/Mountain	7:17:32 am	NB	261	5835	15.2	5

**[\[-\] Before-type Trip Log "\(imported\) AM NB 3", Other-period, started Tuesday 1/28/2020 7:47:20 AM](#)** [↑Contents](#)

Entered artery 7:47:29 am (9 seconds) traveling  
Northbound from 1\_Sierra Bonita/Colorado

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 9_Sierra Bonita/Washington	7:53:11 am	NB	342	8520	17.0	6

**[\[-\] Before-type Trip Log "\(imported\) AM NB 4", Other-period, started Tuesday 1/28/2020 8:17:00 AM](#)** [↑Contents](#)

**Entered artery 8:25:26 am (506 seconds) traveling  
Northbound from 1\_Sierra Bonita/Colorado**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 9_Sierra Bonita/Washington	8:30:40 am	NB	315	8485	18.4	7

**[\[-\] Before-type Trip Log "\(imported\) AM NB 5", Other-period, started Tuesday 1/28/2020 8:38:16 AM](#)** [↑Contents](#)

**Entered artery 8:38:33 am (17 seconds) traveling  
Northbound from 1\_Sierra Bonita/Colorado**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 9_Sierra Bonita/Washington	8:44:12 am	NB	339	8532	17.1	6

Monday 3/23/2020 12:11:52 PM

## Travel Time & Delay Report for Sierra Bointa

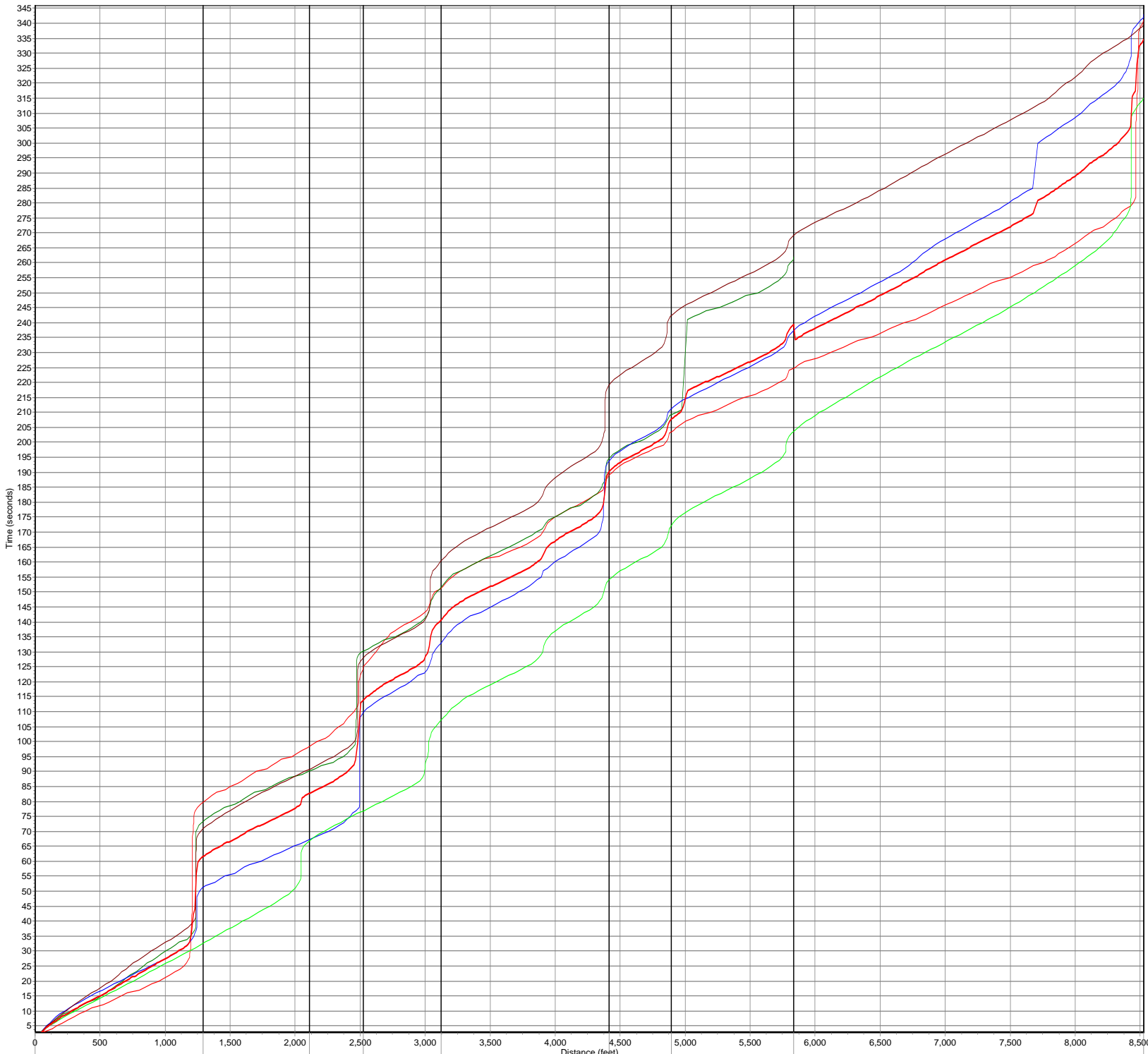
### Legend:

- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Northbound from 1\_Sierra Bonita/Colorado

5 Before-type runs, 5 of unverifiable origin, collected Tuesday 1/28/2020 to Tuesday 1/28/2020, over day(s) Tue, with starting times during 7:00:09 AM to 8:38:33 AM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 2_Sierra Bonita/Walnut</b>						
Average Before (n=5)	NB	0	61	1291	15.9	0.8
Std Dev Before (n=5)	NB	0	20	18	6.5	0.4
<b>to 3_Sierra Bonita/Corson</b>						
Average Before (n=5)	NB	0	83	2110	17.9	1.0
Std Dev Before (n=5)	NB	0	15	18	3.2	0.0
<b>to 4_Sierra Bonita/Maple</b>						
Average Before (n=5)	NB	0	114	2526	15.7	1.8
Std Dev Before (n=5)	NB	0	22	22	3.8	0.4
<b>to 5_Sierra Bonita/Villa</b>						
Average Before (n=5)	NB	0	141	3124	15.5	2.8
Std Dev Before (n=5)	NB	0	21	29	2.5	0.4
<b>to 6_Sierra Bonita/Orange Grove</b>						
Average Before (n=5)	NB	0	190	4416	16.0	4.0
Std Dev Before (n=5)	NB	0	24	26	2.1	0.0
<b>to 7_Sierra Bonita/Paloma</b>						
Average Before (n=5)	NB	0	208	4892	16.3	4.8
Std Dev Before (n=5)	NB	0	25	26	2.0	0.4
<b>to 8_Sierra Bonita/Mountain</b>						
Average Before (n=5)	NB	0	239	5836	16.8	5.4
Std Dev Before (n=5)	NB	0	27	25	1.9	0.5
<b>to 9_Sierra Bonita/Washington</b>						
Average Before (n=4)	NB	0	334	8527	17.4	6.3
Std Dev Before (n=4)	NB	0	13	35	0.7	0.5



- (imported) AM NB 1 Run 1 started 7:00 AM 1/28/2020
- (imported) AM NB 2 Run 1 started 7:13 AM 1/28/2020
- (imported) AM NB 3 Run 1 started 7:47 AM 1/28/2020
- (imported) AM NB 4 Run 1 started 8:25 AM 1/28/2020
- (imported) AM NB 5 Run 1 started 8:38 AM 1/28/2020
- Average Instantaneous Time

1\_Sierra Bonita/Colorado      2\_Sierra Bonita/Walnut      3\_Sierra Bonita/Corson      4\_Sierra Bonita/Maple      5\_Sierra Bonita/Villa      6\_Sierra Bonita/Orange Grove      7\_Sierra Bonita/Paloma      8\_Sierra Bonita/Mountain      9\_Sierra Bonita/Washington

## Travel Time & Delay Report for Sierra Bointa

**Legend:**

- NCT:** Node Crossing Time
- Dir:** Direction of Travel (NB, SB, EB, or WB)
- NID:** Node ID
- CTT:** Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

**Contents:**

[\(imported\) AM SB 2](#), [\(imported\) AM SB 1](#), [\(imported\) AM SB 3](#), [\(imported\) AM SB 4](#), [\(imported\) AM SB 5](#), [Cumulative Reports](#)  
[\[-\] Collapse All](#)

**[\[-\] Before-type Trip Log "\(imported\) AM SB 2", Other-period, started Tuesday 1/28/2020 7:41:07 AM](#)**  
[AM](#) [↑Contents](#)

**Entered artery 7:41:10 am (3 seconds) traveling Southbound  
 from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 8_Sierra Bonita/Mountain	7:42:50 am	SB	0	100	2700	18.3	1
to 7_Sierra Bonita/Paloma	7:43:15 am	SB	0	125	3644	19.8	1
to 6_Sierra Bonita/Orange Grove	7:43:48 am	SB	0	158	4118	17.8	1
to 5_Sierra Bonita/Villa	7:44:47 am	SB	0	217	5476	17.2	3
to 4_Sierra Bonita/Maple	7:45:05 am	SB	0	236	6033	17.5	3
to 3_Sierra Bonita/Corson	7:45:13 am	SB	0	243	6440	18.0	3
to 2_Sierra Bonita/Walnut	7:46:16 am	SB	0	306	7272	16.2	4
to 1_Sierra Bonita/Colorado	7:47:11 am	SB	0	362	8571	16.2	5

**[\[-\] Before-type Trip Log "\(imported\) AM SB 1", Other-period, started Tuesday 1/28/2020 7:05:54 AM](#)**  
[AM](#) [↑Contents](#)

**Entered artery 7:08:06 am (132 seconds) traveling Southbound  
 from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 8_Sierra Bonita/Mountain	7:09:11 am	SB	0	65	2684	28.0	0

to 7_Sierra Bonita/Paloma	7:09:36 am	SB	0	90	3628	27.4	0
to 6_Sierra Bonita/Orange Grove	7:10:20 am	SB	0	134	4106	20.9	1
to 5_Sierra Bonita/Villa	7:11:03 am	SB	0	177	5456	21.0	2
to 4_Sierra Bonita/Maple	7:11:16 am	SB	0	190	6012	21.5	2
to 3_Sierra Bonita/Corson	7:11:23 am	SB	0	197	6420	22.2	2
to 2_Sierra Bonita/Walnut	7:12:19 am	SB	0	253	7260	19.6	3
to 1_Sierra Bonita/Colorado	7:12:55 am	SB	0	289	8548	20.2	3

**[\[-\] Before-type Trip Log "\(imported\) AM SB 3", Other-period, started Tuesday 1/28/2020 7:53:26](#)**

**AM** [↑Contents](#)

**Entered artery 7:54:35 am (70 seconds) traveling Southbound from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	NID	CTI	CTL	CAS	CStops
to 8_Sierra Bonita/Mountain	7:55:52 am	SB	0	77	2688	23.8	1
to 7_Sierra Bonita/Paloma	7:56:34 am	SB	0	119	3635	20.8	2
to 6_Sierra Bonita/Orange Grove	7:57:02 am	SB	0	147	4112	19.1	3
to 5_Sierra Bonita/Villa	7:58:14 am	SB	0	219	5455	17.0	4
to 4_Sierra Bonita/Maple	7:59:07 am	SB	0	271	6022	15.1	5
to 3_Sierra Bonita/Corson	7:59:17 am	SB	0	282	6430	15.5	5
to 2_Sierra Bonita/Walnut	8:00:07 am	SB	0	331	7253	14.9	6
to 1_Sierra Bonita/Colorado	8:00:42 am	SB	0	367	8541	15.9	6

**[\[-\] Before-type Trip Log "\(imported\) AM SB 4", Other-period, started Tuesday 1/28/2020 8:30:55](#)**

**AM** [↑Contents](#)

**Entered artery 8:32:05 am (70 seconds) traveling Southbound from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	NID	CTI	CTL	CAS	CStops
to 8_Sierra Bonita/Mountain	8:33:27 am	SB	0	83	2689	22.2	1
to 7_Sierra Bonita/Paloma	8:33:55 am	SB	0	110	3634	22.5	2
to 6_Sierra Bonita/Orange Grove	8:34:29 am	SB	0	144	4111	19.4	3
to 5_Sierra Bonita/Villa	8:35:36 am	SB	0	211	5450	17.6	5
to 4_Sierra Bonita/Maple	8:36:21 am	SB	0	256	6008	16.0	6
to 3_Sierra Bonita/Corson	8:36:32 am	SB	0	267	6415	16.4	6
to 2_Sierra Bonita/Walnut	8:37:23 am	SB	0	318	7244	15.5	7
to 1_Sierra Bonita/Colorado	8:37:54 am	SB	0	349	8533	16.7	7

**[\[-\] Before-type Trip Log "\(imported\) AM SB 5", Other-period, started Tuesday 1/28/2020 8:44:21](#)**

**AM** [↑Contents](#)

**Entered artery 8:45:35 am (75 seconds) traveling Southbound  
from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 8_Sierra Bonita/Mountain	8:46:53 am	SB	0	78	2689	23.5	0
to 7_Sierra Bonita/Paloma	8:47:20 am	SB	0	105	3633	23.7	0
to 6_Sierra Bonita/Orange Grove	8:47:42 am	SB	0	126	4109	22.2	1
to 5_Sierra Bonita/Villa	8:48:36 am	SB	0	181	5443	20.5	3
to 4_Sierra Bonita/Maple	8:49:10 am	SB	0	215	6009	19.1	4
to 3_Sierra Bonita/Corson	8:49:19 am	SB	0	224	6417	19.5	4
to 2_Sierra Bonita/Walnut	8:50:23 am	SB	0	288	7254	17.2	5
to 1_Sierra Bonita/Colorado	8:51:14 am	SB	0	339	8541	17.2	6

## Cumulative Reports

**[\[-\] Before-type Trip Log "\(imported\) AM SB 2", Other-period, started Tuesday 1/28/2020 7:41:07 AM](#)** [↑Contents](#)

**Entered artery 7:41:10 am (3 seconds) traveling  
Southbound from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Sierra Bonita/Colorado	7:47:11 am	SB	362	8571	16.2	5

**[\[-\] Before-type Trip Log "\(imported\) AM SB 1", Other-period, started Tuesday 1/28/2020 7:05:54 AM](#)** [↑Contents](#)

**Entered artery 7:08:06 am (132 seconds) traveling  
Southbound from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Sierra Bonita/Colorado	7:12:55 am	SB	289	8548	20.2	3

**[\[-\] Before-type Trip Log "\(imported\) AM SB 3", Other-period, started Tuesday 1/28/2020 7:53:26 AM](#)** [↑Contents](#)

**Entered artery 7:54:35 am (70 seconds) traveling  
Southbound from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Sierra Bonita/Colorado	8:00:42 am	SB	367	8541	15.9	6

**[\[-\] Before-type Trip Log "\(imported\) AM SB 4", Other-period, started Tuesday 1/28/2020 8:30:55 AM](#)** [↑Contents](#)



**Entered artery 8:32:05 am (70 seconds) traveling  
Southbound from 9\_Sierra Bonita/Washington**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 1_Sierra Bonita/Colorado	8:37:54 am	SB	349	8533	16.7	7

**[\[-\] Before-type Trip Log "\(imported\) AM SB 5", Other-period, started Tuesday 1/28/2020 8:44:21 AM](#)** [↑Contents](#)

**Entered artery 8:45:35 am (75 seconds) traveling  
Southbound from 9\_Sierra Bonita/Washington**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 1_Sierra Bonita/Colorado	8:51:14 am	SB	339	8541	17.2	6

Monday 3/23/2020 12:11:52 PM

## Travel Time & Delay Report for Sierra Bointa

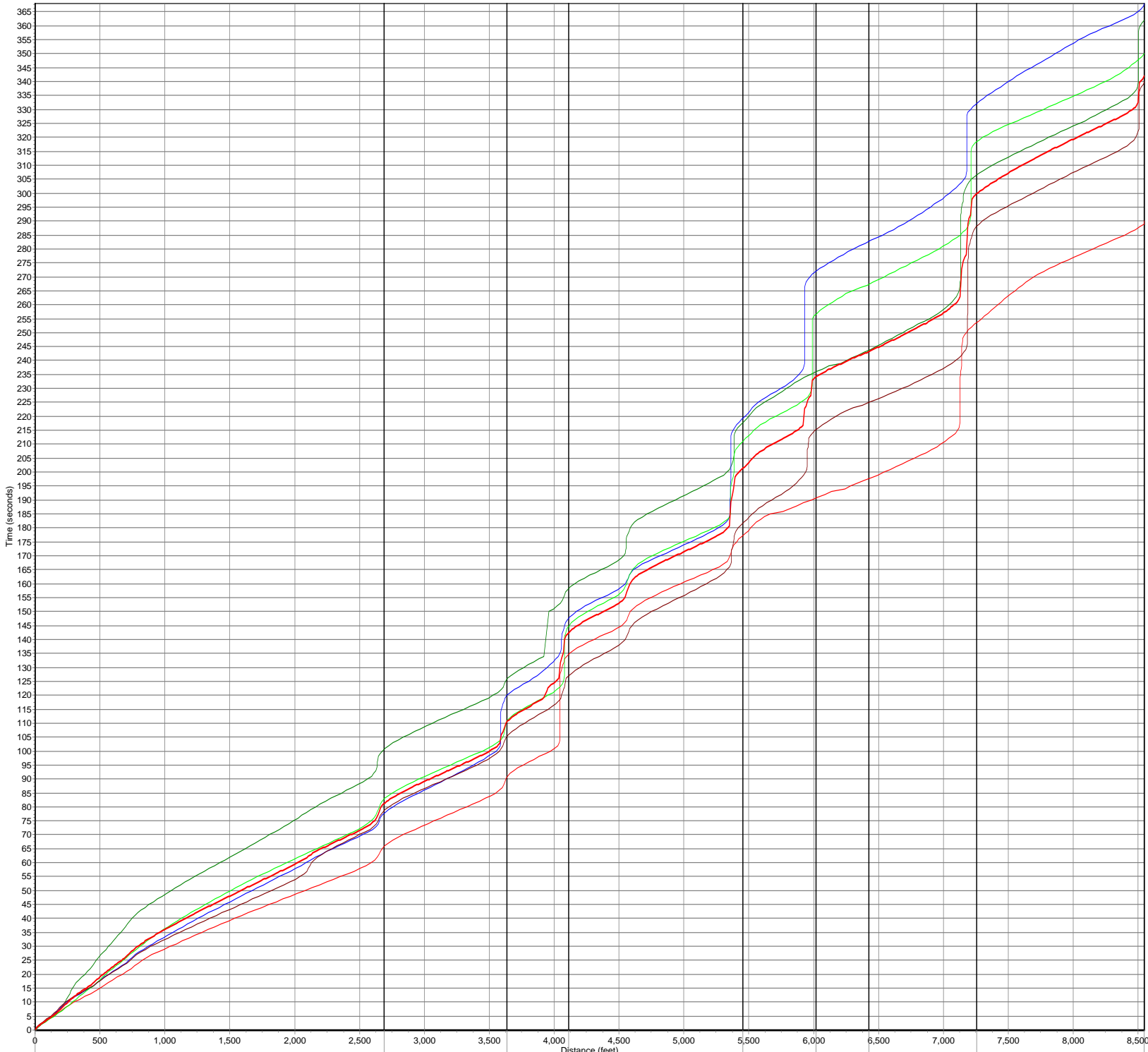
### Legend:

- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Southbound from 9\_Sierra Bonita/Washington

5 Before-type runs, 5 of unverifiable origin, collected Tuesday 1/28/2020 to Tuesday 1/28/2020, over day(s) Tue, with starting times during 7:08:06 AM to 8:45:35 AM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 8_Sierra Bonita/Mountain</b>						
Average Before (n=5)	SB	0	81	2690	23.2	0.6
Std Dev Before (n=5)	SB	0	13	6	3.5	0.5
<b>to 7_Sierra Bonita/Paloma</b>						
Average Before (n=5)	SB	0	110	3635	22.8	1.0
Std Dev Before (n=5)	SB	0	14	6	3.0	1.0
<b>to 6_Sierra Bonita/Orange Grove</b>						
Average Before (n=5)	SB	0	142	4111	19.9	1.8
Std Dev Before (n=5)	SB	0	12	5	1.7	1.1
<b>to 5_Sierra Bonita/Villa</b>						
Average Before (n=5)	SB	0	201	5456	18.7	3.4
Std Dev Before (n=5)	SB	0	20	12	1.9	1.1
<b>to 4_Sierra Bonita/Maple</b>						
Average Before (n=5)	SB	0	234	6017	17.8	4.0
Std Dev Before (n=5)	SB	0	32	11	2.6	1.6
<b>to 3_Sierra Bonita/Corson</b>						
Average Before (n=5)	SB	0	243	6425	18.3	4.0
Std Dev Before (n=5)	SB	0	34	11	2.6	1.6
<b>to 2_Sierra Bonita/Walnut</b>						
Average Before (n=5)	SB	0	299	7256	16.7	5.0
Std Dev Before (n=5)	SB	0	30	10	1.8	1.6
<b>to 1_Sierra Bonita/Colorado</b>						
Average Before (n=5)	SB	0	341	8547	17.2	5.4
Std Dev Before (n=5)	SB	0	31	15	1.7	1.5



- (imported) AM SB 1 Run 1 started 7:08 AM 1/28/2020
- (imported) AM SB 2 Run 1 started 7:41 AM 1/28/2020
- (imported) AM SB 3 Run 1 started 7:54 AM 1/28/2020
- (imported) AM SB 4 Run 1 started 8:32 AM 1/28/2020
- (imported) AM SB 5 Run 1 started 8:45 AM 1/28/2020
- Average Instantaneous Time

9\_Sierra Bonita/Washington      8\_Sierra Bonita/Mountain      7\_Sierra Bonita/Paloma      6\_Sierra Bonita/Orange Grove      5\_Sierra Bonita/Villa      3\_Sierra Bonita/Corson      4\_Sierra Bonita/Maple      2\_Sierra Bonita/Walnut      1\_Sierra Bonita/Colorado

## Travel Time & Delay Report for Sierra Bointa

**Legend:**

- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

**Cumulative Summary of runs  
Northbound from 1\_Sierra  
Bonita/Colorado**

5 Before-type runs, 5 of unverifiable origin, collected  
Wednesday 1/15/2020 to Thursday 1/16/2020, over  
day(s) Wed, Thu, with starting times during 4:07:30  
PM to 5:41:50 PM

	<a href="#">CTT</a>	<a href="#">CTL</a>	<a href="#">CAS</a>	<a href="#">CStops</a>
<b>to 9_Sierra Bonita/Washington</b>				
Average Before (n=5)	466	8552	12.6	7.4
Std Dev Before (n=5)	49	88	1.3	1.1

**Cumulative Summary of runs  
Southbound from 9\_Sierra  
Bonita/Washington**

5 Before-type runs, 5 of unverifiable origin, collected  
Wednesday 1/15/2020 to Thursday 1/16/2020, over  
day(s) Wed, Thu, with starting times during 3:59:17  
PM to 5:50:19 PM

	<a href="#">CTT</a>	<a href="#">CTL</a>	<a href="#">CAS</a>	<a href="#">CStops</a>
<b>to 1_Sierra Bonita/Colorado</b>				
Average Before (n=5)	407	8539	14.5	6.4
Std Dev Before (n=5)	50	41	1.8	1.9

**Cumulative Summary of all runs, either  
direction through artery**

10 Before-type runs, 10 of unverifiable origin,  
collected Wednesday 1/15/2020 to Thursday  
1/16/2020, over day(s) Wed, Thu, with starting times  
during 4:05:46 PM to 5:55:16 PM

	<a href="#">CTT</a>	<a href="#">CTL</a>	<a href="#">CAS</a>	<a href="#">CStops</a>

<b>to End of Artery</b>				
<i>Average Before (n=10)</i>	436	8546	13.6	6.9
<i>Std Dev Before (n=10)</i>	56	65	1.8	1.6
Difference	0	0	0.0	0.0
<i>Std Dev Difference</i>	56	65	1.8	1.6
% Difference	0%	0%	0.0%	0.0%

Monday 3/23/2020 12:14:27 PM

## Travel Time & Delay Report for Sierra Bointa

### Legend:

#### NCT:

Node Crossing Time

#### Dir:

Direction of Travel (NB, SB, EB, or WB)

#### NID:

Node ID

#### CTT:

Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Contents:

[\(imported\) PM NB 1](#), [\(imported\) PM NB 2](#), [\(imported\) PM NB 3](#), [\(imported\) PM NB 4](#), [\(imported\) PM NB 5](#), [Cumulative Reports](#)  
[-] Collapse All

### **[\[-\] Before-type Trip Log "\(imported\) PM NB 1", Other-period, started Thursday 1/16/2020 4:07:01](#)**

**PM** [↑Contents](#)

**Entered artery 4:07:30 pm (29 seconds) traveling Northbound  
from 1\_Sierra Bonita/Colorado**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Sierra Bonita/Walnut	4:08:19 pm	NB	0	50	1281	17.5	0
to 3_Sierra Bonita/Corson	4:08:49 pm	NB	0	80	2103	17.9	0
to 4_Sierra Bonita/Maple	4:09:02 pm	NB	0	93	2512	18.4	0
to 5_Sierra Bonita/Villa	4:09:35 pm	NB	0	126	3111	16.9	1
to 6_Sierra Bonita/Orange Grove	4:11:20 pm	NB	0	230	4439	13.1	4
to 7_Sierra Bonita/Paloma	4:11:50 pm	NB	0	261	4922	12.9	5
to 8_Sierra Bonita/Mountain	4:12:32 pm	NB	0	302	5879	13.3	6
to 9_Sierra Bonita/Washington	4:14:21 pm	NB	0	412	8573	14.2	6

### **[\[-\] Before-type Trip Log "\(imported\) PM NB 2", Other-period, started Thursday 1/16/2020 4:24:24](#)**

**PM** [↑Contents](#)

**Entered artery 4:25:20 pm (56 seconds) traveling Northbound  
from 1\_Sierra Bonita/Colorado**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Sierra Bonita/Walnut	4:26:46 pm	NB	0	87	1284	10.1	1

to 3_Sierra Bonita/Corson	4:27:18 pm	NB	0	118	2105	12.1	1
to 4_Sierra Bonita/Maple	4:27:30 pm	NB	0	131	2515	13.1	1
to 5_Sierra Bonita/Villa	4:28:10 pm	NB	0	171	3112	12.4	2
to 6_Sierra Bonita/Orange Grove	4:29:38 pm	NB	0	259	4421	11.6	4
to 7_Sierra Bonita/Paloma	4:30:04 pm	NB	0	284	4896	11.8	5
to 8_Sierra Bonita/Mountain	4:30:54 pm	NB	0	334	5846	11.9	6
to 9_Sierra Bonita/Washington	4:33:46 pm	NB	0	506	8540	11.5	7

**[\[-\] Before-type Trip Log "\(imported\) PM NB 3", Other-period, started Thursday 1/16/2020 4:42:50 PM](#)** [↑Contents](#)

**Entered artery 4:43:21 pm (32 seconds) traveling Northbound from 1\_Sierra Bonita/Colorado**

Node	NCT	Dir	NID	CTI	CTL	CAS	CStops
to 2_Sierra Bonita/Walnut	4:44:34 pm	NB	0	73	1265	11.8	1
to 3_Sierra Bonita/Corson	4:45:14 pm	NB	0	112	2088	12.7	2
to 4_Sierra Bonita/Maple	4:46:04 pm	NB	0	163	2647	11.1	3
to 5_Sierra Bonita/Villa	4:46:39 pm	NB	0	198	3238	11.2	4
to 6_Sierra Bonita/Orange Grove	4:48:19 pm	NB	0	297	4549	10.4	6
to 7_Sierra Bonita/Paloma	4:48:45 pm	NB	0	323	5024	10.6	7
to 8_Sierra Bonita/Mountain	4:49:35 pm	NB	0	373	5984	10.9	8
to 9_Sierra Bonita/Washington	4:51:56 pm	NB	0	515	8692	11.5	9

**[\[-\] Before-type Trip Log "\(imported\) PM NB 4", Other-period, started Wednesday 1/15/2020 5:24:35 PM](#)** [↑Contents](#)

**Entered artery 5:25:45 pm (70 seconds) traveling Northbound from 1\_Sierra Bonita/Colorado**

Node	NCT	Dir	NID	CTI	CTL	CAS	CStops
to 2_Sierra Bonita/Walnut	5:26:59 pm	NB	0	74	1271	11.7	2
to 3_Sierra Bonita/Corson	5:27:50 pm	NB	0	125	2092	11.4	3
to 4_Sierra Bonita/Maple	5:28:02 pm	NB	0	137	2499	12.4	3
to 5_Sierra Bonita/Villa	5:29:07 pm	NB	0	202	3086	10.4	4
to 6_Sierra Bonita/Orange Grove	5:30:12 pm	NB	0	268	4378	11.2	5
to 7_Sierra Bonita/Paloma	5:30:33 pm	NB	0	289	4850	11.5	6
to 8_Sierra Bonita/Mountain	5:31:16 pm	NB	0	332	5793	11.9	7
to 9_Sierra Bonita/Washington	5:33:45 pm	NB	0	481	8479	12.0	8

**[\[-\] Before-type Trip Log "\(imported\) PM NB 5", Other-period, started Wednesday 1/15/2020 5:41:40 PM](#)** [↑Contents](#)

**Entered artery 5:41:50 pm (10 seconds) traveling Northbound  
from 1\_Sierra Bonita/Colorado**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Sierra Bonita/Walnut	5:43:16 pm	NB	0	87	1281	10.1	1
to 3_Sierra Bonita/Corson	5:43:42 pm	NB	0	112	2097	12.7	1
to 4_Sierra Bonita/Maple	5:43:55 pm	NB	0	125	2504	13.6	1
to 5_Sierra Bonita/Villa	5:44:23 pm	NB	0	154	3087	13.7	2
to 6_Sierra Bonita/Orange Grove	5:45:15 pm	NB	0	205	4381	14.6	4
to 7_Sierra Bonita/Paloma	5:45:36 pm	NB	0	226	4854	14.6	5
to 8_Sierra Bonita/Mountain	5:46:09 pm	NB	0	259	5796	15.2	6
to 9_Sierra Bonita/Washington	5:48:46 pm	NB	0	416	8478	13.9	7

## Cumulative Reports

**[\[-\] Before-type Trip Log "\(imported\) PM NB 1", Other-period, started Thursday 1/16/2020 4:07:01 PM](#)** [↑Contents](#)

**Entered artery 4:07:30 pm (29 seconds) traveling  
Northbound from 1\_Sierra Bonita/Colorado**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 9_Sierra Bonita/Washington	4:14:21 pm	NB	412	8573	14.2	6

**[\[-\] Before-type Trip Log "\(imported\) PM NB 2", Other-period, started Thursday 1/16/2020 4:24:24 PM](#)** [↑Contents](#)

**Entered artery 4:25:20 pm (56 seconds) traveling  
Northbound from 1\_Sierra Bonita/Colorado**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 9_Sierra Bonita/Washington	4:33:46 pm	NB	506	8540	11.5	7

**[\[-\] Before-type Trip Log "\(imported\) PM NB 3", Other-period, started Thursday 1/16/2020 4:42:50 PM](#)** [↑Contents](#)

**Entered artery 4:43:21 pm (32 seconds) traveling  
Northbound from 1\_Sierra Bonita/Colorado**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 9_Sierra Bonita/Washington	4:51:56 pm	NB	515	8692	11.5	9

**[\[-\] Before-type Trip Log "\(imported\) PM NB 4", Other-period, started Wednesday 1/15/2020 5:24:35 PM](#)** [↑Contents](#)



**Entered artery 5:25:45 pm (70 seconds) traveling  
Northbound from 1\_Sierra Bonita/Colorado**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 9_Sierra Bonita/Washington	5:33:45 pm	NB	481	8479	12.0	8

**[\[-\] Before-type Trip Log "\(imported\) PM NB 5", Other-period, started Wednesday 1/15/2020 5:41:40 PM](#) [↑Contents](#)**

**Entered artery 5:41:50 pm (10 seconds) traveling  
Northbound from 1\_Sierra Bonita/Colorado**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 9_Sierra Bonita/Washington	5:48:46 pm	NB	416	8478	13.9	7

Monday 3/23/2020 12:14:27 PM

## Travel Time & Delay Report for Sierra Bointa

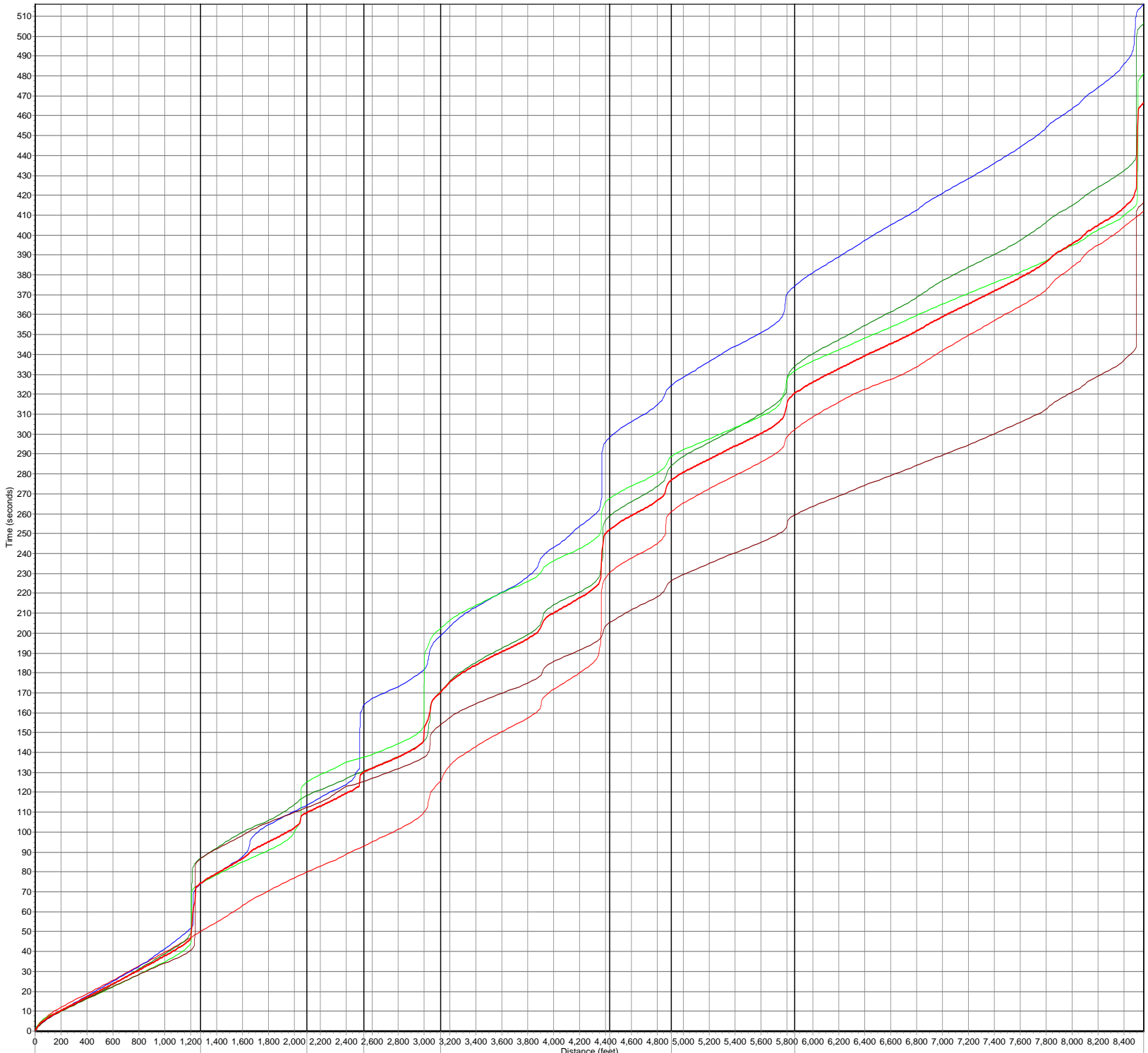
### Legend:

- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Northbound from 1\_Sierra Bonita/Colorado

5 Before-type runs, 5 of unverifiable origin, collected  
 Wednesday 1/15/2020 to Thursday 1/16/2020, over day(s)  
 Wed, Thu, with starting times during 4:07:30 PM to 5:41:50 PM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 2_Sierra Bonita/Walnut</b>						
Average Before (n=5)	NB	0	74	1277	12.2	1.0
Std Dev Before (n=5)	NB	0	15	8	3.1	0.7
<b>to 3_Sierra Bonita/Corson</b>						
Average Before (n=5)	NB	0	110	2097	13.4	1.4
Std Dev Before (n=5)	NB	0	17	7	2.6	1.1
<b>to 4_Sierra Bonita/Maple</b>						
Average Before (n=5)	NB	0	130	2535	13.7	1.6
Std Dev Before (n=5)	NB	0	25	63	2.8	1.3
<b>to 5_Sierra Bonita/Villa</b>						
Average Before (n=5)	NB	0	170	3127	12.9	2.6
Std Dev Before (n=5)	NB	0	32	63	2.6	1.3
<b>to 6_Sierra Bonita/Orange Grove</b>						
Average Before (n=5)	NB	0	252	4434	12.2	4.6
Std Dev Before (n=5)	NB	0	35	70	1.7	0.9
<b>to 7_Sierra Bonita/Paloma</b>						
Average Before (n=5)	NB	0	277	4909	12.3	5.6
Std Dev Before (n=5)	NB	0	36	71	1.5	0.9
<b>to 8_Sierra Bonita/Mountain</b>						
Average Before (n=5)	NB	0	320	5859	12.7	6.6
Std Dev Before (n=5)	NB	0	42	78	1.7	0.9
<b>to 9_Sierra Bonita/Washington</b>						
Average Before (n=5)	NB	0	466	8552	12.6	7.4
Std Dev Before (n=5)	NB	0	49	88	1.3	1.1



- (imported) PM NB 1 Run 1 started 4:07 PM 1/16/2020
- (imported) PM NB 2 Run 1 started 4:25 PM 1/16/2020
- (imported) PM NB 3 Run 1 started 4:43 PM 1/16/2020
- (imported) PM NB 4 Run 1 started 5:25 PM 1/15/2020
- (imported) PM NB 5 Run 1 started 5:41 PM 1/15/2020
- Average Instantaneous Time

1\_Sierra Bonita/Colorado      2\_Sierra Bonita/Walnut      3\_Sierra Bonita/Corson      4\_Sierra Bonita/Maple      5\_Sierra Bonita/Villa      6\_Sierra Bonita/Orange Grove      7\_Sierra Bonita/Paloma      8\_Sierra Bonita/Mountain      9\_Sierra Bonita/Washington

Monday 3/23/2020 12:14:27 PM

## Travel Time & Delay Report for Sierra Bointa

### Legend:

#### NCT:

Node Crossing Time

#### Dir:

Direction of Travel (NB, SB, EB, or WB)

#### NID:

Node ID

#### CTT:

Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Contents:

[\(imported\) PM SB 1](#), [\(imported\) PM SB 2](#), [\(imported\) PM SB 3](#), [\(imported\) PM SB 4](#), [\(imported\) PM SB 5](#), [Cumulative Reports](#)  
[-] Collapse All

### [\[-\] Before-type Trip Log "\(imported\) PM SB 1", Other-period, started Thursday 1/16/2020 3:57:01 PM](#) [↑Contents](#)

**Entered artery 3:59:17 pm (136 seconds) traveling Southbound from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 8_Sierra Bonita/Mountain	4:01:07 pm	SB	0	110	2707	16.7	1
to 7_Sierra Bonita/Paloma	4:01:48 pm	SB	0	151	3657	16.5	2
to 6_Sierra Bonita/Orange Grove	4:02:20 pm	SB	0	183	4137	15.4	3
to 5_Sierra Bonita/Villa	4:03:29 pm	SB	0	252	5473	14.8	5
to 4_Sierra Bonita/Maple	4:04:08 pm	SB	0	291	6047	14.2	6
to 3_Sierra Bonita/Corson	4:04:20 pm	SB	0	303	6453	14.5	6
to 2_Sierra Bonita/Walnut	4:05:46 pm	SB	0	389	7290	12.8	7
to 1_Sierra Bonita/Colorado	4:06:29 pm	SB	0	432	8579	13.5	7

### [\[-\] Before-type Trip Log "\(imported\) PM SB 2", Other-period, started Thursday 1/16/2020 4:14:47 PM](#) [↑Contents](#)

**Entered artery 4:15:44 pm (57 seconds) traveling Southbound from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 8_Sierra Bonita/Mountain	4:17:38 pm	SB	0	114	2699	16.1	1

to 7_Sierra Bonita/Paloma	4:18:19 pm	SB	0	155	3649	16.0	2
to 6_Sierra Bonita/Orange Grove	4:18:57 pm	SB	0	193	4129	14.6	3
to 5_Sierra Bonita/Villa	4:20:03 pm	SB	0	259	5480	14.4	5
to 4_Sierra Bonita/Maple	4:20:27 pm	SB	0	283	6032	14.5	5
to 3_Sierra Bonita/Corson	4:20:38 pm	SB	0	294	6439	14.9	5
to 2_Sierra Bonita/Walnut	4:22:05 pm	SB	0	381	7262	13.0	6
to 1_Sierra Bonita/Colorado	4:23:32 pm	SB	0	468	8558	12.5	7

**[\[-\] Before-type Trip Log "\(imported\) PM SB 3", Other-period, started Thursday 1/16/2020 4:34:06 PM](#)** [↑Contents](#)

**Entered artery 4:35:16 pm (70 seconds) traveling Southbound from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	NID	CTI	CTL	CAS	CStops
to 8_Sierra Bonita/Mountain	4:37:12 pm	SB	0	116	2693	15.8	2
to 7_Sierra Bonita/Paloma	4:37:54 pm	SB	0	158	3640	15.7	3
to 6_Sierra Bonita/Orange Grove	4:38:27 pm	SB	0	191	4119	14.7	4
to 5_Sierra Bonita/Villa	4:39:31 pm	SB	0	255	5461	14.6	6
to 4_Sierra Bonita/Maple	4:40:03 pm	SB	0	287	6026	14.3	7
to 3_Sierra Bonita/Corson	4:40:19 pm	SB	0	303	6442	14.5	7
to 2_Sierra Bonita/Walnut	4:41:00 pm	SB	0	344	7271	14.4	8
to 1_Sierra Bonita/Colorado	4:42:13 pm	SB	0	417	8566	14.0	9

**[\[-\] Before-type Trip Log "\(imported\) PM SB 4", Other-period, started Wednesday 1/15/2020 5:34:20 PM](#)** [↑Contents](#)

**Entered artery 5:35:14 pm (55 seconds) traveling Southbound from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	NID	CTI	CTL	CAS	CStops
to 8_Sierra Bonita/Mountain	5:36:53 pm	SB	0	98	2683	18.6	0
to 7_Sierra Bonita/Paloma	5:37:25 pm	SB	0	130	3626	19.0	1
to 6_Sierra Bonita/Orange Grove	5:38:24 pm	SB	0	189	4097	14.8	2
to 5_Sierra Bonita/Villa	5:39:16 pm	SB	0	241	5440	15.4	4
to 4_Sierra Bonita/Maple	5:39:34 pm	SB	0	260	5992	15.7	4
to 3_Sierra Bonita/Corson	5:39:44 pm	SB	0	270	6400	16.2	4
to 2_Sierra Bonita/Walnut	5:40:56 pm	SB	0	342	7221	14.4	5
to 1_Sierra Bonita/Colorado	5:41:32 pm	SB	0	378	8509	15.4	5

**[\[-\] Before-type Trip Log "\(imported\) PM SB 5", Other-period, started Wednesday 1/15/2020 5:49:50 PM](#)** [↑Contents](#)

**Entered artery 5:50:19 pm (29 seconds) traveling Southbound  
from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 8_Sierra Bonita/Mountain	5:52:07 pm	SB	0	108	2685	16.9	1
to 7_Sierra Bonita/Paloma	5:52:37 pm	SB	0	139	3627	17.8	2
to 6_Sierra Bonita/Orange Grove	5:53:24 pm	SB	0	185	4102	15.1	3
to 5_Sierra Bonita/Villa	5:54:21 pm	SB	0	242	5446	15.3	4
to 4_Sierra Bonita/Maple	5:54:39 pm	SB	0	260	6002	15.7	4
to 3_Sierra Bonita/Corson	5:54:48 pm	SB	0	270	6410	16.2	4
to 2_Sierra Bonita/Walnut	5:55:16 pm	SB	0	298	7227	16.6	4
to 1_Sierra Bonita/Colorado	5:55:58 pm	SB	0	339	8484	17.1	4

## Cumulative Reports

**[\[-\] Before-type Trip Log "\(imported\) PM SB 1", Other-period, started Thursday 1/16/2020 3:57:01 PM](#)** [↑Contents](#)

**Entered artery 3:59:17 pm (136 seconds) traveling  
Southbound from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Sierra Bonita/Colorado	4:06:29 pm	SB	432	8579	13.5	7

**[\[-\] Before-type Trip Log "\(imported\) PM SB 2", Other-period, started Thursday 1/16/2020 4:14:47 PM](#)** [↑Contents](#)

**Entered artery 4:15:44 pm (57 seconds) traveling  
Southbound from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Sierra Bonita/Colorado	4:23:32 pm	SB	468	8558	12.5	7

**[\[-\] Before-type Trip Log "\(imported\) PM SB 3", Other-period, started Thursday 1/16/2020 4:34:06 PM](#)** [↑Contents](#)

**Entered artery 4:35:16 pm (70 seconds) traveling  
Southbound from 9\_Sierra Bonita/Washington**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Sierra Bonita/Colorado	4:42:13 pm	SB	417	8566	14.0	9

**[\[-\] Before-type Trip Log "\(imported\) PM SB 4", Other-period, started Wednesday 1/15/2020 5:34:20 PM](#)** [↑Contents](#)

**Entered artery 5:35:14 pm (55 seconds) traveling Southbound from 9\_Sierra Bonita/Washington**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 1_Sierra Bonita/Colorado	5:41:32 pm	SB	378	8509	15.4	5

**[\[-\] Before-type Trip Log "\(imported\) PM SB 5", Other-period, started Wednesday 1/15/2020 5:49:50 PM](#) [↑Contents](#)**

**Entered artery 5:50:19 pm (29 seconds) traveling Southbound from 9\_Sierra Bonita/Washington**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 1_Sierra Bonita/Colorado	5:55:58 pm	SB	339	8484	17.1	4

Monday 3/23/2020 12:14:27 PM

## Travel Time & Delay Report for Sierra Bointa

### Legend:

- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Southbound from 9\_Sierra Bonita/Washington

5 Before-type runs, 5 of unverifiable origin, collected  
 Wednesday 1/15/2020 to Thursday 1/16/2020, over day(s)  
 Wed, Thu, with starting times during 3:59:17 PM to 5:50:19 PM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 8_Sierra Bonita/Mountain</b>						
Average Before (n=5)	SB	0	109	2693	16.8	1.0
Std Dev Before (n=5)	SB	0	7	10	1.1	0.7
<b>to 7_Sierra Bonita/Paloma</b>						
Average Before (n=5)	SB	0	147	3640	17.0	2.0
Std Dev Before (n=5)	SB	0	12	14	1.4	0.7
<b>to 6_Sierra Bonita/Orange Grove</b>						
Average Before (n=5)	SB	0	188	4117	14.9	3.0
Std Dev Before (n=5)	SB	0	4	17	0.3	0.7
<b>to 5_Sierra Bonita/Villa</b>						
Average Before (n=5)	SB	0	250	5460	14.9	4.8
Std Dev Before (n=5)	SB	0	8	17	0.4	0.8
<b>to 4_Sierra Bonita/Maple</b>						
Average Before (n=5)	SB	0	276	6020	14.9	5.2
Std Dev Before (n=5)	SB	0	15	22	0.8	1.3
<b>to 3_Sierra Bonita/Corson</b>						
Average Before (n=5)	SB	0	288	6429	15.3	5.2
Std Dev Before (n=5)	SB	0	17	23	0.9	1.3
<b>to 2_Sierra Bonita/Walnut</b>						
Average Before (n=5)	SB	0	351	7254	14.2	6.0
Std Dev Before (n=5)	SB	0	37	29	1.5	1.6
<b>to 1_Sierra Bonita/Colorado</b>						
Average Before (n=5)	SB	0	407	8539	14.5	6.4
Std Dev Before (n=5)	SB	0	50	41	1.8	1.9





- (imported) PM SB 1 Run 1 started 3:59 PM 1/16/2020
- (imported) PM SB 2 Run 1 started 4:15 PM 1/16/2020
- (imported) PM SB 3 Run 1 started 4:35 PM 1/16/2020
- (imported) PM SB 4 Run 1 started 5:35 PM 1/15/2020
- (imported) PM SB 5 Run 1 started 5:50 PM 1/15/2020
- Average Instantaneous Time

9\_Sierra Bonita/Washington      8\_Sierra Bonita/Mountain      7\_Sierra Bonita/Paloma      6\_Sierra Bonita/Orange Grove      5\_Sierra Bonita/Villa      3\_Sierra Bonita/Corson      2\_Sierra Bonita/Walnut      1\_Sierra Bonita/Colorado

## Travel Time & Delay Report for Craig

**Legend:**

- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

**Cumulative Summary of runs  
Northbound from 1\_Craig/Del Mar**

5 Before-type runs, 5 of unverifiable origin, collected Tuesday 1/28/2020 to Thursday 1/30/2020, over day (s) Tue, Thu, with starting times during 7:07:45 AM to 8:54:21 AM

	CTT	CTL	CAS	CStops
<b>to 8_Craig/ Orange Grove</b>				
Average Before (n=5)	300	5922	13.5	5.6
Std Dev Before (n=5)	25	23	1.1	0.5

**Cumulative Summary of runs  
Southbound from 8\_Craig/ Orange Grove**

5 Before-type runs, 5 of unverifiable origin, collected Tuesday 1/28/2020 to Thursday 1/30/2020, over day (s) Tue, Thu, with starting times during 7:14:15 AM to 9:00:12 AM

	CTT	CTL	CAS	CStops
<b>to 1_Craig/Del Mar</b>				
Average Before (n=5)	328	5951	12.4	5.4
Std Dev Before (n=5)	23	28	0.9	0.9

**Cumulative Summary of all runs, either  
direction through artery**

10 Before-type runs, 10 of unverifiable origin, collected Tuesday 1/28/2020 to Thursday 1/30/2020, over day(s) Tue, Thu, with starting times during 7:12:16 AM to 9:03:46 AM

	CTT	CTL	CAS	CStops
<b>to End of Artery</b>				

<i>Average Before (n=10)</i>	314	5937	13.0	5.5
<i>Std Dev Before (n=10)</i>	27	28	1.1	0.7
Difference	0	0	0.0	0.0
<i>Std Dev Difference</i>	27	28	1.1	0.7
% Difference	0%	0%	0.0%	0.0%

Monday 3/23/2020 2:03:31 PM

## Travel Time & Delay Report for Craig

### Legend:

#### NCT:

Node Crossing Time

#### Dir:

Direction of Travel (NB, SB, EB, or WB)

#### NID:

Node ID

#### CTT:

Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Contents:

[\(imported\) AM NB 1](#), [\(imported\) AM NB 2](#), [\(imported\) AM NB 3](#), [\(imported\) AM NB 4](#), [\(imported\) AM NB 5](#), [Cumulative Reports](#)  
[-] Collapse All

### [\[-\] Before-type Trip Log "\(imported\) AM NB 1", Other-period, started Tuesday 1/28/2020 8:03:27](#)

[AM](#) [↑Contents](#)

Entered artery 8:03:44 am (18 seconds) traveling  
Northbound from 1\_Craig/Del Mar

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Craig/Colorado	8:05:08 am	NB	0	84	1461	11.9	1
to 3_Craig/Walnut	8:05:45 am	NB	0	121	2489	14.0	2
to 4_Craig/Foothill	8:06:11 am	NB	0	146	2761	12.8	3
to 5_Craig/Corson	8:06:55 am	NB	0	191	3612	12.9	4
to 6_Craig/Maple	8:07:08 am	NB	0	204	4033	13.5	4
to 7_Craig/ Villa	8:07:34 am	NB	0	230	4515	13.4	5
to 8_Craig/ Orange Grove	8:08:13 am	NB	0	269	5903	15.0	5

### [\[-\] Before-type Trip Log "\(imported\) AM NB 2", Other-period, started Tuesday 1/28/2020 8:54:03](#)

[AM](#) [↑Contents](#)

Entered artery 8:54:21 am (19 seconds) traveling  
Northbound from 1\_Craig/Del Mar

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Craig/Colorado	8:55:39 am	NB	0	78	1462	12.8	1
to 3_Craig/Walnut	8:56:11 am	NB	0	109	2489	15.5	2

to 4_Craig/Foothill	8:56:21 am	NB	0	120	2755	15.6	2
to 5_Craig/Corson	8:57:06 am	NB	0	165	3607	14.9	3
to 6_Craig/Maple	8:58:11 am	NB	0	230	4038	12.0	4
to 7_Craig/ Villa	8:58:30 am	NB	0	249	4516	12.4	5
to 8_Craig/ Orange Grove	8:59:16 am	NB	0	294	5892	13.7	6

**[\[-\] Before-type Trip Log "\(imported\) AM NB 3", Other-period, started Thursday 1/30/2020 6:58:59](#)**

**AM** [↑Contents](#)

**Entered artery 7:07:45 am (527 seconds) traveling  
Northbound from 1\_Craig/Del Mar**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Craig/Colorado	7:09:02 am	NB	0	76	1467	13.1	1
to 3_Craig/Walnut	7:09:48 am	NB	0	122	2481	13.9	2
to 4_Craig/Foothill	7:10:00 am	NB	0	135	2764	14.0	2
to 5_Craig/Corson	7:10:44 am	NB	0	179	3616	13.8	3
to 6_Craig/Maple	7:11:51 am	NB	0	246	4042	11.2	4
to 7_Craig/ Villa	7:12:16 am	NB	0	271	4526	11.4	5
to 8_Craig/ Orange Grove	7:13:18 am	NB	0	332	5940	12.2	6

**[\[-\] Before-type Trip Log "\(imported\) AM NB 4", Other-period, started Thursday 1/30/2020 7:20:17](#)**

**AM** [↑Contents](#)

**Entered artery 7:21:03 am (46 seconds) traveling  
Northbound from 1\_Craig/Del Mar**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Craig/Colorado	7:22:22 am	NB	0	79	1468	12.6	1
to 3_Craig/Walnut	7:23:00 am	NB	0	117	2491	14.5	2
to 4_Craig/Foothill	7:23:50 am	NB	0	168	2764	11.2	3
to 5_Craig/Corson	7:24:41 am	NB	0	218	3622	11.3	4
to 6_Craig/Maple	7:24:55 am	NB	0	232	4048	11.9	4
to 7_Craig/ Villa	7:25:18 am	NB	0	256	4529	12.1	5
to 8_Craig/ Orange Grove	7:26:21 am	NB	0	319	5942	12.7	6

**[\[-\] Before-type Trip Log "\(imported\) AM NB 5", Other-period, started Thursday 1/30/2020 7:33:43](#)**

**AM** [↑Contents](#)

**Entered artery 7:34:23 am (40 seconds) traveling  
Northbound from 1\_Craig/Del Mar**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Craig/Colorado	7:35:44 am	NB	0	82	1467	12.3	1

to 3_Craig/Walnut	7:36:31 am	NB	0	128	2494	13.3	2
to 4_Craig/Foothill	7:36:43 am	NB	0	140	2762	13.5	2
to 5_Craig/Corson	7:37:30 am	NB	0	187	3618	13.2	3
to 6_Craig/Maple	7:37:45 am	NB	0	202	4043	13.6	3
to 7_Craig/ Villa	7:38:10 am	NB	0	228	4527	13.6	4
to 8_Craig/ Orange Grove	7:39:09 am	NB	0	286	5934	14.1	5

## Cumulative Reports

### [\[-\] Before-type Trip Log "\(imported\) AM NB 1", Other-period, started Tuesday 1/28/2020 8:03:27 AM](#) [↑Contents](#)

Entered artery 8:03:44 am (18 seconds) traveling Northbound from 1\_Craig/Del Mar

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 8_Craig/ Orange Grove	8:08:13 am	NB	269	5903	15.0	5

### [\[-\] Before-type Trip Log "\(imported\) AM NB 2", Other-period, started Tuesday 1/28/2020 8:54:03 AM](#) [↑Contents](#)

Entered artery 8:54:21 am (19 seconds) traveling Northbound from 1\_Craig/Del Mar

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 8_Craig/ Orange Grove	8:59:16 am	NB	294	5892	13.7	6

### [\[-\] Before-type Trip Log "\(imported\) AM NB 3", Other-period, started Thursday 1/30/2020 6:58:59 AM](#) [↑Contents](#)

Entered artery 7:07:45 am (527 seconds) traveling Northbound from 1\_Craig/Del Mar

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 8_Craig/ Orange Grove	7:13:18 am	NB	332	5940	12.2	6

### [\[-\] Before-type Trip Log "\(imported\) AM NB 4", Other-period, started Thursday 1/30/2020 7:20:17 AM](#) [↑Contents](#)

Entered artery 7:21:03 am (46 seconds) traveling Northbound from 1\_Craig/Del Mar

Node	NCT	Dir	CTT	CTL	CAS	CStops

to 8_Craig/ Orange Grove	7:26:21 am	NB	319	5942	12.7	6
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**[\[-\] Before-type Trip Log "\(imported\) AM NB 5", Other-period, started Thursday 1/30/2020 7:33:43 AM](#)** [↑Contents](#)

**Entered artery 7:34:23 am (40 seconds) traveling Northbound from 1\_Craig/Del Mar**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>CTI</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 8_Craig/ Orange Grove	7:39:09 am	NB	286	5934	14.1	5

Monday 3/23/2020 2:03:31 PM

## Travel Time & Delay Report for Craig

### Legend:

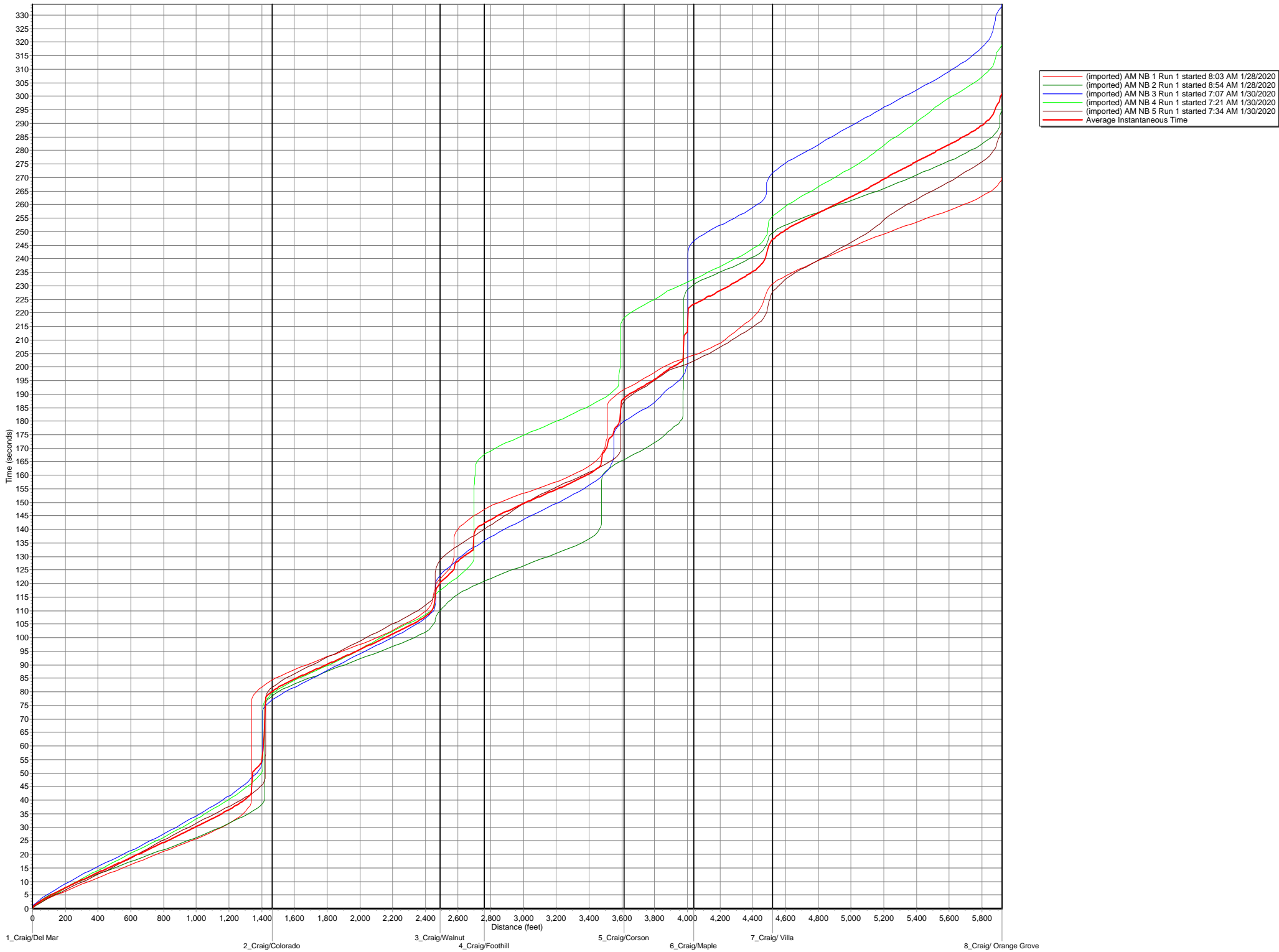
- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Northbound from 1\_Craig/Del Mar

5 Before-type runs, 5 of unverifiable origin, collected Tuesday 1/28/2020 to Thursday 1/30/2020, over day(s) Tue, Thu, with starting times during 7:07:45 AM to 8:54:21 AM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 2_Craig/Colorado</b>						
Average Before (n=5)	NB	0	80	1465	12.6	1.0
Std Dev Before (n=5)	NB	0	3	3	0.5	0.0
<b>to 3_Craig/Walnut</b>						
Average Before (n=5)	NB	0	120	2489	14.2	2.0
Std Dev Before (n=5)	NB	0	7	5	0.8	0.0
<b>to 4_Craig/Foothill</b>						
Average Before (n=5)	NB	0	142	2761	13.4	2.4
Std Dev Before (n=5)	NB	0	17	4	1.6	0.5
<b>to 5_Craig/Corson</b>						
Average Before (n=5)	NB	0	188	3615	13.2	3.4
Std Dev Before (n=5)	NB	0	20	6	1.3	0.5
<b>to 6_Craig/Maple</b>						
Average Before (n=5)	NB	0	223	4041	12.4	3.8
Std Dev Before (n=5)	NB	0	19	6	1.1	0.4
<b>to 7_Craig/ Villa</b>						
Average Before (n=5)	NB	0	247	4522	12.6	4.8
Std Dev Before (n=5)	NB	0	18	6	0.9	0.4
<b>to 8_Craig/ Orange Grove</b>						
Average Before (n=5)	NB	0	300	5922	13.5	5.6
Std Dev Before (n=5)	NB	0	25	23	1.1	0.5





Monday 3/23/2020 2:03:31 PM

## Travel Time & Delay Report for Craig

### Legend:

#### NCT:

Node Crossing Time

#### Dir:

Direction of Travel (NB, SB, EB, or WB)

#### NID:

Node ID

#### CTT:

Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Contents:

[\(imported\) AM SB 1](#), [\(imported\) AM SB 2](#), [\(imported\) AM SB 3](#), [\(imported\) AM SB 4](#), [\(imported\) AM SB 5](#), [Cumulative Reports](#)  
[-] Collapse All

### [\[-\] Before-type Trip Log "\(imported\) AM SB 1", Other-period, started Tuesday 1/28/2020 8:08:24 AM](#) [↑Contents](#)

Entered artery 8:08:34 am (11 seconds) traveling  
Southbound from 8\_Craig/ Orange Grove

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 7_Craig/ Villa	8:09:21 am	SB	0	47	1406	20.6	1
to 6_Craig/Maple	8:10:18 am	SB	0	104	1887	12.4	2
to 5_Craig/Corson	8:10:29 am	SB	0	114	2307	13.7	2
to 4_Craig/Foothill	8:11:49 am	SB	0	195	3156	11.0	3
to 3_Craig/Walnut	8:12:15 am	SB	0	221	3427	10.6	4
to 2_Craig/Colorado	8:12:59 am	SB	0	265	4453	11.5	5
to 1_Craig/Del Mar	8:14:20 am	SB	0	346	5916	11.7	6

### [\[-\] Before-type Trip Log "\(imported\) AM SB 2", Other-period, started Tuesday 1/28/2020 8:59:38 AM](#) [↑Contents](#)

Entered artery 9:00:12 am (34 seconds) traveling  
Southbound from 8\_Craig/ Orange Grove

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 7_Craig/ Villa	9:01:01 am	SB	0	49	1405	19.5	1
to 6_Craig/Maple	9:01:42 am	SB	0	90	1891	14.3	2
to 5_Craig/Corson	9:01:53 am	SB	0	101	2314	15.6	2

to 4_Craig/Foothill	9:03:07 am	SB	0	175	3170	12.3	3
to 3_Craig/Walnut	9:03:19 am	SB	0	187	3437	12.5	3
to 2_Craig/Colorado	9:03:46 am	SB	0	214	4461	14.2	3
to 1_Craig/Del Mar	9:05:01 am	SB	0	289	5936	14.0	4

**[\[-\] Before-type Trip Log "\(imported\) AM SB 3", Other-period, started Thursday 1/30/2020 7:13:46](#)**

**AM** [↑Contents](#)

**Entered artery 7:14:15 am (29 seconds) traveling  
Southbound from 8\_Craig/ Orange Grove**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 7_Craig/ Villa	7:15:06 am	SB	0	51	1414	19.0	1
to 6_Craig/Maple	7:15:23 am	SB	0	68	1897	18.9	1
to 5_Craig/Corson	7:15:34 am	SB	0	79	2318	20.0	1
to 4_Craig/Foothill	7:16:54 am	SB	0	159	3185	13.7	2
to 3_Craig/Walnut	7:17:09 am	SB	0	174	3457	13.5	3
to 2_Craig/Colorado	7:18:22 am	SB	0	247	4491	12.4	4
to 1_Craig/Del Mar	7:19:43 am	SB	0	328	5962	12.4	5

**[\[-\] Before-type Trip Log "\(imported\) AM SB 4", Other-period, started Thursday 1/30/2020 7:26:34](#)**

**AM** [↑Contents](#)

**Entered artery 7:27:31 am (57 seconds) traveling  
Southbound from 8\_Craig/ Orange Grove**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 7_Craig/ Villa	7:28:19 am	SB	0	49	1412	19.8	1
to 6_Craig/Maple	7:29:21 am	SB	0	110	1895	11.8	2
to 5_Craig/Corson	7:29:31 am	SB	0	121	2316	13.1	2
to 4_Craig/Foothill	7:30:52 am	SB	0	201	3176	10.8	3
to 3_Craig/Walnut	7:31:07 am	SB	0	216	3451	10.9	4
to 2_Craig/Colorado	7:31:45 am	SB	0	254	4476	12.0	5
to 1_Craig/Del Mar	7:33:04 am	SB	0	333	5950	12.2	6

**[\[-\] Before-type Trip Log "\(imported\) AM SB 5", Other-period, started Thursday 1/30/2020 7:39:24](#)**

**AM** [↑Contents](#)

**Entered artery 7:40:42 am (78 seconds) traveling  
Southbound from 8\_Craig/ Orange Grove**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 7_Craig/ Villa	7:41:36 am	SB	0	55	1413	17.5	1
to 6_Craig/Maple	7:42:10 am	SB	0	89	1899	14.6	2
to 5_Craig/Corson	7:42:22 am	SB	0	100	2322	15.8	2
to 4_Craig/Foothill	7:43:39 am	SB	0	177	3203	12.3	3

to 3_Craig/Walnut	7:43:55 am	SB	0	194	3477	12.2	4
to 2_Craig/Colorado	7:45:01 am	SB	0	259	4507	11.8	5
to 1_Craig/Del Mar	7:46:24 am	SB	0	342	5990	11.9	6

## Cumulative Reports

### [\[-\] Before-type Trip Log "\(imported\) AM SB 1", Other-period, started Tuesday 1/28/2020 8:08:24](#)

[AM](#) [↑Contents](#)

Entered artery 8:08:34 am (11 seconds) traveling  
Southbound from 8\_Craig/ Orange Grove

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Craig/Del Mar	8:14:20 am	SB	346	5916	11.7	6

### [\[-\] Before-type Trip Log "\(imported\) AM SB 2", Other-period, started Tuesday 1/28/2020 8:59:38](#)

[AM](#) [↑Contents](#)

Entered artery 9:00:12 am (34 seconds) traveling  
Southbound from 8\_Craig/ Orange Grove

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Craig/Del Mar	9:05:01 am	SB	289	5936	14.0	4

### [\[-\] Before-type Trip Log "\(imported\) AM SB 3", Other-period, started Thursday 1/30/2020 7:13:46](#)

[AM](#) [↑Contents](#)

Entered artery 7:14:15 am (29 seconds) traveling  
Southbound from 8\_Craig/ Orange Grove

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Craig/Del Mar	7:19:43 am	SB	328	5962	12.4	5

### [\[-\] Before-type Trip Log "\(imported\) AM SB 4", Other-period, started Thursday 1/30/2020 7:26:34](#)

[AM](#) [↑Contents](#)

Entered artery 7:27:31 am (57 seconds) traveling  
Southbound from 8\_Craig/ Orange Grove

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Craig/Del Mar	7:33:04 am	SB	333	5950	12.2	6

### [\[-\] Before-type Trip Log "\(imported\) AM SB 5", Other-period, started Thursday 1/30/2020 7:39:24](#)

[AM](#) [↑Contents](#)

**Entered artery 7:40:42 am (78 seconds) traveling  
Southbound from 8\_Craig/ Orange Grove**

<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 1_Craig/Del Mar	7:46:24 am	SB	342	5990	11.9	6

Monday 3/23/2020 2:03:31 PM

## Travel Time & Delay Report for Craig

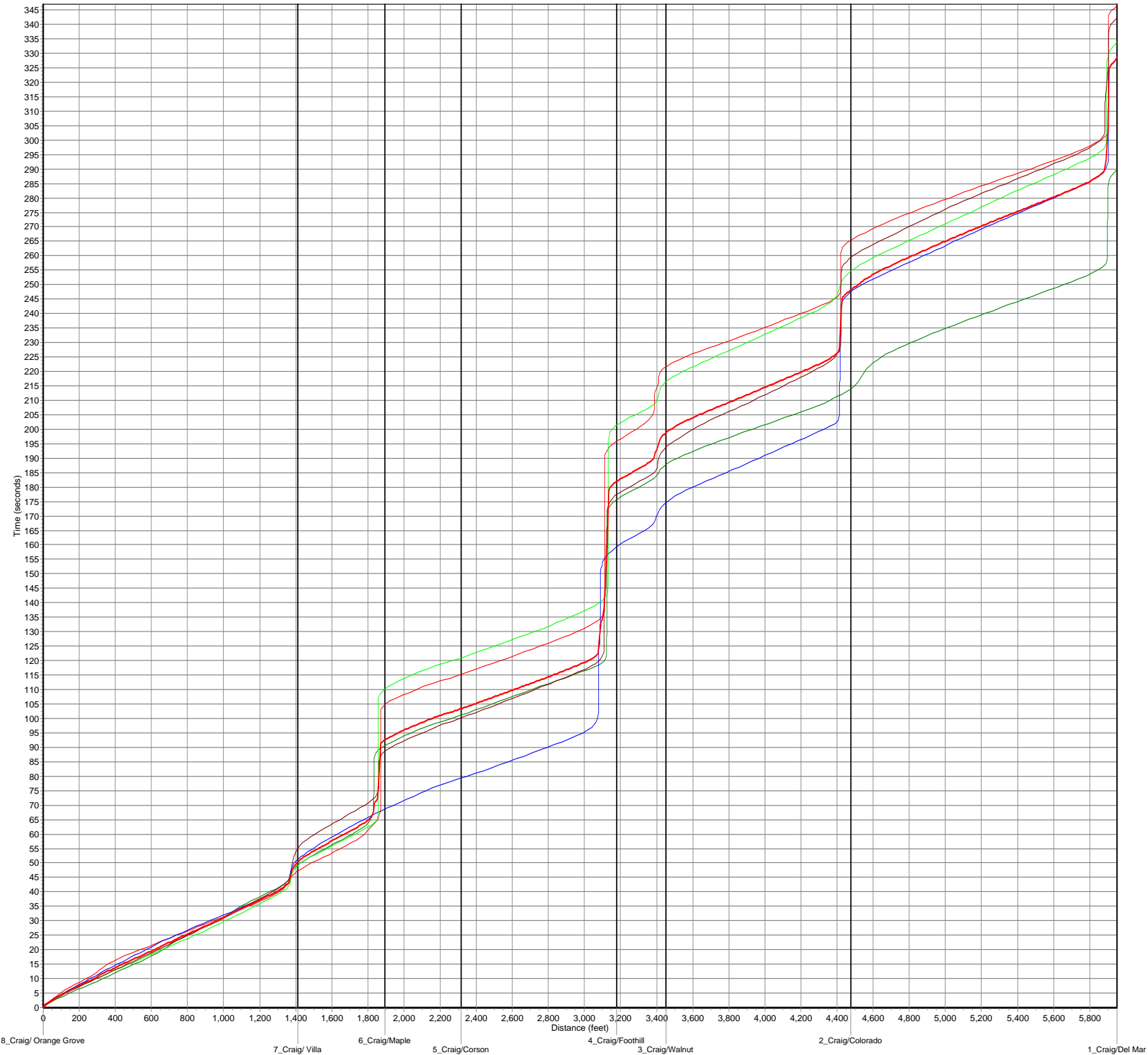
### Legend:

- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Southbound from 8\_Craig/ Orange Grove

5 Before-type runs, 5 of unverifiable origin, collected Tuesday 1/28/2020 to Thursday 1/30/2020, over day(s) Tue, Thu, with starting times during 7:14:15 AM to 9:00:12 AM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 7_Craig/ Villa</b>						
Average Before (n=5)	SB	0	50	1410	19.3	1.0
Std Dev Before (n=5)	SB	0	3	4	1.1	0.0
<b>to 6_Craig/Maple</b>						
Average Before (n=5)	SB	0	92	1894	14.4	1.8
Std Dev Before (n=5)	SB	0	16	5	2.8	0.4
<b>to 5_Craig/Corson</b>						
Average Before (n=5)	SB	0	103	2315	15.7	1.8
Std Dev Before (n=5)	SB	0	16	5	2.7	0.4
<b>to 4_Craig/Foothill</b>						
Average Before (n=5)	SB	0	182	3178	12.0	2.8
Std Dev Before (n=5)	SB	0	17	17	1.2	0.4
<b>to 3_Craig/Walnut</b>						
Average Before (n=5)	SB	0	198	3450	12.0	3.6
Std Dev Before (n=5)	SB	0	20	19	1.2	0.5
<b>to 2_Craig/Colorado</b>						
Average Before (n=5)	SB	0	248	4478	12.4	4.4
Std Dev Before (n=5)	SB	0	20	22	1.1	0.9
<b>to 1_Craig/Del Mar</b>						
Average Before (n=5)	SB	0	328	5951	12.4	5.4
Std Dev Before (n=5)	SB	0	23	28	0.9	0.9



- (imported) AM SB 1 Run 1 started 8:08 AM 1/28/2020
- (imported) AM SB 2 Run 1 started 9:00 AM 1/28/2020
- (imported) AM SB 3 Run 1 started 7:14 AM 1/30/2020
- (imported) AM SB 4 Run 1 started 7:27 AM 1/30/2020
- (imported) AM SB 5 Run 1 started 7:40 AM 1/30/2020
- Average Instantaneous Time

Monday 3/23/2020 2:07:58 PM

## Travel Time & Delay Report for Craig

### Legend:

#### CTT:

Summarized Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Summarized Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Cumulative Summary of runs

#### Northbound from 1\_Craig/Del Mar

5 Before-type runs, 5 of unverifiable origin, collected  
 Wednesday 1/15/2020 to Wednesday 1/15/2020,  
 over day(s) Wed, with starting times during 4:18:58  
 PM to 5:23:27 PM

	CTT	CTL	CAS	CStops
<b>to 8_Craig/ Orange Grove</b>				
<i>Average Before (n=5)</i>	294	5887	13.8	6.0
<i>Std Dev Before (n=5)</i>	34	7	1.4	0.7

### Cumulative Summary of runs

#### Southbound from 8\_Craig/ Orange Grove

3 Before-type runs, 3 of unverifiable origin, collected  
 Wednesday 1/15/2020 to Wednesday 1/15/2020,  
 over day(s) Wed, with starting times during 4:43:42  
 PM to 5:15:33 PM

	CTT	CTL	CAS	CStops
<b>to 1_Craig/Del Mar</b>				
<i>Average Before (n=3)</i>	355	5905	11.8	5.7
<i>Std Dev Before (n=3)</i>	88	6	2.9	1.5

### Cumulative Summary of all runs, either direction through artery

8 Before-type runs, 8 of unverifiable origin, collected  
 Wednesday 1/15/2020 to Wednesday 1/15/2020, over  
 day(s) Wed, with starting times during 4:23:04 PM to  
 5:28:06 PM

	CTT	CTL	CAS	CStops
<b>to End of Artery</b>				



<i>Average Before (n=8)</i>	317	5894	13.1	5.9
<i>Std Dev Before (n=8)</i>	62	11	2.1	1.0
Difference	0	0	0.0	0.0
<i>Std Dev Difference</i>	62	11	2.1	1.0
% Difference	0%	0%	0.0%	0.0%

## Travel Time & Delay Report for Craig

**Legend:**

- NCT:** Node Crossing Time
- Dir:** Direction of Travel (NB, SB, EB, or WB)
- NID:** Node ID
- CTT:** Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

**Contents:**

[\(imported\) PM NB 1](#), [\(imported\) PM NB 2](#), [\(imported\) PM NB 3](#), [\(imported\) PM NB 4](#), [\(imported\) PM NB 5](#), [Cumulative Reports](#)

[\[-\] Collapse All](#)

**[\[-\] Before-type Trip Log "\(imported\) PM NB 1", Other-period, started Wednesday 1/15/2020 4:18:33 PM](#)** [↑Contents](#)

**Entered artery 4:18:58 pm (25 seconds) traveling Northbound from 1\_Craig/Del Mar**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Craig/Colorado	4:19:40 pm	NB	0	42	1459	23.7	1
to 3_Craig/Walnut	4:20:11 pm	NB	0	74	2481	23.0	2
to 4_Craig/Foothill	4:21:23 pm	NB	0	145	2749	12.9	3
to 5_Craig/Corson	4:22:36 pm	NB	0	218	3599	11.3	4
to 6_Craig/Maple	4:22:47 pm	NB	0	229	4019	11.9	4
to 7_Craig/ Villa	4:23:04 pm	NB	0	246	4497	12.5	5
to 8_Craig/ Orange Grove	4:23:50 pm	NB	0	292	5878	13.7	6

**[\[-\] Before-type Trip Log "\(imported\) PM NB 2", Other-period, started Wednesday 1/15/2020 4:35:38 PM](#)** [↑Contents](#)

**Entered artery 4:36:55 pm (78 seconds) traveling Northbound from 1\_Craig/Del Mar**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Craig/Colorado	4:37:40 pm	NB	0	45	1461	21.9	1

to 3_Craig/Walnut	4:38:28 pm	NB	0	93	2485	18.2	2
to 4_Craig/Foothill	4:39:07 pm	NB	0	132	2751	14.3	3
to 5_Craig/Corson	4:40:18 pm	NB	0	203	3599	12.1	4
to 6_Craig/Maple	4:40:30 pm	NB	0	214	4022	12.8	4
to 7_Craig/ Villa	4:40:48 pm	NB	0	233	4500	13.2	5
to 8_Craig/ Orange Grove	4:41:34 pm	NB	0	279	5893	14.4	6

**[\[-\] Before-type Trip Log "\(imported\) PM NB 3", Other-period, started Wednesday 1/15/2020 4:50:42 PM](#)** [↑Contents](#)

**Entered artery 4:51:57 pm (76 seconds) traveling Northbound from 1\_Craig/Del Mar**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Craig/Colorado	4:52:44 pm	NB	0	46	1460	21.5	1
to 3_Craig/Walnut	4:53:16 pm	NB	0	79	2483	21.4	2
to 4_Craig/Foothill	4:53:44 pm	NB	0	107	2749	17.5	3
to 5_Craig/Corson	4:54:57 pm	NB	0	180	3598	13.6	5
to 6_Craig/Maple	4:55:08 pm	NB	0	191	4019	14.3	5
to 7_Craig/ Villa	4:55:36 pm	NB	0	219	4498	14.0	6
to 8_Craig/ Orange Grove	4:56:42 pm	NB	0	284	5882	14.1	7

**[\[-\] Before-type Trip Log "\(imported\) PM NB 4", Other-period, started Wednesday 1/15/2020 5:08:33 PM](#)** [↑Contents](#)

**Entered artery 5:09:56 pm (83 seconds) traveling Northbound from 1\_Craig/Del Mar**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 2_Craig/Colorado	5:10:33 pm	NB	0	38	1460	26.5	0
to 3_Craig/Walnut	5:11:04 pm	NB	0	69	2482	24.7	1
to 4_Craig/Foothill	5:11:53 pm	NB	0	118	2749	15.9	2
to 5_Craig/Corson	5:13:08 pm	NB	0	192	3597	12.8	3
to 6_Craig/Maple	5:13:18 pm	NB	0	203	4020	13.5	4
to 7_Craig/ Villa	5:13:40 pm	NB	0	224	4499	13.7	5
to 8_Craig/ Orange Grove	5:14:18 pm	NB	0	263	5889	15.3	6

**[\[-\] Before-type Trip Log "\(imported\) PM NB 5 ", Other-period, started Wednesday 1/15/2020 5:22:24 PM](#)** [↑Contents](#)

**Entered artery 5:23:27 pm (64 seconds) traveling Northbound from 1\_Craig/Del Mar**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops

to 2_Craig/Colorado	5:24:08 pm	NB	0	41	1460	24.4	0
to 3_Craig/Walnut	5:24:40 pm	NB	0	72	2482	23.4	0
to 4_Craig/Foothill	5:25:22 pm	NB	0	115	2748	16.4	1
to 5_Craig/Corson	5:26:38 pm	NB	0	191	3598	12.9	2
to 6_Craig/Maple	5:27:47 pm	NB	0	260	4029	10.6	3
to 7_Craig/ Villa	5:28:06 pm	NB	0	278	4507	11.0	4
to 8_Craig/ Orange Grove	5:29:19 pm	NB	0	351	5894	11.4	5

## Cumulative Reports

### [\[-\] Before-type Trip Log "\(imported\) PM NB 1", Other-period, started Wednesday 1/15/2020 4:18:33 PM](#) [↑Contents](#)

Entered artery 4:18:58 pm (25 seconds) traveling  
Northbound from 1\_Craig/Del Mar

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 8_Craig/ Orange Grove	4:23:50 pm	NB	292	5878	13.7	6

### [\[-\] Before-type Trip Log "\(imported\) PM NB 2", Other-period, started Wednesday 1/15/2020 4:35:38 PM](#) [↑Contents](#)

Entered artery 4:36:55 pm (78 seconds) traveling  
Northbound from 1\_Craig/Del Mar

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 8_Craig/ Orange Grove	4:41:34 pm	NB	279	5893	14.4	6

### [\[-\] Before-type Trip Log "\(imported\) PM NB 3", Other-period, started Wednesday 1/15/2020 4:50:42 PM](#) [↑Contents](#)

Entered artery 4:51:57 pm (76 seconds) traveling  
Northbound from 1\_Craig/Del Mar

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 8_Craig/ Orange Grove	4:56:42 pm	NB	284	5882	14.1	7

### [\[-\] Before-type Trip Log "\(imported\) PM NB 4", Other-period, started Wednesday 1/15/2020 5:08:33 PM](#) [↑Contents](#)

Entered artery 5:09:56 pm (83 seconds) traveling  
Northbound from 1\_Craig/Del Mar

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 8_Craig/ Orange Grove	5:14:18 pm	NB	263	5889	15.3	6

**[\[-\] Before-type Trip Log "\(imported\) PM NB 5 ", Other-period, started Wednesday 1/15/2020 5:22:24 PM](#)** [↑Contents](#)

**Entered artery 5:23:27 pm (64 seconds) traveling Northbound from 1\_Craig/Del Mar**

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 8_Craig/ Orange Grove	5:29:19 pm	NB	351	5894	11.4	5

Monday 3/23/2020 2:07:58 PM

## Travel Time & Delay Report for Craig

### Legend:

#### Dir:

Summarized Direction of Travel (NB, SB, EB, or WB)

#### NID:

Summarized Node ID

#### CTT:

Summarized Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Summarized Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

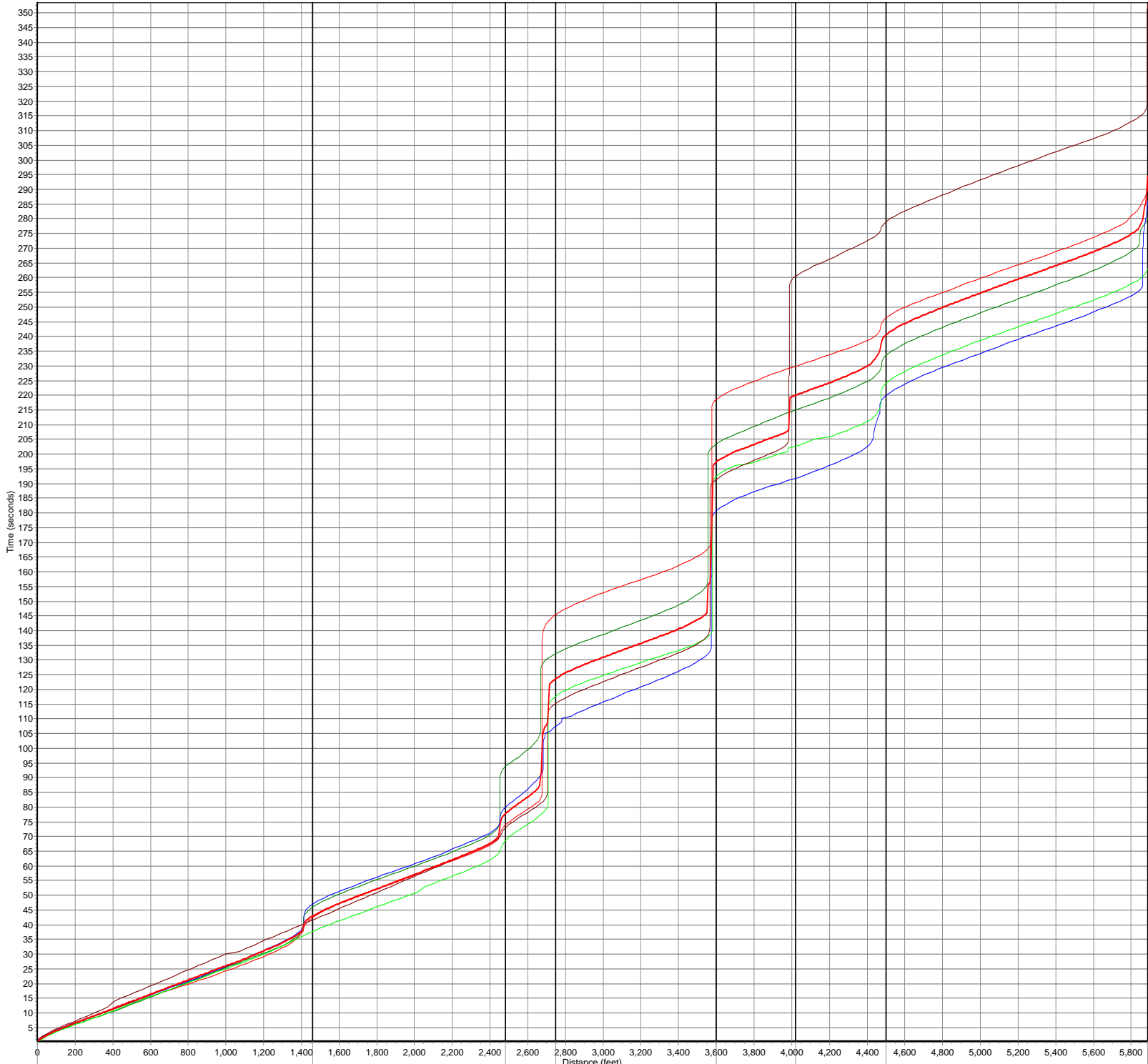
#### CStops:

Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Northbound from 1\_Craig/Del Mar

5 Before-type runs, 5 of unverifiable origin, collected  
 Wednesday 1/15/2020 to Wednesday 1/15/2020, over day(s)  
 Wed, with starting times during 4:18:58 PM to 5:23:27 PM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 2_Craig/Colorado</b>						
Average Before (n=5)	NB	0	42	1460	23.6	0.6
Std Dev Before (n=5)	NB	0	4	1	2.0	0.5
<b>to 3_Craig/Walnut</b>						
Average Before (n=5)	NB	0	77	2483	22.1	1.4
Std Dev Before (n=5)	NB	0	10	1	2.5	0.9
<b>to 4_Craig/Foothill</b>						
Average Before (n=5)	NB	0	123	2749	15.4	2.4
Std Dev Before (n=5)	NB	0	15	1	1.8	0.9
<b>to 5_Craig/Corson</b>						
Average Before (n=5)	NB	0	197	3598	12.5	3.6
Std Dev Before (n=5)	NB	0	14	1	0.9	1.1
<b>to 6_Craig/Maple</b>						
Average Before (n=5)	NB	0	220	4022	12.6	4.0
Std Dev Before (n=5)	NB	0	27	4	1.5	0.7
<b>to 7_Craig/ Villa</b>						
Average Before (n=5)	NB	0	240	4500	12.9	5.0
Std Dev Before (n=5)	NB	0	24	4	1.2	0.7
<b>to 8_Craig/ Orange Grove</b>						
Average Before (n=5)	NB	0	294	5887	13.8	6.0
Std Dev Before (n=5)	NB	0	34	7	1.4	0.7



- (imported) PM NB 1 Run 1 started 4:18 PM 1/15/2020
- (imported) PM NB 2 Run 1 started 4:36 PM 1/15/2020
- (imported) PM NB 3 Run 1 started 4:51 PM 1/15/2020
- (imported) PM NB 4 Run 1 started 5:09 PM 1/15/2020
- (imported) PM NB 5 Run 1 started 5:23 PM 1/15/2020
- Average Instantaneous Time

1\_Craig/Del Mar      2\_Craig/Colorado      3\_Craig/Walnut      4\_Craig/Foothill      5\_Craig/Corson      6\_Craig/Maple      7\_Craig/ Villa      8\_Craig/ Orange Grove

Monday 3/23/2020 2:07:58 PM

## Travel Time & Delay Report for Craig

### Legend:

#### NCT:

Node Crossing Time

#### Dir:

Direction of Travel (NB, SB, EB, or WB)

#### NID:

Node ID

#### CTT:

Cumulative Travel Time since beginning of Run (seconds)

#### CTL:

Cumulative Travel Distance since beginning of Run (feet)

#### CAS:

Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

#### CStops:

Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Contents:

[\(imported\) PM SB 1](#), [\(imported\) PM SB 2](#), [\(imported\) PM SB 3](#), [\(imported\) PM SB 4](#), [\(imported\) PM SB 5](#), [Cumulative Reports](#)  
[-] Collapse All

### **[\[-\] Before-type Trip Log "\(imported\) PM SB 1", Other-period, started Wednesday 1/15/2020](#)**

**[4:24:30 PM](#)** [↑Contents](#)

**Entered artery 4:25:13 pm (43 seconds) traveling  
Southbound from 7\_Craig/ Villa**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 6_Craig/Maple	4:26:08 pm	SB	0	55	479	6.0	1
to 5_Craig/Corson	4:26:18 pm	SB	0	65	901	9.4	1
to 4_Craig/Foothill	4:27:15 pm	SB	0	122	1749	9.8	2
to 3_Craig/Walnut	4:27:35 pm	SB	0	142	2014	9.7	3
to 2_Craig/Colorado	4:28:02 pm	SB	0	169	3018	12.2	4
to 1_Craig/Del Mar	4:29:27 pm	SB	0	254	4506	12.1	5

### **[\[-\] Before-type Trip Log "\(imported\) PM SB 2", Other-period, started Wednesday 1/15/2020](#)**

**[4:43:41 PM](#)** [↑Contents](#)

**Entered artery 4:43:42 pm (1 seconds) traveling  
Southbound from 8\_Craig/ Orange Grove**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 7_Craig/ Villa	4:44:28 pm	SB	0	47	1406	20.5	1
to 6_Craig/Maple	4:44:41 pm	SB	0	59	1883	21.6	1
to 5_Craig/Corson	4:45:47 pm	SB	0	126	2307	12.5	2
to 4_Craig/Foothill	4:46:53 pm	SB	0	191	3155	11.2	3



to 3_Craig/Walnut	4:47:10 pm	SB	0	208	3422	11.2	4
to 2_Craig/Colorado	4:47:48 pm	SB	0	247	4445	12.3	5
to 1_Craig/Del Mar	4:49:27 pm	SB	0	346	5906	11.6	6

**[\[-\] Before-type Trip Log "\(imported\) PM SB 3", Other-period, started Wednesday 1/15/2020 4:57:11 PM](#)** [↑Contents](#)

**Entered artery 4:57:59 pm (48 seconds) traveling Southbound from 8\_Craig/ Orange Grove**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 7_Craig/ Villa	4:58:42 pm	SB	0	44	1403	22.0	1
to 6_Craig/Maple	4:59:40 pm	SB	0	101	1882	12.7	2
to 5_Craig/Corson	5:00:50 pm	SB	0	171	2310	9.2	3
to 4_Craig/Foothill	5:01:55 pm	SB	0	236	3158	9.1	4
to 3_Craig/Walnut	5:02:23 pm	SB	0	264	3424	8.8	5
to 2_Craig/Colorado	5:03:34 pm	SB	0	336	4448	9.0	6
to 1_Craig/Del Mar	5:05:26 pm	SB	0	447	5910	9.0	7

**[\[-\] Before-type Trip Log "\(imported\) PM SB 4", Other-period, started Wednesday 1/15/2020 5:15:30 PM](#)** [↑Contents](#)

**Entered artery 5:15:33 pm (3 seconds) traveling Southbound from 8\_Craig/ Orange Grove**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 7_Craig/ Villa	5:16:18 pm	SB	0	45	1402	21.1	1
to 6_Craig/Maple	5:16:31 pm	SB	0	59	1879	21.8	1
to 5_Craig/Corson	5:17:37 pm	SB	0	125	2302	12.6	2
to 4_Craig/Foothill	5:18:42 pm	SB	0	190	3151	11.3	3
to 3_Craig/Walnut	5:18:57 pm	SB	0	204	3417	11.4	4
to 2_Craig/Colorado	5:19:26 pm	SB	0	234	4439	13.0	4
to 1_Craig/Del Mar	5:20:05 pm	SB	0	272	5898	14.8	4

**[\[-\] Before-type Trip Log "\(imported\) PM SB 5", Other-period, started Wednesday 1/15/2020 5:29:46 PM](#)** [↑Contents](#)

**Entered artery 5:30:32 pm (46 seconds) traveling Southbound from 7\_Craig/ Villa**

Node	NCT	Dir	NID	CTT	CTL	CAS	CStops
to 6_Craig/Maple	5:31:17 pm	SB	0	45	478	7.3	1
to 5_Craig/Corson	5:31:28 pm	SB	0	56	901	11.0	1
to 4_Craig/Foothill	5:32:27 pm	SB	0	116	1749	10.3	2
to 3_Craig/Walnut	5:32:45 pm	SB	0	133	2015	10.3	3
to 2_Craig/Colorado	5:33:30 pm	SB	0	178	3037	11.6	4

to 1_Craig/Del Mar	5:35:25 pm	SB	0	294	4501	10.5	5
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## Cumulative Reports

### [\[-\] Before-type Trip Log "\(imported\) PM SB 1", Other-period, started Wednesday 1/15/2020 4:24:30 PM](#) [↑Contents](#)

Entered artery 4:25:13 pm (43 seconds) traveling Southbound from 7\_Craig/ Villa

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Craig/Del Mar	4:29:27 pm	SB	254	4506	12.1	5

### [\[-\] Before-type Trip Log "\(imported\) PM SB 2", Other-period, started Wednesday 1/15/2020 4:43:41 PM](#) [↑Contents](#)

Entered artery 4:43:42 pm (1 seconds) traveling Southbound from 8\_Craig/ Orange Grove

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Craig/Del Mar	4:49:27 pm	SB	346	5906	11.6	6

### [\[-\] Before-type Trip Log "\(imported\) PM SB 3 ", Other-period, started Wednesday 1/15/2020 4:57:11 PM](#) [↑Contents](#)

Entered artery 4:57:59 pm (48 seconds) traveling Southbound from 8\_Craig/ Orange Grove

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Craig/Del Mar	5:05:26 pm	SB	447	5910	9.0	7

### [\[-\] Before-type Trip Log "\(imported\) PM SB 4", Other-period, started Wednesday 1/15/2020 5:15:30 PM](#) [↑Contents](#)

Entered artery 5:15:33 pm (3 seconds) traveling Southbound from 8\_Craig/ Orange Grove

Node	NCT	Dir	CTT	CTL	CAS	CStops
to 1_Craig/Del Mar	5:20:05 pm	SB	272	5898	14.8	4

### [\[-\] Before-type Trip Log "\(imported\) PM SB 5", Other-period, started Wednesday 1/15/2020 5:29:46 PM](#) [↑Contents](#)

Entered artery 5:30:32 pm (46 seconds) traveling Southbound from 7\_Craig/ Villa

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<b>Node</b>	<b>NCT</b>	<b>Dir</b>	<b>CTT</b>	<b>CTL</b>	<b>CAS</b>	<b>CStops</b>
to 1_Craig/Del Mar	5:35:25 pm	SB	294	4501	10.5	5

Monday 3/23/2020 2:07:58 PM

## Travel Time & Delay Report for Craig

### Legend:

- Dir:** Summarized Direction of Travel (NB, SB, EB, or WB)
- NID:** Summarized Node ID
- CTT:** Summarized Cumulative Travel Time since beginning of Run (seconds)
- CTL:** Summarized Cumulative Travel Distance since beginning of Run (feet)
- CAS:** Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT
- CStops:** Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

### Summary of runs Southbound from 8\_Craig/ Orange Grove

3 Before-type runs, 3 of unverifiable origin, collected  
Wednesday 1/15/2020 to Wednesday 1/15/2020, over day(s)  
Wed, with starting times during 4:43:42 PM to 5:15:33 PM

Node	Dir	NID	CTT	CTL	CAS	CStops
<b>to 7_Craig/ Villa</b>						
Average Before (n=3)	SB	0	45	1404	21.2	1.0
Std Dev Before (n=3)	SB	0	2	2	0.7	0.0
<b>to 6_Craig/Maple</b>						
Average Before (n=3)	SB	0	73	1882	18.7	1.3
Std Dev Before (n=3)	SB	0	24	2	5.2	0.6
<b>to 5_Craig/Corson</b>						
Average Before (n=3)	SB	0	141	2306	11.4	2.3
Std Dev Before (n=3)	SB	0	26	4	1.9	0.6
<b>to 4_Craig/Foothill</b>						
Average Before (n=3)	SB	0	206	3154	10.6	3.3
Std Dev Before (n=3)	SB	0	26	3	1.3	0.6
<b>to 3_Craig/Walnut</b>						
Average Before (n=3)	SB	0	225	3421	10.5	4.3
Std Dev Before (n=3)	SB	0	33	4	1.4	0.6
<b>to 2_Craig/Colorado</b>						
Average Before (n=3)	SB	0	272	4444	11.4	5.0
Std Dev Before (n=3)	SB	0	55	5	2.1	1.0
<b>to 1_Craig/Del Mar</b>						
Average Before (n=3)	SB	0	355	5905	11.8	5.7
Std Dev Before (n=3)	SB	0	88	6	2.9	1.5

Craig Mon. 3/23/2020 2:15 PM  
Trip Log \*(imported) PM SB 2\* started 4:43 PM 1/15/2020  
Trip Log \*(imported) PM SB 3\* started 4:57 PM 1/15/2020  
Trip Log \*(imported) PM SB 4\* started 5:15 PM 1/15/2020



(imported) PM SB 2 Run 1 started 4:43 PM 1/15/2020  
(imported) PM SB 3 Run 1 started 4:57 PM 1/15/2020  
(imported) PM SB 4 Run 1 started 5:15 PM 1/15/2020  
Average Instantaneous Time

8\_Craig/ Orange Grove      7\_Craig/ Villa      6\_Craig/Maple      5\_Craig/Corson      4\_Craig/Foothill      3\_Craig/Walnut      2\_Craig/Colorado      1\_Craig/Del Mar

# Appendix B – Existing Year (2019) Conditions Analysis Worksheets

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# El Molino Corridor LTS

## El Molino Ave

1

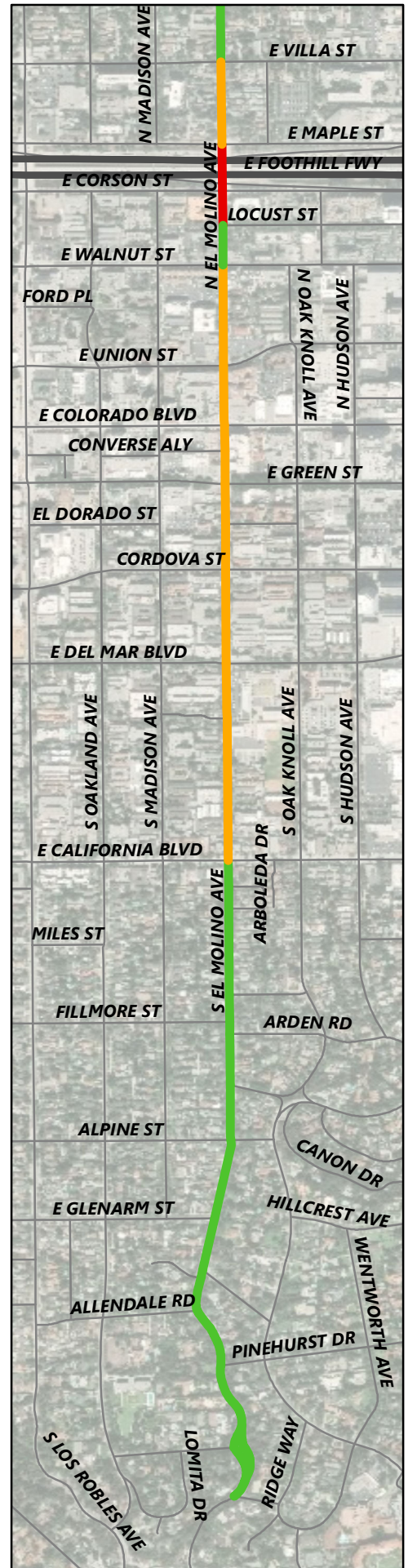
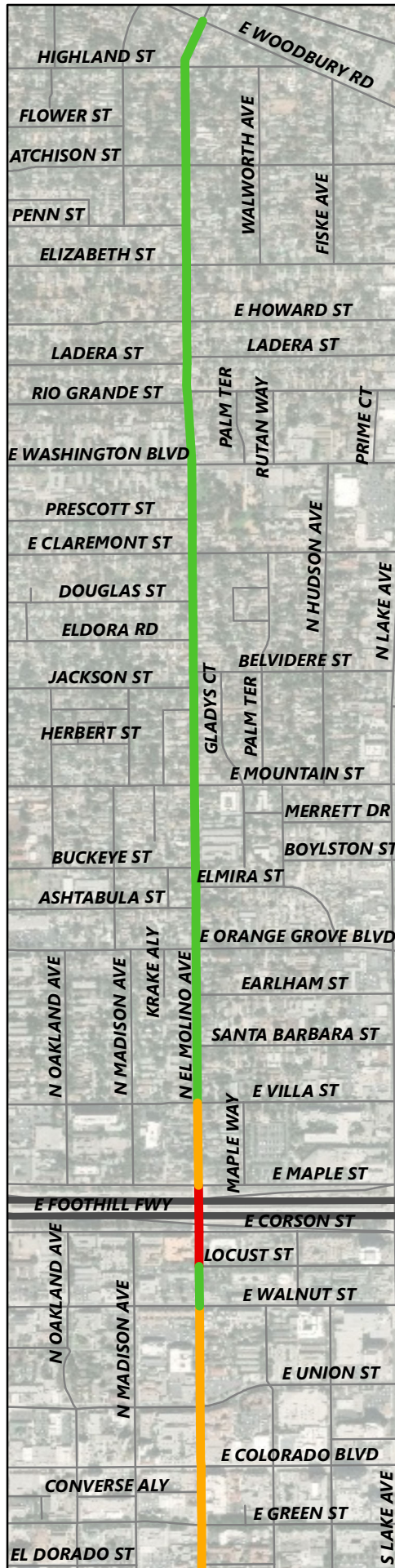
2

3

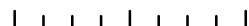
4

Streets

210 Freeway



0 0.0750.15 0.3 Miles



**EL MOLINO AVENUE CORRIDOR**  
**BICYCLE LEVEL OF TRAFFIC STRESS (LTS) CALCULATIONS**

FID	OBJECTID	LABEL	STREET_NAM	PREDIR	Shape_Len	LANES	LNDUSE	CRBCUT	SPDLMT	LTS_FINAL	Length_up	Ratio	LTS_ratio
0	2082	Primary Street	EL MOLINO	N	332.411211	2	Residential		30	2	332.4408	0.0156	0.0313
1	2138	Primary Street	EL MOLINO	S	230.2626402	2	Residential		25	2	230.2790	0.0108	0.0217
2	2631	Primary Street	EL MOLINO	N	501.4579106	2	Residential		30	2	501.5028	0.0236	0.0472
3	2744	Primary Street	EL MOLINO	S	430.0615306	2	Residential		25	2	430.0919	0.0202	0.0405
4	2803	Primary Street	EL MOLINO	N	59.38341752	2	Residential		30	2	59.3886	0.0028	0.0056
5	2865	Primary Street	EL MOLINO	N	462.2475979	2	Residential		30	2	462.2877	0.0218	0.0435
6	2953	Primary Street	EL MOLINO	S	183.2284027	2	Residential		25	2	183.2417	0.0086	0.0172
7	3096	Primary Street	EL MOLINO	N	288.6334892	4	Residential		30	4	288.6563	0.0136	0.0543
8	3134	Primary Street	EL MOLINO	S	278.2945115	2	Commercial	Yes	25	3	278.3158	0.0131	0.0393
9	3369	Primary Street	EL MOLINO	N	501.8764004	2	Commercial	Not Many	25	3	501.9152	0.0236	0.0709
10	3494	Primary Street	EL MOLINO	S	221.037456	2	Residential		25	2	221.0535	0.0104	0.0208
11	3510	Primary Street	EL MOLINO	S	164.1756914	2	Residential		25	2	164.1866	0.0077	0.0155
12	3729	Primary Street	EL MOLINO	N	430.9658775	2	Residential		30	2	431.0010	0.0203	0.0406
13	3843	Primary Street	EL MOLINO	N	473.846469	2	Residential		30	2	473.8885	0.0223	0.0446
14	3878	Primary Street	EL MOLINO	S	99.51740495	2	Residential		25	2	99.5245	0.0047	0.0094
15	3910	Primary Street	EL MOLINO	N	690.9053608	2	Residential		30	2	690.9629	0.0325	0.0650
16	18	Primary Street	EL MOLINO	N	173.9098445	2	Residential		30	2	173.9242	0.0082	0.0164
17	46	Primary Street	EL MOLINO	N	402.0801414	2	Residential		30	2	402.1146	0.0189	0.0378
18	366	Primary Street	EL MOLINO	N	409.8249555	2	Residential		30	2	409.8623	0.0193	0.0386
19	399	Primary Street	EL MOLINO	S	472.1808642	2	Residential		25	2	472.2124	0.0222	0.0444
20	400	Primary Street	EL MOLINO	S	531.0422839	2	Residential		25	2	531.0781	0.0250	0.0500
21	435	Primary Street	EL MOLINO	S	670.7809116	2	Residential		25	2	670.8276	0.0316	0.0631
22	457	Primary Street	EL MOLINO	N	822.3619052	2	Residential		30	2	822.4362	0.0387	0.0774
23	460	Primary Street	EL MOLINO	S	333.6116682	2	Commercial	Yes	25	3	333.6371	0.0157	0.0471
24	479	Primary Street	EL MOLINO	N	476.2749463	2	Residential		30	2	476.3135	0.0224	0.0448
25	655	Primary Street	EL MOLINO	S	438.1488504	2	Residential		25	2	438.1790	0.0206	0.0412
26	882	Primary Street	EL MOLINO	N	296.6337979	2	Residential		30	2	296.6600	0.0140	0.0279
28	1164	Primary Street	EL MOLINO	N	842.7380134	2	Commercial	Yes	25	3	842.8038	0.0397	0.1190
29	1391	Primary Street	EL MOLINO	N	333.3585084	2	Commercial	Yes	25	2	333.3848	0.0157	0.0314
30	1438	Primary Street	EL MOLINO	N	185.9287128	2	Residential		30	2	185.9444	0.0088	0.0175
31	1556	Primary Street	EL MOLINO	N	284.8119821	2	Residential		30	2	284.8365	0.0134	0.0268
32	1571	Primary Street	EL MOLINO	S	458.3071482	2	Residential (school)		25	3	458.3412	0.0216	0.0647
33	1637	Primary Street	EL MOLINO	N	341.4612721	2	Residential		30	2	341.4894	0.0161	0.0321
34	1721	Primary Street	EL MOLINO	N	383.4566994	2	Residential		30	2	383.4881	0.0180	0.0361
35	6053	Primary Street	EL MOLINO	S	384.1032334	2	Commercial	Yes	25	3	384.1323	0.0181	0.0542
36	6123	Primary Street	EL MOLINO	S	786.0254932	2	Residential		25	3	786.0845	0.0370	0.1110
38	6525	Primary Street	EL MOLINO	N	130.5931226	2	Residential		30	2	130.6042	0.0061	0.0123
39	6530	Primary Street	EL MOLINO	S	501.0045565	2	Residential		25	2	501.0386	0.0236	0.0472
40	6592	Primary Street	EL MOLINO	N	164.3466359	2	Residential		30	2	164.3602	0.0077	0.0155
41	4055	Primary Street	EL MOLINO	S	63.58028008	2	Residential		25	2	63.5846	0.0030	0.0060
42	4224	Primary Street	EL MOLINO	N	633.4292439	2	Residential		30	2	633.4825	0.0298	0.0596
43	4229	Primary Street	EL MOLINO	S	212.3271481	2	Commercial	No	25	3	212.3435	0.0100	0.0300
44	4232	Primary Street	EL MOLINO	N	266.1962641	2	Residential		30	2	266.2189	0.0125	0.0251
45	4505	Primary Street	EL MOLINO	N	513.87965	2	Residential		30	2	513.9245	0.0242	0.0484
46	4599	Primary Street	EL MOLINO	N	390.0490155	5	Freeway		30	4	390.0800	0.0184	0.0734
47	4866	Primary Street	EL MOLINO	S	457.4879909	2	Residential		25	2	457.5201	0.0215	0.0431
48	5145	Primary Street	EL MOLINO	N	690.6764922	3	Residential		30	3	690.7319	0.0325	0.0975
49	5574	Primary Street	EL MOLINO	N	324.2305046	2	Residential		30	2	324.2582	0.0153	0.0305
50	5842	Primary Street	EL MOLINO	S	1191.107468	2	Residential (school)		25	3	1191.1949	0.0561	0.1682
51	5886	Primary Street	EL MOLINO	N	232.3002691	2	Residential		30	2	232.3207	0.0109	0.0219
52	5922	Primary Street	EL MOLINO	S	720.4800007	2	Residential		25	2	720.5317	0.0339	0.0678
53	5953	Primary Street	EL MOLINO	S	284.2724226	2	Residential		25	2	284.2919	0.0134	0.0268
54	5984	Primary Street	EL MOLINO	N	96.71077335	2	Residential		30	2	96.7192	0.0046	0.0091
										2.2642	21249.6928	1.0000	2.3312
Average										Sum	Sum	Sum	

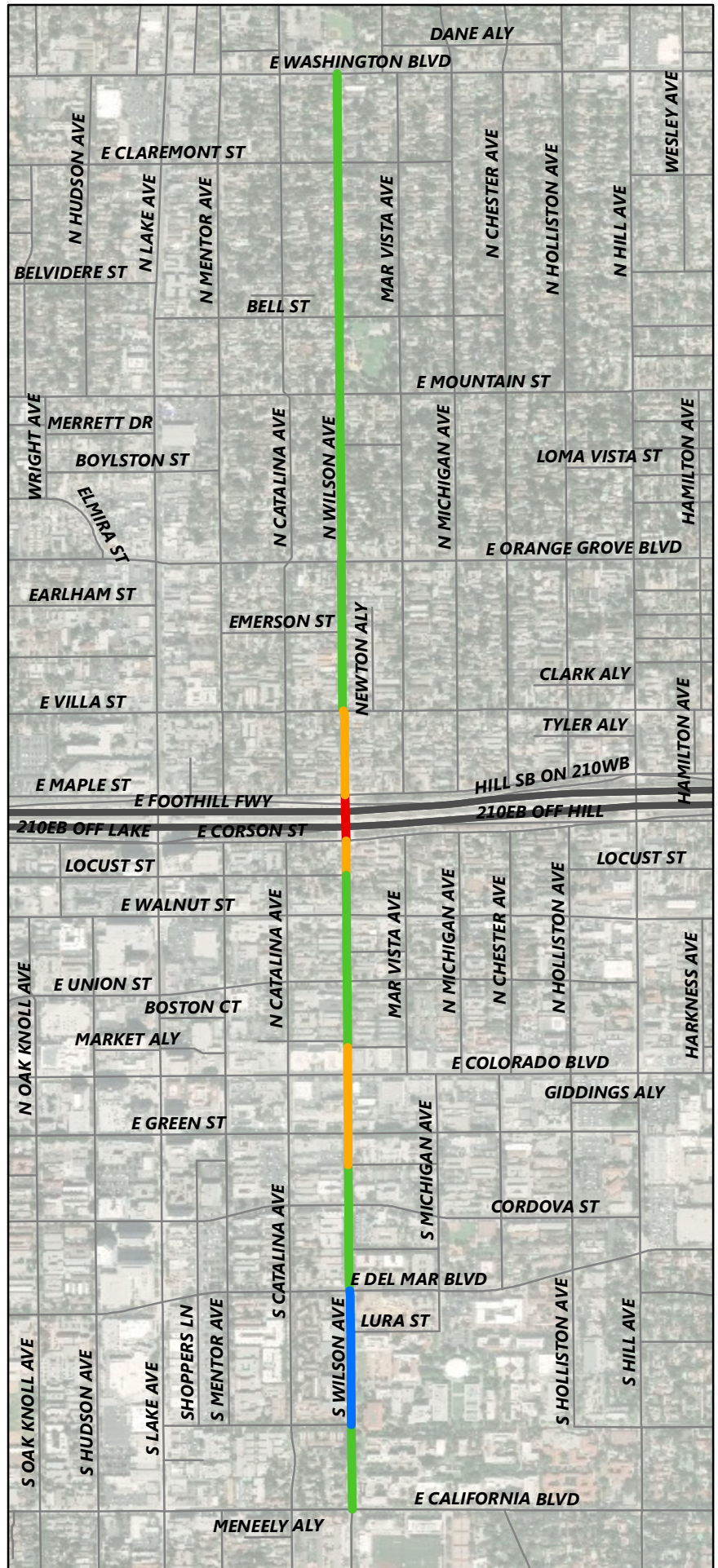
LTS	# of Segments	Length (ft)	%
1	0	0	0.0
2	41	14891	70.1
3	10	5680	26.7
4	2	679	3.2
		21250	100%



# Wilson Corridor LTS

## Wilson Ave

- █ 1
- █ 2
- █ 3
- █ 4
- Streets
- 210 Freeway



0 0.075 0.15 0.3 Miles



**WILSON AVENUE CORRIDOR**

**BICYCLE LEVEL OF TRAFFIC STRESS (LTS) CALCULATIONS**

FID	OBJECTID	LABEL	STREET_NAM	PREDIR	Shape	Len	LANES	LNDUSE	CRBCUT	SPDLMT	LTS_FINAL	Length_up	Ratio	LTS_ratio
55	2260	Primary Street	WILSON	S	340.4533783		3	Residential		25	2	340.4792	0.0283	0.0565
56	2338	Primary Street	WILSON	S	709.5865579		2	Institutional (university)	Yes	25	2	709.6385	0.0589	0.1178
57	2724	Primary Street	WILSON	S	349.037743		3	Residential		25	2	349.0640	0.0290	0.0579
58	2799	Primary Street	WILSON	N	383.8070292		5	Freeway		25	4	383.8376	0.0319	0.1274
59	2806	Primary Street	WILSON	N	747.1920461		2	Residential		25	2	747.2567	0.0620	0.1240
60	3306	Primary Street	WILSON	N	244.2107733		2	Residential		25	2	244.2298	0.0203	0.0405
61	3747	Primary Street	WILSON	N	288.9569793		4	Residential		25	3	288.9799	0.0240	0.0720
62	3749	Primary Street	WILSON	S	778.4543383		2	Institutional (university)	Yes	25	1	778.5120	0.0646	0.0646
63	4006	Primary Street	WILSON	N	426.4860857		2	Residential		25	2	426.5217	0.0354	0.0708
64	528	Primary Street	WILSON	N	52.95051411		2	Commercial	Yes	25	2	52.9546	0.0044	0.0088
65	766	Primary Street	WILSON	N	662.9552036		2	Residential		25	2	663.0089	0.0550	0.1101
66	6228	Primary Street	WILSON	N	979.0896831		2	Residential		25	2	979.1707	0.0813	0.1625
67	6407	Primary Street	WILSON	N	590.22163		2	Residential		25	2	590.2699	0.0490	0.0980
68	6435	Primary Street	WILSON	N	309.2030944		2	Commercial	Yes	25	2	309.2273	0.0257	0.0513
69	6532	Primary Street	WILSON	N	502.4883708		2	Residential		25	2	502.5274	0.0417	0.0834
70	6608	Primary Street	WILSON	S	492.1382507		3	Commercial	Yes	25	3	492.1760	0.0408	0.1225
71	4018	Primary Street	WILSON	S	368.1022081		3	Residential		25	2	368.1300	0.0306	0.0611
72	4348	Primary Street	WILSON	N	648.6419076		2	Residential		25	2	648.6965	0.0538	0.1077
73	4536	Primary Street	WILSON	S	263.2776593		3	Commercial	Yes	25	3	263.2977	0.0219	0.0656
74	4726	Primary Street	WILSON	N	229.7856568		3	Commercial	Yes	25	3	229.8034	0.0191	0.0572
75	4976	Primary Street	WILSON	S	346.0222803		2	Institutional (university)	Yes	25	1	346.0481	0.0287	0.0287
76	5194	Primary Street	WILSON	N	335.3413933		2	Commercial	Yes	25	2	335.3678	0.0278	0.0557
77	5354	Primary Street	WILSON	N	1293.725274		2	Residential		25	2	1293.8356	0.1074	0.2148
78	5355	Primary Street	WILSON	N	705.7270588		4	Residential		25	3	705.7837	0.0586	0.1757
											2.2083	<b>12048.8170</b>	<b>1.0000</b>	<b>2.1347</b>

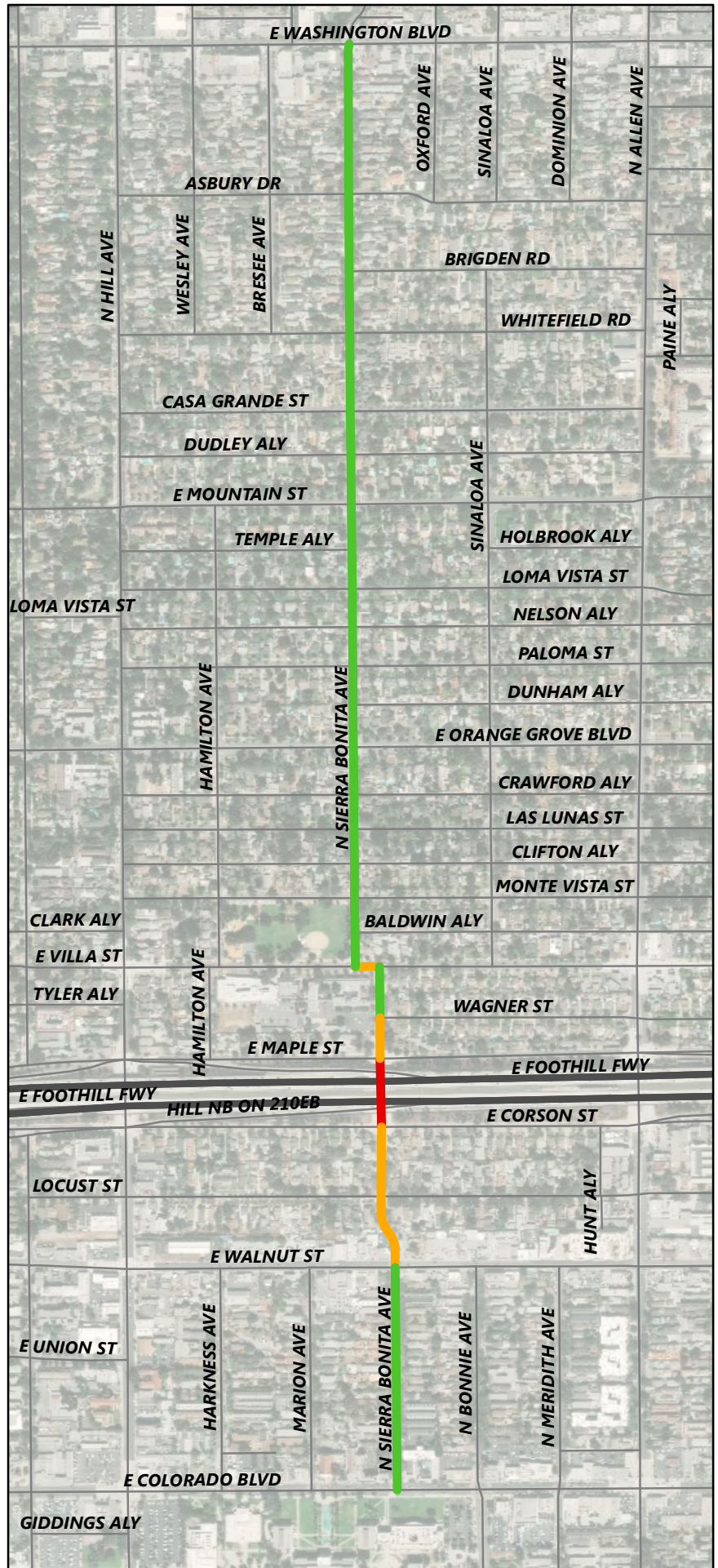
Average      Sum                      Sum                      Sum

LTS	# of Segments	Length (ft)	%
1	2	1125	9.3
2	16	8560	71.0
3	5	1980	16.4
4	1	384	3.2
		12049	100%

# Sierra Bonita Corridor LTS

## Sierra Bonita Ave

- █ 1
- █ 2
- █ 3
- █ 4
- Streets
- 210 Freeway



0 0.05 0.1 0.2 Miles



**SIERRA BONITA AVENUE CORRIDOR**  
**BICYCLE LEVEL OF TRAFFIC STRESS (LTS) CALCULATIONS**

FID	OBJECTID	LABEL	STREET_NAM	PREDIR	Shape_L	LANES	LNDUSE	CRBCUT	SPDLMT	LTS_FINA	Length_up	Ratio	LTS_ratio	
79	2193	Secondary Street	SIERRA BONITA	N	286.2555	2	Residential			25	2	286.2795	0.0335	0.0671
80	2209	Secondary Street	SIERRA BONITA	N	227.1543	2	Residential			25	2	227.1733	0.0266	0.0532
81	2212	Secondary Street	SIERRA BONITA	N	223.5204	2	Residential			25	2	223.5390	0.0262	0.0524
82	2508	Secondary Street	SIERRA BONITA	N	395.5606	5	Freeway			25	4	395.5922	0.0463	0.1853
83	2979	Secondary Street	VILLA	E	116.8586	4	Residential (school)			25	3	116.8680	0.0137	0.0411
84	3116	Secondary Street	SIERRA BONITA	N	197.8367	2	Residential			25	2	197.8527	0.0232	0.0463
85	3117	Secondary Street	SIERRA BONITA	N	200.5701	2	Residential			25	2	200.5864	0.0235	0.0470
86	3612	Secondary Street	SIERRA BONITA	N	454.442	2	Residential			25	2	454.4805	0.0532	0.1065
87	647	Secondary Street	SIERRA BONITA	N	404.7887	4	Residential			25	3	404.8208	0.0474	0.1422
88	731	Secondary Street	SIERRA BONITA	N	275.8796	2	Residential			25	2	275.9023	0.0323	0.0646
89	732	Secondary Street	SIERRA BONITA	N	245.4875	2	Residential			25	2	245.5077	0.0288	0.0575
90	783	Secondary Street	SIERRA BONITA	N	297.0806	2	Residential (school)			25	2	297.1045	0.0348	0.0696
91	890	Secondary Street	SIERRA BONITA	N	198.9283	2	Residential			25	2	198.9445	0.0233	0.0466
92	1191	Secondary Street	SIERRA BONITA	N	200.4951	2	Residential			25	2	200.5113	0.0235	0.0470
93	1349	Secondary Street	SIERRA BONITA	N	425.9836	3	Commercial	Yes		25	3	426.0172	0.0499	0.1497
94	1713	Secondary Street	SIERRA BONITA	N	1293.797	2	Commercial	Yes		25	2	1293.8976	0.1515	0.3031
95	1952	Secondary Street	SIERRA BONITA	N	265.3717	2	Residential			25	2	265.3939	0.0311	0.0622
96	1955	Secondary Street	SIERRA BONITA	N	226.1288	2	Residential			25	2	226.1475	0.0265	0.0530
97	6190	Secondary Street	SIERRA BONITA	N	253.1548	2	Residential			25	2	253.1762	0.0297	0.0593
98	4222	Secondary Street	SIERRA BONITA	N	202.5534	2	Residential			25	2	202.5698	0.0237	0.0474
99	4226	Secondary Street	SIERRA BONITA	N	871.8329	2	Commercial	Yes		25	2	871.9083	0.1021	0.2042
100	4375	Secondary Street	SIERRA BONITA	N	237.8128	4	Residential (school)			25	3	237.8319	0.0279	0.0836
101	5012	Secondary Street	SIERRA BONITA	N	226.0955	2	Residential			25	2	226.1142	0.0265	0.0530
102	5142	Secondary Street	SIERRA BONITA	N	361.1321	2	Residential			25	2	361.1629	0.0423	0.0846
103	5264	Secondary Street	SIERRA BONITA	N	449.1506	2	Residential			25	2	449.1890	0.0526	0.1052
										<b>2</b>	<b>8538.5712</b>	<b>1.0000</b>	<b>2.2315</b>	

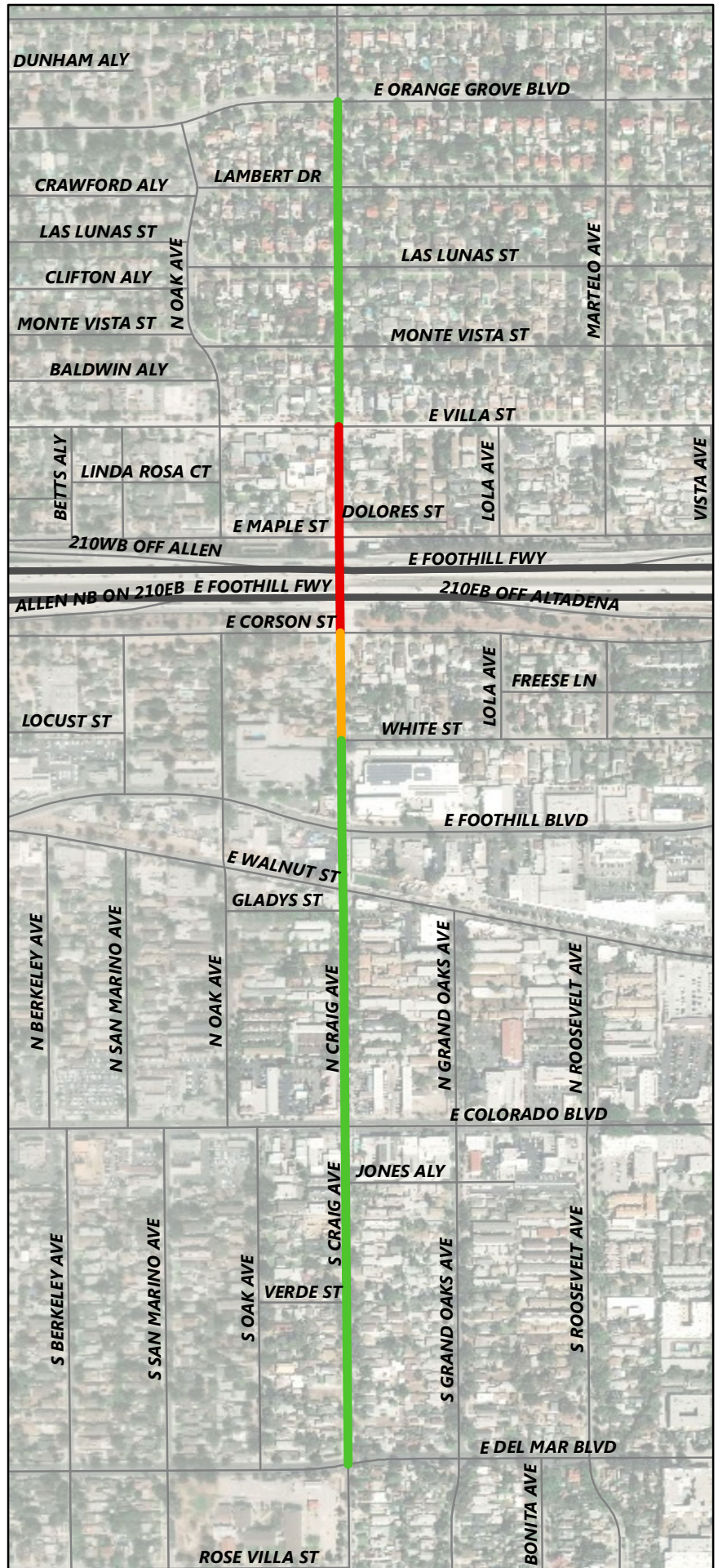
Average      Sum                      Sum                      Sum

LTS	# of Segments	Length (ft)	%
1	0	0	0.0
2	20	6957	81.5
3	4	1186	13.9
4	1	396	4.6
		8539	100%

# Craig Corridor LTS

## Craig Ave

- █ 1
- █ 2
- █ 3
- █ 4
- Streets
- 210 Freeway



0 0.05 0.1 0.2 Miles



**CRAIG AVENUE CORRIDOR**

**BICYCLE LEVEL OF TRAFFIC STRESS (LTS) CALCULATIONS**




























FID	OBJECTID	LABEL	STREET_NAM	PREDIR	Shape_Len	LANES	LNDUSE	CRBCUT	SPDLMT	LTS_FINAL	Length_up	Ratio	LTS_ratio	
104	2077	Primary Street	CRAIG	N	412.5961963	5	Freeway		25	4	412.6291	0.0700	0.2800	
105	2375	Primary Street	CRAIG	N	345.3020563	2	Residential		25	2	345.3303	0.0586	0.1172	
106	3071	Primary Street	CRAIG	N	465.0763426	4	Residential		25	3	465.1132	0.0789	0.2367	
107	3241	Primary Street	CRAIG	N	260.5544394	2	Commercial	Yes	25	2	260.5749	0.0442	0.0884	
108	3368	Primary Street	CRAIG	N	385.8747113	2	Commercial	Yes	25	2	385.9051	0.0655	0.1309	
109	1049	Primary Street	CRAIG	N	345.3841052	2	Commercial	Yes	25	2	345.4120	0.0586	0.1172	
110	1192	Primary Street	CRAIG	S	516.9038	2	Residential		25	2	516.9433	0.0877	0.1754	
111	1397	Primary Street	CRAIG	N	344.2520625	2	Residential		25	2	344.2800	0.0584	0.1168	
112	6189	Primary Street	CRAIG	S	242.8056632	2	Commercial	Yes	25	2	242.8243	0.0412	0.0824	
113	6240	Primary Street	CRAIG	N	65.88409435	4	Freeway		25	4	65.8894	0.0112	0.0447	
114	6403	Primary Street	CRAIG	N	370.7938588	2	Residential		25	2	370.8243	0.0629	0.1258	
115	4162	Primary Street	CRAIG	N	414.3362594	4	Commercial	Yes	25	4	414.3696	0.0703	0.2812	
116	4573	Primary Street	CRAIG	N	90.38414622	2	Commercial	Yes	25	2	90.3912	0.0153	0.0307	
117	5177	Primary Street	CRAIG	S	700.4163905	2	Residential		25	2	700.4695	0.1188	0.2377	
118	5757	Primary Street	CRAIG	N	933.6290486	2	Commercial	Yes	25	2	933.7015	0.1584	0.3168	
											<b>2</b>	<b>5894.6579</b>	<b>1.0000</b>	<b>2.3819</b>

Average      Sum                      Sum                      Sum

LTS	# of Segments	Length (ft)	%
1	0	0	0.0
2	11	4537	77.0
3	1	465	7.9
4	3	893	15.1
		5895	100%

221: Lake Ave. & Orange Grove Blvd.  
 HCM 6th Signalized Intersection Summary

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 		 		 
Traffic Volume (veh/h)	102	355	73	133	555	75	59	569	43	129	1045	209
Future Volume (veh/h)	102	355	73	133	555	75	59	569	43	129	1045	209
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1607	1673	1673	1673	1673	1673	1673	1673	1673	1607	1673	1673
Adj Flow Rate, veh/h	140	486	100	156	653	88	66	639	48	137	1112	222
Peak Hour Factor	0.73	0.73	0.73	0.85	0.85	0.85	0.89	0.89	0.89	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	225	659	135	283	720	97	203	1260	562	359	1302	581
Arrive On Green	0.09	0.25	0.25	0.09	0.26	0.26	0.06	0.40	0.40	0.07	0.41	0.41
Sat Flow, veh/h	1530	2629	538	1594	2816	379	1594	3180	1418	1530	3180	1418
Grp Volume(v), veh/h	140	293	293	156	368	373	66	639	48	137	1112	222
Grp Sat Flow(s),veh/h/ln	1530	1590	1577	1594	1590	1605	1594	1590	1418	1530	1590	1418
Q Serve(g_s), s	6.7	16.9	17.1	7.1	22.4	22.5	2.4	15.2	2.1	5.2	31.8	11.0
Cycle Q Clear(g_c), s	6.7	16.9	17.1	7.1	22.4	22.5	2.4	15.2	2.1	5.2	31.8	11.0
Prop In Lane	1.00		0.34	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	225	398	395	283	407	411	203	1260	562	359	1302	581
V/C Ratio(X)	0.62	0.73	0.74	0.55	0.91	0.91	0.32	0.51	0.09	0.38	0.85	0.38
Avail Cap(c_a), veh/h	272	429	426	324	429	433	280	1260	562	413	1302	581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	34.4	34.5	25.8	36.0	36.1	21.0	22.8	18.9	16.9	26.8	20.7
Incr Delay (d2), s/veh	2.3	4.8	5.2	1.2	21.0	21.2	0.7	1.5	0.3	0.7	7.3	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	6.9	6.9	2.7	10.8	10.9	0.9	5.7	0.7	1.8	12.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	39.3	39.7	27.1	57.0	57.2	21.7	24.3	19.2	17.6	34.1	22.6
LnGrp LOS	C	D	D	C	E	E	C	C	B	B	C	C
Approach Vol, veh/h		726			897			753			1471	
Approach Delay, s/veh		37.5			51.9			23.7			30.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	45.9	11.8	31.9	9.1	47.3	12.3	31.4				
Change Period (Y+Rc), s	3.2	6.3	3.2	6.3	3.2	6.3	3.2	6.3				
Max Green Setting (Gmax), s	10.7	31.6	11.7	27.0	10.7	31.6	11.7	27.0				
Max Q Clear Time (g_c+I1), s	7.2	17.2	8.7	24.5	4.4	33.8	9.1	19.1				
Green Ext Time (p_c), s	0.1	7.7	0.1	1.1	0.1	0.0	0.1	2.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			35.6									
HCM 6th LOS			D									

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕			↕	
Traffic Vol, veh/h	15	149	21	19	229	37	27	88	13	46	81	19
Future Vol, veh/h	15	149	21	19	229	37	27	88	13	46	81	19
Peak Hour Factor	0.83	0.83	0.83	0.74	0.74	0.74	0.78	0.78	0.78	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	180	25	26	309	50	35	113	17	53	93	22
Number of Lanes	0	1	1	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	11.6	14.7	11.2	11.3
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	21%	9%	0%	8%	0%	32%
Vol Thru, %	69%	91%	0%	92%	0%	55%
Vol Right, %	10%	0%	100%	0%	100%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	128	164	21	248	37	146
LT Vol	27	15	0	19	0	46
Through Vol	88	149	0	229	0	81
RT Vol	13	0	21	0	37	19
Lane Flow Rate	164	198	25	335	50	168
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.271	0.337	0.038	0.551	0.072	0.277
Departure Headway (Hd)	5.938	6.142	5.383	5.914	5.166	5.933
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	602	583	662	610	692	602
Service Time	4.001	3.899	3.14	3.662	2.913	3.996
HCM Lane V/C Ratio	0.272	0.34	0.038	0.549	0.072	0.279
HCM Control Delay	11.2	12	8.4	15.7	8.3	11.3
HCM Lane LOS	B	B	A	C	A	B
HCM 95th-tile Q	1.1	1.5	0.1	3.4	0.2	1.1



2: Wilson Ave. & Washington Blvd.  
 HCM 6th TWSC

Existing Conditions  
 Timing Plan: AM Peak

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	861	15	37	953	4	11
Future Vol, veh/h	861	15	37	953	4	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	84	84	54	54
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1050	18	44	1135	7	20

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1068	0	1715
Stage 1	-	-	-	-	1059
Stage 2	-	-	-	-	656
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	648	-	81
Stage 1	-	-	-	-	295
Stage 2	-	-	-	-	478
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	648	-	66
Mov Cap-2 Maneuver	-	-	-	-	66
Stage 1	-	-	-	-	295
Stage 2	-	-	-	-	390

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	28.5
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	181	-	-	648	-
HCM Lane V/C Ratio	0.153	-	-	0.068	-
HCM Control Delay (s)	28.5	-	-	11	0.9
HCM Lane LOS	D	-	-	B	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

65: Washington Blvd. & Mar Vista Ave.  
 HCM 6th TWSC

Existing Conditions  
 Timing Plan: AM Peak

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	23	843	931	53	31	61
Future Vol, veh/h	23	843	931	53	31	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	83	83	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	926	1122	64	40	79

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1186	0	-	0	1667 593
Stage 1	-	-	-	-	1154 -
Stage 2	-	-	-	-	513 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	585	-	-	-	87 449
Stage 1	-	-	-	-	262 -
Stage 2	-	-	-	-	566 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	585	-	-	-	79 449
Mov Cap-2 Maneuver	-	-	-	-	79 -
Stage 1	-	-	-	-	239 -
Stage 2	-	-	-	-	566 -

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	61.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	585	-	-	-	174
HCM Lane V/C Ratio	0.043	-	-	-	0.687
HCM Control Delay (s)	11.4	0.5	-	-	61.8
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	4.1

67: Mar Vista Ave. & Washington Blvd.  
 HCM 6th TWSC

Existing Conditions  
 Timing Plan: AM Peak

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	865	9	23	977	7	16
Future Vol, veh/h	865	9	23	977	7	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	83	83	72	72
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	951	10	28	1177	10	22

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	961	0	1601
Stage 1	-	-	-	-	956
Stage 2	-	-	-	-	645
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	712	-	97
Stage 1	-	-	-	-	334
Stage 2	-	-	-	-	484
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	712	-	86
Mov Cap-2 Maneuver	-	-	-	-	86
Stage 1	-	-	-	-	334
Stage 2	-	-	-	-	429

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	25.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	206	-	-	712	-
HCM Lane V/C Ratio	0.155	-	-	0.039	-
HCM Control Delay (s)	25.7	-	-	10.3	0.6
HCM Lane LOS	D	-	-	B	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	17	482	711	5	3	24
Future Vol, veh/h	17	482	711	5	3	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	73	73	85	85	61	61
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	660	836	6	5	39

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	842	0	-	0	1215 421
Stage 1	-	-	-	-	839 -
Stage 2	-	-	-	-	376 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	789	-	-	-	174 581
Stage 1	-	-	-	-	384 -
Stage 2	-	-	-	-	664 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	789	-	-	-	166 581
Mov Cap-2 Maneuver	-	-	-	-	166 -
Stage 1	-	-	-	-	366 -
Stage 2	-	-	-	-	664 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	13.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	789	-	-	-	455
HCM Lane V/C Ratio	0.03	-	-	-	0.097
HCM Control Delay (s)	9.7	0.2	-	-	13.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	487	8	25	710	8	12
Future Vol, veh/h	487	8	25	710	8	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	85	85	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	667	11	29	835	11	17

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	678	0	1149
Stage 1	-	-	-	-	673
Stage 2	-	-	-	-	476
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	910	-	192
Stage 1	-	-	-	-	468
Stage 2	-	-	-	-	591
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	910	-	181
Mov Cap-2 Maneuver	-	-	-	-	181
Stage 1	-	-	-	-	468
Stage 2	-	-	-	-	556

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	17.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	320	-	-	910	-
HCM Lane V/C Ratio	0.088	-	-	0.032	-
HCM Control Delay (s)	17.3	-	-	9.1	0.3
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

74: Mar Vista Ave. & Orange Grove Blvd.  
 HCM 6th TWSC

Existing Conditions  
 Timing Plan: AM Peak

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	↕
Traffic Vol, veh/h	4	454	21	11	774	23	5	4	14	10	11	26
Future Vol, veh/h	4	454	21	11	774	23	5	4	14	10	11	26
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	50	-	-	40	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	84	84	84	58	58	58	73	73	73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	528	24	13	921	27	9	7	24	14	15	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	948	0	0	552	0	0	1044	1524	276	1239	1523	474
Stage 1	-	-	-	-	-	-	550	550	-	961	961	-
Stage 2	-	-	-	-	-	-	494	974	-	278	562	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	720	-	-	1014	-	-	183	117	721	132	117	537
Stage 1	-	-	-	-	-	-	487	514	-	275	333	-
Stage 2	-	-	-	-	-	-	526	328	-	705	508	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	720	-	-	1014	-	-	152	115	721	120	115	537
Mov Cap-2 Maneuver	-	-	-	-	-	-	152	115	-	120	115	-
Stage 1	-	-	-	-	-	-	484	510	-	273	329	-
Stage 2	-	-	-	-	-	-	463	324	-	668	504	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			21			30.1		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	264	720	-	-	1014	-	-	207
HCM Lane V/C Ratio	0.15	0.006	-	-	0.013	-	-	0.311
HCM Control Delay (s)	21	10	-	-	8.6	-	-	30.1
HCM Lane LOS	C	B	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	1.3

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↗	↕↕	↗	↗	↕↕	↗
Traffic Vol, veh/h	14	0	51	3	2	10	32	650	2	7	1290	46
Future Vol, veh/h	14	0	51	3	2	10	32	650	2	7	1290	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	60	-	0	40	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	75	75	75	93	93	93	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	0	63	4	3	13	34	699	2	7	1372	49

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1805	2155	686	1467	2202	350	1421	0	0	701	0	0
Stage 1	1386	1386	-	767	767	-	-	-	-	-	-	-
Stage 2	419	769	-	700	1435	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	50	47	390	89	44	646	475	-	-	892	-	-
Stage 1	151	209	-	361	410	-	-	-	-	-	-	-
Stage 2	582	409	-	396	197	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	44	43	390	70	41	646	475	-	-	892	-	-
Mov Cap-2 Maneuver	44	43	-	70	41	-	-	-	-	-	-	-
Stage 1	140	207	-	335	380	-	-	-	-	-	-	-
Stage 2	525	380	-	329	195	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB				
HCM Control Delay, s	41		33.6		0.6		0				
HCM LOS	E		D								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	475	-	-	44	390	55	646	892	-	-
HCM Lane V/C Ratio	0.072	-	-	0.393	0.161	0.121	0.021	0.008	-	-
HCM Control Delay (s)	13.2	-	-	132.2	16	79.3	10.7	9.1	-	-
HCM Lane LOS	B	-	-	F	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	1.4	0.6	0.4	0.1	0	-	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	28	812	1066	22	9	25
Future Vol, veh/h	28	812	1066	22	9	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	78	78	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	1041	1367	28	10	27

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1395	0	-	0	1974 698
Stage 1	-	-	-	-	1381 -
Stage 2	-	-	-	-	593 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	486	-	-	-	54 383
Stage 1	-	-	-	-	198 -
Stage 2	-	-	-	-	515 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	486	-	-	-	44 383
Mov Cap-2 Maneuver	-	-	-	-	44 -
Stage 1	-	-	-	-	163 -
Stage 2	-	-	-	-	515 -

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	44.7
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	486	-	-	-	126
HCM Lane V/C Ratio	0.074	-	-	-	0.287
HCM Control Delay (s)	13	1.1	-	-	44.7
HCM Lane LOS	B	A	-	-	E
HCM 95th %tile Q(veh)	0.2	-	-	-	1.1



271: Sierra Bonita Ave. & Orange Grove Blvd.  
 HCM 6th TWSC

Existing Conditions  
 Timing Plan: AM Peak

Intersection												
Int Delay, s/veh	15.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗			↕↗	
Traffic Vol, veh/h	20	446	15	33	812	13	11	16	11	3	30	59
Future Vol, veh/h	20	446	15	33	812	13	11	16	11	3	30	59
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	60	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	83	83	83	56	56	56	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	656	22	40	978	16	20	29	20	5	49	97

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	994	0	0	678	0	0	1319	1799	339	1467	1802	497
Stage 1	-	-	-	-	-	-	725	725	-	1066	1066	-
Stage 2	-	-	-	-	-	-	594	1074	-	401	736	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	692	-	-	910	-	-	115	79	657	89	79	519
Stage 1	-	-	-	-	-	-	383	428	-	237	297	-
Stage 2	-	-	-	-	-	-	458	294	-	597	423	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	692	-	-	910	-	-	40	72	657	56	72	519
Mov Cap-2 Maneuver	-	-	-	-	-	-	40	72	-	56	72	-
Stage 1	-	-	-	-	-	-	367	410	-	227	284	-
Stage 2	-	-	-	-	-	-	295	281	-	516	405	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.4			177.9			117		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	74	692	-	-	910	-	-	158
HCM Lane V/C Ratio	0.917	0.043	-	-	0.044	-	-	0.955
HCM Control Delay (s)	177.9	10.4	-	-	9.1	-	-	117
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	4.7	0.1	-	-	0.1	-	-	7.1

Intersection						
Int Delay, s/veh	1.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	↑
Traffic Vol, veh/h	814	14	26	1065	12	26
Future Vol, veh/h	814	14	26	1065	12	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	22
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	78	78	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1044	18	33	1365	18	38

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1062	0	1802
Stage 1	-	-	-	-	1053
Stage 2	-	-	-	-	749
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	652	-	71
Stage 1	-	-	-	-	297
Stage 2	-	-	-	-	428
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	652	-	56
Mov Cap-2 Maneuver	-	-	-	-	56
Stage 1	-	-	-	-	297
Stage 2	-	-	-	-	338

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	39.3
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	56	493	-	-	652	-
HCM Lane V/C Ratio	0.315	0.078	-	-	0.051	-
HCM Control Delay (s)	96.5	12.9	-	-	10.8	1.1
HCM Lane LOS	F	B	-	-	B	A
HCM 95th %tile Q(veh)	1.1	0.3	-	-	0.2	-

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	10	806	14	6	996	7	1	1	5	4	1	27
Future Vol, veh/h	10	806	14	6	996	7	1	1	5	4	1	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	80	80	80	58	58	58	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	995	17	8	1245	9	2	2	9	6	1	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1254	0	0	1012	0	0	1667	2298	506	1789	2302	627
Stage 1	-	-	-	-	-	-	1028	1028	-	1266	1266	-
Stage 2	-	-	-	-	-	-	639	1270	-	523	1036	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	551	-	-	681	-	-	63	38	512	51	38	426
Stage 1	-	-	-	-	-	-	251	310	-	179	238	-
Stage 2	-	-	-	-	-	-	431	237	-	505	307	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	551	-	-	681	-	-	52	35	512	45	35	426
Mov Cap-2 Maneuver	-	-	-	-	-	-	52	35	-	45	35	-
Stage 1	-	-	-	-	-	-	238	295	-	170	229	-
Stage 2	-	-	-	-	-	-	373	228	-	469	292	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.3			37.7			32.7		
HCM LOS							E			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	122	551	-	-	681	-	-	177
HCM Lane V/C Ratio	0.099	0.022	-	-	0.011	-	-	0.27
HCM Control Delay (s)	37.7	11.7	0.3	-	10.3	0.2	-	32.7
HCM Lane LOS	E	B	A	-	B	A	-	D
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	1

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	16	464	5	211	623	49	0	1	12	0	6	5
Future Vol, veh/h	16	464	5	211	623	49	0	1	12	0	6	5
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	40	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	78	78	78	54	54	54	46	46	46
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	644	7	271	799	63	0	2	22	0	13	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	862	0	0	651	0	0	1640	2096	326	1740	2068	431
Stage 1	-	-	-	-	-	-	692	692	-	1373	1373	-
Stage 2	-	-	-	-	-	-	948	1404	-	367	695	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	776	-	-	931	-	-	66	51	670	56	54	573
Stage 1	-	-	-	-	-	-	400	443	-	153	212	-
Stage 2	-	-	-	-	-	-	280	204	-	625	442	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	776	-	-	931	-	-	36	35	670	40	37	573
Mov Cap-2 Maneuver	-	-	-	-	-	-	36	35	-	40	37	-
Stage 1	-	-	-	-	-	-	389	431	-	149	150	-
Stage 2	-	-	-	-	-	-	178	145	-	585	430	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			2.5			19.1			91.5		
HCM LOS							C			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	280	776	-	-	931	-	-	64
HCM Lane V/C Ratio	0.086	0.029	-	-	0.291	-	-	0.374
HCM Control Delay (s)	19.1	9.8	-	-	10.4	-	-	91.5
HCM Lane LOS	C	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.3	0.1	-	-	1.2	-	-	1.4

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	9	448	3	11	813	8	4	4	7	4	6	35
Future Vol, veh/h	9	448	3	11	813	8	4	4	7	4	6	35
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	60	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	79	79	79	63	63	63	59	59	59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	649	4	14	1029	10	6	6	11	7	10	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1039	0	0	653	0	0	1225	1744	327	1416	1741	520
Stage 1	-	-	-	-	-	-	677	677	-	1062	1062	-
Stage 2	-	-	-	-	-	-	548	1067	-	354	679	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	665	-	-	930	-	-	135	86	669	97	86	501
Stage 1	-	-	-	-	-	-	409	450	-	239	298	-
Stage 2	-	-	-	-	-	-	488	297	-	636	449	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	665	-	-	930	-	-	105	83	669	87	83	501
Mov Cap-2 Maneuver	-	-	-	-	-	-	105	83	-	87	83	-
Stage 1	-	-	-	-	-	-	401	441	-	234	294	-
Stage 2	-	-	-	-	-	-	409	293	-	604	440	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			32.4			27		
HCM LOS							D			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	155	665	-	-	930	-	-	239
HCM Lane V/C Ratio	0.154	0.02	-	-	0.015	-	-	0.319
HCM Control Delay (s)	32.4	10.5	-	-	8.9	-	-	27
HCM Lane LOS	D	B	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	-	1.3

Intersection												
Int Delay, s/veh	13.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕				↖		↕	
Traffic Vol, veh/h	18	396	17	33	838	19	0	0	34	9	39	44
Future Vol, veh/h	18	396	17	33	838	19	0	0	34	9	39	44
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	75	-	-	105	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	82	82	82	85	85	85	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	521	22	40	1022	23	0	0	40	15	64	72

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1045	0	0	543	0	0	-	-	272	1423	1705	523
Stage 1	-	-	-	-	-	-	-	-	-	1114	1114	-
Stage 2	-	-	-	-	-	-	-	-	-	309	591	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	661	-	-	1022	-	-	0	0	726	96	90	499
Stage 1	-	-	-	-	-	-	0	0	-	222	282	-
Stage 2	-	-	-	-	-	-	0	0	-	676	493	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	661	-	-	1022	-	-	-	-	726	86	83	499
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	86	83	-
Stage 1	-	-	-	-	-	-	-	-	-	214	271	-
Stage 2	-	-	-	-	-	-	-	-	-	616	475	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0.4		0.3		10.2		164.1	
HCM LOS					B		F	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	726	661	-	-	1022	-	-	139
HCM Lane V/C Ratio	0.055	0.036	-	-	0.039	-	-	1.085
HCM Control Delay (s)	10.2	10.6	-	-	8.7	-	-	164.1
HCM Lane LOS	B	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	8.3

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	↑
Traffic Vol, veh/h	400	7	9	824	8	9
Future Vol, veh/h	400	7	9	824	8	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	84	84	53	53
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	426	7	11	981	15	17

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	433	0	943
Stage 1	-	-	-	-	430
Stage 2	-	-	-	-	513
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	1123	-	261
Stage 1	-	-	-	-	624
Stage 2	-	-	-	-	566
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1123	-	255
Mov Cap-2 Maneuver	-	-	-	-	255
Stage 1	-	-	-	-	624
Stage 2	-	-	-	-	554

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	255	787	-	-	1123	-
HCM Lane V/C Ratio	0.059	0.022	-	-	0.01	-
HCM Control Delay (s)	20	9.7	-	-	8.2	0.1
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	409	4	11	801	7	0	3	10	12	11	36
Future Vol, veh/h	13	409	4	11	801	7	0	3	10	12	11	36
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	60	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	88	88	88	41	41	41	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	499	5	13	910	8	0	7	24	15	14	46

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	918	0	0	504	0	0	1022	1478	252	1225	1476	459
Stage 1	-	-	-	-	-	-	534	534	-	940	940	-
Stage 2	-	-	-	-	-	-	488	944	-	285	536	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	739	-	-	1057	-	-	190	125	748	135	125	549
Stage 1	-	-	-	-	-	-	498	523	-	283	340	-
Stage 2	-	-	-	-	-	-	530	339	-	698	522	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	739	-	-	1057	-	-	154	121	748	121	121	549
Mov Cap-2 Maneuver	-	-	-	-	-	-	154	121	-	121	121	-
Stage 1	-	-	-	-	-	-	487	511	-	277	336	-
Stage 2	-	-	-	-	-	-	459	335	-	651	511	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.1			16.6			28		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	341	739	-	-	1057	-	-	231
HCM Lane V/C Ratio	0.093	0.021	-	-	0.012	-	-	0.327
HCM Control Delay (s)	16.6	10	-	-	8.4	-	-	28
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	1.4



Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	165	25	22	255	32	17
Future Vol, veh/h	165	25	22	255	32	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	40
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	82	82	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	199	30	27	311	47	25

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	229	0	579
Stage 1	-	-	-	-	214
Stage 2	-	-	-	-	365
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1339	-	477
Stage 1	-	-	-	-	822
Stage 2	-	-	-	-	702
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1339	-	467
Mov Cap-2 Maneuver	-	-	-	-	467
Stage 1	-	-	-	-	822
Stage 2	-	-	-	-	688

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	467	826	-	-	1339	-
HCM Lane V/C Ratio	0.101	0.03	-	-	0.02	-
HCM Control Delay (s)	13.6	9.5	-	-	7.7	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-

Intersection						
Int Delay, s/veh	7.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	169	48	93	220	64	76
Future Vol, veh/h	169	48	93	220	64	76
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	25	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	78	78	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	222	63	119	282	128	152

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	285	0	742	222
Stage 1	-	-	-	-	222	-
Stage 2	-	-	-	-	520	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1277	-	383	818
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	597	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1277	-	340	818
Mov Cap-2 Maneuver	-	-	-	-	340	-
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	531	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	21.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	498	-	-	1277	-
HCM Lane V/C Ratio	0.562	-	-	0.093	-
HCM Control Delay (s)	21.1	-	-	8.1	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	3.4	-	-	0.3	-

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	406	1116	26	15	26
Future Vol, veh/h	14	406	1116	26	15	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	70	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	97	97	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	467	1151	27	22	38

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1178	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	589	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	589	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	26.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	589	-	-	-	227
HCM Lane V/C Ratio	0.027	-	-	-	0.266
HCM Control Delay (s)	11.3	-	-	-	26.5
HCM Lane LOS	B	-	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	1

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	425	7	28	1147	21	10	2	14	2	2	24
Future Vol, veh/h	14	425	7	28	1147	21	10	2	14	2	2	24
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	85	-	-	60	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	91	91	91	72	72	72	64	64	64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	483	8	31	1260	23	14	3	19	3	3	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1283	0	0	491	0	0	1213	1864	246	1609	1857	642
Stage 1	-	-	-	-	-	-	519	519	-	1334	1334	-
Stage 2	-	-	-	-	-	-	694	1345	-	275	523	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	537	-	-	1069	-	-	138	72	754	70	73	417
Stage 1	-	-	-	-	-	-	508	531	-	162	221	-
Stage 2	-	-	-	-	-	-	399	218	-	708	529	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	537	-	-	1069	-	-	116	68	754	63	69	417
Mov Cap-2 Maneuver	-	-	-	-	-	-	116	68	-	63	69	-
Stage 1	-	-	-	-	-	-	493	515	-	157	215	-
Stage 2	-	-	-	-	-	-	347	212	-	666	513	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.2			27.8			23.6		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	194	537	-	-	1069	-	-	237
HCM Lane V/C Ratio	0.186	0.03	-	-	0.029	-	-	0.185
HCM Control Delay (s)	27.8	11.9	-	-	8.5	-	-	23.6
HCM Lane LOS	D	B	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.1	-	-	0.7

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↗	
Traffic Vol, veh/h	409	12	10	1127	15	18
Future Vol, veh/h	409	12	10	1127	15	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	97	97	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	470	14	10	1162	22	26

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	484	0	1078
Stage 1	-	-	-	-	477
Stage 2	-	-	-	-	601
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	1075	-	213
Stage 1	-	-	-	-	590
Stage 2	-	-	-	-	510
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1075	-	211
Mov Cap-2 Maneuver	-	-	-	-	211
Stage 1	-	-	-	-	590
Stage 2	-	-	-	-	505

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	348	-	-	1075	-
HCM Lane V/C Ratio	0.137	-	-	0.01	-
HCM Control Delay (s)	17	-	-	8.4	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0	-

69: Orange Grove Blvd. & Madison Ave.  
 HCM Signalized Intersection Capacity Analysis

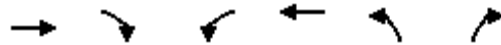
Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑		↰	
Traffic Volume (vph)	24	461	803	35	46	103
Future Volume (vph)	24	461	803	35	46	103
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	12	16	12
Total Lost time (s)	4.6	9.6	4.6		4.6	
Lane Util. Factor	1.00	0.95	0.95		1.00	
Frt	1.00	1.00	0.99		0.91	
Flt Protected	0.95	1.00	1.00		0.98	
Satd. Flow (prot)	1478	3167	3147		1686	
Flt Permitted	0.28	1.00	1.00		0.98	
Satd. Flow (perm)	431	3167	3147		1686	
Peak-hour factor, PHF	0.89	0.89	0.93	0.93	0.58	0.58
Adj. Flow (vph)	27	518	863	38	79	178
RTOR Reduction (vph)	0	0	3	0	99	0
Lane Group Flow (vph)	27	518	898	0	158	0
Turn Type	custom	NA	NA		Prot	
Protected Phases		6	3 6		4	
Permitted Phases	2 3					
Actuated Green, G (s)	57.1	38.8	57.1		13.7	
Effective Green, g (s)	57.1	38.8	47.5		13.7	
Actuated g/C Ratio	0.71	0.48	0.59		0.17	
Clearance Time (s)		9.6			4.6	
Vehicle Extension (s)		4.8			3.0	
Lane Grp Cap (vph)	307	1535	1868		288	
v/s Ratio Prot		0.16	c0.29		c0.09	
v/s Ratio Perm	0.06					
v/c Ratio	0.09	0.34	0.48		0.55	
Uniform Delay, d1	3.5	12.7	9.2		30.3	
Progression Factor	1.00	1.00	0.01		1.00	
Incremental Delay, d2	0.1	0.6	0.2		2.1	
Delay (s)	3.6	13.3	0.2		32.4	
Level of Service	A	B	A		C	
Approach Delay (s)		12.8	0.2		32.4	
Approach LOS		B	A		C	
<b>Intersection Summary</b>						
HCM 2000 Control Delay			9.1		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.50			
Actuated Cycle Length (s)			80.0		Sum of lost time (s)	18.8
Intersection Capacity Utilization			44.1%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

56: Madison Ave & Orange Grove Blvd.  
 HCM Signalized Intersection Capacity Analysis



















Existing Conditions  
 Timing Plan: AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↘	
Traffic Volume (vph)	494	13	21	825	13	13
Future Volume (vph)	494	13	21	825	13	13
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width	12	12	10	12	12	12
Total Lost time (s)	4.6		4.6	9.6	4.6	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	1.00		1.00	1.00	0.93	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3154		1478	3167	1516	
Flt Permitted	1.00		0.44	1.00	0.98	
Satd. Flow (perm)	3154		681	3167	1516	
Peak-hour factor, PHF	0.89	0.89	0.93	0.93	0.65	0.65
Adj. Flow (vph)	555	15	23	887	20	20
RTOR Reduction (vph)	3	0	0	0	18	0
Lane Group Flow (vph)	567	0	23	887	22	0
Turn Type	NA		custom	NA	Prot	
Protected Phases	4 6			6	3	
Permitted Phases			2 4			
Actuated Green, G (s)	57.1		62.1	38.8	8.7	
Effective Green, g (s)	57.1		62.1	38.8	8.7	
Actuated g/C Ratio	0.71		0.78	0.48	0.11	
Clearance Time (s)				9.6	4.6	
Vehicle Extension (s)				4.8	3.0	
Lane Grp Cap (vph)	2251		528	1535	164	
v/s Ratio Prot	c0.18			c0.28	c0.01	
v/s Ratio Perm			0.03			
v/c Ratio	0.25		0.04	0.58	0.14	
Uniform Delay, d1	4.0		2.1	14.7	32.2	
Progression Factor	0.04		0.80	0.66	1.00	
Incremental Delay, d2	0.1		0.0	1.4	0.4	
Delay (s)	0.2		1.7	11.1	32.6	
Level of Service	A		A	B	C	
Approach Delay (s)	0.2			10.9	32.6	
Approach LOS	A			B	C	
<b>Intersection Summary</b>						
HCM 2000 Control Delay			7.4		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.45			
Actuated Cycle Length (s)			80.0		Sum of lost time (s)	18.8
Intersection Capacity Utilization			43.2%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

15: Wilson Ave. & Orange Grove Blvd.  
 HCM Signalized Intersection Capacity Analysis

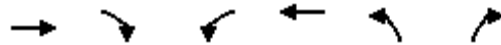
Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	438	49	39	664	3	33	15	15	1	94	17
Future Volume (vph)	0	438	49	39	664	3	33	15	15	1	94	17
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	13	12	10	11	8	12	12	12	12	14	12
Total Lost time (s)		4.7		4.7	4.7			3.6			3.6	
Lane Util. Factor		0.95		1.00	0.95			1.00			1.00	
Frt		0.98		1.00	1.00			0.97			0.98	
Flt Protected		1.00		0.95	1.00			0.97			1.00	
Satd. Flow (prot)		3223		1478	3059			1572			1741	
Flt Permitted		1.00		0.39	1.00			0.72			1.00	
Satd. Flow (perm)		3223		609	3059			1162			1739	
Peak-hour factor, PHF	0.72	0.72	0.72	0.86	0.86	0.86	0.79	0.79	0.79	0.74	0.74	0.74
Adj. Flow (vph)	0	608	68	45	772	3	42	19	19	1	127	23
RTOR Reduction (vph)	0	5	0	0	0	0	0	16	0	0	11	0
Lane Group Flow (vph)	0	671	0	45	775	0	0	64	0	0	140	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		59.2		59.2	59.2			12.5			12.5	
Effective Green, g (s)		59.2		59.2	59.2			12.5			12.5	
Actuated g/C Ratio		0.74		0.74	0.74			0.16			0.16	
Clearance Time (s)		4.7		4.7	4.7			3.6			3.6	
Vehicle Extension (s)		4.8		4.8	4.8			3.0			3.0	
Lane Grp Cap (vph)		2385		450	2263			181			271	
v/s Ratio Prot		0.21			c0.25							
v/s Ratio Perm				0.07				0.06			c0.08	
v/c Ratio		0.28		0.10	0.34			0.35			0.52	
Uniform Delay, d1		3.4		2.9	3.6			30.1			31.0	
Progression Factor		1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2		0.3		0.4	0.4			1.2			1.7	
Delay (s)		3.7		3.4	4.0			31.3			32.6	
Level of Service		A		A	A			C			C	
Approach Delay (s)		3.7			4.0			31.3			32.6	
Approach LOS		A			A			C			C	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			7.7									A
HCM 2000 Volume to Capacity ratio			0.37									
Actuated Cycle Length (s)			80.0							8.3		
Intersection Capacity Utilization			50.7%									A
Analysis Period (min)			15									
c Critical Lane Group												



56: Madison Ave & Orange Grove Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↘	
Traffic Volume (vph)	494	13	21	825	13	13
Future Volume (vph)	494	13	21	825	13	13
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width	12	12	10	12	12	12
Total Lost time (s)	5.3		4.6	5.3	4.6	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	1.00		1.00	1.00	0.93	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3154		1478	3167	1516	
Flt Permitted	1.00		0.44	1.00	0.98	
Satd. Flow (perm)	3154		681	3167	1516	
Peak-hour factor, PHF	0.89	0.89	0.93	0.93	0.65	0.65
Adj. Flow (vph)	555	15	23	887	20	20
RTOR Reduction (vph)	3	0	0	0	18	0
Lane Group Flow (vph)	567	0	23	887	22	0
Turn Type	NA		custom	NA	Prot	
Protected Phases	2 4			6	3	
Permitted Phases			4 6			
Actuated Green, G (s)	61.4		61.4	43.1	8.7	
Effective Green, g (s)	56.8		61.4	43.1	8.7	
Actuated g/C Ratio	0.71		0.77	0.54	0.11	
Clearance Time (s)				5.3	4.6	
Vehicle Extension (s)				4.8	3.0	
Lane Grp Cap (vph)	2239		522	1706	164	
v/s Ratio Prot	c0.18			c0.28	c0.01	
v/s Ratio Perm			0.03			
v/c Ratio	0.25		0.04	0.52	0.14	
Uniform Delay, d1	4.1		2.2	11.8	32.2	
Progression Factor	0.19		0.80	0.56	1.00	
Incremental Delay, d2	0.1		0.0	1.0	0.4	
Delay (s)	0.8		1.8	7.7	32.6	
Level of Service	A		A	A	C	
Approach Delay (s)	0.8			7.5	32.6	
Approach LOS	A			A	C	

Intersection Summary

HCM 2000 Control Delay	5.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	39.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

61: Catalina Ave. & Washington Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Traffic Volume (vph)	17	818	17	18	915	40	12	44	19	58	45	41
Future Volume (vph)	17	818	17	18	915	40	12	44	19	58	45	41
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	12	13	12	12	13	12	12	11	12	12	16	12
Total Lost time (s)		5.3			5.3			5.3			5.3	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			0.99			0.97			0.96	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		3259			3249			1544			1780	
Flt Permitted		0.92			0.93			0.93			0.81	
Satd. Flow (perm)		3003			3013			1440			1476	
Peak-hour factor, PHF	0.89	0.89	0.89	0.90	0.90	0.90	0.67	0.67	0.67	0.66	0.66	0.66
Adj. Flow (vph)	19	919	19	20	1017	44	18	66	28	88	68	62
RTOR Reduction (vph)	0	1	0	0	2	0	0	15	0	0	18	0
Lane Group Flow (vph)	0	956	0	0	1079	0	0	97	0	0	200	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		54.8			54.8			17.2			17.2	
Effective Green, g (s)		54.8			54.8			17.2			17.2	
Actuated g/C Ratio		0.60			0.60			0.19			0.19	
Clearance Time (s)		5.3			5.3			5.3			5.3	
Vehicle Extension (s)		4.8			4.8			3.0			3.0	
Lane Grp Cap (vph)		1788			1794			269			275	
v/s Ratio Prot												
v/s Ratio Perm		0.32			c0.36			0.07			c0.14	
v/c Ratio		0.53			0.60			0.36			0.73	
Uniform Delay, d1		11.0			11.7			32.6			35.2	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.1			1.5			0.8			9.2	
Delay (s)		12.2			13.2			33.4			44.4	
Level of Service		B			B			C			D	
Approach Delay (s)		12.2			13.2			33.4			44.4	
Approach LOS		B			B			C			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay		16.6			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.59										
Actuated Cycle Length (s)		92.0			Sum of lost time (s)			14.6				
Intersection Capacity Utilization		68.6%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

69: Orange Grove Blvd. & Madison Ave.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↶↶	↶↶		↶↶	
Traffic Volume (vph)	24	461	803	35	46	103
Future Volume (vph)	24	461	803	35	46	103
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	12	16	12
Total Lost time (s)	5.3	5.3	4.6		4.6	
Lane Util. Factor	1.00	0.95	0.95		1.00	
Frt	1.00	1.00	0.99		0.91	
Flt Protected	0.95	1.00	1.00		0.98	
Satd. Flow (prot)	1478	3167	3147		1686	
Flt Permitted	0.28	1.00	1.00		0.98	
Satd. Flow (perm)	429	3167	3147		1686	
Peak-hour factor, PHF	0.89	0.89	0.93	0.93	0.58	0.58
Adj. Flow (vph)	27	518	863	38	79	178
RTOR Reduction (vph)	0	0	3	0	99	0
Lane Group Flow (vph)	27	518	898	0	158	0
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	3 6		4	
Permitted Phases	2					
Actuated Green, G (s)	43.1	43.1	57.1		13.7	
Effective Green, g (s)	43.1	43.1	51.8		13.7	
Actuated g/C Ratio	0.54	0.54	0.65		0.17	
Clearance Time (s)	5.3	5.3			4.6	
Vehicle Extension (s)	4.8	4.8			3.0	
Lane Grp Cap (vph)	231	1706	2037		288	
v/s Ratio Prot		0.16	c0.29		c0.09	
v/s Ratio Perm	0.06					
v/c Ratio	0.12	0.30	0.44		0.55	
Uniform Delay, d1	9.1	10.2	7.0		30.3	
Progression Factor	1.00	1.00	0.01		1.00	
Incremental Delay, d2	1.0	0.5	0.1		2.1	
Delay (s)	10.1	10.6	0.2		32.4	
Level of Service	B	B	A		C	
Approach Delay (s)		10.6	0.2		32.4	
Approach LOS		B	A		C	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	43.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

133: El Molino Ave. & Orange Grove Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak






















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	411	66	49	730	37	32	78	27	53	152	67
Future Volume (vph)	30	411	66	49	730	37	32	78	27	53	152	67
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	10	12	12	12	12	12	16	16	16
Total Lost time (s)	5.3	5.3		5.3	5.3			4.9			4.9	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.98		1.00	0.99			0.97			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1478	3101		1478	3144			1603			1808	
Flt Permitted	0.29	1.00		0.44	1.00			0.81			0.90	
Satd. Flow (perm)	446	3101		685	3144			1314			1648	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.82	0.82	0.82	0.86	0.86	0.86
Adj. Flow (vph)	35	478	77	57	849	43	39	95	33	62	177	78
RTOR Reduction (vph)	0	15	0	0	4	0	0	11	0	0	15	0
Lane Group Flow (vph)	35	540	0	57	888	0	0	156	0	0	302	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	50.5	50.5		50.5	50.5			19.3			19.3	
Effective Green, g (s)	50.5	50.5		50.5	50.5			19.3			19.3	
Actuated g/C Ratio	0.63	0.63		0.63	0.63			0.24			0.24	
Clearance Time (s)	5.3	5.3		5.3	5.3			4.9			4.9	
Vehicle Extension (s)	4.8	4.8		4.8	4.8			3.0			3.0	
Lane Grp Cap (vph)	281	1957		432	1984			317			397	
v/s Ratio Prot		0.17			c0.28							
v/s Ratio Perm	0.08			0.08				0.12			c0.18	
v/c Ratio	0.12	0.28		0.13	0.45			0.49			0.76	
Uniform Delay, d1	5.9	6.6		5.9	7.6			26.1			28.2	
Progression Factor	0.37	0.39		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.9	0.3		0.6	0.7			1.2			8.3	
Delay (s)	3.1	2.9		6.6	8.3			27.3			36.5	
Level of Service	A	A		A	A			C			D	
Approach Delay (s)		2.9			8.2			27.3			36.5	
Approach LOS		A			A			C			D	

Intersection Summary		
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.53	B
Actuated Cycle Length (s)	80.0	Sum of lost time (s)
Intersection Capacity Utilization	66.3%	10.2
Analysis Period (min)	15	ICU Level of Service
c Critical Lane Group		C

170: El Molino Ave. & Cordova St.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	239	21	47	467	38	55	299	50	47	167	40
Future Volume (vph)	24	239	21	47	467	38	55	299	50	47	167	40
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	10	12	12	12	16	12	12	14	12
Total Lost time (s)	5.3	5.3		5.3	5.3			4.6			4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1478	3128		1478	3131			1845			1724	
Flt Permitted	0.35	1.00		0.56	1.00			0.92			0.88	
Satd. Flow (perm)	541	3128		876	3131			1717			1528	
Peak-hour factor, PHF	0.84	0.84	0.84	0.93	0.93	0.93	0.95	0.95	0.95	0.87	0.87	0.87
Adj. Flow (vph)	29	285	25	51	502	41	58	315	53	54	192	46
RTOR Reduction (vph)	0	11	0	0	10	0	0	6	0	0	8	0
Lane Group Flow (vph)	29	299	0	51	533	0	0	420	0	0	284	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	19.1	19.1		19.1	19.1			41.0			41.0	
Effective Green, g (s)	19.1	19.1		19.1	19.1			41.0			41.0	
Actuated g/C Ratio	0.27	0.27		0.27	0.27			0.59			0.59	
Clearance Time (s)	5.3	5.3		5.3	5.3			4.6			4.6	
Vehicle Extension (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Grp Cap (vph)	147	853		239	854			1005			894	
v/s Ratio Prot		0.10			c0.17							
v/s Ratio Perm	0.05			0.06				c0.24			0.19	
v/c Ratio	0.20	0.35		0.21	0.62			0.42			0.32	
Uniform Delay, d1	19.6	20.5		19.6	22.3			8.0			7.4	
Progression Factor	1.11	1.03		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.2	0.5		0.9	1.9			1.3			0.9	
Delay (s)	22.9	21.6		20.5	24.2			9.2			8.3	
Level of Service	C	C		C	C			A			A	
Approach Delay (s)		21.7			23.9			9.2			8.3	
Approach LOS		C			C			A			A	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			16.9									B
HCM 2000 Volume to Capacity ratio			0.48									
Actuated Cycle Length (s)			70.0								9.9	
Intersection Capacity Utilization			63.5%									B
Analysis Period (min)			15									
c Critical Lane Group												

174: El Molino Ave. & Del Mar Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak


























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	600	74	75	923	51	63	298	69	40	183	34
Future Volume (vph)	43	600	74	75	923	51	63	298	69	40	183	34
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	9	11	11	10	11	11	12	16	12	12	14	12
Total Lost time (s)	4.8	4.8		4.8	4.8			4.1			4.1	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.98		1.00	0.99			0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1425	3011		1478	3037			1834			1732	
Flt Permitted	0.18	1.00		0.31	1.00			0.91			0.87	
Satd. Flow (perm)	265	3011		479	3037			1677			1512	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.90	0.90	0.90	0.88	0.88	0.88
Adj. Flow (vph)	49	690	85	86	1061	59	70	331	77	45	208	39
RTOR Reduction (vph)	0	14	0	0	6	0	0	8	0	0	7	0
Lane Group Flow (vph)	49	761	0	86	1114	0	0	470	0	0	286	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	43.1	43.1		43.1	43.1			28.0			28.0	
Effective Green, g (s)	43.1	43.1		43.1	43.1			28.0			28.0	
Actuated g/C Ratio	0.54	0.54		0.54	0.54			0.35			0.35	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.1			4.1	
Vehicle Extension (s)	4.8	4.8		4.8	4.8			3.0			3.0	
Lane Grp Cap (vph)	142	1622		258	1636			586			529	
v/s Ratio Prot		0.25			c0.37							
v/s Ratio Perm	0.18			0.18				c0.28			0.19	
v/c Ratio	0.35	0.47		0.33	0.68			0.80			0.54	
Uniform Delay, d1	10.5	11.4		10.4	13.4			23.5			20.8	
Progression Factor	1.04	1.32		1.36	1.46			1.00			1.00	
Incremental Delay, d2	6.1	0.9		2.9	2.0			7.8			1.1	
Delay (s)	17.0	15.9		17.0	21.7			31.3			21.9	
Level of Service	B	B		B	C			C			C	
Approach Delay (s)		16.0			21.3			31.3			21.9	
Approach LOS		B			C			C			C	

Intersection Summary		
HCM 2000 Control Delay	21.5	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.73	C
Actuated Cycle Length (s)	80.0	Sum of lost time (s)
Intersection Capacity Utilization	84.4%	8.9
Analysis Period (min)	15	ICU Level of Service
c Critical Lane Group		E




























182: El Molino Ave. & California Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	 
Traffic Volume (vph)	79	815	25	0	865	55	42	287	87	28	146	54
Future Volume (vph)	79	815	25	0	865	55	42	287	87	28	146	54
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	9	10	12	8	10	12	12	11	12	12	10	9
Total Lost time (s)	5.3	5.3			5.3			3.9			3.9	3.9
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	1.00
Frt	1.00	1.00			0.99			0.97			1.00	0.85
Flt Protected	0.95	1.00			1.00			1.00			0.99	1.00
Satd. Flow (prot)	1425	2943			2929			1558			1543	1275
Flt Permitted	0.21	1.00			1.00			0.95			0.90	1.00
Satd. Flow (perm)	311	2943			2929			1491			1407	1275
Peak-hour factor, PHF	0.85	0.85	0.85	0.93	0.93	0.93	0.93	0.93	0.93	0.83	0.83	0.83
Adj. Flow (vph)	93	959	29	0	930	59	45	309	94	34	176	65
RTOR Reduction (vph)	0	3	0	0	7	0	0	8	0	0	0	20
Lane Group Flow (vph)	93	985	0	0	982	0	0	440	0	0	210	45
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2						4			4		4
Actuated Green, G (s)	45.3	45.3			45.3			35.5			35.5	35.5
Effective Green, g (s)	45.3	45.3			45.3			35.5			35.5	35.5
Actuated g/C Ratio	0.50	0.50			0.50			0.39			0.39	0.39
Clearance Time (s)	5.3	5.3			5.3			3.9			3.9	3.9
Vehicle Extension (s)	4.8	4.8			4.8			4.8			4.8	4.8
Lane Grp Cap (vph)	156	1481			1474			588			554	502
v/s Ratio Prot		0.33			c0.34							
v/s Ratio Perm	0.30							c0.29			0.15	0.04
v/c Ratio	0.60	0.66			0.67			0.75			0.38	0.09
Uniform Delay, d1	15.9	16.7			16.7			23.4			19.4	17.1
Progression Factor	1.44	1.56			1.17			1.00			1.00	1.00
Incremental Delay, d2	14.3	2.2			2.3			6.0			0.8	0.2
Delay (s)	37.2	28.1			21.7			29.4			20.2	17.3
Level of Service	D	C			C			C			C	B
Approach Delay (s)		28.9			21.7			29.4			19.5	
Approach LOS		C			C			C			B	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			25.5									C
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			90.0								9.2	
Intersection Capacity Utilization			84.8%									E
Analysis Period (min)			15									
c Critical Lane Group												

221: Lake Ave. & Orange Grove Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		 			 			 		 		 	
Traffic Volume (vph)	102	355	73	133	555	75	59	569	43	129	1045	209	
Future Volume (vph)	102	355	73	133	555	75	59	569	43	129	1045	209	
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	
Lane Width	9	10	12	10	11	12	10	11	11	9	10	10	
Total Lost time (s)	3.2	6.3		3.2	6.3		3.2	6.3	6.3	3.2	6.3	6.3	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00	
Frt	1.00	0.97		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1425	2880		1478	3007		1478	3061	1369	1425	2956	1322	
Flt Permitted	0.17	1.00		0.27	1.00		0.11	1.00	1.00	0.29	1.00	1.00	
Satd. Flow (perm)	252	2880		426	3007		176	3061	1369	428	2956	1322	
Peak-hour factor, PHF	0.73	0.73	0.73	0.85	0.85	0.85	0.89	0.89	0.89	0.94	0.94	0.94	
Adj. Flow (vph)	140	486	100	156	653	88	66	639	48	137	1112	222	
RTOR Reduction (vph)	0	18	0	0	10	0	0	0	31	0	0	65	
Lane Group Flow (vph)	140	568	0	156	731	0	66	639	17	137	1112	157	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	
Protected Phases	3	8		7	4		5	2		1	6		
Permitted Phases	8			4			2		2	6		6	
Actuated Green, G (s)	35.7	25.5		36.3	25.8		41.9	35.4	35.4	48.1	38.5	38.5	
Effective Green, g (s)	35.7	25.5		36.3	25.8		41.9	35.4	35.4	48.1	38.5	38.5	
Actuated g/C Ratio	0.36	0.26		0.36	0.26		0.42	0.35	0.35	0.48	0.38	0.38	
Clearance Time (s)	3.2	6.3		3.2	6.3		3.2	6.3	6.3	3.2	6.3	6.3	
Vehicle Extension (s)	2.5	1.0		2.5	1.0		2.5	4.8	4.8	3.0	4.5	4.5	
Lane Grp Cap (vph)	209	734		265	775		158	1083	484	301	1138	508	
v/s Ratio Prot	c0.07	0.20		0.06	c0.24		0.03	0.21		c0.04	c0.38		
v/s Ratio Perm	0.17			0.15			0.15		0.01	0.17		0.12	
v/c Ratio	0.67	0.77		0.59	0.94		0.42	0.59	0.04	0.46	0.98	0.31	
Uniform Delay, d1	24.2	34.6		23.3	36.4		20.1	26.4	21.1	15.8	30.3	21.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	7.1	4.7		2.8	19.4		1.3	2.4	0.1	1.1	21.7	1.6	
Delay (s)	31.4	39.2		26.0	55.8		21.4	28.7	21.3	16.9	52.0	23.0	
Level of Service	C	D		C	E		C	C	C	B	D	C	
Approach Delay (s)		37.7			50.6			27.6			44.4		
Approach LOS		D			D			C			D		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			41.3									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.90										
Actuated Cycle Length (s)			100.0									Sum of lost time (s)	19.0
Intersection Capacity Utilization			81.4%									ICU Level of Service	D
Analysis Period (min)			15										
c	Critical Lane Group												



223: Los Robles Ave. & Cordova St.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	173	7	54	346	107	35	595	57	108	358	109
Future Volume (vph)	35	173	7	54	346	107	35	595	57	108	358	109
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	10	16	12	10	13	12	10	10	16
Total Lost time (s)	6.3	6.3		6.3	6.3		3.9	3.9		3.9	3.9	3.9
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1478	3149		1478	3462		1478	3229		1478	1556	1606
Flt Permitted	0.41	1.00		0.62	1.00		0.47	1.00		0.30	1.00	1.00
Satd. Flow (perm)	635	3149		963	3462		723	3229		473	1556	1606
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.95	0.95	0.95
Adj. Flow (vph)	41	204	8	64	407	126	41	700	67	114	377	115
RTOR Reduction (vph)	0	5	0	0	48	0	0	9	0	0	0	55
Lane Group Flow (vph)	41	207	0	64	485	0	41	758	0	114	377	60
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		2
Actuated Green, G (s)	23.2	23.2		23.2	23.2		36.6	36.6		36.6	36.6	36.6
Effective Green, g (s)	23.2	23.2		23.2	23.2		36.6	36.6		36.6	36.6	36.6
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.52	0.52		0.52	0.52	0.52
Clearance Time (s)	6.3	6.3		6.3	6.3		3.9	3.9		3.9	3.9	3.9
Vehicle Extension (s)	4.8	4.8		4.8	4.8		4.8	4.8		4.8	4.8	4.8
Lane Grp Cap (vph)	210	1043		319	1147		378	1688		247	813	839
v/s Ratio Prot		0.07			c0.14			0.23			c0.24	
v/s Ratio Perm	0.06			0.07			0.06			0.24		0.04
v/c Ratio	0.20	0.20		0.20	0.42		0.11	0.45		0.46	0.46	0.07
Uniform Delay, d1	16.7	16.7		16.8	18.2		8.4	10.4		10.5	10.5	8.3
Progression Factor	1.00	1.00		0.36	0.55		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.9	0.2		0.5	0.4		0.6	0.9		6.1	1.9	0.2
Delay (s)	17.6	16.9		6.5	10.4		9.0	11.3		16.6	12.4	8.4
Level of Service	B	B		A	B		A	B		B	B	A
Approach Delay (s)		17.0			10.0			11.2			12.4	
Approach LOS		B			A			B			B	

Intersection Summary

HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	10.2
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			






















230: Los Robles Ave. & Del Mar Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	560	28	71	880	183	66	441	42	53	298	59
Future Volume (vph)	72	560	28	71	880	183	66	441	42	53	298	59
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	10	12	12	10	9	9	10	9	9
Total Lost time (s)	3.2	6.3		6.3	6.3		5.9	5.9	5.9	5.9	5.9	3.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1478	3144		1478	3085		1478	1500	1275	1478	1500	1275
Flt Permitted	0.10	1.00		0.38	1.00		0.42	1.00	1.00	0.21	1.00	1.00
Satd. Flow (perm)	160	3144		585	3085		648	1500	1275	327	1500	1275
Peak-hour factor, PHF	0.81	0.81	0.81	0.85	0.85	0.85	0.95	0.95	0.95	0.93	0.93	0.93
Adj. Flow (vph)	89	691	35	84	1035	215	69	464	44	57	320	63
RTOR Reduction (vph)	0	4	0	0	19	0	0	0	31	0	0	29
Lane Group Flow (vph)	89	722	0	84	1231	0	69	464	13	57	320	34
Turn Type	pm+pt	NA		Perm	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	3	8			4			2			2	3
Permitted Phases	8			4			2		2	2		2
Actuated Green, G (s)	44.1	44.1		35.6	35.6		23.7	23.7	23.7	23.7	23.7	29.0
Effective Green, g (s)	44.1	44.1		35.6	35.6		23.7	23.7	23.7	23.7	23.7	29.0
Actuated g/C Ratio	0.55	0.55		0.45	0.45		0.30	0.30	0.30	0.30	0.30	0.36
Clearance Time (s)	3.2	6.3		6.3	6.3		5.9	5.9	5.9	5.9	5.9	3.2
Vehicle Extension (s)	1.5	4.8		4.8	4.8		4.8	4.8	4.8	4.8	4.8	1.5
Lane Grp Cap (vph)	175	1733		260	1372		191	444	377	96	444	462
v/s Ratio Prot	c0.03	0.23			c0.40			c0.31			0.21	0.00
v/s Ratio Perm	0.25			0.14			0.11		0.01	0.17		0.02
v/c Ratio	0.51	0.42		0.32	0.90		0.36	1.05	0.03	0.59	0.72	0.07
Uniform Delay, d1	12.7	10.5		14.4	20.5		22.2	28.2	20.0	24.0	25.2	16.7
Progression Factor	1.00	1.00		0.86	0.64		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.7		2.8	8.2		2.3	55.0	0.1	13.4	6.7	0.0
Delay (s)	13.5	11.2		15.2	21.3		24.4	83.1	20.1	37.4	31.9	16.7
Level of Service	B	B		B	C		C	F	C	D	C	B
Approach Delay (s)		11.4			20.9			71.3			30.5	
Approach LOS		B			C			E			C	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			29.0									C
HCM 2000 Volume to Capacity ratio			0.92									
Actuated Cycle Length (s)			80.0						15.4			
Intersection Capacity Utilization			87.5%									E
Analysis Period (min)			15									
c Critical Lane Group												

235: Los Robles Ave. & California Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		 			 								
Traffic Volume (vph)	78	808	34	0	960	62	20	368	79	29	311	87	
Future Volume (vph)	78	808	34	0	960	62	20	368	79	29	311	87	
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	
Lane Width	9	10	12	9	10	12	12	10	12	12	12	10	
Total Lost time (s)	5.9	5.9			5.9			3.9	3.9		3.9	3.9	
Lane Util. Factor	1.00	0.95			0.95			1.00	1.00		1.00	1.00	
Frt	1.00	0.99			0.99			1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00			1.00			1.00	1.00		1.00	1.00	
Satd. Flow (prot)	1425	2938			2929			1551	1417		1660	1322	
Flt Permitted	0.17	1.00			1.00			0.97	1.00		0.89	1.00	
Satd. Flow (perm)	252	2938			2929			1508	1417		1484	1322	
Peak-hour factor, PHF	0.92	0.92	0.92	0.90	0.90	0.90	0.93	0.93	0.93	0.85	0.85	0.85	
Adj. Flow (vph)	85	878	37	0	1067	69	22	396	85	34	366	102	
RTOR Reduction (vph)	0	4	0	0	6	0	0	0	25	0	0	31	
Lane Group Flow (vph)	85	911	0	0	1130	0	0	418	60	0	400	71	
Turn Type	Perm	NA			NA		Perm	NA	Perm	Perm	NA	Perm	
Protected Phases		2			2			4		4	4	4	
Permitted Phases	2						4		4	4		4	
Actuated Green, G (s)	47.0	47.0			47.0			33.2	33.2		33.2	33.2	
Effective Green, g (s)	47.0	47.0			47.0			33.2	33.2		33.2	33.2	
Actuated g/C Ratio	0.52	0.52			0.52			0.37	0.37		0.37	0.37	
Clearance Time (s)	5.9	5.9			5.9			3.9	3.9		3.9	3.9	
Vehicle Extension (s)	4.8	4.8			4.8			4.8	4.8		4.8	4.8	
Lane Grp Cap (vph)	131	1534			1529			556	522		547	487	
v/s Ratio Prot		0.31			c0.39								
v/s Ratio Perm	0.34							c0.28	0.04		0.27	0.05	
v/c Ratio	0.65	0.59			0.74			0.75	0.12		0.73	0.15	
Uniform Delay, d1	15.5	14.9			16.7			24.8	18.7		24.5	18.9	
Progression Factor	1.00	1.00			0.79			1.00	1.00		1.00	1.00	
Incremental Delay, d2	22.3	1.7			2.9			6.6	0.2		5.9	0.3	
Delay (s)	37.8	16.6			16.2			31.4	18.9		30.4	19.2	
Level of Service	D	B			B			C	B		C	B	
Approach Delay (s)		18.4			16.2			29.3			28.2		
Approach LOS		B			B			C			C		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			20.9									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.74										
Actuated Cycle Length (s)			90.0									Sum of lost time (s)	9.8
Intersection Capacity Utilization			95.2%									ICU Level of Service	F
Analysis Period (min)			15										
c Critical Lane Group													

241: Hudson Ave. & Cordova St.  
 HCM Signalized Intersection Capacity Analysis





















Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	42	262	0	0	509	133	47	318	50	0	0	0	
Future Volume (vph)	42	262	0	0	509	133	47	318	50	0	0	0	
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	
Lane Width	10	12	12	12	12	12	12	13	13	12	12	12	
Total Lost time (s)	3.9	3.9			3.9			3.2	3.9				
Lane Util. Factor	1.00	0.95			0.95			0.95	1.00				
Frt	1.00	1.00			0.97			1.00	0.85				
Flt Protected	0.95	1.00			1.00			0.99	1.00				
Satd. Flow (prot)	1478	3167			3068			3251	1464				
Flt Permitted	0.36	1.00			1.00			0.99	1.00				
Satd. Flow (perm)	563	3167			3068			3251	1464				
Peak-hour factor, PHF	0.86	0.86	0.86	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	
Adj. Flow (vph)	49	305	0	0	566	148	52	353	56	0	0	0	
RTOR Reduction (vph)	0	0	0	0	25	0	0	0	20	0	0	0	
Lane Group Flow (vph)	49	305	0	0	689	0	0	405	36	0	0	0	
Turn Type	Perm	NA			NA		Perm	NA	custom				
Protected Phases		2			2			4					
Permitted Phases	2						4		2				
Actuated Green, G (s)	38.3	38.3			38.3			14.6	38.3				
Effective Green, g (s)	38.3	38.3			38.3			14.6	38.3				
Actuated g/C Ratio	0.64	0.64			0.64			0.24	0.64				
Clearance Time (s)	3.9	3.9			3.9			3.2	3.9				
Vehicle Extension (s)	4.8	4.8			4.8			4.8	4.8				
Lane Grp Cap (vph)	359	2021			1958			791	934				
v/s Ratio Prot		0.10			0.22								
v/s Ratio Perm	0.09							0.12	0.02				
v/c Ratio	0.14	0.15			0.35			0.51	0.04				
Uniform Delay, d1	4.3	4.3			5.1			19.6	4.0				
Progression Factor	1.00	1.00			1.00			1.00	1.00				
Incremental Delay, d2	0.8	0.2			0.5			1.0	0.1				
Delay (s)	5.1	4.5			5.6			20.7	4.1				
Level of Service	A	A			A			C	A				
Approach Delay (s)		4.6			5.6			18.7			0.0		
Approach LOS		A			A			B			A		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			9.3									HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.40										
Actuated Cycle Length (s)			60.0									Sum of lost time (s)	7.1
Intersection Capacity Utilization			45.2%									ICU Level of Service	A
Analysis Period (min)			15										
c Critical Lane Group													




















243: Hudson Ave. & Del Mar Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Traffic Volume (vph)	69	649	0	0	993	116	88	237	159	0	0	0
Future Volume (vph)	69	649	0	0	993	116	88	237	159	0	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.3	4.3			4.3			3.6	3.6			
Lane Util. Factor	1.00	0.95			0.95			0.95	1.00			
Frt	1.00	1.00			0.98			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.99	1.00			
Satd. Flow (prot)	1478	3167			3117			3124	1417			
Flt Permitted	0.19	1.00			1.00			0.99	1.00			
Satd. Flow (perm)	300	3167			3117			3124	1417			
Peak-hour factor, PHF	0.85	0.85	0.85	0.91	0.91	0.91	0.83	0.83	0.83	0.92	0.92	0.92
Adj. Flow (vph)	81	764	0	0	1091	127	106	286	192	0	0	0
RTOR Reduction (vph)	0	0	0	0	9	0	0	0	153	0	0	0
Lane Group Flow (vph)	81	764	0	0	1209	0	0	392	39	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		2			2			4				
Permitted Phases	2						4		4			
Actuated Green, G (s)	55.7	55.7			55.7			16.4	16.4			
Effective Green, g (s)	55.7	55.7			55.7			16.4	16.4			
Actuated g/C Ratio	0.70	0.70			0.70			0.20	0.20			
Clearance Time (s)	4.3	4.3			4.3			3.6	3.6			
Vehicle Extension (s)	4.8	4.8			4.8			3.0	3.0			
Lane Grp Cap (vph)	208	2205			2170			640	290			
v/s Ratio Prot		0.24			0.39							
v/s Ratio Perm	0.27							0.13	0.03			
v/c Ratio	0.39	0.35			0.56			0.61	0.14			
Uniform Delay, d1	5.1	4.9			6.0			28.9	26.0			
Progression Factor	1.31	1.35			1.00			1.00	1.00			
Incremental Delay, d2	4.9	0.4			1.0			1.7	0.2			
Delay (s)	11.6	7.0			7.1			30.7	26.2			
Level of Service	B	A			A			C	C			
Approach Delay (s)		7.4			7.1			29.2			0.0	
Approach LOS		A			A			C			A	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			12.1									B
HCM 2000 Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			80.0									7.9
Intersection Capacity Utilization			63.8%									B
Analysis Period (min)			15									
c Critical Lane Group												

246: Hudson Ave. & California Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Traffic Volume (vph)	189	732	11	0	835	122	23	44	8	0	0	0
Future Volume (vph)	189	732	11	0	835	122	23	44	8	0	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	9	10	12	9	10	12	12	15	12	12	16	12
Total Lost time (s)	4.9	4.9			4.9			4.9				
Lane Util. Factor	1.00	0.95			0.95			1.00				
Frt	1.00	1.00			0.98			0.99				
Flt Protected	0.95	1.00			1.00			0.98				
Satd. Flow (prot)	1425	2949			2899			1780				
Flt Permitted	0.28	1.00			1.00			0.98				
Satd. Flow (perm)	415	2949			2899			1780				
Peak-hour factor, PHF	0.88	0.88	0.88	0.96	0.96	0.96	0.78	0.78	0.78	0.92	0.92	0.92
Adj. Flow (vph)	215	832	12	0	870	127	29	56	10	0	0	0
RTOR Reduction (vph)	0	1	0	0	7	0	0	6	0	0	0	0
Lane Group Flow (vph)	215	844	0	0	990	0	0	89	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	71.6	71.6			71.6			8.6				
Effective Green, g (s)	71.6	71.6			71.6			8.6				
Actuated g/C Ratio	0.80	0.80			0.80			0.10				
Clearance Time (s)	4.9	4.9			4.9			4.9				
Vehicle Extension (s)	4.8	4.8			4.8			3.0				
Lane Grp Cap (vph)	330	2346			2306			170				
v/s Ratio Prot		0.29			0.34							
v/s Ratio Perm	c0.52							0.05				
v/c Ratio	0.65	0.36			0.43			0.52				
Uniform Delay, d1	3.9	2.6			2.9			38.7				
Progression Factor	2.67	2.63			1.00			1.00				
Incremental Delay, d2	8.3	0.4			0.6			2.9				
Delay (s)	18.7	7.3			3.4			41.6				
Level of Service	B	A			A			D				
Approach Delay (s)		9.6			3.4			41.6			0.0	
Approach LOS		A			A			D			A	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			8.2									A
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			90.0						9.8			
Intersection Capacity Utilization			59.9%									B
Analysis Period (min)			15									
c Critical Lane Group												

254: Sierra Bonita Ave. & Washington Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Traffic Volume (vph)	3	782	33	14	990	12	85	4	25	18	17	14
Future Volume (vph)	3	782	33	14	990	12	85	4	25	18	17	14
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	12	11	12	12	11	12	12	15	12	12	16	12
Total Lost time (s)		4.3			4.3			3.6			3.6	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		0.99			1.00			0.97			0.96	
Flt Protected		1.00			1.00			0.96			0.98	
Satd. Flow (prot)		2890			2901			1715			1783	
Flt Permitted		0.95			0.93			0.73			0.88	
Satd. Flow (perm)		2750			2713			1293			1598	
Peak-hour factor, PHF	0.79	0.79	0.79	0.82	0.82	0.82	0.55	0.55	0.55	0.56	0.56	0.56
Adj. Flow (vph)	4	990	42	17	1207	15	155	7	45	32	30	25
RTOR Reduction (vph)	0	3	0	0	1	0	0	13	0	0	18	0
Lane Group Flow (vph)	0	1033	0	0	1238	0	0	194	0	0	69	0
Parking (#/hr)		0			0							
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		63.8			63.8			18.3			18.3	
Effective Green, g (s)		63.8			63.8			18.3			18.3	
Actuated g/C Ratio		0.71			0.71			0.20			0.20	
Clearance Time (s)		4.3			4.3			3.6			3.6	
Vehicle Extension (s)		4.8			4.8			3.0			3.0	
Lane Grp Cap (vph)		1949			1923			262			324	
v/s Ratio Prot												
v/s Ratio Perm		0.38			0.46			0.15			0.04	
v/c Ratio		0.53			0.64			0.74			0.21	
Uniform Delay, d1		6.1			7.0			33.6			29.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.0			1.7			10.7			0.3	
Delay (s)		7.1			8.7			44.4			30.2	
Level of Service		A			A			D			C	
Approach Delay (s)		7.1			8.7			44.4			30.2	
Approach LOS		A			A			D			C	

Intersection Summary

HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.9
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

295: Colorado Blvd. & Sierra Bonita Ave.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷
Traffic Volume (vph)	29	483	1004	59	45	35
Future Volume (vph)	29	483	1004	59	45	35
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width	10	11	10	10	16	12
Total Lost time (s)	4.9	4.9	4.9	4.9	4.6	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.94	
Flt Protected	0.95	1.00	1.00	1.00	0.97	
Satd. Flow (prot)	1478	2908	2956	1190	1729	
Flt Permitted	0.26	1.00	1.00	1.00	0.97	
Satd. Flow (perm)	409	2908	2956	1190	1729	
Peak-hour factor, PHF	0.89	0.89	0.96	0.96	0.87	0.87
Adj. Flow (vph)	33	543	1046	61	52	40
RTOR Reduction (vph)	0	0	0	6	36	0
Lane Group Flow (vph)	33	543	1046	55	56	0
Parking (#/hr)		0		0		
Turn Type	Perm	NA	NA	Perm	Perm	
Protected Phases		2	2			
Permitted Phases	2			2	4	
Actuated Green, G (s)	63.1	63.1	63.1	63.1	7.4	
Effective Green, g (s)	63.1	63.1	63.1	63.1	7.4	
Actuated g/C Ratio	0.79	0.79	0.79	0.79	0.09	
Clearance Time (s)	4.9	4.9	4.9	4.9	4.6	
Vehicle Extension (s)	4.8	4.8	4.8	4.8	3.0	
Lane Grp Cap (vph)	322	2293	2331	938	159	
v/s Ratio Prot		0.19	c0.35			
v/s Ratio Perm	0.08			0.05	c0.03	
v/c Ratio	0.10	0.24	0.45	0.06	0.35	
Uniform Delay, d1	1.9	2.2	2.8	1.9	34.0	
Progression Factor	0.38	0.41	1.00	1.00	1.00	
Incremental Delay, d2	0.6	0.2	0.6	0.1	1.3	
Delay (s)	1.4	1.1	3.4	2.0	35.4	
Level of Service	A	A	A	A	D	
Approach Delay (s)		1.1	3.3		35.4	
Approach LOS		A	A		D	

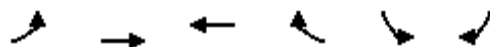
Intersection Summary			
HCM 2000 Control Delay	4.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.5
Intersection Capacity Utilization	45.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



319: Colorado Blvd. & Marion Ave.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	52	509	1017	26	8	58
Future Volume (vph)	52	509	1017	26	8	58
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width	10	10	10	12	12	12
Total Lost time (s)	4.9	4.9	4.9	4.9	4.6	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.88	
Flt Protected	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (prot)	1478	2956	2956	1275	1461	
Flt Permitted	0.25	1.00	1.00	1.00	0.99	
Satd. Flow (perm)	393	2956	2956	1275	1461	
Peak-hour factor, PHF	0.86	0.86	0.94	0.94	0.75	0.75
Adj. Flow (vph)	60	592	1082	28	11	77
RTOR Reduction (vph)	0	0	0	3	70	0
Lane Group Flow (vph)	60	592	1082	25	18	0
Parking (#/hr)				0		
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)	63.6	63.6	63.6	63.6	6.9	
Effective Green, g (s)	63.6	63.6	63.6	63.6	6.9	
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.09	
Clearance Time (s)	4.9	4.9	4.9	4.9	4.6	
Vehicle Extension (s)	5.8	5.8	5.8	5.8	3.0	
Lane Grp Cap (vph)	312	2350	2350	1013	126	
v/s Ratio Prot		0.20	c0.37		c0.01	
v/s Ratio Perm	0.15			0.02		
v/c Ratio	0.19	0.25	0.46	0.03	0.14	
Uniform Delay, d1	2.0	2.1	2.7	1.7	33.8	
Progression Factor	1.00	1.00	0.78	0.96	1.00	
Incremental Delay, d2	1.4	0.3	0.6	0.0	0.5	
Delay (s)	3.4	2.4	2.7	1.7	34.3	
Level of Service	A	A	A	A	C	
Approach Delay (s)		2.5	2.6		34.3	
Approach LOS		A	A		C	





























Intersection Summary

HCM 2000 Control Delay	4.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.5
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

322: Bonnie Ave. & Colorado Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 				 	
Traffic Volume (vph)	11	309	206	126	922	28	107	46	65	12	270	31
Future Volume (vph)	11	309	206	126	922	28	107	46	65	12	270	31
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	10	10	10	10	10	11	10	14	10	10	12
Total Lost time (s)	4.9	4.9	4.9	4.9	4.9	4.9	4.2	4.6	4.6	4.2	4.6	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1478	2956	1322	1478	2956	1322	2969	1556	1511	1478	2910	
Flt Permitted	0.25	1.00	1.00	0.54	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	392	2956	1322	842	2956	1322	2969	1556	1511	1478	2910	
Peak-hour factor, PHF	0.88	0.88	0.88	0.99	0.99	0.99	0.88	0.88	0.88	0.75	0.75	0.75
Adj. Flow (vph)	12	351	234	127	931	28	122	52	74	16	360	41
RTOR Reduction (vph)	0	0	99	0	0	12	0	0	56	0	12	0
Lane Group Flow (vph)	13	351	135	127	931	16	122	52	19	16	389	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases		2			2		7	4		3	8	
Permitted Phases	2		2	2		2			4			
Actuated Green, G (s)	52.0	52.0	52.0	52.0	52.0	52.0	9.6	22.5	22.5	1.8	14.7	
Effective Green, g (s)	52.0	52.0	52.0	52.0	52.0	52.0	9.6	22.5	22.5	1.8	14.7	
Actuated g/C Ratio	0.58	0.58	0.58	0.58	0.58	0.58	0.11	0.25	0.25	0.02	0.16	
Clearance Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	4.2	4.6	4.6	4.2	4.6	
Vehicle Extension (s)	4.8	4.8	4.8	4.8	4.8	4.8	2.5	4.8	4.8	2.5	4.8	
Lane Grp Cap (vph)	226	1707	763	486	1707	763	316	389	377	29	475	
v/s Ratio Prot		0.12			c0.32		c0.04	0.03		0.01	c0.13	
v/s Ratio Perm	0.03		0.10	0.15		0.01			0.01			
v/c Ratio	0.06	0.21	0.18	0.26	0.55	0.02	0.39	0.13	0.05	0.55	0.82	
Uniform Delay, d1	8.3	9.1	8.9	9.4	11.7	8.1	37.5	26.2	25.6	43.7	36.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.5	0.3	0.5	1.3	1.3	0.1	0.6	0.3	0.1	16.9	11.8	
Delay (s)	8.8	9.4	9.4	10.8	13.0	8.2	38.0	26.5	25.7	60.6	48.2	
Level of Service	A	A	A	B	B	A	D	C	C	E	D	
Approach Delay (s)		9.4			12.6			31.9			48.6	
Approach LOS		A			B			C			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			20.2				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.58									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)			13.7		
Intersection Capacity Utilization			67.6%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

357: Craig Ave. & Colorado Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	393	16	30	1089	63	15	50	25	13	67	33
Future Volume (vph)	21	393	16	30	1089	63	15	50	25	13	67	33
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	12	10	10	10	14	12	12	12	12	12	16	12
Total Lost time (s)	4.9	4.9	4.9	4.9	4.9			4.6			4.6	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00			1.00	
Frt	1.00	1.00	0.85	1.00	0.99			0.96			0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1583	2956	1190	1478	3183			1432			1804	
Flt Permitted	0.20	1.00	1.00	0.48	1.00			0.91			0.96	
Satd. Flow (perm)	339	2956	1190	740	3183			1318			1748	
Peak-hour factor, PHF	0.81	0.81	0.81	0.95	0.95	0.95	0.75	0.75	0.75	0.66	0.66	0.66
Adj. Flow (vph)	26	485	20	32	1146	66	20	67	33	20	102	50
RTOR Reduction (vph)	0	0	5	0	3	0	0	22	0	0	24	0
Lane Group Flow (vph)	26	485	15	32	1209	0	0	98	0	0	148	0
Parking (#/hr)			0		0			0				
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2		2	2			4			4		
Actuated Green, G (s)	58.1	58.1	58.1	58.1	58.1			12.4			12.4	
Effective Green, g (s)	58.1	58.1	58.1	58.1	58.1			12.4			12.4	
Actuated g/C Ratio	0.73	0.73	0.73	0.73	0.73			0.16			0.16	
Clearance Time (s)	4.9	4.9	4.9	4.9	4.9			4.6			4.6	
Vehicle Extension (s)	5.8	5.8	5.8	5.8	5.8			3.0			3.0	
Lane Grp Cap (vph)	246	2146	864	537	2311			204			270	
v/s Ratio Prot		0.16			c0.38							
v/s Ratio Perm	0.08		0.01	0.04				0.07			c0.08	
v/c Ratio	0.11	0.23	0.02	0.06	0.52			0.48			0.55	
Uniform Delay, d1	3.2	3.6	3.0	3.1	4.8			30.9			31.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.9	0.2	0.0	0.2	0.9			1.8			2.3	
Delay (s)	4.1	3.8	3.1	3.3	5.7			32.6			33.5	
Level of Service	A	A	A	A	A			C			C	
Approach Delay (s)		3.8			5.6			32.6			33.5	
Approach LOS		A			A			C			C	

Intersection Summary

HCM 2000 Control Delay	9.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.5
Intersection Capacity Utilization	52.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

2: Wilson Ave. & Washington Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Volume (veh/h)	861	15	37	953	4	11
Future Volume (Veh/h)	861	15	37	953	4	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.84	0.84	0.54	0.54
Hourly flow rate (vph)	1050	18	44	1135	7	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	390					
pX, platoon unblocked			0.84		0.84	0.84
vC, conflicting volume			1068		1714	534
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			703		1472	69
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			94		92	98
cM capacity (veh/h)			749		93	825
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	700	368	422	757	27	
Volume Left	0	0	44	0	7	
Volume Right	0	18	0	0	20	
cSH	1700	1700	749	1700	272	
Volume to Capacity	0.41	0.22	0.06	0.45	0.10	
Queue Length 95th (ft)	0	0	5	0	8	
Control Delay (s)	0.0	0.0	1.7	0.0	19.7	
Lane LOS			A		C	
Approach Delay (s)	0.0		0.6		19.7	
Approach LOS					C	
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization			69.6%		ICU Level of Service	C
Analysis Period (min)			15			

65: Washington Blvd. & Mar Vista Ave.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↕↔	
Traffic Volume (veh/h)	23	843	931	53	31	61
Future Volume (Veh/h)	23	843	931	53	31	61
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.83	0.83	0.77	0.77
Hourly flow rate (vph)	25	926	1122	64	40	79
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		695				
pX, platoon unblocked					0.87	
vC, conflicting volume	1186				1667	593
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1186				1473	593
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				59	82
cM capacity (veh/h)	585				98	449
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	334	617	748	438	119	
Volume Left	25	0	0	0	40	
Volume Right	0	0	0	64	79	
cSH	585	1700	1700	1700	204	
Volume to Capacity	0.04	0.36	0.44	0.26	0.58	
Queue Length 95th (ft)	3	0	0	0	81	
Control Delay (s)	1.4	0.0	0.0	0.0	44.8	
Lane LOS	A				E	
Approach Delay (s)	0.5		0.0		44.8	
Approach LOS					E	
Intersection Summary						
Average Delay			2.6			
Intersection Capacity Utilization			57.3%		ICU Level of Service	B
Analysis Period (min)			15			

67: Mar Vista Ave. & Washington Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Volume (veh/h)	865	9	23	977	7	16
Future Volume (Veh/h)	865	9	23	977	7	16
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.83	0.83	0.72	0.72
Hourly flow rate (vph)	951	10	28	1177	10	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	809					
pX, platoon unblocked			0.89		0.89	0.89
vC, conflicting volume			961		1600	480
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			702		1423	161
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		91	97
cM capacity (veh/h)			791		109	760
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	634	327	420	785	32	
Volume Left	0	0	28	0	10	
Volume Right	0	10	0	0	22	
cSH	1700	1700	791	1700	264	
Volume to Capacity	0.37	0.19	0.04	0.46	0.12	
Queue Length 95th (ft)	0	0	3	0	10	
Control Delay (s)	0.0	0.0	1.1	0.0	20.5	
Lane LOS			A		C	
Approach Delay (s)	0.0		0.4		20.5	
Approach LOS					C	
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			58.6%		ICU Level of Service	B
Analysis Period (min)			15			

71: Orange Grove Blvd. & Catalina Ave.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Traffic Volume (veh/h)	17	482	711	5	3	24
Future Volume (Veh/h)	17	482	711	5	3	24
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.73	0.73	0.85	0.85	0.61	0.61
Hourly flow rate (vph)	23	660	836	6	5	39
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			339			
pX, platoon unblocked	0.93				0.93	0.93
vC, conflicting volume	842				1215	421
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	668				1071	213
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				97	95
cM capacity (veh/h)	849				194	733
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	243	440	557	285	44	
Volume Left	23	0	0	0	5	
Volume Right	0	0	0	6	39	
cSH	849	1700	1700	1700	557	
Volume to Capacity	0.03	0.26	0.33	0.17	0.08	
Queue Length 95th (ft)	2	0	0	0	6	
Control Delay (s)	1.1	0.0	0.0	0.0	12.0	
Lane LOS	A				B	
Approach Delay (s)	0.4		0.0		12.0	
Approach LOS					B	
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			38.7%		ICU Level of Service	A
Analysis Period (min)			15			

72: Catalina Ave. & Orange Grove Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak






















Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Volume (veh/h)	487	8	25	710	8	12
Future Volume (Veh/h)	487	8	25	710	8	12
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.73	0.73	0.85	0.85	0.71	0.71
Hourly flow rate (vph)	667	11	29	835	11	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)	404					
pX, platoon unblocked					0.93	
vC, conflicting volume			678	1148	339	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			678	1010	339	
tC, single (s)			4.1	6.8	6.9	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			97	95	97	
cM capacity (veh/h)			910	213	657	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	445	233	307	557	28	
Volume Left	0	0	29	0	11	
Volume Right	0	11	0	0	17	
cSH	1700	1700	910	1700	361	
Volume to Capacity	0.26	0.14	0.03	0.33	0.08	
Queue Length 95th (ft)	0	0	2	0	6	
Control Delay (s)	0.0	0.0	1.2	0.0	15.8	
Lane LOS	A			C		
Approach Delay (s)	0.0		0.4		15.8	
Approach LOS	C					
Intersection Summary						
Average Delay	0.5					
Intersection Capacity Utilization			51.4%	ICU Level of Service	A	
Analysis Period (min)	15					

























74: Mar Vista Ave. & Orange Grove Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	454	21	11	774	23	5	4	14	10	11	26
Future Volume (Veh/h)	4	454	21	11	774	23	5	4	14	10	11	26
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.84	0.84	0.84	0.58	0.58	0.58	0.73	0.73	0.73
Hourly flow rate (vph)	5	528	24	13	921	27	9	7	24	14	15	36
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		435										
pX, platoon unblocked				0.97			0.97	0.97	0.97	0.97	0.97	0.97
vC, conflicting volume	948			552			1080	1524	276	1262	1522	474
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	948			480			1023	1480	195	1211	1479	474
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			94	94	97	89	87	93
cM capacity (veh/h)	720			1048			153	118	790	122	119	537
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	5	352	200	13	614	334	40	65				
Volume Left	5	0	0	13	0	0	9	14				
Volume Right	0	0	24	0	0	27	24	36				
cSH	720	1700	1700	1048	1700	1700	270	211				
Volume to Capacity	0.01	0.21	0.12	0.01	0.36	0.20	0.15	0.31				
Queue Length 95th (ft)	1	0	0	1	0	0	13	31				
Control Delay (s)	10.0	0.0	0.0	8.5	0.0	0.0	20.7	29.4				
Lane LOS	B			A			C	D				
Approach Delay (s)	0.1			0.1			20.7	29.4				
Approach LOS							C	D				
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			35.4%		ICU Level of Service			A				
Analysis Period (min)			15									

216: Lake/Lake Ave. & Boylston St.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	0	51	3	2	10	32	650	2	7	1290	46
Future Volume (Veh/h)	14	0	51	3	2	10	32	650	2	7	1290	46
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.81	0.81	0.81	0.75	0.75	0.75	0.93	0.93	0.93	0.94	0.94	0.94
Hourly flow rate (vph)	17	0	63	4	3	13	34	699	2	7	1372	49
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked	0.90	0.90		0.90	0.90	0.90					0.90	
vC, conflicting volume	1818	2155	686	1530	2202	350	1421			701		
vC1, stage 1 conf vol	1386	1386		767	767							
vC2, stage 2 conf vol	432	769		763	1435							
vCu, unblocked vol	1680	2057	686	1359	2109	41	1421			434		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	88	100	84	98	98	99	93			99		
cM capacity (veh/h)	144	185	390	232	151	914	475			1006		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	17	63	7	13	34	350	350	2	7	686	686	49
Volume Left	17	0	4	0	34	0	0	0	7	0	0	0
Volume Right	0	63	0	13	0	0	0	2	0	0	0	49
cSH	144	390	188	914	475	1700	1700	1700	1006	1700	1700	1700
Volume to Capacity	0.12	0.16	0.04	0.01	0.07	0.21	0.21	0.00	0.01	0.40	0.40	0.03
Queue Length 95th (ft)	10	14	3	1	6	0	0	0	1	0	0	0
Control Delay (s)	33.3	16.0	24.9	9.0	13.2	0.0	0.0	0.0	8.6	0.0	0.0	0.0
Lane LOS	D	C	C	A	B				A			
Approach Delay (s)	19.7		14.5		0.6				0.0			
Approach LOS	C		B									
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			56.7%		ICU Level of Service				B			
Analysis Period (min)			15									

220: Washington Blvd. & Bresee Ave.  
 HCM Unsignalized Intersection Capacity Analysis




















Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Traffic Volume (veh/h)	28	812	1066	22	9	25
Future Volume (Veh/h)	28	812	1066	22	9	25
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.94	0.94
Hourly flow rate (vph)	36	1041	1367	28	10	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			303			
pX, platoon unblocked	0.79				0.79	0.79
vC, conflicting volume	1395				1974	698
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	979				1707	101
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				84	96
cM capacity (veh/h)	556				61	743
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	383	694	911	484	37	
Volume Left	36	0	0	0	10	
Volume Right	0	0	0	28	27	
cSH	556	1700	1700	1700	185	
Volume to Capacity	0.06	0.41	0.54	0.28	0.20	
Queue Length 95th (ft)	5	0	0	0	18	
Control Delay (s)	2.0	0.0	0.0	0.0	29.3	
Lane LOS	A				D	
Approach Delay (s)	0.7		0.0		29.3	
Approach LOS					D	
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization			57.8%		ICU Level of Service	B
Analysis Period (min)			15			

271: Sierra Bonita Ave. & Orange Grove Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	446	15	33	812	13	11	16	11	3	30	59
Future Volume (Veh/h)	20	446	15	33	812	13	11	16	11	3	30	59
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.68	0.68	0.68	0.83	0.83	0.83	0.56	0.56	0.56	0.61	0.61	0.61
Hourly flow rate (vph)	29	656	22	40	978	16	20	29	20	5	49	97
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	994			678			1416	1799	339	1486	1802	497
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	994			678			1416	1799	339	1486	1802	497
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			96			41	60	97	91	32	81
cM capacity (veh/h)	692			910			34	72	657	54	72	519
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	29	437	241	40	652	342	69	151				
Volume Left	29	0	0	40	0	0	20	5				
Volume Right	0	0	22	0	0	16	20	97				
cSH	692	1700	1700	910	1700	1700	68	158				
Volume to Capacity	0.04	0.26	0.14	0.04	0.38	0.20	1.02	0.96				
Queue Length 95th (ft)	3	0	0	3	0	0	130	178				
Control Delay (s)	10.4	0.0	0.0	9.1	0.0	0.0	220.0	118.3				
Lane LOS	B			A			F	F				
Approach Delay (s)	0.4			0.4			220.0	118.3				
Approach LOS							F	F				
Intersection Summary												
Average Delay			17.2									
Intersection Capacity Utilization			45.4%		ICU Level of Service			A				
Analysis Period (min)			15									

305: Bresee Ave. & Washington Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

















Existing Conditions  
 Timing Plan: AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↵	↵
Traffic Volume (veh/h)	814	14	26	1065	12	26
Future Volume (Veh/h)	814	14	26	1065	12	26
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.68	0.68
Hourly flow rate (vph)	1044	18	33	1365	18	38
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						1
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)	411					
pX, platoon unblocked					0.80	
vC, conflicting volume			1062	1802	531	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1062	1502	531	
tC, single (s)			4.1	6.8	6.9	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			95	79	92	
cM capacity (veh/h)			652	85	493	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	696	366	488	910	56	
Volume Left	0	0	33	0	18	
Volume Right	0	18	0	0	38	
cSH	1700	1700	652	1700	266	
Volume to Capacity	0.41	0.22	0.05	0.54	0.21	
Queue Length 95th (ft)	0	0	4	0	19	
Control Delay (s)	0.0	0.0	1.4	0.0	27.4	
Lane LOS	A			D		
Approach Delay (s)	0.0		0.5		27.4	
Approach LOS					D	
Intersection Summary						
Average Delay	0.9					
Intersection Capacity Utilization			63.7%	ICU Level of Service		B
Analysis Period (min)	15					

















307: Oxford Ave. & Washington Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	806	14	6	996	7	1	1	5	4	1	27
Future Volume (Veh/h)	10	806	14	6	996	7	1	1	5	4	1	27
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.81	0.81	0.81	0.80	0.80	0.80	0.58	0.58	0.58	0.67	0.67	0.67
Hourly flow rate (vph)	12	995	17	8	1245	9	2	2	9	6	1	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		414										
pX, platoon unblocked				0.86			0.86	0.86	0.86	0.86	0.86	
vC, conflicting volume	1254			1012			1706	2298	506	1797	2302	627
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1254			699			1503	2187	113	1607	2191	627
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			97	95	99	89	97	91
cM capacity (veh/h)	551			772			63	38	793	56	37	426
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	510	514	630	632	13	47						
Volume Left	12	0	8	0	2	6						
Volume Right	0	17	0	9	9	40						
cSH	551	1700	772	1700	135	206						
Volume to Capacity	0.02	0.30	0.01	0.37	0.10	0.23						
Queue Length 95th (ft)	2	0	1	0	8	21						
Control Delay (s)	0.6	0.0	0.3	0.0	34.5	27.5						
Lane LOS	A		A		D	D						
Approach Delay (s)	0.3		0.1		34.5	27.5						
Approach LOS					D	D						
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			45.7%	ICU Level of Service	A							
Analysis Period (min)			15									




















310: Sierra Bonita Ave. & Casa Grande St.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0	0	0	0	0	0	0			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	0	0	0	0	0	0			0		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	1023	896	1085	1023	896	1085	1623			1623		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	0	0	0	0								
Volume Left	0	0	0	0								
Volume Right	0	0	0	0								
cSH	1700	1700	1700	1700								
Volume to Capacity	0.00	0.00	0.00	0.00								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	0.0	0.0	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	0.0	0.0	0.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			0.0									
Intersection Capacity Utilization			0.0%		ICU Level of Service					A		
Analysis Period (min)			15									

315: Sinaloa Ave. & Orange Grove Blvd.  
 HCM Unsignalized Intersection Capacity Analysis




















Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	448	3	11	813	8	4	4	7	4	6	35
Future Volume (Veh/h)	9	448	3	11	813	8	4	4	7	4	6	35
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.79	0.79	0.79	0.63	0.63	0.63	0.59	0.59	0.59
Hourly flow rate (vph)	13	649	4	14	1029	10	6	6	11	7	10	59
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1039			653			1284	1744	326	1426	1741	520
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1039			653			1284	1744	326	1426	1741	520
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			98			94	93	98	92	88	88
cM capacity (veh/h)	665			930			95	83	669	87	83	501
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	13	433	220	14	686	353	23	76				
Volume Left	13	0	0	14	0	0	6	7				
Volume Right	0	0	4	0	0	10	11	59				
cSH	665	1700	1700	930	1700	1700	151	238				
Volume to Capacity	0.02	0.25	0.13	0.02	0.40	0.21	0.15	0.32				
Queue Length 95th (ft)	1	0	0	1	0	0	13	33				
Control Delay (s)	10.5	0.0	0.0	8.9	0.0	0.0	33.0	27.0				
Lane LOS	B			A			D	D				
Approach Delay (s)	0.2			0.1			33.0	27.0				
Approach LOS							D	D				
Intersection Summary												
Average Delay			1.7									
Intersection Capacity Utilization			35.4%		ICU Level of Service			A				
Analysis Period (min)			15									






















331: Craig Ave. & Orange Grove Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	396	17	33	838	19	0	0	34	9	39	44
Future Volume (Veh/h)	18	396	17	33	838	19	0	0	34	9	39	44
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.76	0.76	0.76	0.82	0.82	0.82	0.85	0.85	0.85	0.61	0.61	0.61
Hourly flow rate (vph)	24	521	22	40	1022	23	0	0	40	15	64	72
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1045			543			1275	1705	272	1462	1704	522
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1045			543			1275	1705	272	1462	1704	522
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			96			100	100	94	81	24	86
cM capacity (veh/h)	661			1022			38	84	726	80	84	499
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	24	347	196	40	681	364	40	151				
Volume Left	24	0	0	40	0	0	0	15				
Volume Right	0	0	22	0	0	23	40	72				
cSH	661	1700	1700	1022	1700	1700	726	138				
Volume to Capacity	0.04	0.20	0.12	0.04	0.40	0.21	0.06	1.09				
Queue Length 95th (ft)	3	0	0	3	0	0	4	210				
Control Delay (s)	10.6	0.0	0.0	8.7	0.0	0.0	10.2	167.7				
Lane LOS	B			A			B	F				
Approach Delay (s)	0.5			0.3			10.2	167.7				
Approach LOS							B	F				
Intersection Summary												
Average Delay			14.3									
Intersection Capacity Utilization			43.2%		ICU Level of Service			A				
Analysis Period (min)			15									

352: Craig Ave. & Walnut St.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	15	149	21	19	229	37	27	88	13	46	81	19
Future Volume (vph)	15	149	21	19	229	37	27	88	13	46	81	19
Peak Hour Factor	0.83	0.83	0.83	0.74	0.74	0.74	0.78	0.78	0.78	0.87	0.87	0.87
Hourly flow rate (vph)	18	180	25	26	309	50	35	113	17	53	93	22
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	198	25	335	50	165	168						
Volume Left (vph)	18	0	26	0	35	53						
Volume Right (vph)	0	25	0	50	17	22						
Hadj (s)	0.08	-0.67	0.07	-0.67	0.01	0.02						
Departure Headway (s)	6.2	5.4	5.9	5.2	5.9	5.9						
Degree Utilization, x	0.34	0.04	0.55	0.07	0.27	0.28						
Capacity (veh/h)	545	614	582	659	544	549						
Control Delay (s)	11.1	7.4	14.8	7.4	11.1	11.1						
Approach Delay (s)	10.7		13.8		11.1	11.1						
Approach LOS	B		B		B	B						
Intersection Summary												
Delay			12.1									
Level of Service			B									
Intersection Capacity Utilization			48.4%		ICU Level of Service		A					
Analysis Period (min)			15									

370: Oak Ave & Orange Grove Ave  
 HCM Unsignalized Intersection Capacity Analysis




















Existing Conditions  
 Timing Plan: AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	↗
Traffic Volume (veh/h)	400	7	9	824	8	9
Future Volume (Veh/h)	400	7	9	824	8	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.84	0.84	0.53	0.53
Hourly flow rate (vph)	426	7	11	981	15	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			433		942	216
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			433		942	216
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		94	98
cM capacity (veh/h)			1123		259	788
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	284	149	338	654	15	17
Volume Left	0	0	11	0	15	0
Volume Right	0	7	0	0	0	17
cSH	1700	1700	1123	1700	259	788
Volume to Capacity	0.17	0.09	0.01	0.38	0.06	0.02
Queue Length 95th (ft)	0	0	1	0	5	2
Control Delay (s)	0.0	0.0	0.4	0.0	19.8	9.7
Lane LOS			A			A
Approach Delay (s)	0.0		0.1		14.4	
Approach LOS					B	
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			42.5%		ICU Level of Service	A
Analysis Period (min)			15			

373: Martelo Ave. & Orange Grove Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	409	4	11	801	7	0	3	10	12	11	36
Future Volume (Veh/h)	13	409	4	11	801	7	0	3	10	12	11	36
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.88	0.88	0.88	0.41	0.41	0.41	0.78	0.78	0.78
Hourly flow rate (vph)	16	499	5	13	910	8	0	7	24	15	14	46
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	918			504			1068	1478	252	1249	1476	459
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	918			504			1068	1478	252	1249	1476	459
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			100	94	97	87	88	92
cM capacity (veh/h)	739			1057			143	121	748	117	121	549
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	16	333	171	13	607	311	31	75				
Volume Left	16	0	0	13	0	0	0	15				
Volume Right	0	0	5	0	0	8	24	46				
cSH	739	1700	1700	1057	1700	1700	344	229				
Volume to Capacity	0.02	0.20	0.10	0.01	0.36	0.18	0.09	0.33				
Queue Length 95th (ft)	2	0	0	1	0	0	7	34				
Control Delay (s)	10.0	0.0	0.0	8.4	0.0	0.0	16.5	28.3				
Lane LOS	A			A			C	D				
Approach Delay (s)	0.3			0.1			16.5	28.3				
Approach LOS							C	D				
Intersection Summary												
Average Delay			1.9									
Intersection Capacity Utilization			42.2%			ICU Level of Service		A				
Analysis Period (min)			15									

377: Oak Ave. & Walnut St.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↔	↔	↔
Traffic Volume (veh/h)	165	25	22	255	32	17
Future Volume (Veh/h)	165	25	22	255	32	17
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.82	0.82	0.68	0.68
Hourly flow rate (vph)	199	30	27	311	47	25
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						2
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			229		579	214
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			229		579	214
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		90	97
cM capacity (veh/h)			1339		468	826
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	229	27	311	72		
Volume Left	0	27	0	47		
Volume Right	30	0	0	25		
cSH	1700	1339	1700	716		
Volume to Capacity	0.13	0.02	0.18	0.10		
Queue Length 95th (ft)	0	2	0	8		
Control Delay (s)	0.0	7.7	0.0	12.1		
Lane LOS		A		B		
Approach Delay (s)	0.0	0.6		12.1		
Approach LOS				B		
Intersection Summary						
Average Delay			1.7			
Intersection Capacity Utilization			28.1%		ICU Level of Service	A
Analysis Period (min)			15			

382: Grand Oaks Ave. & Walnut St.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑	↘	
Traffic Volume (veh/h)	169	48	93	220	64	76
Future Volume (Veh/h)	169	48	93	220	64	76
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.78	0.78	0.50	0.50
Hourly flow rate (vph)	222	63	119	282	128	152
<b>Pedestrians</b>						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			285		742	222
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			285		742	222
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			91		63	81
cM capacity (veh/h)			1277		347	818
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>EB 2</b>	<b>WB 1</b>	<b>NB 1</b>		
Volume Total	222	63	401	280		
Volume Left	0	0	119	128		
Volume Right	0	63	0	152		
cSH	1700	1700	1277	505		
Volume to Capacity	0.13	0.04	0.09	0.55		
Queue Length 95th (ft)	0	0	8	83		
Control Delay (s)	0.0	0.0	3.0	20.6		
Lane LOS			A	C		
Approach Delay (s)	0.0		3.0	20.6		
Approach LOS				C		
<b>Intersection Summary</b>						
Average Delay			7.2			
Intersection Capacity Utilization			47.8%	ICU Level of Service	A	
Analysis Period (min)			15			

385: Colorado Blvd. & Oak Ave  
 HCM Unsignalized Intersection Capacity Analysis




















Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	14	406	1116	26	15	26
Future Volume (Veh/h)	14	406	1116	26	15	26
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.97	0.97	0.68	0.68
Hourly flow rate (vph)	16	467	1151	27	22	38
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			422			
pX, platoon unblocked	0.85				0.85	0.85
vC, conflicting volume	1178				1430	589
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	862				1157	171
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				86	95
cM capacity (veh/h)	661				158	719
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	16	234	234	767	411	60
Volume Left	16	0	0	0	0	22
Volume Right	0	0	0	0	27	38
cSH	661	1700	1700	1700	1700	312
Volume to Capacity	0.02	0.14	0.14	0.45	0.24	0.19
Queue Length 95th (ft)	2	0	0	0	0	17
Control Delay (s)	10.6	0.0	0.0	0.0	0.0	19.3
Lane LOS	B					C
Approach Delay (s)	0.4			0.0		19.3
Approach LOS						C
Intersection Summary						
Average Delay			0.8			
Intersection Capacity Utilization			45.4%		ICU Level of Service	A
Analysis Period (min)			15			

388:  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	425	7	28	1147	21	10	2	14	2	2	24
Future Volume (Veh/h)	14	425	7	28	1147	21	10	2	14	2	2	24
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.72	0.72	0.72	0.64	0.64	0.64
Hourly flow rate (vph)	16	483	8	31	1260	23	14	3	19	3	3	38
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		411										
pX, platoon unblocked				0.99			0.99	0.99	0.99	0.99	0.99	0.99
vC, conflicting volume	1283			491			1250	1864	246	1628	1856	642
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1283			473			1238	1856	226	1618	1848	642
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			97			87	96	98	95	96	91
cM capacity (veh/h)	537			1077			110	68	772	62	69	417
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	16	322	169	31	840	443	36	44				
Volume Left	16	0	0	31	0	0	14	3				
Volume Right	0	0	8	0	0	23	19	38				
cSH	537	1700	1700	1077	1700	1700	184	240				
Volume to Capacity	0.03	0.19	0.10	0.03	0.49	0.26	0.20	0.18				
Queue Length 95th (ft)	2	0	0	2	0	0	18	16				
Control Delay (s)	11.9	0.0	0.0	8.4	0.0	0.0	29.3	23.3				
Lane LOS	B			A			D	C				
Approach Delay (s)	0.4			0.2			29.3	23.3				
Approach LOS							D	C				
Intersection Summary												
Average Delay				1.3								
Intersection Capacity Utilization			48.1%		ICU Level of Service			A				
Analysis Period (min)			15									



390: Oak Ave. & Colorado Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

























Existing Conditions  
 Timing Plan: AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	
Traffic Volume (veh/h)	409	12	10	1127	15	18
Future Volume (Veh/h)	409	12	10	1127	15	18
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.97	0.97	0.69	0.69
Hourly flow rate (vph)	470	14	10	1162	22	26
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)	318					
pX, platoon unblocked					0.85	
vC, conflicting volume			484		1078	242
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			484		730	242
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		93	97
cM capacity (veh/h)			1075		300	759
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	313	171	10	581	581	48
Volume Left	0	0	10	0	0	22
Volume Right	0	14	0	0	0	26
cSH	1700	1700	1075	1700	1700	446
Volume to Capacity	0.18	0.10	0.01	0.34	0.34	0.11
Queue Length 95th (ft)	0	0	1	0	0	9
Control Delay (s)	0.0	0.0	8.4	0.0	0.0	14.0
Lane LOS	A			B		
Approach Delay (s)	0.0		0.1			14.0
Approach LOS						B
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			44.8%	ICU Level of Service		A
Analysis Period (min)			15			

322: Bonnie Ave. & Colorado Blvd.  
Intersection Capacity Utilization

Existing Conditions  
Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	309	206	126	922	28	107	46	65	12	270	31
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	4.2	4.6	4.6	4.2	4.6	4.0
Minimum Green (s)	8.0	8.0	8.0	8.0	8.0	8.0	9.0	9.0	9.0	9.0	9.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	11	309	206	126	922	28	107	46	65	12	301	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.98	0.85
Saturated Flow (vph)	1615	3237	1445	1615	3237	1445	3136	1700	1445	1615	3187	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	Yes			Yes			Yes			Yes		
Reference Time (s)	0.8	11.5	17.1	9.4	34.2	2.3	4.1	3.2	5.4	0.9	11.3	0.0
Adj Reference Time (s)	12.9	16.4	22.0	14.3	39.1	12.9	13.2	13.6	13.6	13.2	15.9	0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		108	1618		105	1700		108	1593	
Reference Time A (s)	12.3	11.5		140.4	34.2		61.4	3.2		13.4	11.3	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		0	3187	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		8.9	11.3	
Reference Time (s)		12.3			140.4			61.4			11.3	
Adj Reference Time (s)		17.2			145.3			66.0			15.9	
Split Option												
Ref Time Combined (s)	0.8	11.5		9.4	34.2		4.1	3.2		0.9	11.3	
Ref Time Seperate (s)	0.8	11.5		9.4	34.2		4.1	3.2		0.9	10.2	
Reference Time (s)	11.5	11.5		34.2	34.2		4.1	4.1		11.3	11.3	
Adj Reference Time (s)	16.4	16.4		39.1	39.1		13.6	13.6		15.9	15.9	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	52.0		29.1									
Permitted Option (s)	145.3		66.0									
Split Option (s)	55.4		29.5									
Minimum (s)	52.0		29.1		81.1							
Right Turns												
	EBR	WBR	NBR									
Adj Reference Time (s)	22.0	12.9	13.6									
Cross Thru Ref Time (s)	15.9	13.6	16.4									
Oncoming Left Ref Time (s)	14.3	12.9	13.2									
Combined (s)	52.2	39.4	43.2									
Intersection Summary												
Intersection Capacity Utilization			67.6%		ICU Level of Service				C			
Reference Times and Phasing Options do not represent an optimized timing plan.												

61: Catalina Ave. & Washington Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Volume (vph)	17	818	17	18	915	40	12	44	19	58	45	41
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.0	5.3	5.3	4.0	5.3	5.3	4.0	5.3	5.3	4.0
Minimum Green (s)	7.0	7.0	4.0	7.0	7.0	4.0	8.0	8.0	4.0	8.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	852	0	0	973	0	0	75	0	0	144	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.95	0.85	0.95	0.94	0.85
Saturated Flow (vph)	0	3224	0	0	3214	0	0	1622	0	0	1595	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00		0.00		0.00		0.00		0.00	
Protected Option Allowed	No		No		No		No		No		No	
Reference Time (s)	0.0		0.0		0.0		0.0		0.0		0.0	
Adj Reference Time (s)	0.0		0.0		0.0		0.0		0.0		0.0	
Permitted Option												
Adj Saturation A (vph)	0	993	0	1022	0	1524	0	758	0	758	0	758
Reference Time A (s)	0.0	47.4	0.0	52.9	0.0	5.9	0.0	22.8	0.0	22.8	0.0	22.8
Adj Saturation B (vph)	NA	NA	NA	NA	0	0	0	0	0	0	0	0
Reference Time B (s)	NA	NA	NA	NA	8.9	13.5	12.3	18.8	12.3	18.8	12.3	18.8
Reference Time (s)	47.4		52.9		5.9		18.8		12.3		18.8	
Adj Reference Time (s)	52.7		58.2		13.3		24.1		16.1		16.1	
Split Option												
Ref Time Combined (s)	0.0	31.7	0.0	36.3	0.0	5.5	0.0	10.8	0.0	10.8	0.0	10.8
Ref Time Seperate (s)	1.3	30.4	1.3	34.1	0.9	3.3	4.3	3.4	4.3	3.4	4.3	3.4
Reference Time (s)	31.7	31.7	36.3	36.3	5.5	5.5	10.8	10.8	10.8	10.8	10.8	10.8
Adj Reference Time (s)	37.0	37.0	41.6	41.6	13.3	13.3	16.1	16.1	16.1	16.1	16.1	16.1
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	58.2		24.1									
Split Option (s)	78.6		29.4									
Minimum (s)	58.2		24.1		82.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	68.6%		ICU Level of Service		C							
Reference Times and Phasing Options do not represent an optimized timing plan.												

295: Colorado Blvd. & Sierra Bonita Ave.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	29	483	1004	59	45	35
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.9	4.9	4.6	4.0
Minimum Green (s)	10.0	10.0	10.0	10.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	29	483	1004	59	80	0
Lane Utilization Factor	1.00	0.95	0.95	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.91	0.85
Saturated Flow (vph)	1615	3237	3237	1445	1544	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	2.2	17.9	37.2	4.9		0.0
Adj Reference Time (s)	14.9	22.8	42.1	14.9		0.0
Permitted Option						
Adj Saturation A (vph)	108	1618	1618		103	
Reference Time A (s)	32.3	17.9	37.2		93.3	
Adj Saturation B (vph)	NA	NA	NA		NA	
Reference Time B (s)	NA	NA	NA		NA	
Reference Time (s)		32.3	37.2			
Adj Reference Time (s)		37.2	42.1			
Split Option						
Ref Time Combined (s)	2.2	17.9	37.2		6.2	
Ref Time Seperate (s)	2.2	17.9	37.2		3.5	
Reference Time (s)	17.9	17.9	37.2		6.2	
Adj Reference Time (s)	22.8	22.8	42.1		12.6	
Summary	EB WB		SB		Combined	
Protected Option (s)	57.0		NA			
Permitted Option (s)	42.1		Err			
Split Option (s)	64.9		12.6			
Minimum (s)	42.1		12.6		54.7	
Right Turns	WBR					
Adj Reference Time (s)	14.9					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	14.9					
Combined (s)	29.8					

Intersection Summary

Intersection Capacity Utilization 45.6% ICU Level of Service A  
 Reference Times and Phasing Options do not represent an optimized timing plan.

357: Craig Ave. & Colorado Blvd.  
Intersection Capacity Utilization

Existing Conditions  
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	393	16	30	1089	63	15	50	25	13	67	33
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.9	4.9	4.9	4.0	4.6	4.6	4.0	4.6	4.6	4.0
Minimum Green (s)	10.0	10.0	10.0	10.0	10.0	4.0	9.0	9.0	4.0	9.0	9.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	21	393	16	30	1152	0	0	90	0	0	113	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.95	0.85	0.95	0.95	0.85
Saturated Flow (vph)	1615	3237	1445	1615	3210	0	0	1616	0	0	1616	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	1.6	14.6	1.3	2.2	43.1	0.0			0.0			0.0
Adj Reference Time (s)	14.9	19.5	14.9	14.9	48.0	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		108	1605		0	1070		0	1328	
Reference Time A (s)	23.4	14.6		33.4	43.1		0.0	10.1		0.0	10.2	
Adj Saturation B (vph)	NA	NA		NA	NA		0	0		0	0	
Reference Time B (s)	NA	NA		NA	NA		9.1	14.7		9.0	16.4	
Reference Time (s)		23.4			43.1			10.1			10.2	
Adj Reference Time (s)		28.3			48.0			14.7			14.8	
Split Option												
Ref Time Combined (s)	1.6	14.6		2.2	43.1		0.0	6.7		0.0	8.4	
Ref Time Seperate (s)	1.6	14.6		2.2	40.7		1.1	3.7		1.0	5.0	
Reference Time (s)	14.6	14.6		43.1	43.1		6.7	6.7		8.4	8.4	
Adj Reference Time (s)	19.5	19.5		48.0	48.0		13.6	13.6		13.6	13.6	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	62.9		NA									
Permitted Option (s)	48.0		14.8									
Split Option (s)	67.4		27.2									
Minimum (s)	48.0		14.8		62.8							
Right Turns												
	EBR											
Adj Reference Time (s)	14.9											
Cross Thru Ref Time (s)	13.6											
Oncoming Left Ref Time (s)	14.9											
Combined (s)	43.4											
Intersection Summary												
Intersection Capacity Utilization			52.3%		ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

347: Craig Ave. & Foothill Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.0	5.3	5.3	4.0	4.6	4.6	4.0	4.6	4.6	4.0
Minimum Green (s)	6.0	6.0	4.0	6.0	6.0	4.0	8.0	8.0	4.0	8.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3237	0	1615	3237	0	0	1700	0	0	1700	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00		0.00		0.00		0.00		0.00	
Protected Option Allowed	Yes		Yes		No		No		No		No	
Reference Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adj Reference Time (s)	11.3	11.3	0.0	11.3	11.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		108	1618		0	1700		0	1700	
Reference Time A (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Adj Saturation B (vph)	0	3237		0	3237		0	1700		0	1700	
Reference Time B (s)	8.0	0.0		8.0	0.0		0.0	0.0		0.0	0.0	
Reference Time (s)	0.0		0.0		0.0		0.0		0.0		0.0	
Adj Reference Time (s)	11.3		11.3		12.6		12.6		12.6		12.6	
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Ref Time Seperate (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Reference Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Adj Reference Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	22.6		NA									
Permitted Option (s)	11.3		12.6									
Split Option (s)	0.0		0.0									
Minimum (s)	0.0		0.0		0.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	0.0%		ICU Level of Service		A							
Reference Times and Phasing Options do not represent an optimized timing plan.												

182: El Molino Ave. & California Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	79	815	25	0	865	55	42	287	87	28	146	54
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.0	4.0	5.3	4.0	3.9	3.9	4.0	3.9	3.9	3.9
Minimum Green (s)	5.0	5.0	4.0	4.0	5.0	4.0	8.0	8.0	4.0	8.0	8.0	8.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	79	840	0	0	920	0	0	416	0	0	174	54
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.96	0.85	0.95	0.99	0.85
Saturated Flow (vph)	1615	3222	0	0	3208	0	0	1638	0	0	1686	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	5.9	31.3	0.0	0.0	34.4	0.0			0.0			4.5
Adj Reference Time (s)	11.2	36.6	0.0	0.0	39.7	0.0			0.0			12.0
Permitted Option												
Adj Saturation A (vph)	108	1611		0	1604		0	658		0	1085	
Reference Time A (s)	88.0	31.3		0.0	34.4		0.0	75.8		0.0	19.2	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		88.0			34.4			75.8			19.2	
Adj Reference Time (s)		93.3			39.7			79.8			23.2	
Split Option												
Ref Time Combined (s)	5.9	31.3		0.0	34.4		0.0	30.5		0.0	12.4	
Ref Time Separate (s)	5.9	30.4		0.0	32.4		3.1	21.0		2.1	10.3	
Reference Time (s)	31.3	31.3		34.4	34.4		30.5	30.5		12.4	12.4	
Adj Reference Time (s)	36.6	36.6		39.7	39.7		34.5	34.5		16.4	16.4	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	50.9		NA									
Permitted Option (s)	93.3		79.8									
Split Option (s)	76.3		50.9									
Minimum (s)	50.9		50.9		101.7							
Right Turns												
	SBR											
Adj Reference Time (s)	12.0											
Cross Thru Ref Time (s)	39.7											
Oncoming Left Ref Time (s)	34.5											
Combined (s)	86.2											
Intersection Summary												
Intersection Capacity Utilization			84.8%		ICU Level of Service		E					
Reference Times and Phasing Options do not represent an optimized timing plan.												

170: El Molino Ave. & Cordova St.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	239	21	47	467	38	55	299	50	47	167	40
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.0	5.3	5.3	4.0	4.6	4.6	4.0	4.6	4.6	4.0
Minimum Green (s)	6.0	6.0	4.0	6.0	6.0	4.0	8.0	8.0	4.0	8.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	24	260	0	47	505	0	0	404	0	0	254	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	0.99	0.85	0.95	0.97	0.85	0.95	0.97	0.85
Saturated Flow (vph)	1615	3198	0	1615	3200	0	0	1657	0	0	1644	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	1.8	9.8	0.0	3.5	18.9	0.0			0.0			0.0
Adj Reference Time (s)	11.3	15.1	0.0	11.3	24.2	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1599		108	1600		0	1345		0	1106	
Reference Time A (s)	26.7	9.8		52.4	18.9		0.0	36.1		0.0	27.6	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		26.7			52.4			36.1			27.6	
Adj Reference Time (s)		32.0			57.7			40.7			32.2	
Split Option												
Ref Time Combined (s)	1.8	9.8		3.5	18.9		0.0	29.3		0.0	18.5	
Ref Time Seperate (s)	1.8	9.0		3.5	17.5		4.1	21.6		3.5	12.1	
Reference Time (s)	9.8	9.8		18.9	18.9		29.3	29.3		18.5	18.5	
Adj Reference Time (s)	15.1	15.1		24.2	24.2		33.9	33.9		23.1	23.1	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	35.5		NA									
Permitted Option (s)	57.7		40.7									
Split Option (s)	39.3		57.0									
Minimum (s)	35.5		40.7		76.2							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			63.5%		ICU Level of Service				B			
Reference Times and Phasing Options do not represent an optimized timing plan.												



174: El Molino Ave. & Del Mar Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	600	74	75	923	51	63	298	69	40	183	34
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.8	4.8	4.0	4.8	4.8	4.0	4.1	4.1	4.0	4.1	4.1	4.0
Minimum Green (s)	10.0	10.0	4.0	10.0	10.0	4.0	8.0	8.0	4.0	8.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	43	674	0	75	974	0	0	430	0	0	257	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.99	0.85	0.95	0.97	0.85	0.95	0.97	0.85
Saturated Flow (vph)	1615	3183	0	1615	3211	0	0	1647	0	0	1653	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	3.2	25.4	0.0	5.6	36.4	0.0			0.0			0.0
Adj Reference Time (s)	14.8	30.2	0.0	14.8	41.2	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1592		108	1606		0	1252		0	1212	
Reference Time A (s)	47.9	25.4		83.6	36.4		0.0	41.2		0.0	25.4	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		47.9			83.6			41.2			25.4	
Adj Reference Time (s)		52.7			88.4			45.3			29.5	
Split Option												
Ref Time Combined (s)	3.2	25.4		5.6	36.4		0.0	31.3		0.0	18.7	
Ref Time Seperate (s)	3.2	22.6		5.6	34.5		4.7	21.6		3.0	13.2	
Reference Time (s)	25.4	25.4		36.4	36.4		31.3	31.3		18.7	18.7	
Adj Reference Time (s)	30.2	30.2		41.2	41.2		35.4	35.4		22.8	22.8	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	56.0		NA									
Permitted Option (s)	88.4		45.3									
Split Option (s)	71.4		58.2									
Minimum (s)	56.0		45.3		101.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	84.4%		ICU Level of Service		E							
Reference Times and Phasing Options do not represent an optimized timing plan.												

133: El Molino Ave. & Orange Grove Blvd.  
 Intersection Capacity Utilization

























Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Volume (vph)	30	411	66	49	730	37	32	78	27	53	152	67
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.0	5.3	5.3	4.0	4.9	4.9	4.0	4.9	4.9	4.0
Minimum Green (s)	10.0	10.0	4.0	10.0	10.0	4.0	7.0	7.0	4.0	7.0	7.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	30	477	0	49	767	0	0	137	0	0	272	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.99	0.85	0.95	0.96	0.85	0.95	0.95	0.85
Saturated Flow (vph)	1615	3170	0	1615	3213	0	0	1630	0	0	1621	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	2.2	18.1	0.0	3.6	28.6	0.0			0.0			0.0
Adj Reference Time (s)	15.3	23.4	0.0	15.3	33.9	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1585		108	1607		0	1140		0	1282	
Reference Time A (s)	33.4	18.1		54.6	28.6		0.0	14.4		0.0	25.5	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		0	0	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		11.9	28.1	
Reference Time (s)		33.4			54.6			14.4			25.5	
Adj Reference Time (s)		38.7			59.9			19.3			30.4	
Split Option												
Ref Time Combined (s)	2.2	18.1		3.6	28.6		0.0	10.1		0.0	20.1	
Ref Time Seperate (s)	2.2	15.6		3.6	27.3		2.4	5.7		3.9	11.2	
Reference Time (s)	18.1	18.1		28.6	28.6		10.1	10.1		20.1	20.1	
Adj Reference Time (s)	23.4	23.4		33.9	33.9		15.0	15.0		25.0	25.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	49.2		NA									
Permitted Option (s)	59.9		30.4									
Split Option (s)	57.3		40.0									
Minimum (s)	49.2		30.4		79.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	66.3%		ICU Level of Service					C				
Reference Times and Phasing Options do not represent an optimized timing plan.												

322: Bonnie Ave. & Colorado Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	309	206	126	922	28	107	46	65	12	270	31
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	4.2	4.6	4.6	4.2	4.6	4.0
Minimum Green (s)	8.0	8.0	8.0	8.0	8.0	8.0	9.0	9.0	9.0	9.0	9.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	11	309	206	126	922	28	107	46	65	12	301	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.98	0.85
Saturated Flow (vph)	1615	3237	1445	1615	3237	1445	3136	1700	1445	1615	3187	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	Yes			Yes			Yes			Yes		
Reference Time (s)	0.8	11.5	17.1	9.4	34.2	2.3	4.1	3.2	5.4	0.9	11.3	0.0
Adj Reference Time (s)	12.9	16.4	22.0	14.3	39.1	12.9	13.2	13.6	13.6	13.2	15.9	0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		108	1618		105	1700		108	1593	
Reference Time A (s)	12.3	11.5		140.4	34.2		61.4	3.2		13.4	11.3	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		0	3187	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		8.9	11.3	
Reference Time (s)		12.3			140.4			61.4			11.3	
Adj Reference Time (s)		17.2			145.3			66.0			15.9	
Split Option												
Ref Time Combined (s)	0.8	11.5		9.4	34.2		4.1	3.2		0.9	11.3	
Ref Time Separate (s)	0.8	11.5		9.4	34.2		4.1	3.2		0.9	10.2	
Reference Time (s)	11.5	11.5		34.2	34.2		4.1	4.1		11.3	11.3	
Adj Reference Time (s)	16.4	16.4		39.1	39.1		13.6	13.6		15.9	15.9	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	52.0		29.1									
Permitted Option (s)	145.3		66.0									
Split Option (s)	55.4		29.5									
Minimum (s)	52.0		29.1		81.1							
Right Turns												
	EBR	WBR	NBR									
Adj Reference Time (s)	22.0	12.9	13.6									
Cross Thru Ref Time (s)	15.9	13.6	16.4									
Oncoming Left Ref Time (s)	14.3	12.9	13.2									
Combined (s)	52.2	39.4	43.2									
Intersection Summary												
Intersection Capacity Utilization			67.6%		ICU Level of Service				C			
Reference Times and Phasing Options do not represent an optimized timing plan.												

61: Catalina Ave. & Washington Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Volume (vph)	17	818	17	18	915	40	12	44	19	58	45	41
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.0	5.3	5.3	4.0	5.3	5.3	4.0	5.3	5.3	4.0
Minimum Green (s)	7.0	7.0	4.0	7.0	7.0	4.0	8.0	8.0	4.0	8.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	852	0	0	973	0	0	75	0	0	144	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.95	0.85	0.95	0.94	0.85
Saturated Flow (vph)	0	3224	0	0	3214	0	0	1622	0	0	1595	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No		No			No			No			
Reference Time (s)	0.0		0.0			0.0			0.0			
Adj Reference Time (s)	0.0		0.0			0.0			0.0			
Permitted Option												
Adj Saturation A (vph)	0	993	0	1022	0	1524	0	758	0	758	0	758
Reference Time A (s)	0.0	47.4	0.0	52.9	0.0	5.9	0.0	22.8	0.0	22.8	0.0	22.8
Adj Saturation B (vph)	NA	NA	NA	NA	0	0	0	0	0	0	0	0
Reference Time B (s)	NA	NA	NA	NA	8.9	13.5	12.3	18.8	12.3	18.8	12.3	18.8
Reference Time (s)	47.4		52.9			5.9			18.8			
Adj Reference Time (s)	52.7		58.2			13.3			24.1			
Split Option												
Ref Time Combined (s)	0.0	31.7	0.0	36.3	0.0	5.5	0.0	10.8	0.0	10.8	0.0	10.8
Ref Time Seperate (s)	1.3	30.4	1.3	34.1	0.9	3.3	4.3	3.4	4.3	3.4	4.3	3.4
Reference Time (s)	31.7	31.7	36.3	36.3	5.5	5.5	10.8	10.8	10.8	10.8	10.8	10.8
Adj Reference Time (s)	37.0	37.0	41.6	41.6	13.3	13.3	16.1	16.1	16.1	16.1	16.1	16.1
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	58.2		24.1									
Split Option (s)	78.6		29.4									
Minimum (s)	58.2		24.1		82.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	68.6%		ICU Level of Service						C			
Reference Times and Phasing Options do not represent an optimized timing plan.												

295: Colorado Blvd. & Sierra Bonita Ave.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	29	483	1004	59	45	35
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.9	4.9	4.6	4.0
Minimum Green (s)	10.0	10.0	10.0	10.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	29	483	1004	59	80	0
Lane Utilization Factor	1.00	0.95	0.95	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.91	0.85
Saturated Flow (vph)	1615	3237	3237	1445	1544	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	2.2	17.9	37.2	4.9		0.0
Adj Reference Time (s)	14.9	22.8	42.1	14.9		0.0
Permitted Option						
Adj Saturation A (vph)	108	1618	1618		103	
Reference Time A (s)	32.3	17.9	37.2		93.3	
Adj Saturation B (vph)	NA	NA	NA		NA	
Reference Time B (s)	NA	NA	NA		NA	
Reference Time (s)		32.3	37.2			
Adj Reference Time (s)		37.2	42.1			
Split Option						
Ref Time Combined (s)	2.2	17.9	37.2		6.2	
Ref Time Seperate (s)	2.2	17.9	37.2		3.5	
Reference Time (s)	17.9	17.9	37.2		6.2	
Adj Reference Time (s)	22.8	22.8	42.1		12.6	
Summary	EB WB		SB		Combined	
Protected Option (s)	57.0		NA			
Permitted Option (s)	42.1		Err			
Split Option (s)	64.9		12.6			
Minimum (s)	42.1		12.6		54.7	
Right Turns	WBR					
Adj Reference Time (s)	14.9					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	14.9					
Combined (s)	29.8					

**Intersection Summary**  
 Intersection Capacity Utilization 45.6% ICU Level of Service A  
 Reference Times and Phasing Options do not represent an optimized timing plan.

357: Craig Ave. & Colorado Blvd.  
Intersection Capacity Utilization

Existing Conditions  
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	393	16	30	1089	63	15	50	25	13	67	33
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.9	4.9	4.9	4.0	4.6	4.6	4.0	4.6	4.6	4.0
Minimum Green (s)	10.0	10.0	10.0	10.0	10.0	4.0	9.0	9.0	4.0	9.0	9.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	21	393	16	30	1152	0	0	90	0	0	113	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.95	0.85	0.95	0.95	0.85
Saturated Flow (vph)	1615	3237	1445	1615	3210	0	0	1616	0	0	1616	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	1.6	14.6	1.3	2.2	43.1	0.0			0.0			0.0
Adj Reference Time (s)	14.9	19.5	14.9	14.9	48.0	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		108	1605		0	1070		0	1328	
Reference Time A (s)	23.4	14.6		33.4	43.1		0.0	10.1		0.0	10.2	
Adj Saturation B (vph)	NA	NA		NA	NA		0	0		0	0	
Reference Time B (s)	NA	NA		NA	NA		9.1	14.7		9.0	16.4	
Reference Time (s)		23.4			43.1			10.1			10.2	
Adj Reference Time (s)		28.3			48.0			14.7			14.8	
Split Option												
Ref Time Combined (s)	1.6	14.6		2.2	43.1		0.0	6.7		0.0	8.4	
Ref Time Seperate (s)	1.6	14.6		2.2	40.7		1.1	3.7		1.0	5.0	
Reference Time (s)	14.6	14.6		43.1	43.1		6.7	6.7		8.4	8.4	
Adj Reference Time (s)	19.5	19.5		48.0	48.0		13.6	13.6		13.6	13.6	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	62.9		NA									
Permitted Option (s)	48.0		14.8									
Split Option (s)	67.4		27.2									
Minimum (s)	48.0		14.8		62.8							
Right Turns												
	EBR											
Adj Reference Time (s)	14.9											
Cross Thru Ref Time (s)	13.6											
Oncoming Left Ref Time (s)	14.9											
Combined (s)	43.4											
Intersection Summary												
Intersection Capacity Utilization			52.3%		ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

347: Craig Ave. & Foothill Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.0	5.3	5.3	4.0	4.6	4.6	4.0	4.6	4.6	4.0
Minimum Green (s)	6.0	6.0	4.0	6.0	6.0	4.0	8.0	8.0	4.0	8.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3237	0	1615	3237	0	0	1700	0	0	1700	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0			0.0
Adj Reference Time (s)	11.3	11.3	0.0	11.3	11.3	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		108	1618		0	1700		0	1700	
Reference Time A (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Adj Saturation B (vph)	0	3237		0	3237		0	1700		0	1700	
Reference Time B (s)	8.0	0.0		8.0	0.0		0.0	0.0		0.0	0.0	
Reference Time (s)		0.0			0.0			0.0			0.0	
Adj Reference Time (s)		11.3			11.3			12.6			12.6	
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Ref Time Seperate (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Reference Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Adj Reference Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	22.6		NA									
Permitted Option (s)	11.3		12.6									
Split Option (s)	0.0		0.0									
Minimum (s)	0.0		0.0		0.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			0.0%		ICU Level of Service		A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

182: El Molino Ave. & California Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	79	815	25	0	865	55	42	287	87	28	146	54
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.0	4.0	5.3	4.0	3.9	3.9	4.0	3.9	3.9	3.9
Minimum Green (s)	5.0	5.0	4.0	4.0	5.0	4.0	8.0	8.0	4.0	8.0	8.0	8.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	79	840	0	0	920	0	0	416	0	0	174	54
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.96	0.85	0.95	0.99	0.85
Saturated Flow (vph)	1615	3222	0	0	3208	0	0	1638	0	0	1686	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	5.9	31.3	0.0	0.0	34.4	0.0			0.0			4.5
Adj Reference Time (s)	11.2	36.6	0.0	0.0	39.7	0.0			0.0			12.0
Permitted Option												
Adj Saturation A (vph)	108	1611		0	1604		0	658		0	1085	
Reference Time A (s)	88.0	31.3		0.0	34.4		0.0	75.8		0.0	19.2	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		88.0			34.4			75.8			19.2	
Adj Reference Time (s)		93.3			39.7			79.8			23.2	
Split Option												
Ref Time Combined (s)	5.9	31.3		0.0	34.4		0.0	30.5		0.0	12.4	
Ref Time Seperate (s)	5.9	30.4		0.0	32.4		3.1	21.0		2.1	10.3	
Reference Time (s)	31.3	31.3		34.4	34.4		30.5	30.5		12.4	12.4	
Adj Reference Time (s)	36.6	36.6		39.7	39.7		34.5	34.5		16.4	16.4	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	50.9		NA									
Permitted Option (s)	93.3		79.8									
Split Option (s)	76.3		50.9									
Minimum (s)	50.9		50.9		101.7							
Right Turns												
	SBR											
Adj Reference Time (s)	12.0											
Cross Thru Ref Time (s)	39.7											
Oncoming Left Ref Time (s)	34.5											
Combined (s)	86.2											
Intersection Summary												
Intersection Capacity Utilization			84.8%		ICU Level of Service		E					
Reference Times and Phasing Options do not represent an optimized timing plan.												



170: El Molino Ave. & Cordova St.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	239	21	47	467	38	55	299	50	47	167	40
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.0	5.3	5.3	4.0	4.6	4.6	4.0	4.6	4.6	4.0
Minimum Green (s)	6.0	6.0	4.0	6.0	6.0	4.0	8.0	8.0	4.0	8.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	24	260	0	47	505	0	0	404	0	0	254	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	0.99	0.85	0.95	0.97	0.85	0.95	0.97	0.85
Saturated Flow (vph)	1615	3198	0	1615	3200	0	0	1657	0	0	1644	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	1.8	9.8	0.0	3.5	18.9	0.0			0.0			0.0
Adj Reference Time (s)	11.3	15.1	0.0	11.3	24.2	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1599		108	1600		0	1345		0	1106	
Reference Time A (s)	26.7	9.8		52.4	18.9		0.0	36.1		0.0	27.6	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		26.7			52.4			36.1			27.6	
Adj Reference Time (s)		32.0			57.7			40.7			32.2	
Split Option												
Ref Time Combined (s)	1.8	9.8		3.5	18.9		0.0	29.3		0.0	18.5	
Ref Time Seperate (s)	1.8	9.0		3.5	17.5		4.1	21.6		3.5	12.1	
Reference Time (s)	9.8	9.8		18.9	18.9		29.3	29.3		18.5	18.5	
Adj Reference Time (s)	15.1	15.1		24.2	24.2		33.9	33.9		23.1	23.1	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	35.5		NA									
Permitted Option (s)	57.7		40.7									
Split Option (s)	39.3		57.0									
Minimum (s)	35.5		40.7		76.2							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			63.5%		ICU Level of Service		B					
Reference Times and Phasing Options do not represent an optimized timing plan.												

174: El Molino Ave. & Del Mar Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	600	74	75	923	51	63	298	69	40	183	34
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.8	4.8	4.0	4.8	4.8	4.0	4.1	4.1	4.0	4.1	4.1	4.0
Minimum Green (s)	10.0	10.0	4.0	10.0	10.0	4.0	8.0	8.0	4.0	8.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	43	674	0	75	974	0	0	430	0	0	257	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.99	0.85	0.95	0.97	0.85	0.95	0.97	0.85
Saturated Flow (vph)	1615	3183	0	1615	3211	0	0	1647	0	0	1653	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	Yes			Yes			No			No		
Reference Time (s)	3.2	25.4	0.0	5.6	36.4	0.0			0.0			0.0
Adj Reference Time (s)	14.8	30.2	0.0	14.8	41.2	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1592		108	1606		0	1252		0	1212	
Reference Time A (s)	47.9	25.4		83.6	36.4		0.0	41.2		0.0	25.4	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		47.9			83.6			41.2			25.4	
Adj Reference Time (s)		52.7			88.4			45.3			29.5	
Split Option												
Ref Time Combined (s)	3.2	25.4		5.6	36.4		0.0	31.3		0.0	18.7	
Ref Time Seperate (s)	3.2	22.6		5.6	34.5		4.7	21.6		3.0	13.2	
Reference Time (s)	25.4	25.4		36.4	36.4		31.3	31.3		18.7	18.7	
Adj Reference Time (s)	30.2	30.2		41.2	41.2		35.4	35.4		22.8	22.8	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	56.0		NA									
Permitted Option (s)	88.4		45.3									
Split Option (s)	71.4		58.2									
Minimum (s)	56.0		45.3		101.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	84.4%		ICU Level of Service						E			
Reference Times and Phasing Options do not represent an optimized timing plan.												

133: El Molino Ave. & Orange Grove Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	411	66	49	730	37	32	78	27	53	152	67
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.0	5.3	5.3	4.0	4.9	4.9	4.0	4.9	4.9	4.0
Minimum Green (s)	10.0	10.0	4.0	10.0	10.0	4.0	7.0	7.0	4.0	7.0	7.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	30	477	0	49	767	0	0	137	0	0	272	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.99	0.85	0.95	0.96	0.85	0.95	0.95	0.85
Saturated Flow (vph)	1615	3170	0	1615	3213	0	0	1630	0	0	1621	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	2.2	18.1	0.0	3.6	28.6	0.0			0.0			0.0
Adj Reference Time (s)	15.3	23.4	0.0	15.3	33.9	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1585		108	1607		0	1140		0	1282	
Reference Time A (s)	33.4	18.1		54.6	28.6		0.0	14.4		0.0	25.5	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		0	0	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		11.9	28.1	
Reference Time (s)		33.4			54.6			14.4			25.5	
Adj Reference Time (s)		38.7			59.9			19.3			30.4	
Split Option												
Ref Time Combined (s)	2.2	18.1		3.6	28.6		0.0	10.1		0.0	20.1	
Ref Time Seperate (s)	2.2	15.6		3.6	27.3		2.4	5.7		3.9	11.2	
Reference Time (s)	18.1	18.1		28.6	28.6		10.1	10.1		20.1	20.1	
Adj Reference Time (s)	23.4	23.4		33.9	33.9		15.0	15.0		25.0	25.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	49.2		NA									
Permitted Option (s)	59.9		30.4									
Split Option (s)	57.3		40.0									
Minimum (s)	49.2		30.4		79.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			66.3%			ICU Level of Service			C			
Reference Times and Phasing Options do not represent an optimized timing plan.												

246: Hudson Ave. & California Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	189	732	11	0	835	122	23	44	8	0	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.0	4.0	4.9	4.0	4.9	4.9	4.0	4.0	4.0	4.0
Minimum Green (s)	6.0	6.0	4.0	4.0	6.0	4.0	7.0	7.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	189	743	0	0	957	0	0	75	0	0	0	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.98	0.85	0.95	0.97	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3230	0	0	3175	0	0	1647	0	0	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	14.0	27.6	0.0	0.0	36.2	0.0			0.0			0.0
Adj Reference Time (s)	18.9	32.5	0.0	0.0	41.1	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1615		0	1587		0	287		0	0	
Reference Time A (s)	210.7	27.6		0.0	36.2		0.0	31.4		0.0	0.0	
Adj Saturation B (vph)	NA	NA		NA	NA		0	0		0	0	
Reference Time B (s)	NA	NA		NA	NA		9.7	13.5		0.0	0.0	
Reference Time (s)		210.7			36.2			13.5			0.0	
Adj Reference Time (s)		215.6			41.1			18.4			8.0	
Split Option												
Ref Time Combined (s)	14.0	27.6		0.0	36.2		0.0	5.5		0.0	0.0	
Ref Time Seperate (s)	14.0	27.2		0.0	31.6		1.7	3.2		0.0	0.0	
Reference Time (s)	27.6	27.6		36.2	36.2		5.5	5.5		0.0	0.0	
Adj Reference Time (s)	32.5	32.5		41.1	41.1		11.9	11.9		0.0	0.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	60.0		NA									
Permitted Option (s)	215.6		18.4									
Split Option (s)	73.6		11.9									
Minimum (s)	60.0		11.9		71.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			59.9%		ICU Level of Service		B					
Reference Times and Phasing Options do not represent an optimized timing plan.												

241: Hudson Ave. & Cordova St.  
Intersection Capacity Utilization





















Existing Conditions  
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	262	0	0	509	133	47	318	50	0	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	3.9	3.9	4.0	4.0	3.9	4.0	3.2	3.2	3.9	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	42	262	0	0	642	0	0	365	50	0	0	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.97	0.85	0.95	0.99	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3237	0	0	3136	0	0	3216	1445	0	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	3.1	9.7	0.0	0.0	24.6	0.0			4.2			0.0
Adj Reference Time (s)	8.0	13.7	0.0	0.0	28.6	0.0			8.2			0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		0	1568		0	175		0	0	
Reference Time A (s)	46.8	9.7		0.0	24.6		0.0	60.8		0.0	0.0	
Adj Saturation B (vph)	NA	NA		NA	NA		0	1618		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		11.5	17.6		NA	NA	
Reference Time (s)		46.8			24.6			17.6			0.0	
Adj Reference Time (s)		50.8			28.6			21.6			8.0	
Split Option												
Ref Time Combined (s)	3.1	9.7		0.0	24.6		0.0	13.6		0.0	0.0	
Ref Time Separate (s)	3.1	9.7		0.0	19.5		3.5	11.8		0.0	0.0	
Reference Time (s)	9.7	9.7		24.6	24.6		13.6	13.6		0.0	0.0	
Adj Reference Time (s)	13.7	13.7		28.6	28.6		17.6	17.6		0.0	0.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	36.6		NA									
Permitted Option (s)	50.8		21.6									
Split Option (s)	42.3		17.6									
Minimum (s)	36.6		17.6		54.2							
Right Turns												
	NBR											
Adj Reference Time (s)	8.2											
Cross Thru Ref Time (s)	13.7											
Oncoming Left Ref Time (s)	0.0											
Combined (s)	21.9											
Intersection Summary												
Intersection Capacity Utilization			45.2%		ICU Level of Service		A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

243: Hudson Ave. & Del Mar Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Volume (vph)	69	649	0	0	993	116	88	237	159	0	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.3	4.3	4.0	4.0	4.3	4.0	3.6	3.6	3.6	4.0	4.0	4.0
Minimum Green (s)	10.0	10.0	4.0	4.0	10.0	4.0	8.0	8.0	8.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	69	649	0	0	1109	0	0	325	159	0	0	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.98	0.85	0.95	0.99	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3237	0	0	3186	0	0	3193	1445	0	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00				0.00				0.00			
Protected Option Allowed	Yes			Yes			No			No		
Reference Time (s)	5.1	24.1	0.0	0.0	41.8	0.0			13.2			0.0
Adj Reference Time (s)	14.3	28.4	0.0	0.0	46.1	0.0			17.2			0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		0	1593		0	106		0	0	
Reference Time A (s)	76.9	24.1		0.0	41.8		0.0	99.2		0.0	0.0	
Adj Saturation B (vph)	NA	NA		NA	NA		0	1618		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		14.5	16.2		NA	NA	
Reference Time (s)		76.9			41.8			16.2			0.0	
Adj Reference Time (s)		81.2			46.1			20.2			8.0	
Split Option												
Ref Time Combined (s)	5.1	24.1		0.0	41.8		0.0	12.2		0.0	0.0	
Ref Time Separate (s)	5.1	24.1		0.0	37.4		6.5	8.8		0.0	0.0	
Reference Time (s)	24.1	24.1		41.8	41.8		12.2	12.2		0.0	0.0	
Adj Reference Time (s)	28.4	28.4		46.1	46.1		16.2	16.2		0.0	0.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	60.4		NA									
Permitted Option (s)	81.2		20.2									
Split Option (s)	74.4		16.2									
Minimum (s)	60.4		16.2		76.6							
Right Turns	NBR											
Adj Reference Time (s)	17.2											
Cross Thru Ref Time (s)	28.4											
Oncoming Left Ref Time (s)	0.0											
Combined (s)	45.6											

Intersection Summary

Intersection Capacity Utilization 63.8% ICU Level of Service B  
 Reference Times and Phasing Options do not represent an optimized timing plan.

221: Lake Ave. & Orange Grove Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Volume (vph)	102	355	73	133	555	75	59	569	43	129	1045	209
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	3.2	6.3	4.0	3.2	6.3	4.0	3.2	6.3	6.3	3.2	6.3	6.3
Minimum Green (s)	7.0	7.0	4.0	7.0	7.0	4.0	7.0	10.0	10.0	7.0	10.0	10.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	102	428	0	133	630	0	59	569	43	129	1045	209
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.98	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3154	0	1615	3179	0	1615	3237	1445	1615	3237	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			Yes			Yes	
Reference Time (s)	7.6	16.3	0.0	9.9	23.8	0.0	4.4	21.1	3.6	9.6	38.7	17.4
Adj Reference Time (s)	11.6	22.6	0.0	13.9	30.1	0.0	11.0	27.4	16.3	13.6	45.0	23.7
Permitted Option												
Adj Saturation A (vph)	108	1577		108	1589		108	1618		108	1618	
Reference Time A (s)	113.7	16.3		148.2	23.8		65.8	21.1		143.8	38.7	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		113.7			148.2			65.8			143.8	
Adj Reference Time (s)		120.0			154.5			72.1			150.1	
Split Option												
Ref Time Combined (s)	7.6	16.3		9.9	23.8		4.4	21.1		9.6	38.7	
Ref Time Seperate (s)	7.6	13.5		9.9	20.9		4.4	21.1		9.6	38.7	
Reference Time (s)	16.3	16.3		23.8	23.8		21.1	21.1		38.7	38.7	
Adj Reference Time (s)	22.6	22.6		30.1	30.1		27.4	27.4		45.0	45.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	41.7		56.0									
Permitted Option (s)	154.5		150.1									
Split Option (s)	52.7		72.4									
Minimum (s)	41.7		56.0		97.7							
Right Turns												
	NBR		SBR									
Adj Reference Time (s)	16.3		23.7									
Cross Thru Ref Time (s)	22.6		30.1									
Oncoming Left Ref Time (s)	13.6		11.0									
Combined (s)	52.5		64.7									
Intersection Summary												
Intersection Capacity Utilization			81.4%		ICU Level of Service				D			
Reference Times and Phasing Options do not represent an optimized timing plan.												

235: Los Robles Ave. & California Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak
























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	78	808	34	0	960	62	20	368	79	29	311	87
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.9	5.9	4.0	4.0	5.9	4.0	3.9	3.9	3.9	3.9	3.9	3.9
Minimum Green (s)	6.0	6.0	4.0	4.0	6.0	4.0	8.0	8.0	8.0	8.0	8.0	8.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	78	842	0	0	1022	0	0	388	79	0	340	87
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	0.99	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3217	0	0	3207	0	0	1696	1445	0	1693	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	5.8	31.4	0.0	0.0	38.2	0.0			6.6			7.2
Adj Reference Time (s)	11.9	37.3	0.0	0.0	44.1	0.0			12.0			12.0
Permitted Option												
Adj Saturation A (vph)	108	1609		0	1604		0	973		0	753	
Reference Time A (s)	86.9	31.4		0.0	38.2		0.0	47.9		0.0	54.2	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		86.9			38.2			47.9			54.2	
Adj Reference Time (s)		92.8			44.1			51.9			58.2	
Split Option												
Ref Time Combined (s)	5.8	31.4		0.0	38.2		0.0	27.5		0.0	24.1	
Ref Time Seperate (s)	5.8	30.1		0.0	35.9		1.5	26.0		2.2	22.0	
Reference Time (s)	31.4	31.4		38.2	38.2		27.5	27.5		24.1	24.1	
Adj Reference Time (s)	37.3	37.3		44.1	44.1		31.5	31.5		28.1	28.1	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	56.0		NA									
Permitted Option (s)	92.8		58.2									
Split Option (s)	81.4		59.6									
Minimum (s)	56.0		58.2		114.3							
Right Turns												
	NBR		SBR									
Adj Reference Time (s)	12.0		12.0									
Cross Thru Ref Time (s)	37.3		44.1									
Oncoming Left Ref Time (s)	28.1		31.5									
Combined (s)	77.4		87.6									
Intersection Summary												
Intersection Capacity Utilization			95.2%		ICU Level of Service				F			
Reference Times and Phasing Options do not represent an optimized timing plan.												

























223: Los Robles Ave. & Cordova St.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	35	173	7	54	346	107	35	595	57	108	358	109	
Pedestrians													
Ped Button													
Pedestrian Timing (s)													
Free Right			No			No			No			No	
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	
Lost Time (s)	6.3	6.3	4.0	6.3	6.3	4.0	3.9	3.9	4.0	3.9	3.9	3.9	
Minimum Green (s)	6.0	6.0	4.0	6.0	6.0	4.0	8.0	8.0	4.0	8.0	8.0	8.0	
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120	
Volume Combined (vph)	35	180	0	54	453	0	35	652	0	108	358	109	
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	
Turning Factor (vph)	0.95	0.99	0.85	0.95	0.96	0.85	0.95	0.99	0.85	0.95	1.00	0.85	
Saturated Flow (vph)	1615	3218	0	1615	3122	0	1615	3194	0	1615	1700	1445	
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00		
Protected Option Allowed		Yes			Yes			Yes			Yes		
Reference Time (s)	2.6	6.7	0.0	4.0	17.4	0.0	2.6	24.5	0.0	8.0	25.3	9.1	
Adj Reference Time (s)	12.3	13.0	0.0	12.3	23.7	0.0	12.0	28.5	0.0	12.0	29.3	13.1	
Permitted Option													
Adj Saturation A (vph)	108	1609		108	1561		108	1597		108	1700		
Reference Time A (s)	39.0	6.7		60.2	17.4		39.0	24.5		120.4	25.3		
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA		
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA		
Reference Time (s)		39.0			60.2			39.0			120.4		
Adj Reference Time (s)		45.3			66.5			43.0			124.4		
Split Option													
Ref Time Combined (s)	2.6	6.7		4.0	17.4		2.6	24.5		8.0	25.3		
Ref Time Seperate (s)	2.6	6.5		4.0	13.3		2.6	22.4		8.0	25.3		
Reference Time (s)	6.7	6.7		17.4	17.4		24.5	24.5		25.3	25.3		
Adj Reference Time (s)	13.0	13.0		23.7	23.7		28.5	28.5		29.3	29.3		
Summary													
	EB WB		NB SB		Combined								
Protected Option (s)	36.0		41.3										
Permitted Option (s)	66.5		124.4										
Split Option (s)	36.7		57.8										
Minimum (s)	36.0		41.3		77.3								
Right Turns													
	SBR												
Adj Reference Time (s)	13.1												
Cross Thru Ref Time (s)	23.7												
Oncoming Left Ref Time (s)	12.0												
Combined (s)	48.8												
Intersection Summary													
Intersection Capacity Utilization			64.4%		ICU Level of Service						C		
Reference Times and Phasing Options do not represent an optimized timing plan.													

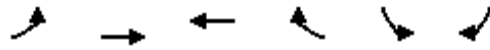
230: Los Robles Ave. & Del Mar Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	72	560	28	71	880	183	66	441	42	53	298	59
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	3.2	6.3	4.0	6.3	6.3	4.0	5.9	5.9	5.9	5.9	5.9	3.2
Minimum Green (s)	5.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	6.0	6.0	6.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	72	588	0	71	1063	0	66	441	42	53	298	59
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	0.97	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3214	0	1615	3153	0	1615	1700	1445	1615	1700	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	Yes			Yes			Yes			Yes		
Reference Time (s)	5.3	22.0	0.0	5.3	40.5	0.0	4.9	31.1	3.5	3.9	21.0	4.9
Adj Reference Time (s)	9.3	28.3	0.0	12.3	46.8	0.0	11.9	37.0	11.9	11.9	26.9	9.0
Permitted Option												
Adj Saturation A (vph)	108	1607		108	1577		108	1700		108	1700	
Reference Time A (s)	80.2	22.0		79.1	40.5		73.6	31.1		59.1	21.0	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)	80.2			79.1			73.6			59.1		
Adj Reference Time (s)	86.5			85.4			79.5			65.0		
Split Option												
Ref Time Combined (s)	5.3	22.0		5.3	40.5		4.9	31.1		3.9	21.0	
Ref Time Seperate (s)	5.3	20.9		5.3	33.5		4.9	31.1		3.9	21.0	
Reference Time (s)	22.0	22.0		40.5	40.5		31.1	31.1		21.0	21.0	
Adj Reference Time (s)	28.3	28.3		46.8	46.8		37.0	37.0		26.9	26.9	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	56.1		48.9									
Permitted Option (s)	86.5		79.5									
Split Option (s)	75.0		64.0									
Minimum (s)	56.1		48.9		105.0							
Right Turns												
	NBR		SBR									
Adj Reference Time (s)	11.9		9.0									
Cross Thru Ref Time (s)	28.3		46.8									
Oncoming Left Ref Time (s)	11.9		11.9									
Combined (s)	52.1		67.7									
Intersection Summary												
Intersection Capacity Utilization			87.5%		ICU Level of Service				E			
Reference Times and Phasing Options do not represent an optimized timing plan.												

319: Colorado Blvd. & Marion Ave.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	52	509	1017	26	8	58
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.9	4.9	4.6	4.0
Minimum Green (s)	10.0	10.0	10.0	10.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	52	509	1017	26	66	0
Lane Utilization Factor	1.00	0.95	0.95	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.86	0.85
Saturated Flow (vph)	1615	3237	3237	1445	1467	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	3.9	18.9	37.7	2.2		0.0
Adj Reference Time (s)	14.9	23.8	42.6	14.9		0.0
Permitted Option						
Adj Saturation A (vph)	108	1618	1618		98	
Reference Time A (s)	58.0	18.9	37.7		81.0	
Adj Saturation B (vph)	NA	NA	NA		NA	
Reference Time B (s)	NA	NA	NA		NA	
Reference Time (s)		58.0	37.7			
Adj Reference Time (s)		62.9	42.6			
Split Option						
Ref Time Combined (s)	3.9	18.9	37.7		5.4	
Ref Time Seperate (s)	3.9	18.9	37.7		0.7	
Reference Time (s)	18.9	18.9	37.7		5.4	
Adj Reference Time (s)	23.8	23.8	42.6		12.6	
Summary	EB WB		SB		Combined	
Protected Option (s)	57.5		NA			
Permitted Option (s)	62.9		Err			
Split Option (s)	66.4		12.6			
Minimum (s)	57.5		12.6		70.1	
Right Turns	WBR					
Adj Reference Time (s)	14.9					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	14.9					
Combined (s)	29.8					

Intersection Summary

Intersection Capacity Utilization 58.4% ICU Level of Service B  
 Reference Times and Phasing Options do not represent an optimized timing plan.

69: Orange Grove Blvd. & Madison Ave.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	24	461	803	35	46	103
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.6	4.0	4.6	4.0
Minimum Green (s)	6.0	6.0	4.0	4.0	7.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	24	461	838	0	149	0
Lane Utilization Factor	1.00	0.95	0.95	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.99	0.85	0.88	0.85
Saturated Flow (vph)	1615	3237	3217	0	1500	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	1.8	17.1	31.3	0.0		0.0
Adj Reference Time (s)	11.3	22.4	35.9	0.0		0.0
Permitted Option						
Adj Saturation A (vph)	108	1618	1608		100	
Reference Time A (s)	26.7	17.1	31.3		178.8	
Adj Saturation B (vph)	NA	NA	NA		NA	
Reference Time B (s)	NA	NA	NA		NA	
Reference Time (s)		26.7	31.3			
Adj Reference Time (s)		32.0	35.9			
Split Option						
Ref Time Combined (s)	1.8	17.1	31.3		11.9	
Ref Time Seperate (s)	1.8	17.1	30.0		3.7	
Reference Time (s)	17.1	17.1	31.3		11.9	
Adj Reference Time (s)	22.4	22.4	35.9		16.5	
Summary						
	EB WB		SB		Combined	
Protected Option (s)	47.2		NA			
Permitted Option (s)	35.9		Err			
Split Option (s)	58.3		16.5			
Minimum (s)	35.9		16.5		52.4	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization			43.7%		ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.

254: Sierra Bonita Ave. & Washington Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Volume (vph)	3	782	33	14	990	12	85	4	25	18	17	14
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.3	4.3	4.0	4.3	4.3	4.0	3.6	3.6	4.0	3.6	3.6	4.0
Minimum Green (s)	8.0	8.0	4.0	8.0	8.0	4.0	9.0	9.0	4.0	9.0	9.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	818	0	0	1016	0	0	114	0	0	49	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.94	0.85
Saturated Flow (vph)	0	3217	0	0	3229	0	0	1583	0	0	1597	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No		No			No			No			
Reference Time (s)	0.0		0.0			0.0			0.0			
Adj Reference Time (s)	0.0		0.0			0.0			0.0			
Permitted Option												
Adj Saturation A (vph)	0	1456	0	1140	0	840	0	1626	0	1626	0	1626
Reference Time A (s)	0.0	33.2	0.0	50.5	0.0	16.3	0.0	3.6	0.0	3.6	0.0	3.6
Adj Saturation B (vph)	NA	NA	NA	NA	0	0	0	0	0	0	0	0
Reference Time B (s)	NA	NA	NA	NA	14.3	16.6	9.3	11.7	9.3	11.7	9.3	11.7
Reference Time (s)	33.2		50.5			16.3			3.6			
Adj Reference Time (s)	37.5		54.8			20.3			13.0			
Split Option												
Ref Time Combined (s)	0.0	30.5	0.0	37.8	0.0	8.6	0.0	3.7	0.0	3.7	0.0	3.7
Ref Time Seperate (s)	0.2	29.2	1.0	36.8	6.3	0.3	1.3	1.3	1.3	1.3	1.3	1.3
Reference Time (s)	30.5	30.5	37.8	37.8	8.6	8.6	3.7	3.7	3.7	3.7	3.7	3.7
Adj Reference Time (s)	34.8	34.8	42.1	42.1	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	54.8		20.3									
Split Option (s)	76.9		26.0									
Minimum (s)	54.8		20.3		75.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	62.6%		ICU Level of Service						B			
Reference Times and Phasing Options do not represent an optimized timing plan.												

15: Wilson Ave. & Orange Grove Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	438	49	39	664	3	33	15	15	1	94	17
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.7	4.7	4.0	4.7	4.7	4.0	3.6	3.6	4.0	3.6	3.6	4.0
Minimum Green (s)	10.0	10.0	4.0	10.0	10.0	4.0	10.0	10.0	4.0	10.0	10.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	487	0	39	667	0	0	63	0	0	112	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	1.00	0.85	0.95	0.94	0.85	0.95	0.98	0.85
Saturated Flow (vph)	1615	3188	0	1615	3235	0	0	1596	0	0	1661	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	0.0	18.3	0.0	2.9	24.7	0.0			0.0			0.0
Adj Reference Time (s)	14.7	23.0	0.0	14.7	29.4	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1594		108	1617		0	204		0	1662	
Reference Time A (s)	0.0	18.3		43.5	24.7		0.0	37.0		0.0	8.1	
Adj Saturation B (vph)	NA	NA		NA	NA		0	0		0	0	
Reference Time B (s)	NA	NA		NA	NA		10.5	12.7		8.1	16.1	
Reference Time (s)		18.3			43.5			12.7			8.1	
Adj Reference Time (s)		23.0			48.2			16.7			14.0	
Split Option												
Ref Time Combined (s)	0.0	18.3		2.9	24.7		0.0	4.7		0.0	8.1	
Ref Time Seperate (s)	0.0	16.5		2.9	24.6		2.5	1.1		0.1	6.8	
Reference Time (s)	18.3	18.3		24.7	24.7		4.7	4.7		8.1	8.1	
Adj Reference Time (s)	23.0	23.0		29.4	29.4		14.0	14.0		14.0	14.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	44.1		NA									
Permitted Option (s)	48.2		16.7									
Split Option (s)	52.5		28.0									
Minimum (s)	44.1		16.7		60.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	50.7%		ICU Level of Service					A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

246: Hudson Ave. & California Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	189	732	11	0	835	122	23	44	8	0	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.0	4.0	4.9	4.0	4.9	4.9	4.0	4.0	4.0	4.0
Minimum Green (s)	6.0	6.0	4.0	4.0	6.0	4.0	7.0	7.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	189	743	0	0	957	0	0	75	0	0	0	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.98	0.85	0.95	0.97	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3230	0	0	3175	0	0	1647	0	0	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	14.0	27.6	0.0	0.0	36.2	0.0			0.0			0.0
Adj Reference Time (s)	18.9	32.5	0.0	0.0	41.1	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1615		0	1587		0	287		0	0	
Reference Time A (s)	210.7	27.6		0.0	36.2		0.0	31.4		0.0	0.0	
Adj Saturation B (vph)	NA	NA		NA	NA		0	0		0	0	
Reference Time B (s)	NA	NA		NA	NA		9.7	13.5		0.0	0.0	
Reference Time (s)		210.7			36.2			13.5			0.0	
Adj Reference Time (s)		215.6			41.1			18.4			8.0	
Split Option												
Ref Time Combined (s)	14.0	27.6		0.0	36.2		0.0	5.5		0.0	0.0	
Ref Time Seperate (s)	14.0	27.2		0.0	31.6		1.7	3.2		0.0	0.0	
Reference Time (s)	27.6	27.6		36.2	36.2		5.5	5.5		0.0	0.0	
Adj Reference Time (s)	32.5	32.5		41.1	41.1		11.9	11.9		0.0	0.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	60.0		NA									
Permitted Option (s)	215.6		18.4									
Split Option (s)	73.6		11.9									
Minimum (s)	60.0		11.9		71.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			59.9%		ICU Level of Service		B					
Reference Times and Phasing Options do not represent an optimized timing plan.												

241: Hudson Ave. & Cordova St.  
Intersection Capacity Utilization

Existing Conditions  
Timing Plan: AM Peak























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	262	0	0	509	133	47	318	50	0	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	3.9	3.9	4.0	4.0	3.9	4.0	3.2	3.2	3.9	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	42	262	0	0	642	0	0	365	50	0	0	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.97	0.85	0.95	0.99	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3237	0	0	3136	0	0	3216	1445	0	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	3.1	9.7	0.0	0.0	24.6	0.0			4.2			0.0
Adj Reference Time (s)	8.0	13.7	0.0	0.0	28.6	0.0			8.2			0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		0	1568		0	175		0	0	
Reference Time A (s)	46.8	9.7		0.0	24.6		0.0	60.8		0.0	0.0	
Adj Saturation B (vph)	NA	NA		NA	NA		0	1618		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		11.5	17.6		NA	NA	
Reference Time (s)		46.8			24.6			17.6			0.0	
Adj Reference Time (s)		50.8			28.6			21.6			8.0	
Split Option												
Ref Time Combined (s)	3.1	9.7		0.0	24.6		0.0	13.6		0.0	0.0	
Ref Time Seperate (s)	3.1	9.7		0.0	19.5		3.5	11.8		0.0	0.0	
Reference Time (s)	9.7	9.7		24.6	24.6		13.6	13.6		0.0	0.0	
Adj Reference Time (s)	13.7	13.7		28.6	28.6		17.6	17.6		0.0	0.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	36.6		NA									
Permitted Option (s)	50.8		21.6									
Split Option (s)	42.3		17.6									
Minimum (s)	36.6		17.6		54.2							
Right Turns												
	NBR											
Adj Reference Time (s)	8.2											
Cross Thru Ref Time (s)	13.7											
Oncoming Left Ref Time (s)	0.0											
Combined (s)	21.9											
Intersection Summary												
Intersection Capacity Utilization			45.2%		ICU Level of Service		A					
Reference Times and Phasing Options do not represent an optimized timing plan.												





























243: Hudson Ave. & Del Mar Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Volume (vph)	69	649	0	0	993	116	88	237	159	0	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.3	4.3	4.0	4.0	4.3	4.0	3.6	3.6	3.6	4.0	4.0	4.0
Minimum Green (s)	10.0	10.0	4.0	4.0	10.0	4.0	8.0	8.0	8.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	69	649	0	0	1109	0	0	325	159	0	0	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.98	0.85	0.95	0.99	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3237	0	0	3186	0	0	3193	1445	0	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	5.1	24.1	0.0	0.0	41.8	0.0			13.2			0.0
Adj Reference Time (s)	14.3	28.4	0.0	0.0	46.1	0.0			17.2			0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		0	1593		0	106		0	0	
Reference Time A (s)	76.9	24.1		0.0	41.8		0.0	99.2		0.0	0.0	
Adj Saturation B (vph)	NA	NA		NA	NA		0	1618		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		14.5	16.2		NA	NA	
Reference Time (s)		76.9			41.8			16.2			0.0	
Adj Reference Time (s)		81.2			46.1			20.2			8.0	
Split Option												
Ref Time Combined (s)	5.1	24.1		0.0	41.8		0.0	12.2		0.0	0.0	
Ref Time Seperate (s)	5.1	24.1		0.0	37.4		6.5	8.8		0.0	0.0	
Reference Time (s)	24.1	24.1		41.8	41.8		12.2	12.2		0.0	0.0	
Adj Reference Time (s)	28.4	28.4		46.1	46.1		16.2	16.2		0.0	0.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	60.4		NA									
Permitted Option (s)	81.2		20.2									
Split Option (s)	74.4		16.2									
Minimum (s)	60.4		16.2		76.6							
Right Turns												
	NBR											
Adj Reference Time (s)	17.2											
Cross Thru Ref Time (s)	28.4											
Oncoming Left Ref Time (s)	0.0											
Combined (s)	45.6											
Intersection Summary												
Intersection Capacity Utilization			63.8%		ICU Level of Service		B					
Reference Times and Phasing Options do not represent an optimized timing plan.												

221: Lake Ave. & Orange Grove Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Volume (vph)	102	355	73	133	555	75	59	569	43	129	1045	209
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	3.2	6.3	4.0	3.2	6.3	4.0	3.2	6.3	6.3	3.2	6.3	6.3
Minimum Green (s)	7.0	7.0	4.0	7.0	7.0	4.0	7.0	10.0	10.0	7.0	10.0	10.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	102	428	0	133	630	0	59	569	43	129	1045	209
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.98	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3154	0	1615	3179	0	1615	3237	1445	1615	3237	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	Yes			Yes			Yes			Yes		
Reference Time (s)	7.6	16.3	0.0	9.9	23.8	0.0	4.4	21.1	3.6	9.6	38.7	17.4
Adj Reference Time (s)	11.6	22.6	0.0	13.9	30.1	0.0	11.0	27.4	16.3	13.6	45.0	23.7
Permitted Option												
Adj Saturation A (vph)	108	1577		108	1589		108	1618		108	1618	
Reference Time A (s)	113.7	16.3		148.2	23.8		65.8	21.1		143.8	38.7	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		113.7			148.2			65.8			143.8	
Adj Reference Time (s)		120.0			154.5			72.1			150.1	
Split Option												
Ref Time Combined (s)	7.6	16.3		9.9	23.8		4.4	21.1		9.6	38.7	
Ref Time Seperate (s)	7.6	13.5		9.9	20.9		4.4	21.1		9.6	38.7	
Reference Time (s)	16.3	16.3		23.8	23.8		21.1	21.1		38.7	38.7	
Adj Reference Time (s)	22.6	22.6		30.1	30.1		27.4	27.4		45.0	45.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	41.7		56.0									
Permitted Option (s)	154.5		150.1									
Split Option (s)	52.7		72.4									
Minimum (s)	41.7		56.0		97.7							
Right Turns												
	NBR		SBR									
Adj Reference Time (s)	16.3		23.7									
Cross Thru Ref Time (s)	22.6		30.1									
Oncoming Left Ref Time (s)	13.6		11.0									
Combined (s)	52.5		64.7									
Intersection Summary												
Intersection Capacity Utilization			81.4%		ICU Level of Service				D			
Reference Times and Phasing Options do not represent an optimized timing plan.												

235: Los Robles Ave. & California Blvd.  
 Intersection Capacity Utilization






















Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	78	808	34	0	960	62	20	368	79	29	311	87
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.9	5.9	4.0	4.0	5.9	4.0	3.9	3.9	3.9	3.9	3.9	3.9
Minimum Green (s)	6.0	6.0	4.0	4.0	6.0	4.0	8.0	8.0	8.0	8.0	8.0	8.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	78	842	0	0	1022	0	0	388	79	0	340	87
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	0.99	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3217	0	0	3207	0	0	1696	1445	0	1693	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00		0.00		0.00		0.00		0.00	
Protected Option Allowed	Yes		Yes		No		No		No		No	
Reference Time (s)	5.8	31.4	0.0	0.0	38.2	0.0		6.6				7.2
Adj Reference Time (s)	11.9	37.3	0.0	0.0	44.1	0.0		12.0				12.0
Permitted Option												
Adj Saturation A (vph)	108	1609		0	1604		0	973		0	753	
Reference Time A (s)	86.9	31.4		0.0	38.2		0.0	47.9		0.0	54.2	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		86.9			38.2			47.9			54.2	
Adj Reference Time (s)		92.8			44.1			51.9			58.2	
Split Option												
Ref Time Combined (s)	5.8	31.4		0.0	38.2		0.0	27.5		0.0	24.1	
Ref Time Seperate (s)	5.8	30.1		0.0	35.9		1.5	26.0		2.2	22.0	
Reference Time (s)	31.4	31.4		38.2	38.2		27.5	27.5		24.1	24.1	
Adj Reference Time (s)	37.3	37.3		44.1	44.1		31.5	31.5		28.1	28.1	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	56.0		NA									
Permitted Option (s)	92.8		58.2									
Split Option (s)	81.4		59.6									
Minimum (s)	56.0		58.2		114.3							
Right Turns												
	NBR		SBR									
Adj Reference Time (s)	12.0		12.0									
Cross Thru Ref Time (s)	37.3		44.1									
Oncoming Left Ref Time (s)	28.1		31.5									
Combined (s)	77.4		87.6									
Intersection Summary												
Intersection Capacity Utilization			95.2%		ICU Level of Service		F					
Reference Times and Phasing Options do not represent an optimized timing plan.												























223: Los Robles Ave. & Cordova St.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	173	7	54	346	107	35	595	57	108	358	109
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	6.3	6.3	4.0	6.3	6.3	4.0	3.9	3.9	4.0	3.9	3.9	3.9
Minimum Green (s)	6.0	6.0	4.0	6.0	6.0	4.0	8.0	8.0	4.0	8.0	8.0	8.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	35	180	0	54	453	0	35	652	0	108	358	109
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	0.96	0.85	0.95	0.99	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3218	0	1615	3122	0	1615	3194	0	1615	1700	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	Yes			Yes			Yes			Yes		
Reference Time (s)	2.6	6.7	0.0	4.0	17.4	0.0	2.6	24.5	0.0	8.0	25.3	9.1
Adj Reference Time (s)	12.3	13.0	0.0	12.3	23.7	0.0	12.0	28.5	0.0	12.0	29.3	13.1
Permitted Option												
Adj Saturation A (vph)	108	1609		108	1561		108	1597		108	1700	
Reference Time A (s)	39.0	6.7		60.2	17.4		39.0	24.5		120.4	25.3	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)	39.0			60.2			39.0			120.4		
Adj Reference Time (s)	45.3			66.5			43.0			124.4		
Split Option												
Ref Time Combined (s)	2.6	6.7		4.0	17.4		2.6	24.5		8.0	25.3	
Ref Time Seperate (s)	2.6	6.5		4.0	13.3		2.6	22.4		8.0	25.3	
Reference Time (s)	6.7	6.7		17.4	17.4		24.5	24.5		25.3	25.3	
Adj Reference Time (s)	13.0	13.0		23.7	23.7		28.5	28.5		29.3	29.3	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	36.0		41.3									
Permitted Option (s)	66.5		124.4									
Split Option (s)	36.7		57.8									
Minimum (s)	36.0		41.3		77.3							
Right Turns												
Adj Reference Time (s)	SBR											
Cross Thru Ref Time (s)	13.1											
Oncoming Left Ref Time (s)	23.7											
Combined (s)	12.0											
	48.8											
Intersection Summary												
Intersection Capacity Utilization	64.4%		ICU Level of Service						C			
Reference Times and Phasing Options do not represent an optimized timing plan.												

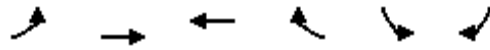
230: Los Robles Ave. & Del Mar Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	72	560	28	71	880	183	66	441	42	53	298	59
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	3.2	6.3	4.0	6.3	6.3	4.0	5.9	5.9	5.9	5.9	5.9	3.2
Minimum Green (s)	5.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	6.0	6.0	6.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	72	588	0	71	1063	0	66	441	42	53	298	59
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	0.97	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3214	0	1615	3153	0	1615	1700	1445	1615	1700	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00				0.00
Protected Option Allowed		Yes			Yes			Yes				Yes
Reference Time (s)	5.3	22.0	0.0	5.3	40.5	0.0	4.9	31.1	3.5	3.9	21.0	4.9
Adj Reference Time (s)	9.3	28.3	0.0	12.3	46.8	0.0	11.9	37.0	11.9	11.9	26.9	9.0
Permitted Option												
Adj Saturation A (vph)	108	1607		108	1577		108	1700		108	1700	
Reference Time A (s)	80.2	22.0		79.1	40.5		73.6	31.1		59.1	21.0	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		80.2			79.1			73.6			59.1	
Adj Reference Time (s)		86.5			85.4			79.5			65.0	
Split Option												
Ref Time Combined (s)	5.3	22.0		5.3	40.5		4.9	31.1		3.9	21.0	
Ref Time Seperate (s)	5.3	20.9		5.3	33.5		4.9	31.1		3.9	21.0	
Reference Time (s)	22.0	22.0		40.5	40.5		31.1	31.1		21.0	21.0	
Adj Reference Time (s)	28.3	28.3		46.8	46.8		37.0	37.0		26.9	26.9	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	56.1		48.9									
Permitted Option (s)	86.5		79.5									
Split Option (s)	75.0		64.0									
Minimum (s)	56.1		48.9		105.0							
Right Turns												
	NBR		SBR									
Adj Reference Time (s)	11.9		9.0									
Cross Thru Ref Time (s)	28.3		46.8									
Oncoming Left Ref Time (s)	11.9		11.9									
Combined (s)	52.1		67.7									
Intersection Summary												
Intersection Capacity Utilization			87.5%		ICU Level of Service				E			
Reference Times and Phasing Options do not represent an optimized timing plan.												

319: Colorado Blvd. & Marion Ave.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	52	509	1017	26	8	58
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.9	4.9	4.6	4.0
Minimum Green (s)	10.0	10.0	10.0	10.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	52	509	1017	26	66	0
Lane Utilization Factor	1.00	0.95	0.95	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.86	0.85
Saturated Flow (vph)	1615	3237	3237	1445	1467	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	3.9	18.9	37.7	2.2		0.0
Adj Reference Time (s)	14.9	23.8	42.6	14.9		0.0
Permitted Option						
Adj Saturation A (vph)	108	1618	1618		98	
Reference Time A (s)	58.0	18.9	37.7		81.0	
Adj Saturation B (vph)	NA	NA	NA		NA	
Reference Time B (s)	NA	NA	NA		NA	
Reference Time (s)		58.0	37.7			
Adj Reference Time (s)		62.9	42.6			
Split Option						
Ref Time Combined (s)	3.9	18.9	37.7		5.4	
Ref Time Seperate (s)	3.9	18.9	37.7		0.7	
Reference Time (s)	18.9	18.9	37.7		5.4	
Adj Reference Time (s)	23.8	23.8	42.6		12.6	
Summary	EB WB		SB		Combined	
Protected Option (s)	57.5		NA			
Permitted Option (s)	62.9		Err			
Split Option (s)	66.4		12.6			
Minimum (s)	57.5		12.6		70.1	
Right Turns	WBR					
Adj Reference Time (s)	14.9					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	14.9					
Combined (s)	29.8					

Intersection Summary

Intersection Capacity Utilization 58.4% ICU Level of Service B  
 Reference Times and Phasing Options do not represent an optimized timing plan.

69: Orange Grove Blvd. & Madison Ave.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	24	461	803	35	46	103
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.6	4.0	4.6	4.0
Minimum Green (s)	6.0	6.0	4.0	4.0	7.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	24	461	838	0	149	0
Lane Utilization Factor	1.00	0.95	0.95	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.99	0.85	0.88	0.85
Saturated Flow (vph)	1615	3237	3217	0	1500	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	1.8	17.1	31.3	0.0		0.0
Adj Reference Time (s)	11.3	22.4	35.9	0.0		0.0
Permitted Option						
Adj Saturation A (vph)	108	1618	1608		100	
Reference Time A (s)	26.7	17.1	31.3		178.8	
Adj Saturation B (vph)	NA	NA	NA		NA	
Reference Time B (s)	NA	NA	NA		NA	
Reference Time (s)		26.7	31.3			
Adj Reference Time (s)		32.0	35.9			
Split Option						
Ref Time Combined (s)	1.8	17.1	31.3		11.9	
Ref Time Seperate (s)	1.8	17.1	30.0		3.7	
Reference Time (s)	17.1	17.1	31.3		11.9	
Adj Reference Time (s)	22.4	22.4	35.9		16.5	
Summary	EB WB		SB		Combined	
Protected Option (s)	47.2		NA			
Permitted Option (s)	35.9		Err			
Split Option (s)	58.3		16.5			
Minimum (s)	35.9		16.5		52.4	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						

**Intersection Summary**  
 Intersection Capacity Utilization 43.7% ICU Level of Service A  
 Reference Times and Phasing Options do not represent an optimized timing plan.

254: Sierra Bonita Ave. & Washington Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Volume (vph)	3	782	33	14	990	12	85	4	25	18	17	14
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.3	4.3	4.0	4.3	4.3	4.0	3.6	3.6	4.0	3.6	3.6	4.0
Minimum Green (s)	8.0	8.0	4.0	8.0	8.0	4.0	9.0	9.0	4.0	9.0	9.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	818	0	0	1016	0	0	114	0	0	49	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.94	0.85
Saturated Flow (vph)	0	3217	0	0	3229	0	0	1583	0	0	1597	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1456		0	1140		0	840		0	1626	
Reference Time A (s)	0.0	33.2		0.0	50.5		0.0	16.3		0.0	3.6	
Adj Saturation B (vph)	NA	NA		NA	NA		0	0		0	0	
Reference Time B (s)	NA	NA		NA	NA		14.3	16.6		9.3	11.7	
Reference Time (s)		33.2			50.5			16.3			3.6	
Adj Reference Time (s)		37.5			54.8			20.3			13.0	
Split Option												
Ref Time Combined (s)	0.0	30.5		0.0	37.8		0.0	8.6		0.0	3.7	
Ref Time Seperate (s)	0.2	29.2		1.0	36.8		6.3	0.3		1.3	1.3	
Reference Time (s)	30.5	30.5		37.8	37.8		8.6	8.6		3.7	3.7	
Adj Reference Time (s)	34.8	34.8		42.1	42.1		13.0	13.0		13.0	13.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	54.8		20.3									
Split Option (s)	76.9		26.0									
Minimum (s)	54.8		20.3		75.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			62.6%		ICU Level of Service		B					
Reference Times and Phasing Options do not represent an optimized timing plan.												



15: Wilson Ave. & Orange Grove Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	438	49	39	664	3	33	15	15	1	94	17
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.7	4.7	4.0	4.7	4.7	4.0	3.6	3.6	4.0	3.6	3.6	4.0
Minimum Green (s)	10.0	10.0	4.0	10.0	10.0	4.0	10.0	10.0	4.0	10.0	10.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	487	0	39	667	0	0	63	0	0	112	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	1.00	0.85	0.95	0.94	0.85	0.95	0.98	0.85
Saturated Flow (vph)	1615	3188	0	1615	3235	0	0	1596	0	0	1661	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	0.0	18.3	0.0	2.9	24.7	0.0			0.0			0.0
Adj Reference Time (s)	14.7	23.0	0.0	14.7	29.4	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1594		108	1617		0	204		0	1662	
Reference Time A (s)	0.0	18.3		43.5	24.7		0.0	37.0		0.0	8.1	
Adj Saturation B (vph)	NA	NA		NA	NA		0	0		0	0	
Reference Time B (s)	NA	NA		NA	NA		10.5	12.7		8.1	16.1	
Reference Time (s)		18.3			43.5			12.7			8.1	
Adj Reference Time (s)		23.0			48.2			16.7			14.0	
Split Option												
Ref Time Combined (s)	0.0	18.3		2.9	24.7		0.0	4.7		0.0	8.1	
Ref Time Seperate (s)	0.0	16.5		2.9	24.6		2.5	1.1		0.1	6.8	
Reference Time (s)	18.3	18.3		24.7	24.7		4.7	4.7		8.1	8.1	
Adj Reference Time (s)	23.0	23.0		29.4	29.4		14.0	14.0		14.0	14.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	44.1		NA									
Permitted Option (s)	48.2		16.7									
Split Option (s)	52.5		28.0									
Minimum (s)	44.1		16.7		60.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			50.7%		ICU Level of Service		A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection	
Intersection Delay, s/veh	13.4
Intersection LOS	B




























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔		↔			↔	
Traffic Vol, veh/h	22	331	31	13	175	49	13	79	15	37	89	35
Future Vol, veh/h	22	331	31	13	175	49	13	79	15	37	89	35
Peak Hour Factor	0.96	0.96	0.96	0.86	0.86	0.86	0.86	0.86	0.86	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	345	32	15	203	57	15	92	17	40	97	38
Number of Lanes	0	1	1	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	16.4	11.5	10.8	11.4
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	12%	6%	0%	7%	0%	23%
Vol Thru, %	74%	94%	0%	93%	0%	55%
Vol Right, %	14%	0%	100%	0%	100%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	107	353	31	188	49	161
LT Vol	13	22	0	13	0	37
Through Vol	79	331	0	175	0	89
RT Vol	15	0	31	0	49	35
Lane Flow Rate	124	368	32	219	57	175
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.21	0.6	0.046	0.367	0.084	0.289
Departure Headway (Hd)	6.083	5.874	5.132	6.049	5.303	5.94
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	587	614	696	592	673	602
Service Time	4.151	3.62	2.878	3.802	3.055	4.002
HCM Lane V/C Ratio	0.211	0.599	0.046	0.37	0.085	0.291
HCM Control Delay	10.8	17.1	8.1	12.3	8.5	11.4
HCM Lane LOS	B	C	A	B	A	B
HCM 95th-tile Q	0.8	4	0.1	1.7	0.3	1.2

221: Lake Ave. & Orange Grove Blvd.  
 HCM 6th Signalized Intersection Summary

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 		 		 
Traffic Volume (veh/h)	178	662	99	120	450	122	112	891	158	181	864	153
Future Volume (veh/h)	178	662	99	120	450	122	112	891	158	181	864	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1607	1673	1673	1673	1673	1673	1673	1673	1673	1607	1673	1673
Adj Flow Rate, veh/h	196	727	109	132	495	134	124	990	176	189	900	159
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.90	0.90	0.90	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	293	802	120	221	645	174	248	1102	492	242	1191	531
Arrive On Green	0.11	0.29	0.29	0.08	0.26	0.26	0.07	0.35	0.35	0.10	0.37	0.37
Sat Flow, veh/h	1530	2773	416	1594	2477	667	1594	3180	1418	1530	3180	1418
Grp Volume(v), veh/h	196	417	419	132	317	312	124	990	176	189	900	159
Grp Sat Flow(s),veh/h/ln	1530	1590	1599	1594	1590	1553	1594	1590	1418	1530	1590	1418
Q Serve(g_s), s	9.0	25.2	25.3	6.0	18.4	18.6	4.9	29.5	9.3	7.6	24.7	7.9
Cycle Q Clear(g_c), s	9.0	25.2	25.3	6.0	18.4	18.6	4.9	29.5	9.3	7.6	24.7	7.9
Prop In Lane	1.00		0.26	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	293	460	462	221	414	405	248	1102	492	242	1191	531
V/C Ratio(X)	0.67	0.91	0.91	0.60	0.76	0.77	0.50	0.90	0.36	0.78	0.76	0.30
Avail Cap(c_a), veh/h	293	490	492	266	490	478	295	1102	492	244	1191	531
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	34.2	34.2	26.9	34.1	34.2	21.7	31.0	24.4	23.0	27.3	22.0
Incr Delay (d2), s/veh	3.9	14.8	14.9	1.9	4.7	5.2	1.2	11.5	2.0	14.8	4.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	11.3	11.4	2.3	7.4	7.4	1.8	12.6	3.3	3.6	9.7	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.5	49.1	49.1	28.8	38.9	39.4	22.9	42.5	26.4	37.8	31.8	23.5
LnGrp LOS	C	D	D	C	D	D	C	D	C	D	C	C
Approach Vol, veh/h		1032			761			1290			1248	
Approach Delay, s/veh		45.2			37.3			38.4			31.6	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.8	41.0	13.9	32.4	10.0	43.8	11.0	35.2				
Change Period (Y+Rc), s	3.2	6.3	3.2	6.3	3.2	6.3	3.2	6.3				
Max Green Setting (Gmax), s	9.7	29.8	10.7	30.8	9.7	29.8	10.7	30.8				
Max Q Clear Time (g_c+I1), s	9.6	31.5	11.0	20.6	6.9	26.7	8.0	27.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.7	0.1	2.6	0.1	1.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				37.9								
HCM 6th LOS				D								

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	924	9	11	786	9	17
Future Vol, veh/h	924	9	11	786	9	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	97	97	65	65
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	994	10	11	810	14	26

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1004	0	1426
Stage 1	-	-	-	-	999
Stage 2	-	-	-	-	427
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	686	-	126
Stage 1	-	-	-	-	317
Stage 2	-	-	-	-	626
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	686	-	122
Mov Cap-2 Maneuver	-	-	-	-	122
Stage 1	-	-	-	-	317
Stage 2	-	-	-	-	608

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	22.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	243	-	-	686	-
HCM Lane V/C Ratio	0.165	-	-	0.017	-
HCM Control Delay (s)	22.7	-	-	10.3	0.1
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

65: Washington Blvd. & Mar Vista Ave.  
 HCM 6th TWSC

Existing Conditions  
 Timing Plan: PM Peak

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↕	
Traffic Vol, veh/h	28	916	763	20	16	34
Future Vol, veh/h	28	916	763	20	16	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	97	97	57	57
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	1018	787	21	28	60

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	808	0	-	0	1369 404
Stage 1	-	-	-	-	798 -
Stage 2	-	-	-	-	571 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	813	-	-	-	138 596
Stage 1	-	-	-	-	404 -
Stage 2	-	-	-	-	529 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	813	-	-	-	126 596
Mov Cap-2 Maneuver	-	-	-	-	126 -
Stage 1	-	-	-	-	368 -
Stage 2	-	-	-	-	529 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	24.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	813	-	-	-	272
HCM Lane V/C Ratio	0.038	-	-	-	0.322
HCM Control Delay (s)	9.6	0.4	-	-	24.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.3

67: Mar Vista Ave. & Washington Blvd.  
 HCM 6th TWSC

Existing Conditions  
 Timing Plan: PM Peak

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	921	11	7	781	2	17
Future Vol, veh/h	921	11	7	781	2	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	97	97	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1023	12	7	805	3	25

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1035	0	1446
Stage 1	-	-	-	-	1029
Stage 2	-	-	-	-	417
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	667	-	122
Stage 1	-	-	-	-	306
Stage 2	-	-	-	-	633
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	667	-	120
Mov Cap-2 Maneuver	-	-	-	-	120
Stage 1	-	-	-	-	306
Stage 2	-	-	-	-	621

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	376	-	-	667	-
HCM Lane V/C Ratio	0.074	-	-	0.011	-
HCM Control Delay (s)	15.3	-	-	10.5	0.1
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	29	881	641	15	2	21
Future Vol, veh/h	29	881	641	15	2	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	84	84	64	64
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	1024	763	18	3	33

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	781	0	-	0	1352 391
Stage 1	-	-	-	-	772 -
Stage 2	-	-	-	-	580 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	832	-	-	-	141 608
Stage 1	-	-	-	-	416 -
Stage 2	-	-	-	-	523 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	832	-	-	-	128 608
Mov Cap-2 Maneuver	-	-	-	-	128 -
Stage 1	-	-	-	-	376 -
Stage 2	-	-	-	-	523 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	832	-	-	-	458
HCM Lane V/C Ratio	0.041	-	-	-	0.078
HCM Control Delay (s)	9.5	0.4	-	-	13.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	903	13	20	642	4	7
Future Vol, veh/h	903	13	20	642	4	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	84	84	46	46
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1050	15	24	764	9	15

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1065	0	1488
Stage 1	-	-	-	-	1058
Stage 2	-	-	-	-	430
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	650	-	115
Stage 1	-	-	-	-	295
Stage 2	-	-	-	-	624
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	650	-	108
Mov Cap-2 Maneuver	-	-	-	-	108
Stage 1	-	-	-	-	295
Stage 2	-	-	-	-	584

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	23.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	214	-	-	650	-
HCM Lane V/C Ratio	0.112	-	-	0.037	-
HCM Control Delay (s)	23.9	-	-	10.7	0.3
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-



74: Mar Vista Ave. & Orange Grove Blvd.  
 HCM 6th TWSC

Existing Conditions  
 Timing Plan: PM Peak

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↘			↕↘	
Traffic Vol, veh/h	27	910	18	8	587	9	11	3	13	11	6	17
Future Vol, veh/h	27	910	18	8	587	9	11	3	13	11	6	17
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	50	-	-	40	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	89	89	89	84	84	84	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	948	19	9	660	10	13	4	15	17	9	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	670	0	0	967	0	0	1367	1702	484	1215	1706	335
Stage 1	-	-	-	-	-	-	1014	1014	-	683	683	-
Stage 2	-	-	-	-	-	-	353	688	-	532	1023	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	916	-	-	708	-	-	106	91	529	137	90	661
Stage 1	-	-	-	-	-	-	256	314	-	405	447	-
Stage 2	-	-	-	-	-	-	637	445	-	499	311	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	916	-	-	708	-	-	90	87	529	125	86	661
Mov Cap-2 Maneuver	-	-	-	-	-	-	90	87	-	125	86	-
Stage 1	-	-	-	-	-	-	248	304	-	392	441	-
Stage 2	-	-	-	-	-	-	591	439	-	464	301	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.1			35.7			32		
HCM LOS							E			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	149	916	-	-	708	-	-	185
HCM Lane V/C Ratio	0.216	0.031	-	-	0.013	-	-	0.283
HCM Control Delay (s)	35.7	9.1	-	-	10.2	-	-	32
HCM Lane LOS	E	A	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0	-	-	1.1

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↖	↕	↗	↖	↕	↗
Traffic Vol, veh/h	6	0	46	9	0	17	46	1110	13	14	1101	35
Future Vol, veh/h	6	0	46	9	0	17	46	1110	13	14	1101	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	60	-	0	40	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	81	81	81	100	100	100	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	0	60	11	0	21	46	1110	13	15	1147	36

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1824	2392	574	1806	2415	555	1183	0	0	1123	0	0
Stage 1	1177	1177	-	1202	1202	-	-	-	-	-	-	-
Stage 2	647	1215	-	604	1213	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	48	33	462	50	32	475	586	-	-	618	-	-
Stage 1	203	263	-	196	256	-	-	-	-	-	-	-
Stage 2	426	252	-	452	253	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	42	30	462	40	29	475	586	-	-	618	-	-
Mov Cap-2 Maneuver	42	30	-	40	29	-	-	-	-	-	-	-
Stage 1	187	257	-	181	236	-	-	-	-	-	-	-
Stage 2	375	232	-	384	247	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	24.9		52.3		0.5		0.1	
HCM LOS	C		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	586	-	-	42	462	40	475	618	-	-
HCM Lane V/C Ratio	0.078	-	-	0.186	0.129	0.278	0.044	0.024	-	-
HCM Control Delay (s)	11.7	-	-	109.3	13.9	126.6	12.9	11	-	-
HCM Lane LOS	B	-	-	F	B	F	B	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.6	0.4	0.9	0.1	0.1	-	-

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	31	820	785	20	12	33
Future Vol, veh/h	31	820	785	20	12	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	882	844	22	14	38

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	866	0	-	0	1362 433
Stage 1	-	-	-	-	855 -
Stage 2	-	-	-	-	507 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	773	-	-	-	139 571
Stage 1	-	-	-	-	377 -
Stage 2	-	-	-	-	570 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	773	-	-	-	127 571
Mov Cap-2 Maneuver	-	-	-	-	127 -
Stage 1	-	-	-	-	345 -
Stage 2	-	-	-	-	570 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	773	-	-	-	296
HCM Lane V/C Ratio	0.043	-	-	-	0.175
HCM Control Delay (s)	9.9	0.4	-	-	19.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

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	20	784	13	5	603	5	5	18	9	3	14	13
Future Vol, veh/h	20	784	13	5	603	5	5	18	9	3	14	13
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	60	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	89	89	89	67	67	67	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	862	14	6	678	6	7	27	13	4	19	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	684	0	0	876	0	0	1274	1609	438	1182	1613	342
Stage 1	-	-	-	-	-	-	913	913	-	693	693	-
Stage 2	-	-	-	-	-	-	361	696	-	489	920	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	905	-	-	766	-	-	124	104	567	145	103	654
Stage 1	-	-	-	-	-	-	294	350	-	400	443	-
Stage 2	-	-	-	-	-	-	630	441	-	529	348	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	905	-	-	766	-	-	101	101	567	110	100	654
Mov Cap-2 Maneuver	-	-	-	-	-	-	101	101	-	110	100	-
Stage 1	-	-	-	-	-	-	287	342	-	390	439	-
Stage 2	-	-	-	-	-	-	583	437	-	464	340	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			47.5			34.8		
HCM LOS							E			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	131	905	-	-	766	-	-	160
HCM Lane V/C Ratio	0.365	0.024	-	-	0.007	-	-	0.25
HCM Control Delay (s)	47.5	9.1	-	-	9.7	-	-	34.8
HCM Lane LOS	E	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.5	0.1	-	-	0	-	-	0.9

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	↑
Traffic Vol, veh/h	843	13	9	809	6	8
Future Vol, veh/h	843	13	9	809	6	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	22
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	906	14	10	870	9	11

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	920	0	1368
Stage 1	-	-	-	-	913
Stage 2	-	-	-	-	455
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	738	-	138
Stage 1	-	-	-	-	352
Stage 2	-	-	-	-	606
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	738	-	134
Mov Cap-2 Maneuver	-	-	-	-	134
Stage 1	-	-	-	-	352
Stage 2	-	-	-	-	590

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	21.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	134	548	-	-	738	-
HCM Lane V/C Ratio	0.064	0.021	-	-	0.013	-
HCM Control Delay (s)	33.7	11.7	-	-	9.9	0.1
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	25	835	18	13	776	16	3	0	8	12	0	29
Future Vol, veh/h	25	835	18	13	776	16	3	0	8	12	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	94	94	94	92	92	92	68	68	68
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	908	20	14	826	17	3	0	9	18	0	43

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	843	0	0	928	0	0	1413	1843	464	1371	1845	422
Stage 1	-	-	-	-	-	-	972	972	-	863	863	-
Stage 2	-	-	-	-	-	-	441	871	-	508	982	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	789	-	-	733	-	-	98	74	545	105	74	580
Stage 1	-	-	-	-	-	-	271	329	-	316	370	-
Stage 2	-	-	-	-	-	-	565	367	-	516	325	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	789	-	-	733	-	-	83	66	545	95	66	580
Mov Cap-2 Maneuver	-	-	-	-	-	-	83	66	-	95	66	-
Stage 1	-	-	-	-	-	-	252	306	-	294	357	-
Stage 2	-	-	-	-	-	-	505	354	-	472	302	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.4			22.6			25.8		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	216	789	-	-	733	-	-	233
HCM Lane V/C Ratio	0.055	0.034	-	-	0.019	-	-	0.259
HCM Control Delay (s)	22.6	9.7	0.3	-	10	0.2	-	25.8
HCM Lane LOS	C	A	A	-	B	A	-	D
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	1

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Traffic Vol, veh/h	5	800	12	16	601	2	3	0	14	0	2	2
Future Vol, veh/h	5	800	12	16	601	2	3	0	14	0	2	2
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	40	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	86	86	86	47	47	47	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	889	13	19	699	2	6	0	30	0	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	701	0	0	902	0	0	1298	1647	451	1195	1652	351
Stage 1	-	-	-	-	-	-	908	908	-	738	738	-
Stage 2	-	-	-	-	-	-	390	739	-	457	914	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	892	-	-	749	-	-	119	98	556	142	98	645
Stage 1	-	-	-	-	-	-	296	352	-	376	422	-
Stage 2	-	-	-	-	-	-	606	422	-	553	350	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	892	-	-	749	-	-	112	95	556	131	95	645
Mov Cap-2 Maneuver	-	-	-	-	-	-	112	95	-	131	95	-
Stage 1	-	-	-	-	-	-	294	350	-	373	411	-
Stage 2	-	-	-	-	-	-	581	411	-	520	348	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.3			17.4			27.8		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	327	892	-	-	749	-	-	166
HCM Lane V/C Ratio	0.111	0.006	-	-	0.025	-	-	0.048
HCM Control Delay (s)	17.4	9.1	-	-	9.9	-	-	27.8
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.2

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Traffic Vol, veh/h	9	782	4	10	592	4	3	2	8	1	4	16
Future Vol, veh/h	9	782	4	10	592	4	3	2	8	1	4	16
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	60	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	89	89	89	81	81	81	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	859	4	11	665	4	4	2	10	1	5	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	669	0	0	863	0	0	1238	1572	432	1140	1572	335
Stage 1	-	-	-	-	-	-	881	881	-	689	689	-
Stage 2	-	-	-	-	-	-	357	691	-	451	883	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	917	-	-	775	-	-	132	109	572	156	109	661
Stage 1	-	-	-	-	-	-	308	363	-	402	445	-
Stage 2	-	-	-	-	-	-	633	444	-	557	362	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	917	-	-	775	-	-	122	106	572	148	106	661
Mov Cap-2 Maneuver	-	-	-	-	-	-	122	106	-	148	106	-
Stage 1	-	-	-	-	-	-	305	359	-	398	439	-
Stage 2	-	-	-	-	-	-	601	438	-	538	358	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.2			22.1			17.8		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	226	917	-	-	775	-	-	306
HCM Lane V/C Ratio	0.071	0.011	-	-	0.014	-	-	0.078
HCM Control Delay (s)	22.1	9	-	-	9.7	-	-	17.8
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3



Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕				↖		↕	
Traffic Vol, veh/h	17	754	13	11	542	18	2	10	45	2	12	19
Future Vol, veh/h	17	754	13	11	542	18	2	10	45	2	12	19
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	75	-	-	105	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	96	96	96	84	84	84	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	802	14	11	565	19	2	12	54	3	16	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	584	0	0	816	0	0	1158	1451	408	1040	1449	292
Stage 1	-	-	-	-	-	-	845	845	-	597	597	-
Stage 2	-	-	-	-	-	-	313	606	-	443	852	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	987	-	-	807	-	-	151	130	593	185	130	704
Stage 1	-	-	-	-	-	-	324	377	-	456	490	-
Stage 2	-	-	-	-	-	-	672	485	-	564	374	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	987	-	-	807	-	-	128	126	593	152	126	704
Mov Cap-2 Maneuver	-	-	-	-	-	-	128	126	-	152	126	-
Stage 1	-	-	-	-	-	-	318	370	-	448	483	-
Stage 2	-	-	-	-	-	-	618	478	-	487	367	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.2			11.7			23		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	593	987	-	-	807	-	-	244
HCM Lane V/C Ratio	0.09	0.018	-	-	0.014	-	-	0.18
HCM Control Delay (s)	11.7	8.7	-	-	9.5	-	-	23
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.6

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	↑
Traffic Vol, veh/h	767	8	5	563	12	8
Future Vol, veh/h	767	8	5	563	12	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	88	88	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	825	9	6	640	14	10

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	834	0	1162
Stage 1	-	-	-	-	830
Stage 2	-	-	-	-	332
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	795	-	188
Stage 1	-	-	-	-	388
Stage 2	-	-	-	-	699
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	795	-	186
Mov Cap-2 Maneuver	-	-	-	-	186
Stage 1	-	-	-	-	388
Stage 2	-	-	-	-	691

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	20.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	186	585	-	-	795	-
HCM Lane V/C Ratio	0.078	0.016	-	-	0.007	-
HCM Control Delay (s)	26	11.3	-	-	9.6	0.1
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗			↕↗	
Traffic Vol, veh/h	21	730	5	8	554	8	2	3	9	2	5	10
Future Vol, veh/h	21	730	5	8	554	8	2	3	9	2	5	10
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	60	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	86	86	86	70	70	70	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	777	5	9	644	9	3	4	13	3	7	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	653	0	0	782	0	0	1168	1495	391	1102	1493	327
Stage 1	-	-	-	-	-	-	824	824	-	667	667	-
Stage 2	-	-	-	-	-	-	344	671	-	435	826	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	930	-	-	832	-	-	149	122	608	166	122	669
Stage 1	-	-	-	-	-	-	333	385	-	414	455	-
Stage 2	-	-	-	-	-	-	645	453	-	570	385	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	930	-	-	832	-	-	136	118	608	154	118	669
Mov Cap-2 Maneuver	-	-	-	-	-	-	136	118	-	154	118	-
Stage 1	-	-	-	-	-	-	325	376	-	404	450	-
Stage 2	-	-	-	-	-	-	615	448	-	539	376	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			20.3			21.5		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	255	930	-	-	832	-	-	242
HCM Lane V/C Ratio	0.078	0.024	-	-	0.011	-	-	0.099
HCM Control Delay (s)	20.3	9	-	-	9.4	-	-	21.5
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.3

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	345	29	18	217	12	27
Future Vol, veh/h	345	29	18	217	12	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	40
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	93	93	51	51
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	379	32	19	233	24	53

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	411	0	666	395
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	271	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1148	-	425	654
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	775	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1148	-	418	654
Mov Cap-2 Maneuver	-	-	-	-	418	-
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	762	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	418	654	-	-	1148	-
HCM Lane V/C Ratio	0.056	0.081	-	-	0.017	-
HCM Control Delay (s)	14.1	11	-	-	8.2	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.3	-	-	0.1	-

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	364	12	15	231	11	28
Future Vol, veh/h	364	12	15	231	11	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	25	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	95	95	65	65
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	418	14	16	243	17	43

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	432	0	693
Stage 1	-	-	-	-	418
Stage 2	-	-	-	-	275
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1128	-	409
Stage 1	-	-	-	-	664
Stage 2	-	-	-	-	771
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1128	-	402
Mov Cap-2 Maneuver	-	-	-	-	402
Stage 1	-	-	-	-	664
Stage 2	-	-	-	-	759

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	546	-	-	1128	-
HCM Lane V/C Ratio	0.11	-	-	0.014	-
HCM Control Delay (s)	12.4	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	984	771	26	10	30
Future Vol, veh/h	20	984	771	26	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	70	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	95	95	63	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	1058	812	27	16	48

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	839	0	-	0	1399 420
Stage 1	-	-	-	-	826 -
Stage 2	-	-	-	-	573 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	791	-	-	-	132 582
Stage 1	-	-	-	-	390 -
Stage 2	-	-	-	-	527 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	791	-	-	-	128 582
Mov Cap-2 Maneuver	-	-	-	-	128 -
Stage 1	-	-	-	-	379 -
Stage 2	-	-	-	-	527 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	791	-	-	-	308
HCM Lane V/C Ratio	0.027	-	-	-	0.206
HCM Control Delay (s)	9.7	-	-	-	19.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗			↔			↔	
Traffic Vol, veh/h	8	956	20	31	793	10	8	1	33	1	1	10
Future Vol, veh/h	8	956	20	31	793	10	8	1	33	1	1	10
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	85	-	-	60	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	62	62	62	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	1039	22	34	862	11	13	2	53	2	2	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	873	0	0	1061	0	0	1568	2009	531	1475	2015	437
Stage 1	-	-	-	-	-	-	1068	1068	-	936	936	-
Stage 2	-	-	-	-	-	-	500	941	-	539	1079	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	768	-	-	652	-	-	75	58	493	88	58	567
Stage 1	-	-	-	-	-	-	237	296	-	285	342	-
Stage 2	-	-	-	-	-	-	521	340	-	494	293	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	768	-	-	652	-	-	68	54	493	73	54	567
Mov Cap-2 Maneuver	-	-	-	-	-	-	68	54	-	73	54	-
Stage 1	-	-	-	-	-	-	234	292	-	282	324	-
Stage 2	-	-	-	-	-	-	477	322	-	433	289	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.4			30.6			21.3		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	207	768	-	-	652	-	-	241
HCM Lane V/C Ratio	0.327	0.011	-	-	0.052	-	-	0.083
HCM Control Delay (s)	30.6	9.7	-	-	10.8	-	-	21.3
HCM Lane LOS	D	A	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.4	0	-	-	0.2	-	-	0.3

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	
Traffic Vol, veh/h	983	11	10	1127	15	18
Future Vol, veh/h	983	11	10	1127	15	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1057	12	11	1186	27	32

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1069	0	1678
Stage 1	-	-	-	-	1063
Stage 2	-	-	-	-	615
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	648	-	86
Stage 1	-	-	-	-	293
Stage 2	-	-	-	-	502
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	648	-	85
Mov Cap-2 Maneuver	-	-	-	-	85
Stage 1	-	-	-	-	293
Stage 2	-	-	-	-	493

















Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	41.8
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	155	-	-	648	-
HCM Lane V/C Ratio	0.38	-	-	0.016	-
HCM Control Delay (s)	41.8	-	-	10.6	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	1.6	-	-	0.1	-



61: Catalina Ave. & Washington Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	877	22	20	751	22	16	18	24	40	9	21
Future Volume (vph)	29	877	22	20	751	22	16	18	24	40	9	21
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	12	13	12	12	13	12	12	11	12	12	16	12
Total Lost time (s)		5.3			5.3			5.3			5.3	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			0.95			0.96	
Flt Protected		1.00			1.00			0.99			0.97	
Satd. Flow (prot)		3255			3254			1502			1763	
Flt Permitted		0.91			0.92			0.90			0.85	
Satd. Flow (perm)		2964			2987			1369			1550	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.91	0.91	0.91	0.83	0.83	0.83
Adj. Flow (vph)	30	914	23	21	782	23	18	20	26	48	11	25
RTOR Reduction (vph)	0	1	0	0	1	0	0	24	0	0	21	0
Lane Group Flow (vph)	0	966	0	0	825	0	0	40	0	0	63	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		63.6			63.6			8.4			8.4	
Effective Green, g (s)		63.6			63.6			8.4			8.4	
Actuated g/C Ratio		0.69			0.69			0.09			0.09	
Clearance Time (s)		5.3			5.3			5.3			5.3	
Vehicle Extension (s)		4.8			4.8			3.0			3.0	
Lane Grp Cap (vph)		2049			2064			124			141	
v/s Ratio Prot												
v/s Ratio Perm		c0.33			0.28			0.03			c0.04	
v/c Ratio		0.47			0.40			0.33			0.45	
Uniform Delay, d1		6.5			6.1			39.1			39.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.8			0.6			1.5			2.3	
Delay (s)		7.3			6.6			40.7			41.9	
Level of Service		A			A			D			D	
Approach Delay (s)		7.3			6.6			40.7			41.9	
Approach LOS		A			A			D			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			9.6				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.44									
Actuated Cycle Length (s)			92.0				Sum of lost time (s)		14.6			
Intersection Capacity Utilization			68.8%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

69: Orange Grove Blvd. & Madison Ave.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	22	924	684	12	17	36
Future Volume (vph)	22	924	684	12	17	36
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	12	16	12
Total Lost time (s)	4.6	9.6	4.6		4.6	
Lane Util. Factor	1.00	0.95	0.95		1.00	
Frt	1.00	1.00	1.00		0.91	
Flt Protected	0.95	1.00	1.00		0.98	
Satd. Flow (prot)	1478	3167	3158		1688	
Flt Permitted	0.32	1.00	1.00		0.98	
Satd. Flow (perm)	503	3167	3158		1688	
Peak-hour factor, PHF	0.82	0.82	0.92	0.92	0.70	0.70
Adj. Flow (vph)	27	1127	743	13	24	51
RTOR Reduction (vph)	0	0	1	0	39	0
Lane Group Flow (vph)	27	1127	755	0	36	0
Turn Type	custom	NA	NA		Prot	
Protected Phases		6	3 6		4	
Permitted Phases	2 3					
Actuated Green, G (s)	52.3	34.5	52.3		18.5	
Effective Green, g (s)	52.3	34.5	42.7		18.5	
Actuated g/C Ratio	0.65	0.43	0.53		0.23	
Clearance Time (s)		9.6			4.6	
Vehicle Extension (s)		4.8			3.0	
Lane Grp Cap (vph)	328	1365	1685		390	
v/s Ratio Prot		c0.36	c0.24		c0.02	
v/s Ratio Perm	0.05					
v/c Ratio	0.08	0.83	0.45		0.09	
Uniform Delay, d1	5.1	20.1	11.4		24.2	
Progression Factor	1.00	1.00	0.03		1.00	
Incremental Delay, d2	0.1	5.8	0.2		0.1	
Delay (s)	5.2	25.9	0.5		24.3	
Level of Service	A	C	A		C	
Approach Delay (s)		25.4	0.5		24.3	
Approach LOS		C	A		C	
<b>Intersection Summary</b>						
HCM 2000 Control Delay			15.9		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.55			
Actuated Cycle Length (s)			80.0		Sum of lost time (s)	18.8
Intersection Capacity Utilization			46.2%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

56: Madison Ave & Orange Grove Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↘	
Traffic Volume (vph)	923	18	7	688	8	32
Future Volume (vph)	923	18	7	688	8	32
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width	12	12	10	12	12	12
Total Lost time (s)	4.6		4.6	9.6	4.6	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	1.00		1.00	1.00	0.89	
Flt Protected	1.00		0.95	1.00	0.99	
Satd. Flow (prot)	3158		1478	3167	1471	
Flt Permitted	1.00		0.22	1.00	0.99	
Satd. Flow (perm)	3158		343	3167	1471	
Peak-hour factor, PHF	0.82	0.82	0.92	0.92	0.71	0.71
Adj. Flow (vph)	1126	22	8	748	11	45
RTOR Reduction (vph)	2	0	0	0	40	0
Lane Group Flow (vph)	1146	0	8	748	16	0
Turn Type	NA		custom	NA	Prot	
Protected Phases	4 6			6	3	
Permitted Phases			2 4			
Actuated Green, G (s)	57.6		62.6	34.5	8.2	
Effective Green, g (s)	57.6		62.6	34.5	8.2	
Actuated g/C Ratio	0.72		0.78	0.43	0.10	
Clearance Time (s)				9.6	4.6	
Vehicle Extension (s)				4.8	3.0	
Lane Grp Cap (vph)	2273		268	1365	150	
v/s Ratio Prot	c0.36			c0.24	c0.01	
v/s Ratio Perm			0.02			
v/c Ratio	0.50		0.03	0.55	0.10	
Uniform Delay, d1	4.9		1.9	16.9	32.6	
Progression Factor	0.91		0.47	0.68	1.00	
Incremental Delay, d2	0.1		0.0	1.5	0.3	
Delay (s)	4.6		0.9	12.9	32.9	
Level of Service	A		A	B	C	
Approach Delay (s)	4.6			12.8	32.9	
Approach LOS	A			B	C	

Intersection Summary

HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.8
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

15: Wilson Ave. & Orange Grove Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

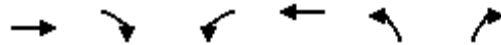


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Volume (vph)	13	843	40	23	585	5	66	56	135	3	33	14
Future Volume (vph)	13	843	40	23	585	5	66	56	135	3	33	14
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	13	12	10	11	8	12	12	12	12	14	12
Total Lost time (s)	4.7	4.7		4.7	4.7			3.6			3.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.93			0.96	
Flt Protected	0.95	1.00		0.95	1.00			0.99			1.00	
Satd. Flow (prot)	1478	3250		1478	3057			1529			1705	
Flt Permitted	0.38	1.00		0.24	1.00			0.90			0.98	
Satd. Flow (perm)	588	3250		374	3057			1399			1678	
Peak-hour factor, PHF	0.86	0.86	0.86	0.87	0.87	0.87	0.82	0.82	0.82	0.78	0.78	0.78
Adj. Flow (vph)	15	980	47	26	672	6	80	68	165	4	42	18
RTOR Reduction (vph)	0	3	0	0	1	0	0	62	0	0	14	0
Lane Group Flow (vph)	15	1024	0	26	677	0	0	251	0	0	50	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	52.3	52.3		52.3	52.3			19.4			19.4	
Effective Green, g (s)	52.3	52.3		52.3	52.3			19.4			19.4	
Actuated g/C Ratio	0.65	0.65		0.65	0.65			0.24			0.24	
Clearance Time (s)	4.7	4.7		4.7	4.7			3.6			3.6	
Vehicle Extension (s)	4.8	4.8		4.8	4.8			3.0			3.0	
Lane Grp Cap (vph)	384	2124		244	1998			339			406	
v/s Ratio Prot		c0.32			0.22							
v/s Ratio Perm	0.03			0.07				c0.18			0.03	
v/c Ratio	0.04	0.48		0.11	0.34			0.74			0.12	
Uniform Delay, d1	4.9	7.0		5.2	6.2			28.0			23.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.2	0.8		0.9	0.5			8.4			0.1	
Delay (s)	5.1	7.8		6.0	6.6			36.4			23.8	
Level of Service	A	A		A	A			D			C	
Approach Delay (s)		7.7			6.6			36.4			23.8	
Approach LOS		A			A			D			C	

Intersection Summary		
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.55	B
Actuated Cycle Length (s)	80.0	Sum of lost time (s)
Intersection Capacity Utilization	58.0%	8.3
Analysis Period (min)	15	ICU Level of Service
c Critical Lane Group		B

56: Madison Ave & Orange Grove Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↘	
Traffic Volume (vph)	923	18	7	688	8	32
Future Volume (vph)	923	18	7	688	8	32
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width	12	12	10	12	12	12
Total Lost time (s)	5.3		4.6	5.3	4.6	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	1.00		1.00	1.00	0.89	
Flt Protected	1.00		0.95	1.00	0.99	
Satd. Flow (prot)	3158		1478	3167	1471	
Flt Permitted	1.00		0.25	1.00	0.99	
Satd. Flow (perm)	3158		385	3167	1471	
Peak-hour factor, PHF	0.82	0.82	0.92	0.92	0.71	0.71
Adj. Flow (vph)	1126	22	8	748	11	45
RTOR Reduction (vph)	2	0	0	0	40	0
Lane Group Flow (vph)	1146	0	8	748	16	0
Turn Type	NA		custom	NA	Prot	
Protected Phases	2 4			6	3	
Permitted Phases			4 6			
Actuated Green, G (s)	61.9		61.9	38.4	8.2	
Effective Green, g (s)	57.3		61.9	38.4	8.2	
Actuated g/C Ratio	0.72		0.77	0.48	0.10	
Clearance Time (s)				5.3	4.6	
Vehicle Extension (s)				4.8	3.0	
Lane Grp Cap (vph)	2261		297	1520	150	
v/s Ratio Prot	c0.36			0.24	c0.01	
v/s Ratio Perm			0.02			
v/c Ratio	0.51		0.03	0.49	0.10	
Uniform Delay, d1	5.1		2.1	14.2	32.6	
Progression Factor	0.87		0.46	0.68	1.00	
Incremental Delay, d2	0.1		0.0	1.1	0.3	
Delay (s)	4.5		1.0	10.7	32.9	
Level of Service	A		A	B	C	
Approach Delay (s)	4.5			10.6	32.9	
Approach LOS	A			B	C	

Intersection Summary			
HCM 2000 Control Delay	7.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

61: Catalina Ave. & Washington Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (vph)	17	818	17	18	915	40	12	44	19	58	45	41
Future Volume (vph)	17	818	17	18	915	40	12	44	19	58	45	41
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	12	13	12	12	13	12	12	11	12	12	16	12
Total Lost time (s)		5.3			5.3			5.3			5.3	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			0.99			0.97			0.96	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		3259			3249			1543			1781	
Flt Permitted		0.92			0.93			0.94			0.86	
Satd. Flow (perm)		3014			3023			1462			1554	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.91	0.91	0.91	0.83	0.83	0.83
Adj. Flow (vph)	18	852	18	19	953	42	13	48	21	70	54	49
RTOR Reduction (vph)	0	1	0	0	2	0	0	16	0	0	19	0
Lane Group Flow (vph)	0	887	0	0	1012	0	0	66	0	0	154	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		57.5			57.5			14.5			14.5	
Effective Green, g (s)		57.5			57.5			14.5			14.5	
Actuated g/C Ratio		0.62			0.62			0.16			0.16	
Clearance Time (s)		5.3			5.3			5.3			5.3	
Vehicle Extension (s)		4.8			4.8			3.0			3.0	
Lane Grp Cap (vph)		1883			1889			230			244	
v/s Ratio Prot												
v/s Ratio Perm		0.29			c0.33			0.05			c0.10	
v/c Ratio		0.47			0.54			0.29			0.63	
Uniform Delay, d1		9.2			9.7			34.2			36.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.8			1.1			0.7			5.3	
Delay (s)		10.0			10.8			34.9			41.5	
Level of Service		B			B			C			D	
Approach Delay (s)		10.0			10.8			34.9			41.5	
Approach LOS		B			B			C			D	

Intersection Summary

HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	68.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

69: Orange Grove Blvd. & Madison Ave.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

























Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	22	924	684	12	17	36
Future Volume (vph)	22	924	684	12	17	36
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	12	16	12
Total Lost time (s)	5.3	5.3	4.6		4.6	
Lane Util. Factor	1.00	0.95	0.95		1.00	
Frt	1.00	1.00	1.00		0.91	
Flt Protected	0.95	1.00	1.00		0.98	
Satd. Flow (prot)	1478	3167	3158		1688	
Flt Permitted	0.32	1.00	1.00		0.98	
Satd. Flow (perm)	495	3167	3158		1688	
Peak-hour factor, PHF	0.82	0.82	0.92	0.92	0.70	0.70
Adj. Flow (vph)	27	1127	743	13	24	51
RTOR Reduction (vph)	0	0	1	0	39	0
Lane Group Flow (vph)	27	1127	755	0	36	0
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	3	6		4
Permitted Phases	2					
Actuated Green, G (s)	38.4	38.4	51.9		18.9	
Effective Green, g (s)	38.4	38.4	46.6		18.9	
Actuated g/C Ratio	0.48	0.48	0.58		0.24	
Clearance Time (s)	5.3	5.3			4.6	
Vehicle Extension (s)	4.8	4.8			3.0	
Lane Grp Cap (vph)	237	1520	1839		398	
v/s Ratio Prot		c0.36	c0.24		c0.02	
v/s Ratio Perm	0.05					
v/c Ratio	0.11	0.74	0.41		0.09	
Uniform Delay, d1	11.4	16.8	9.2		23.8	
Progression Factor	1.00	1.00	0.01		1.00	
Incremental Delay, d2	1.0	3.3	0.1		0.1	
Delay (s)	12.4	20.1	0.2		23.9	
Level of Service	B	C	A		C	
Approach Delay (s)		19.9	0.2		23.9	
Approach LOS		B	A		C	

Intersection Summary

HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	42.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

133: El Molino Ave. & Orange Grove Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				 
Traffic Volume (vph)	55	837	78	32	614	39	56	232	88	35	100	33
Future Volume (vph)	55	837	78	32	614	39	56	232	88	35	100	33
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	10	12	12	12	12	12	16	16	16
Total Lost time (s)	5.3	5.3		5.3	5.3			4.9			4.9	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.97			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1478	3126		1478	3138			1602			1820	
Flt Permitted	0.32	1.00		0.19	1.00			0.93			0.84	
Satd. Flow (perm)	504	3126		303	3138			1496			1554	
Peak-hour factor, PHF	0.85	0.85	0.85	0.87	0.87	0.87	0.90	0.90	0.90	0.84	0.84	0.84
Adj. Flow (vph)	65	985	92	37	706	45	62	258	98	42	119	39
RTOR Reduction (vph)	0	10	0	0	7	0	0	13	0	0	10	0
Lane Group Flow (vph)	65	1067	0	37	744	0	0	405	0	0	190	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	43.3	43.3		43.3	43.3			26.5			26.5	
Effective Green, g (s)	43.3	43.3		43.3	43.3			26.5			26.5	
Actuated g/C Ratio	0.54	0.54		0.54	0.54			0.33			0.33	
Clearance Time (s)	5.3	5.3		5.3	5.3			4.9			4.9	
Vehicle Extension (s)	4.8	4.8		4.8	4.8			3.0			3.0	
Lane Grp Cap (vph)	272	1691		163	1698			495			514	
v/s Ratio Prot		c0.34			0.24							
v/s Ratio Perm	0.13			0.12				c0.27			0.12	
v/c Ratio	0.24	0.63		0.23	0.44			0.82			0.37	
Uniform Delay, d1	9.7	12.8		9.6	11.0			24.5			20.4	
Progression Factor	1.29	1.16		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.9	1.6		3.2	0.8			10.2			0.5	
Delay (s)	14.3	16.5		12.8	11.9			34.7			20.8	
Level of Service	B	B		B	B			C			C	
Approach Delay (s)		16.4			11.9			34.7			20.8	
Approach LOS		B			B			C			C	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			18.3									B
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			80.0						10.2			
Intersection Capacity Utilization			78.1%									D
Analysis Period (min)			15									
c Critical Lane Group												



170: El Molino Ave. & Cordova St.  
 HCM Signalized Intersection Capacity Analysis




















Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	380	38	67	478	27	22	216	56	52	280	41
Future Volume (vph)	19	380	38	67	478	27	22	216	56	52	280	41
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	10	12	12	12	16	12	12	14	12
Total Lost time (s)	5.3	5.3		5.3	5.3			4.6			4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.97			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1478	3123		1478	3142			1833			1739	
Flt Permitted	0.34	1.00		0.43	1.00			0.96			0.91	
Satd. Flow (perm)	528	3123		666	3142			1761			1602	
Peak-hour factor, PHF	0.91	0.91	0.91	0.89	0.89	0.89	0.88	0.88	0.88	0.85	0.85	0.85
Adj. Flow (vph)	21	418	42	75	537	30	25	245	64	61	329	48
RTOR Reduction (vph)	0	12	0	0	6	0	0	11	0	0	6	0
Lane Group Flow (vph)	21	448	0	75	561	0	0	323	0	0	432	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	20.2	20.2		20.2	20.2			39.9			39.9	
Effective Green, g (s)	20.2	20.2		20.2	20.2			39.9			39.9	
Actuated g/C Ratio	0.29	0.29		0.29	0.29			0.57			0.57	
Clearance Time (s)	5.3	5.3		5.3	5.3			4.6			4.6	
Vehicle Extension (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Grp Cap (vph)	152	901		192	906			1003			913	
v/s Ratio Prot		0.14			c0.18							
v/s Ratio Perm	0.04			0.11				0.18			c0.27	
v/c Ratio	0.14	0.50		0.39	0.62			0.32			0.47	
Uniform Delay, d1	18.5	20.7		20.0	21.6			7.9			8.9	
Progression Factor	0.91	0.90		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.8	0.8		2.5	1.7			0.9			1.8	
Delay (s)	17.6	19.4		22.5	23.3			8.8			10.6	
Level of Service	B	B		C	C			A			B	
Approach Delay (s)		19.3			23.2			8.8			10.6	
Approach LOS		B			C			A			B	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			16.8								HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			70.0								Sum of lost time (s)	9.9
Intersection Capacity Utilization			69.5%								ICU Level of Service	C
Analysis Period (min)			15									
c Critical Lane Group												
























174: El Molino Ave. & Del Mar Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	827	82	127	928	36	34	224	64	40	322	24
Future Volume (vph)	33	827	82	127	928	36	34	224	64	40	322	24
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	9	11	11	10	11	11	12	16	12	12	14	12
Total Lost time (s)	4.8	4.8		4.8	4.8			4.1			4.1	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.97			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1425	3020		1478	3044			1829			1754	
Flt Permitted	0.21	1.00		0.23	1.00			0.91			0.93	
Satd. Flow (perm)	312	3020		361	3044			1672			1634	
Peak-hour factor, PHF	0.95	0.95	0.95	0.94	0.94	0.94	0.89	0.89	0.89	0.82	0.82	0.82
Adj. Flow (vph)	35	871	86	135	987	38	38	252	72	49	393	29
RTOR Reduction (vph)	0	9	0	0	4	0	0	9	0	0	3	0
Lane Group Flow (vph)	35	948	0	135	1021	0	0	353	0	0	468	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	49.3	49.3		49.3	49.3			31.8			31.8	
Effective Green, g (s)	49.3	49.3		49.3	49.3			31.8			31.8	
Actuated g/C Ratio	0.55	0.55		0.55	0.55			0.35			0.35	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.1			4.1	
Vehicle Extension (s)	4.8	4.8		4.8	4.8			3.0			3.0	
Lane Grp Cap (vph)	170	1654		197	1667			590			577	
v/s Ratio Prot		0.31			0.34							
v/s Ratio Perm	0.11			c0.37				0.21			c0.29	
v/c Ratio	0.21	0.57		0.69	0.61			0.60			0.81	
Uniform Delay, d1	10.4	13.4		14.7	13.9			23.9			26.4	
Progression Factor	0.98	1.03		1.50	1.49			1.00			1.00	
Incremental Delay, d2	2.4	1.3		15.6	1.5			1.6			8.5	
Delay (s)	12.6	15.0		37.7	22.2			25.5			34.9	
Level of Service	B	B		D	C			C			C	
Approach Delay (s)		14.9			24.0			25.5			34.9	
Approach LOS		B			C			C			C	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			22.9								HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			90.0								Sum of lost time (s)	8.9
Intersection Capacity Utilization			80.1%								ICU Level of Service	D
Analysis Period (min)			15									
c Critical Lane Group												



























182: El Molino Ave. & California Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	 
Traffic Volume (vph)	67	1080	36	19	803	63	22	196	68	52	328	42
Future Volume (vph)	67	1080	36	19	803	63	22	196	68	52	328	42
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	9	10	12	8	10	12	12	11	12	12	10	9
Total Lost time (s)	5.3	5.3			5.3			3.9			3.9	3.9
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	1.00
Frt	1.00	1.00			0.99			0.97			1.00	0.85
Flt Protected	0.95	1.00			1.00			1.00			0.99	1.00
Satd. Flow (prot)	1425	2941			2921			1553			1545	1275
Flt Permitted	0.25	1.00			0.91			0.87			0.89	1.00
Satd. Flow (perm)	375	2941			2666			1353			1389	1275
Peak-hour factor, PHF	0.94	0.94	0.94	0.95	0.95	0.95	0.86	0.86	0.86	0.90	0.90	0.90
Adj. Flow (vph)	71	1149	38	20	845	66	26	228	79	58	364	47
RTOR Reduction (vph)	0	3	0	0	8	0	0	11	0	0	0	19
Lane Group Flow (vph)	71	1184	0	0	923	0	0	322	0	0	422	28
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		4
Actuated Green, G (s)	50.7	50.7			50.7			30.1			30.1	30.1
Effective Green, g (s)	50.7	50.7			50.7			30.1			30.1	30.1
Actuated g/C Ratio	0.56	0.56			0.56			0.33			0.33	0.33
Clearance Time (s)	5.3	5.3			5.3			3.9			3.9	3.9
Vehicle Extension (s)	4.8	4.8			4.8			4.8			4.8	4.8
Lane Grp Cap (vph)	211	1656			1501			452			464	426
v/s Ratio Prot		c0.40										
v/s Ratio Perm	0.19				0.35			0.24			c0.30	0.02
v/c Ratio	0.34	0.71			0.62			0.71			0.91	0.07
Uniform Delay, d1	10.6	14.4			13.1			26.2			28.6	20.4
Progression Factor	1.65	1.66			1.17			1.00			1.00	1.00
Incremental Delay, d2	3.0	1.9			1.8			6.3			22.4	0.1
Delay (s)	20.5	25.8			17.1			32.5			51.1	20.5
Level of Service	C	C			B			C			D	C
Approach Delay (s)		25.5			17.1			32.5			48.0	
Approach LOS		C			B			C			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			27.2									C
HCM 2000 Volume to Capacity ratio			0.79									
Actuated Cycle Length (s)			90.0							9.2		
Intersection Capacity Utilization			107.2%									G
Analysis Period (min)			15									
c Critical Lane Group												

221: Lake Ave. & Orange Grove Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Traffic Volume (vph)	178	662	99	120	450	122	112	891	158	181	864	153
Future Volume (vph)	178	662	99	120	450	122	112	891	158	181	864	153
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	9	10	12	10	11	12	10	11	11	9	10	10
Total Lost time (s)	3.2	6.3		3.2	6.3		3.2	6.3	6.3	3.2	6.3	6.3
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.98		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1425	2898		1478	2963		1478	3061	1369	1425	2956	1322
Flt Permitted	0.27	1.00		0.15	1.00		0.15	1.00	1.00	0.12	1.00	1.00
Satd. Flow (perm)	402	2898		238	2963		239	3061	1369	183	2956	1322
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.90	0.90	0.90	0.96	0.96	0.96
Adj. Flow (vph)	196	727	109	132	495	134	124	990	176	189	900	159
RTOR Reduction (vph)	0	12	0	0	25	0	0	0	73	0	0	71
Lane Group Flow (vph)	196	824	0	132	604	0	124	990	103	189	900	88
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4		5	2		1	6	
Permitted Phases	8			4			2		2	6		6
Actuated Green, G (s)	40.0	29.6		38.6	28.9		40.0	31.1	31.1	43.4	32.8	32.8
Effective Green, g (s)	40.0	29.6		38.6	28.9		40.0	31.1	31.1	43.4	32.8	32.8
Actuated g/C Ratio	0.40	0.30		0.39	0.29		0.40	0.31	0.31	0.43	0.33	0.33
Clearance Time (s)	3.2	6.3		3.2	6.3		3.2	6.3	6.3	3.2	6.3	6.3
Vehicle Extension (s)	2.5	1.0		2.5	1.0		2.5	4.8	4.8	3.0	4.5	4.5
Lane Grp Cap (vph)	267	857		212	856		205	951	425	211	969	433
v/s Ratio Prot	c0.08	c0.28		0.06	0.20		0.05	c0.32		c0.09	0.30	
v/s Ratio Perm	0.22			0.18			0.19		0.08	0.29		0.07
v/c Ratio	0.73	0.96		0.62	0.71		0.60	1.04	0.24	0.90	0.93	0.20
Uniform Delay, d1	21.7	34.6		22.4	31.8		21.4	34.5	25.7	23.1	32.5	24.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.5	21.6		4.8	2.2		4.2	40.4	1.3	34.7	16.1	1.1
Delay (s)	31.1	56.3		27.2	33.9		25.6	74.9	27.0	57.8	48.6	25.2
Level of Service	C	E		C	C		C	E	C	E	D	C
Approach Delay (s)		51.5			32.8			63.6			47.0	
Approach LOS		D			C			E			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			50.5									D
HCM 2000 Volume to Capacity ratio			0.96									
Actuated Cycle Length (s)			100.0								19.0	
Intersection Capacity Utilization			87.3%									E
Analysis Period (min)			15									
c Critical Lane Group												























223: Los Robles Ave. & Cordova St.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	226	23	101	444	126	29	477	39	103	450	103
Future Volume (vph)	39	226	23	101	444	126	29	477	39	103	450	103
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	10	16	12	10	13	12	10	10	16
Total Lost time (s)	6.3	6.3		6.3	6.3		3.9	3.9		3.9	3.9	3.9
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.97		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1478	3122		1478	3470		1478	3235		1478	1556	1606
Flt Permitted	0.33	1.00		0.58	1.00		0.40	1.00		0.42	1.00	1.00
Satd. Flow (perm)	520	3122		905	3470		618	3235		657	1556	1606
Peak-hour factor, PHF	0.90	0.90	0.90	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97
Adj. Flow (vph)	43	251	26	111	488	138	31	502	41	106	464	106
RTOR Reduction (vph)	0	12	0	0	39	0	0	8	0	0	0	50
Lane Group Flow (vph)	43	265	0	111	587	0	31	535	0	106	464	56
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		2
Actuated Green, G (s)	22.5	22.5		22.5	22.5		37.3	37.3		37.3	37.3	37.3
Effective Green, g (s)	22.5	22.5		22.5	22.5		37.3	37.3		37.3	37.3	37.3
Actuated g/C Ratio	0.32	0.32		0.32	0.32		0.53	0.53		0.53	0.53	0.53
Clearance Time (s)	6.3	6.3		6.3	6.3		3.9	3.9		3.9	3.9	3.9
Vehicle Extension (s)	4.8	4.8		4.8	4.8		4.8	4.8		4.8	4.8	4.8
Lane Grp Cap (vph)	167	1003		290	1115		329	1723		350	829	855
v/s Ratio Prot		0.09			c0.17			0.17			c0.30	
v/s Ratio Perm	0.08			0.12			0.05			0.16		0.04
v/c Ratio	0.26	0.26		0.38	0.53		0.09	0.31		0.30	0.56	0.07
Uniform Delay, d1	17.6	17.6		18.4	19.4		8.0	9.2		9.1	10.9	7.9
Progression Factor	1.00	1.00		0.41	0.35		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.6	0.3		1.5	0.7		0.6	0.5		2.2	2.7	0.1
Delay (s)	19.2	17.9		9.0	7.5		8.6	9.6		11.3	13.6	8.1
Level of Service	B	B		A	A		A	A		B	B	A
Approach Delay (s)		18.1			7.7			9.6			12.4	
Approach LOS		B			A			A			B	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			11.0				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.55									
Actuated Cycle Length (s)			70.0				Sum of lost time (s)			10.2		
Intersection Capacity Utilization			92.1%				ICU Level of Service			F		
Analysis Period (min)			15									
c Critical Lane Group												

230: Los Robles Ave. & Del Mar Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	854	37	96	796	70	36	414	73	91	370	114
Future Volume (vph)	54	854	37	96	796	70	36	414	73	91	370	114
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	10	12	12	10	9	9	10	9	9
Total Lost time (s)	3.2	6.3		6.3	6.3		5.9	5.9	5.9	5.9	5.9	3.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1478	3147		1478	3128		1478	1500	1275	1478	1500	1275
Flt Permitted	0.21	1.00		0.31	1.00		0.32	1.00	1.00	0.27	1.00	1.00
Satd. Flow (perm)	321	3147		488	3128		493	1500	1275	418	1500	1275
Peak-hour factor, PHF	0.98	0.98	0.98	0.97	0.97	0.97	0.93	0.93	0.93	0.91	0.91	0.91
Adj. Flow (vph)	55	871	38	99	821	72	39	445	78	100	407	125
RTOR Reduction (vph)	0	4	0	0	7	0	0	0	52	0	0	36
Lane Group Flow (vph)	55	905	0	99	886	0	39	445	26	100	407	89
Turn Type	pm+pt	NA		Perm	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	3	8			4			2			2	3
Permitted Phases	8			4			2		2	2		2
Actuated Green, G (s)	48.1	48.1		39.1	39.1		29.7	29.7	29.7	29.7	29.7	35.5
Effective Green, g (s)	48.1	48.1		39.1	39.1		29.7	29.7	29.7	29.7	29.7	35.5
Actuated g/C Ratio	0.53	0.53		0.43	0.43		0.33	0.33	0.33	0.33	0.33	0.39
Clearance Time (s)	3.2	6.3		6.3	6.3		5.9	5.9	5.9	5.9	5.9	3.2
Vehicle Extension (s)	1.5	4.8		4.8	4.8		4.8	4.8	4.8	4.8	4.8	1.5
Lane Grp Cap (vph)	246	1681		212	1358		162	495	420	137	495	502
v/s Ratio Prot	0.01	c0.29			c0.28			c0.30			0.27	0.01
v/s Ratio Perm	0.10			0.20			0.08		0.02	0.24		0.06
v/c Ratio	0.22	0.54		0.47	0.65		0.24	0.90	0.06	0.73	0.82	0.18
Uniform Delay, d1	11.5	13.7		18.1	20.1		21.9	28.7	20.6	26.6	27.7	17.7
Progression Factor	1.00	1.00		0.56	0.49		0.64	0.72	0.18	1.00	1.00	1.00
Incremental Delay, d2	0.2	1.2		6.1	2.1		0.9	13.3	0.1	20.6	11.7	0.1
Delay (s)	11.7	14.9		16.2	11.9		15.0	34.0	3.9	47.2	39.4	17.8
Level of Service	B	B		B	B		B	C	A	D	D	B
Approach Delay (s)		14.8			12.4			28.5			36.4	
Approach LOS		B			B			C			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			20.8									C
HCM 2000 Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			90.0						15.4			
Intersection Capacity Utilization			84.0%									E
Analysis Period (min)			15									
c Critical Lane Group												

235: Los Robles Ave. & California Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	1054	27	31	815	77	20	365	82	36	396	53
Future Volume (vph)	112	1054	27	31	815	77	20	365	82	36	396	53
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	9	10	12	9	10	12	12	10	12	12	12	10
Total Lost time (s)	5.9	5.9			5.9			3.9	3.9		3.9	3.9
Lane Util. Factor	1.00	0.95			0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00			0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00			1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1425	2945			2914			1551	1417		1660	1322
Flt Permitted	0.20	1.00			0.85			0.88	1.00		0.87	1.00
Satd. Flow (perm)	301	2945			2489			1371	1417		1453	1322
Peak-hour factor, PHF	0.92	0.92	0.92	0.90	0.90	0.90	0.93	0.93	0.93	0.85	0.85	0.85
Adj. Flow (vph)	122	1146	29	34	906	86	22	392	88	42	466	62
RTOR Reduction (vph)	0	2	0	0	8	0	0	0	27	0	0	22
Lane Group Flow (vph)	122	1173	0	0	1018	0	0	414	61	0	508	40
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4		4	4		4
Actuated Green, G (s)	46.0	46.0			46.0			34.2	34.2		34.2	34.2
Effective Green, g (s)	46.0	46.0			46.0			34.2	34.2		34.2	34.2
Actuated g/C Ratio	0.51	0.51			0.51			0.38	0.38		0.38	0.38
Clearance Time (s)	5.9	5.9			5.9			3.9	3.9		3.9	3.9
Vehicle Extension (s)	4.8	4.8			4.8			4.8	4.8		4.8	4.8
Lane Grp Cap (vph)	153	1505			1272			520	538		552	502
v/s Ratio Prot		0.40										
v/s Ratio Perm	0.41				0.41			0.30	0.04		0.35	0.03
v/c Ratio	0.80	0.78			0.80			0.80	0.11		0.92	0.08
Uniform Delay, d1	18.2	17.9			18.2			24.8	18.1		26.6	17.8
Progression Factor	1.00	1.00			0.79			1.00	1.00		0.59	0.21
Incremental Delay, d2	33.8	4.1			4.9			9.3	0.2		16.8	0.1
Delay (s)	51.9	21.9			19.2			34.1	18.3		32.5	3.8
Level of Service	D	C			B			C	B		C	A
Approach Delay (s)		24.8			19.2			31.3			29.3	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	24.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	127.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

241: Hudson Ave. & Cordova St.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑			↑↑			↖↗	↖			
Traffic Volume (vph)	37	462	0	0	507	79	52	282	138	0	0	0
Future Volume (vph)	37	462	0	0	507	79	52	282	138	0	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	12	12	12	12	13	13	12	12	12
Total Lost time (s)	3.9	3.9			3.9			3.2	3.9			
Lane Util. Factor	1.00	0.95			0.95			0.95	1.00			
Frt	1.00	1.00			0.98			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.99	1.00			
Satd. Flow (prot)	1478	3167			3103			3247	1464			
Flt Permitted	0.39	1.00			1.00			0.99	1.00			
Satd. Flow (perm)	606	3167			3103			3247	1464			
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.89	0.89	0.89	0.25	0.25	0.25
Adj. Flow (vph)	39	491	0	0	570	89	58	317	155	0	0	0
RTOR Reduction (vph)	0	0	0	0	12	0	0	0	55	0	0	0
Lane Group Flow (vph)	39	491	0	0	647	0	0	375	100	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	custom			
Protected Phases		2			2			4				
Permitted Phases	2						4		2			
Actuated Green, G (s)	38.9	38.9			38.9			14.0	38.9			
Effective Green, g (s)	38.9	38.9			38.9			14.0	38.9			
Actuated g/C Ratio	0.65	0.65			0.65			0.23	0.65			
Clearance Time (s)	3.9	3.9			3.9			3.2	3.9			
Vehicle Extension (s)	4.8	4.8			4.8			4.8	4.8			
Lane Grp Cap (vph)	392	2053			2011			757	949			
v/s Ratio Prot		0.16			0.21							
v/s Ratio Perm	0.06							0.12	0.07			
v/c Ratio	0.10	0.24			0.32			0.50	0.11			
Uniform Delay, d1	4.0	4.4			4.7			19.9	4.0			
Progression Factor	1.00	1.00			1.00			1.00	1.00			
Incremental Delay, d2	0.5	0.3			0.4			1.0	0.2			
Delay (s)	4.5	4.7			5.1			20.9	4.2			
Level of Service	A	A			A			C	A			
Approach Delay (s)		4.7			5.1			16.0			0.0	
Approach LOS		A			A			B			A	

Intersection Summary

HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	7.1
Intersection Capacity Utilization	42.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



243: Hudson Ave. & Del Mar Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↙↑	↘			
Traffic Volume (vph)	50	914	0	0	997	88	168	238	210	0	0	0
Future Volume (vph)	50	914	0	0	997	88	168	238	210	0	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.3	4.3			4.3			3.6	3.6			
Lane Util. Factor	1.00	0.95			0.95			0.95	1.00			
Frt	1.00	1.00			0.99			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.98	1.00			
Satd. Flow (prot)	1478	3167			3128			3102	1417			
Flt Permitted	0.21	1.00			1.00			0.98	1.00			
Satd. Flow (perm)	333	3167			3128			3102	1417			
Peak-hour factor, PHF	0.94	0.94	0.94	0.96	0.96	0.96	0.93	0.93	0.93	0.25	0.25	0.25
Adj. Flow (vph)	53	972	0	0	1039	92	181	256	226	0	0	0
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	106	0	0	0
Lane Group Flow (vph)	53	972	0	0	1125	0	0	437	120	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		2			2			4				
Permitted Phases	2						4		4			
Actuated Green, G (s)	62.4	62.4			62.4			19.7	19.7			
Effective Green, g (s)	62.4	62.4			62.4			19.7	19.7			
Actuated g/C Ratio	0.69	0.69			0.69			0.22	0.22			
Clearance Time (s)	4.3	4.3			4.3			3.6	3.6			
Vehicle Extension (s)	4.8	4.8			4.8			3.0	3.0			
Lane Grp Cap (vph)	230	2195			2168			678	310			
v/s Ratio Prot		0.31			0.36							
v/s Ratio Perm	0.16							0.14	0.08			
v/c Ratio	0.23	0.44			0.52			0.64	0.39			
Uniform Delay, d1	5.0	6.1			6.6			32.0	30.0			
Progression Factor	0.73	0.86			1.00			1.13	1.30			
Incremental Delay, d2	2.0	0.6			0.9			2.1	0.8			
Delay (s)	5.7	5.8			7.5			38.1	39.7			
Level of Service	A	A			A			D	D			
Approach Delay (s)		5.8			7.5			38.7			0.0	
Approach LOS		A			A			D			A	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			14.2				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.55									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)		7.9			
Intersection Capacity Utilization			65.6%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

246: Hudson Ave. & California Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	185	999	11	14	794	144	6	14	1	0	0	0
Future Volume (vph)	185	999	11	14	794	144	6	14	1	0	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	9	10	12	9	10	12	12	15	12	12	16	12
Total Lost time (s)	4.9	4.9			4.9			4.9				
Lane Util. Factor	1.00	0.95			0.95			1.00				
Frt	1.00	1.00			0.98			0.99				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1425	2951			2887			1797				
Flt Permitted	0.29	1.00			0.94			0.99				
Satd. Flow (perm)	436	2951			2703			1797				
Peak-hour factor, PHF	0.95	0.95	0.95	0.97	0.97	0.97	0.88	0.88	0.88	0.25	0.25	0.25
Adj. Flow (vph)	195	1052	12	14	819	148	7	16	1	0	0	0
RTOR Reduction (vph)	0	0	0	0	6	0	0	1	0	0	0	0
Lane Group Flow (vph)	195	1064	0	0	975	0	0	23	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		2			2			4				
Permitted Phases	2			2			4					
Actuated Green, G (s)	77.0	77.0			77.0			3.2				
Effective Green, g (s)	77.0	77.0			77.0			3.2				
Actuated g/C Ratio	0.86	0.86			0.86			0.04				
Clearance Time (s)	4.9	4.9			4.9			4.9				
Vehicle Extension (s)	4.8	4.8			4.8			3.0				
Lane Grp Cap (vph)	373	2524			2312			63				
v/s Ratio Prot		0.36										
v/s Ratio Perm	c0.45				0.36			0.01				
v/c Ratio	0.52	0.42			0.42			0.37				
Uniform Delay, d1	1.7	1.5			1.5			42.4				
Progression Factor	1.77	1.52			1.00			1.00				
Incremental Delay, d2	4.0	0.4			0.6			3.6				
Delay (s)	7.0	2.6			2.0			46.0				
Level of Service	A	A			A			D				
Approach Delay (s)		3.3			2.0			46.0			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM 2000 Control Delay	3.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

254: Sierra Bonita Ave. & Washington Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Traffic Volume (vph)	13	808	16	22	772	18	17	5	34	29	8	16
Future Volume (vph)	13	808	16	22	772	18	17	5	34	29	8	16
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	12	11	12	12	11	12	12	15	12	12	16	12
Total Lost time (s)		4.3			4.3			3.6			3.6	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		1.00			1.00			0.92			0.96	
Flt Protected		1.00			1.00			0.98			0.97	
Satd. Flow (prot)		2898			2894			1658			1763	
Flt Permitted		0.94			0.92			0.91			0.80	
Satd. Flow (perm)		2725			2661			1531			1451	
Peak-hour factor, PHF	0.93	0.93	0.93	0.97	0.97	0.97	0.82	0.82	0.82	0.70	0.70	0.70
Adj. Flow (vph)	14	869	17	23	796	19	21	6	41	41	11	23
RTOR Reduction (vph)	0	1	0	0	1	0	0	37	0	0	21	0
Lane Group Flow (vph)	0	899		0	0	837	0	0	31	0	0	54
Parking (#/hr)		0			0							
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		74.0			74.0			8.1			8.1	
Effective Green, g (s)		74.0			74.0			8.1			8.1	
Actuated g/C Ratio		0.82			0.82			0.09			0.09	
Clearance Time (s)		4.3			4.3			3.6			3.6	
Vehicle Extension (s)		4.8			4.8			3.0			3.0	
Lane Grp Cap (vph)		2240			2187			137			130	
v/s Ratio Prot												
v/s Ratio Perm		c0.33			0.31			0.02			c0.04	
v/c Ratio		0.40			0.38			0.22			0.42	
Uniform Delay, d1		2.1			2.1			38.0			38.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.5			0.5			0.8			2.2	
Delay (s)		2.7			2.6			38.9			40.9	
Level of Service		A			A			D			D	
Approach Delay (s)		2.7			2.6			38.9			40.9	
Approach LOS		A			A			D			D	

Intersection Summary

HCM 2000 Control Delay	5.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.9
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

295: Colorado Blvd. & Sierra Bonita Ave.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	42	1038	750	79	39	48
Future Volume (vph)	42	1038	750	79	39	48
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width	10	11	10	10	16	12
Total Lost time (s)	4.9	4.9	4.9	4.9	4.6	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.93	
Flt Protected	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (prot)	1478	2908	2956	1190	1710	
Flt Permitted	0.33	1.00	1.00	1.00	0.98	
Satd. Flow (perm)	516	2908	2956	1190	1710	
Peak-hour factor, PHF	0.91	0.91	0.89	0.89	0.84	0.84
Adj. Flow (vph)	46	1141	843	89	46	57
RTOR Reduction (vph)	0	0	0	11	52	0
Lane Group Flow (vph)	46	1141	843	78	51	0
Parking (#/hr)		0		0		
Turn Type	Perm	NA	NA	Perm	Perm	
Protected Phases		2	2			
Permitted Phases	2			2	4	
Actuated Green, G (s)	63.1	63.1	63.1	63.1	7.4	
Effective Green, g (s)	63.1	63.1	63.1	63.1	7.4	
Actuated g/C Ratio	0.79	0.79	0.79	0.79	0.09	
Clearance Time (s)	4.9	4.9	4.9	4.9	4.6	
Vehicle Extension (s)	4.8	4.8	4.8	4.8	3.0	
Lane Grp Cap (vph)	406	2293	2331	938	158	
v/s Ratio Prot		c0.39	0.29			
v/s Ratio Perm	0.09			0.07	c0.03	
v/c Ratio	0.11	0.50	0.36	0.08	0.32	
Uniform Delay, d1	2.0	2.9	2.5	1.9	34.0	
Progression Factor	0.65	0.52	1.00	1.00	1.00	
Incremental Delay, d2	0.5	0.7	0.4	0.2	1.2	
Delay (s)	1.8	2.2	2.9	2.1	35.2	
Level of Service	A	A	A	A	D	
Approach Delay (s)		2.2	2.9		35.2	
Approach LOS		A	A		D	

Intersection Summary			
HCM 2000 Control Delay	4.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.5
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

319: Colorado Blvd. & Marion Ave.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	52	1061	783	15	25	40
Future Volume (vph)	52	1061	783	15	25	40
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width	10	10	10	12	12	12
Total Lost time (s)	4.9	4.9	4.9	4.9	4.6	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.92	
Flt Protected	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (prot)	1478	2956	2956	1275	1500	
Flt Permitted	0.35	1.00	1.00	1.00	0.98	
Satd. Flow (perm)	538	2956	2956	1275	1500	
Peak-hour factor, PHF	0.92	0.92	0.97	0.97	0.81	0.81
Adj. Flow (vph)	57	1153	807	15	31	49
RTOR Reduction (vph)	0	0	0	2	45	0
Lane Group Flow (vph)	57	1153	807	13	35	0
Parking (#/hr)				0		
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)	63.3	63.3	63.3	63.3	7.2	
Effective Green, g (s)	63.3	63.3	63.3	63.3	7.2	
Actuated g/C Ratio	0.79	0.79	0.79	0.79	0.09	
Clearance Time (s)	4.9	4.9	4.9	4.9	4.6	
Vehicle Extension (s)	5.8	5.8	5.8	5.8	3.0	
Lane Grp Cap (vph)	425	2338	2338	1008	135	
v/s Ratio Prot		c0.39	0.27		c0.02	
v/s Ratio Perm	0.11			0.01		
v/c Ratio	0.13	0.49	0.35	0.01	0.26	
Uniform Delay, d1	1.9	2.9	2.4	1.8	33.9	
Progression Factor	1.00	1.00	0.60	0.69	1.00	
Incremental Delay, d2	0.7	0.7	0.4	0.0	1.0	
Delay (s)	2.6	3.6	1.8	1.2	35.0	
Level of Service	A	A	A	A	C	
Approach Delay (s)		3.6	1.8		35.0	
Approach LOS		A	A		C	

Intersection Summary

HCM 2000 Control Delay	4.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.5
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

322: Bonnie Ave. & Colorado Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	818	218	95	631	28	156	100	129	34	159	39
Future Volume (vph)	40	818	218	95	631	28	156	100	129	34	159	39
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	10	10	10	10	10	10	11	10	14	10	10	12
Total Lost time (s)	4.9	4.9	4.9	4.9	4.9	4.9	4.2	4.6	4.6	4.2	4.6	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1478	2956	1322	1478	2956	1322	2969	1556	1511	1478	2868	
Flt Permitted	0.35	1.00	1.00	0.26	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	537	2956	1322	406	2956	1322	2969	1556	1511	1478	2868	
Peak-hour factor, PHF	0.89	0.89	0.89	0.88	0.88	0.88	0.80	0.80	0.80	0.83	0.83	0.83
Adj. Flow (vph)	45	919	245	108	717	32	195	125	161	41	192	47
RTOR Reduction (vph)	0	0	51	0	0	13	0	0	130	0	31	0
Lane Group Flow (vph)	45	919	194	108	717	19	195	125	31	41	208	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases		2			2		7	4		3	8	
Permitted Phases	2		2	2		2			4			
Actuated Green, G (s)	53.5	53.5	53.5	53.5	53.5	53.5	12.7	17.4	17.4	5.4	10.1	
Effective Green, g (s)	53.5	53.5	53.5	53.5	53.5	53.5	12.7	17.4	17.4	5.4	10.1	
Actuated g/C Ratio	0.59	0.59	0.59	0.59	0.59	0.59	0.14	0.19	0.19	0.06	0.11	
Clearance Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	4.2	4.6	4.6	4.2	4.6	
Vehicle Extension (s)	4.8	4.8	4.8	4.8	4.8	4.8	2.5	4.8	4.8	2.5	4.8	
Lane Grp Cap (vph)	319	1757	785	241	1757	785	418	300	292	88	321	
v/s Ratio Prot		c0.31			0.24		0.07	c0.08		0.03	c0.07	
v/s Ratio Perm	0.08		0.15	0.27		0.01			0.02			
v/c Ratio	0.14	0.52	0.25	0.45	0.41	0.02	0.47	0.42	0.11	0.47	0.65	
Uniform Delay, d1	8.1	10.7	8.7	10.1	9.8	7.5	35.5	31.8	29.9	40.9	38.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.9	1.1	0.8	5.9	0.7	0.1	0.6	1.8	0.3	2.8	5.8	
Delay (s)	9.0	11.9	9.4	16.0	10.5	7.6	36.1	33.7	30.2	43.7	44.1	
Level of Service	A	B	A	B	B	A	D	C	C	D	D	
Approach Delay (s)		11.3			11.1			33.5			44.0	
Approach LOS		B			B			C			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			18.2				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)			13.7		
Intersection Capacity Utilization			62.4%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

357: Craig Ave. & Colorado Blvd.  
 HCM Signalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↗	↖	↖	↗↗			↖			↖↗	
Traffic Volume (vph)	31	927	27	26	742	42	20	29	21	27	60	37
Future Volume (vph)	31	927	27	26	742	42	20	29	21	27	60	37
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width	12	10	10	10	14	12	12	12	12	12	16	12
Total Lost time (s)	4.9	4.9	4.9	4.9	4.9			4.6			4.6	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00			1.00	
Frt	1.00	1.00	0.85	1.00	0.99			0.96			0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1583	2956	1190	1478	3183			1419			1793	
Flt Permitted	0.32	1.00	1.00	0.27	1.00			0.87			0.92	
Satd. Flow (perm)	525	2956	1190	416	3183			1255			1663	
Peak-hour factor, PHF	0.93	0.93	0.93	0.91	0.91	0.91	0.97	0.97	0.97	0.76	0.76	0.76
Adj. Flow (vph)	33	997	29	29	815	46	21	30	22	36	79	49
RTOR Reduction (vph)	0	0	6	0	3	0	0	19	0	0	25	0
Lane Group Flow (vph)	33	997	23	29	858	0	0	54	0	0	139	0
Parking (#/hr)			0		0			0				
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2		2	2			4			4		
Actuated Green, G (s)	58.2	58.2	58.2	58.2	58.2			12.3			12.3	
Effective Green, g (s)	58.2	58.2	58.2	58.2	58.2			12.3			12.3	
Actuated g/C Ratio	0.73	0.73	0.73	0.73	0.73			0.15			0.15	
Clearance Time (s)	4.9	4.9	4.9	4.9	4.9			4.6			4.6	
Vehicle Extension (s)	5.8	5.8	5.8	5.8	5.8			3.0			3.0	
Lane Grp Cap (vph)	381	2150	865	302	2315			192			255	
v/s Ratio Prot		c0.34			0.27							
v/s Ratio Perm	0.06		0.02	0.07				0.04			c0.08	
v/c Ratio	0.09	0.46	0.03	0.10	0.37			0.28			0.55	
Uniform Delay, d1	3.2	4.5	3.0	3.2	4.1			29.9			31.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.4	0.7	0.1	0.6	0.5			0.8			2.4	
Delay (s)	3.6	5.2	3.1	3.8	4.5			30.8			33.7	
Level of Service	A	A	A	A	A			C			C	
Approach Delay (s)		5.1			4.5			30.8			33.7	
Approach LOS		A			A			C			C	

Intersection Summary

HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.5
Intersection Capacity Utilization	46.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

2: Wilson Ave. & Washington Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Volume (veh/h)	924	9	11	786	9	17
Future Volume (Veh/h)	924	9	11	786	9	17
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.97	0.97	0.65	0.65
Hourly flow rate (vph)	994	10	11	810	14	26
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	390					
pX, platoon unblocked			0.87		0.87	0.87
vC, conflicting volume			1004		1426	502
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			706		1191	129
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		91	97
cM capacity (veh/h)			773		154	780
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	663	341	281	540	40	
Volume Left	0	0	11	0	14	
Volume Right	0	10	0	0	26	
cSH	1700	1700	773	1700	323	
Volume to Capacity	0.39	0.20	0.01	0.32	0.12	
Queue Length 95th (ft)	0	0	1	0	10	
Control Delay (s)	0.0	0.0	0.5	0.0	17.7	
Lane LOS			A		C	
Approach Delay (s)	0.0		0.2		17.7	
Approach LOS					C	
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			43.0%		ICU Level of Service	A
Analysis Period (min)			15			



65: Washington Blvd. & Mar Vista Ave.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↕↕	
Traffic Volume (veh/h)	28	916	763	20	16	34
Future Volume (Veh/h)	28	916	763	20	16	34
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.97	0.97	0.57	0.57
Hourly flow rate (vph)	31	1018	787	21	28	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		695				
pX, platoon unblocked					0.88	
vC, conflicting volume	808				1368	404
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	808				1147	404
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				83	90
cM capacity (veh/h)	813				163	596
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	370	679	525	283	88	
Volume Left	31	0	0	0	28	
Volume Right	0	0	0	21	60	
cSH	813	1700	1700	1700	323	
Volume to Capacity	0.04	0.40	0.31	0.17	0.27	
Queue Length 95th (ft)	3	0	0	0	27	
Control Delay (s)	1.2	0.0	0.0	0.0	20.3	
Lane LOS	A				C	
Approach Delay (s)	0.4		0.0		20.3	
Approach LOS					C	
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			60.9%		ICU Level of Service	B
Analysis Period (min)			15			

67: Mar Vista Ave. & Washington Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Volume (veh/h)	921	11	7	781	2	17
Future Volume (Veh/h)	921	11	7	781	2	17
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.97	0.97	0.68	0.68
Hourly flow rate (vph)	1023	12	7	805	3	25
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	809					
pX, platoon unblocked			0.89		0.89	0.89
vC, conflicting volume			1035		1446	518
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			799		1259	219
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		98	96
cM capacity (veh/h)			732		144	701
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	682	353	275	537	28	
Volume Left	0	0	7	0	3	
Volume Right	0	12	0	0	25	
cSH	1700	1700	732	1700	495	
Volume to Capacity	0.40	0.21	0.01	0.32	0.06	
Queue Length 95th (ft)	0	0	1	0	4	
Control Delay (s)	0.0	0.0	0.4	0.0	12.7	
Lane LOS			A		B	
Approach Delay (s)	0.0		0.1		12.7	
Approach LOS					B	
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			39.6%		ICU Level of Service	A
Analysis Period (min)			15			

71: Orange Grove Blvd. & Catalina Ave.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Traffic Volume (veh/h)	29	881	641	15	2	21
Future Volume (Veh/h)	29	881	641	15	2	21
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.84	0.84	0.64	0.64
Hourly flow rate (vph)	34	1024	763	18	3	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			339			
pX, platoon unblocked	0.92				0.92	0.92
vC, conflicting volume	781				1352	390
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	577				1201	151
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				98	96
cM capacity (veh/h)	909				156	795
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	375	683	509	272	36	
Volume Left	34	0	0	0	3	
Volume Right	0	0	0	18	33	
cSH	909	1700	1700	1700	593	
Volume to Capacity	0.04	0.40	0.30	0.16	0.06	
Queue Length 95th (ft)	3	0	0	0	5	
Control Delay (s)	1.2	0.0	0.0	0.0	11.5	
Lane LOS	A				B	
Approach Delay (s)	0.4		0.0		11.5	
Approach LOS					B	
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			60.7%		ICU Level of Service	B
Analysis Period (min)			15			

72: Catalina Ave. & Orange Grove Blvd.  
 HCM Unsignalized Intersection Capacity Analysis




















Existing Conditions  
 Timing Plan: PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (veh/h)	903	13	20	642	4	7
Future Volume (Veh/h)	903	13	20	642	4	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.84	0.84	0.46	0.46
Hourly flow rate (vph)	1050	15	24	764	9	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	404					
pX, platoon unblocked					0.92	
vC, conflicting volume			1065	1488	532	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1065	1361	532	
tC, single (s)			4.1	6.8	6.9	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			96	93	97	
cM capacity (veh/h)			650	124	492	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	700	365	279	509	24	
Volume Left	0	0	24	0	9	
Volume Right	0	15	0	0	15	
cSH	1700	1700	650	1700	233	
Volume to Capacity	0.41	0.21	0.04	0.30	0.10	
Queue Length 95th (ft)	0	0	3	0	9	
Control Delay (s)	0.0	0.0	1.4	0.0	22.2	
Lane LOS	A			C		
Approach Delay (s)	0.0		0.5		22.2	
Approach LOS				C		
Intersection Summary						
Average Delay	0.5					
Intersection Capacity Utilization			46.0%	ICU Level of Service		A
Analysis Period (min)	15					

74: Mar Vista Ave. & Orange Grove Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	910	18	8	587	9	11	3	13	11	6	17
Future Volume (Veh/h)	27	910	18	8	587	9	11	3	13	11	6	17
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.89	0.89	0.89	0.84	0.84	0.84	0.65	0.65	0.65
Hourly flow rate (vph)	28	948	19	9	660	10	13	4	15	17	9	26
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		435										
pX, platoon unblocked				0.87			0.87	0.87	0.87	0.87	0.87	
vC, conflicting volume	670			967			1392	1702	484	1230	1706	335
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	670			666			1154	1509	111	968	1514	335
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			99			89	96	98	90	91	96
cM capacity (veh/h)	916			801			115	100	802	167	99	661
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	28	632	335	9	440	230	32	52				
Volume Left	28	0	0	9	0	0	13	17				
Volume Right	0	0	19	0	0	10	15	26				
cSH	916	1700	1700	801	1700	1700	186	224				
Volume to Capacity	0.03	0.37	0.20	0.01	0.26	0.14	0.17	0.23				
Queue Length 95th (ft)	2	0	0	1	0	0	15	22				
Control Delay (s)	9.1	0.0	0.0	9.5	0.0	0.0	28.3	25.8				
Lane LOS	A			A			D	D				
Approach Delay (s)	0.3			0.1			28.3	25.8				
Approach LOS							D	D				
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utilization			38.8%		ICU Level of Service			A				
Analysis Period (min)			15									

216: Lake/Lake Ave. & Boylston St.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	46	9	0	17	46	1110	13	14	1101	35
Future Volume (Veh/h)	6	0	46	9	0	17	46	1110	13	14	1101	35
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.77	0.77	0.77	0.81	0.81	0.81	1.00	1.00	1.00	0.96	0.96	0.96
Hourly flow rate (vph)	8	0	60	11	0	21	46	1110	13	15	1147	36
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							TWLTL			TWLTL		
Median storage (veh)							2			2		
Upstream signal (ft)							827					
pX, platoon unblocked	0.74	0.74		0.74	0.74	0.74					0.74	
vC, conflicting volume	1845	2392	574	1866	2415	555	1183			1123		
vC1, stage 1 conf vol	1177	1177		1202	1202							
vC2, stage 2 conf vol	668	1215		664	1213							
vCu, unblocked vol	1438	2178	574	1466	2209	0	1183			462		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	100	87	95	100	97	92			98		
cM capacity (veh/h)	189	195	462	223	170	802	586			810		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	8	60	11	21	46	555	555	13	15	574	574	36
Volume Left	8	0	11	0	46	0	0	0	15	0	0	0
Volume Right	0	60	0	21	0	0	0	13	0	0	0	36
cSH	189	462	223	802	586	1700	1700	1700	810	1700	1700	1700
Volume to Capacity	0.04	0.13	0.05	0.03	0.08	0.33	0.33	0.01	0.02	0.34	0.34	0.02
Queue Length 95th (ft)	3	11	4	2	6	0	0	0	1	0	0	0
Control Delay (s)	24.9	13.9	22.0	9.6	11.7	0.0	0.0	0.0	9.5	0.0	0.0	0.0
Lane LOS	C	B	C	A	B				A			
Approach Delay (s)	15.2		13.9		0.5				0.1			
Approach LOS	C		B									
Intersection Summary												
Average Delay	0.9											
Intersection Capacity Utilization	54.9%			ICU Level of Service						A		
Analysis Period (min)	15											

220: Washington Blvd. & Bresee Ave.  
 HCM Unsignalized Intersection Capacity Analysis



















Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Traffic Volume (veh/h)	31	820	785	20	12	33
Future Volume (Veh/h)	31	820	785	20	12	33
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.87	0.87
Hourly flow rate (vph)	33	882	844	22	14	38
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			303			
pX, platoon unblocked	0.95				0.95	0.95
vC, conflicting volume	866				1362	433
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	746				1270	289
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				90	94
cM capacity (veh/h)	812				145	670
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	327	588	563	303	52	
Volume Left	33	0	0	0	14	
Volume Right	0	0	0	22	38	
cSH	812	1700	1700	1700	340	
Volume to Capacity	0.04	0.35	0.33	0.18	0.15	
Queue Length 95th (ft)	3	0	0	0	13	
Control Delay (s)	1.4	0.0	0.0	0.0	17.5	
Lane LOS	A				C	
Approach Delay (s)	0.5		0.0		17.5	
Approach LOS					C	
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization			60.6%		ICU Level of Service	B
Analysis Period (min)			15			

271: Sierra Bonita Ave. & Orange Grove Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	784	13	5	603	5	5	18	9	3	14	13
Future Volume (Veh/h)	20	784	13	5	603	5	5	18	9	3	14	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.89	0.89	0.89	0.67	0.67	0.67	0.75	0.75	0.75
Hourly flow rate (vph)	22	862	14	6	678	6	7	27	13	4	19	17
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	684			876			1290	1609	438	1194	1613	342
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	684			876			1290	1609	438	1194	1613	342
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			93	73	98	96	81	97
cM capacity (veh/h)	905			766			98	100	567	107	100	654
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	22	575	301	6	452	232	47	40				
Volume Left	22	0	0	6	0	0	7	4				
Volume Right	0	0	14	0	0	6	13	17				
cSH	905	1700	1700	766	1700	1700	129	158				
Volume to Capacity	0.02	0.34	0.18	0.01	0.27	0.14	0.36	0.25				
Queue Length 95th (ft)	2	0	0	1	0	0	37	24				
Control Delay (s)	9.1	0.0	0.0	9.7	0.0	0.0	47.9	35.4				
Lane LOS	A			A			E	E				
Approach Delay (s)	0.2			0.1			47.9	35.4				
Approach LOS							E	E				
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			34.7%			ICU Level of Service		A				
Analysis Period (min)			15									



305: Bresee Ave. & Washington Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↗	↗
Traffic Volume (veh/h)	843	13	9	809	6	8
Future Volume (Veh/h)	843	13	9	809	6	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.70	0.70
Hourly flow rate (vph)	906	14	10	870	9	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						1
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)	411					
pX, platoon unblocked					0.96	
vC, conflicting volume			920	1368	460	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			920	1295	460	
tC, single (s)			4.1	6.8	6.9	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			99	94	98	
cM capacity (veh/h)			738	145	548	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	604	316	300	580	20	
Volume Left	0	0	10	0	9	
Volume Right	0	14	0	0	11	
cSH	1700	1700	738	1700	323	
Volume to Capacity	0.36	0.19	0.01	0.34	0.06	
Queue Length 95th (ft)	0	0	1	0	5	
Control Delay (s)	0.0	0.0	0.5	0.0	20.6	
Lane LOS	A			C		
Approach Delay (s)	0.0		0.2		20.6	
Approach LOS					C	
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			42.1%	ICU Level of Service	A	
Analysis Period (min)	15					

307: Oxford Ave. & Washington Blvd.  
 HCM Unsignalized Intersection Capacity Analysis



















Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Traffic Volume (veh/h)	25	835	18	13	776	16	3	0	8	12	0	29
Future Volume (Veh/h)	25	835	18	13	776	16	3	0	8	12	0	29
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92	0.68	0.68	0.68
Hourly flow rate (vph)	27	908	20	14	826	17	3	0	9	18	0	43
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		414										
pX, platoon unblocked				0.94			0.94	0.94	0.94	0.94	0.94	0.94
vC, conflicting volume	843			928			1456	1843	464	1380	1844	422
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	843			803			1363	1773	311	1282	1775	422
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			98			97	100	99	84	100	93
cM capacity (veh/h)	789			770			89	73	646	109	73	581
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	481	474	427	430	12	61						
Volume Left	27	0	14	0	3	18						
Volume Right	0	20	0	17	9	43						
cSH	789	1700	770	1700	253	256						
Volume to Capacity	0.03	0.28	0.02	0.25	0.05	0.24						
Queue Length 95th (ft)	3	0	1	0	4	23						
Control Delay (s)	1.0	0.0	0.5	0.0	20.0	23.4						
Lane LOS	A		A		C	C						
Approach Delay (s)	0.5		0.3		20.0	23.4						
Approach LOS					C	C						
Intersection Summary												
Average Delay			1.3									
Intersection Capacity Utilization			57.1%		ICU Level of Service				B			
Analysis Period (min)			15									




















311: Hamilton Ave. & Orange Grove Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	800	12	16	601	2	3	0	14	0	2	2
Future Volume (Veh/h)	5	800	12	16	601	2	3	0	14	0	2	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.86	0.86	0.86	0.47	0.47	0.47	0.50	0.50	0.50
Hourly flow rate (vph)	6	889	13	19	699	2	6	0	30	0	4	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	701			902			1301	1646	451	1224	1652	350
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	701			902			1301	1646	451	1224	1652	350
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			97			95	100	95	100	96	99
cM capacity (veh/h)	892			749			111	95	556	125	94	646
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	6	593	309	19	466	235	36	8				
Volume Left	6	0	0	19	0	0	6	0				
Volume Right	0	0	13	0	0	2	30	4				
cSH	892	1700	1700	749	1700	1700	333	165				
Volume to Capacity	0.01	0.35	0.18	0.03	0.27	0.14	0.11	0.05				
Queue Length 95th (ft)	1	0	0	2	0	0	9	4				
Control Delay (s)	9.1	0.0	0.0	9.9	0.0	0.0	17.1	28.0				
Lane LOS	A			A			C	D				
Approach Delay (s)	0.1			0.3			17.1	28.0				
Approach LOS							C	D				
Intersection Summary												
Average Delay			0.6									
Intersection Capacity Utilization			36.0%			ICU Level of Service			A			
Analysis Period (min)			15									




















315: Sinaloa Ave. & Orange Grove Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	782	4	10	592	4	3	2	8	1	4	16
Future Volume (Veh/h)	9	782	4	10	592	4	3	2	8	1	4	16
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.89	0.89	0.89	0.81	0.81	0.81	0.88	0.88	0.88
Hourly flow rate (vph)	10	859	4	11	665	4	4	2	10	1	5	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	669			863			1256	1572	432	1150	1572	334
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	669			863			1256	1572	432	1150	1572	334
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			97	98	98	99	95	97
cM capacity (veh/h)	917			775			118	107	572	146	107	661
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	10	573	290	11	443	226	16	24				
Volume Left	10	0	0	11	0	0	4	1				
Volume Right	0	0	4	0	0	4	10	18				
cSH	917	1700	1700	775	1700	1700	228	296				
Volume to Capacity	0.01	0.34	0.17	0.01	0.26	0.13	0.07	0.08				
Queue Length 95th (ft)	1	0	0	1	0	0	6	7				
Control Delay (s)	9.0	0.0	0.0	9.7	0.0	0.0	22.0	18.2				
Lane LOS	A			A			C	C				
Approach Delay (s)	0.1			0.2			22.0	18.2				
Approach LOS							C	C				
Intersection Summary												
Average Delay			0.6									
Intersection Capacity Utilization			34.3%			ICU Level of Service		A				
Analysis Period (min)			15									




















331: Craig Ave. & Orange Grove Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	754	13	11	542	18	2	10	45	2	12	19
Future Volume (Veh/h)	17	754	13	11	542	18	2	10	45	2	12	19
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.96	0.96	0.96	0.84	0.84	0.84	0.75	0.75	0.75
Hourly flow rate (vph)	18	802	14	11	565	19	2	12	54	3	16	25
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	584			816			1182	1451	408	1094	1448	292
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	584			816			1182	1451	408	1094	1448	292
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			98	90	91	98	87	96
cM capacity (veh/h)	987			807			123	126	593	139	126	704
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	18	535	281	11	377	207	68	44				
Volume Left	18	0	0	11	0	0	2	3				
Volume Right	0	0	14	0	0	19	54	25				
cSH	987	1700	1700	807	1700	1700	335	239				
Volume to Capacity	0.02	0.31	0.17	0.01	0.22	0.12	0.20	0.18				
Queue Length 95th (ft)	1	0	0	1	0	0	19	16				
Control Delay (s)	8.7	0.0	0.0	9.5	0.0	0.0	18.5	23.4				
Lane LOS	A			A			C	C				
Approach Delay (s)	0.2			0.2			18.5	23.4				
Approach LOS							C	C				
Intersection Summary												
Average Delay			1.7									
Intersection Capacity Utilization			Err%		ICU Level of Service			H				
Analysis Period (min)			15									

352: Craig Ave. & Walnut St.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	22	331	31	13	175	49	13	79	15	37	89	35
Future Volume (vph)	22	331	31	13	175	49	13	79	15	37	89	35
Peak Hour Factor	0.96	0.96	0.96	0.86	0.86	0.86	0.86	0.86	0.86	0.92	0.92	0.92
Hourly flow rate (vph)	23	345	32	15	203	57	15	92	17	40	97	38
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	368	32	218	57	124	175						
Volume Left (vph)	23	0	15	0	15	40						
Volume Right (vph)	0	32	0	57	17	38						
Hadj (s)	0.07	-0.67	0.07	-0.67	-0.02	-0.05						
Departure Headway (s)	5.9	5.1	6.1	5.3	6.0	5.9						
Degree Utilization, x	0.60	0.05	0.37	0.08	0.21	0.29						
Capacity (veh/h)	588	666	560	630	521	548						
Control Delay (s)	16.2	7.2	11.3	7.6	10.6	11.2						
Approach Delay (s)	15.5		10.6		10.6	11.2						
Approach LOS	C		B		B	B						
Intersection Summary												
Delay			12.7									
Level of Service			B									
Intersection Capacity Utilization			58.5%		ICU Level of Service		B					
Analysis Period (min)			15									

370: Oak Ave & Orange Grove Ave  
 HCM Unsignalized Intersection Capacity Analysis



















Existing Conditions  
 Timing Plan: PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↵	↵
Traffic Volume (veh/h)	767	8	5	563	12	8
Future Volume (Veh/h)	767	8	5	563	12	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.88	0.88	0.83	0.83
Hourly flow rate (vph)	825	9	6	640	14	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			834			1162 417
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			834			1162 417
tC, single (s)			4.1			6.8 6.9
tC, 2 stage (s)						
tF (s)			2.2			3.5 3.3
p0 queue free %			99			93 98
cM capacity (veh/h)			795			187 585
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	550	284	219	427	14	10
Volume Left	0	0	6	0	14	0
Volume Right	0	9	0	0	0	10
cSH	1700	1700	795	1700	187	585
Volume to Capacity	0.32	0.17	0.01	0.25	0.07	0.02
Queue Length 95th (ft)	0	0	1	0	6	1
Control Delay (s)	0.0	0.0	0.3	0.0	25.8	11.3
Lane LOS			A			D B
Approach Delay (s)	0.0		0.1		19.8	
Approach LOS					C	
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			34.0%		ICU Level of Service	A
Analysis Period (min)			15			

373: Martelo Ave. & Orange Grove Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	730	5	8	554	8	2	3	9	2	5	10
Future Volume (Veh/h)	21	730	5	8	554	8	2	3	9	2	5	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.86	0.86	0.86	0.70	0.70	0.70	0.71	0.71	0.71
Hourly flow rate (vph)	22	777	5	9	644	9	3	4	13	3	7	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	653			782			1181	1494	391	1114	1492	326
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	653			782			1181	1494	391	1114	1492	326
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			98	97	98	98	94	98
cM capacity (veh/h)	930			832			132	118	608	151	118	669
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	22	518	264	9	429	224	20	24				
Volume Left	22	0	0	9	0	0	3	3				
Volume Right	0	0	5	0	0	9	13	14				
cSH	930	1700	1700	832	1700	1700	256	240				
Volume to Capacity	0.02	0.30	0.16	0.01	0.25	0.13	0.08	0.10				
Queue Length 95th (ft)	2	0	0	1	0	0	6	8				
Control Delay (s)	9.0	0.0	0.0	9.4	0.0	0.0	20.2	21.7				
Lane LOS	A			A			C	C				
Approach Delay (s)	0.2			0.1			20.2	21.7				
Approach LOS							C	C				
Intersection Summary												
Average Delay			0.8									
Intersection Capacity Utilization			32.7%		ICU Level of Service			A				
Analysis Period (min)			15									



377: Oak Ave. & Walnut St.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻		↻	↻	↻	↻
Traffic Volume (veh/h)	345	29	18	217	12	27
Future Volume (Veh/h)	345	29	18	217	12	27
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.93	0.93	0.51	0.51
Hourly flow rate (vph)	379	32	19	233	24	53
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						2
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			411			666 395
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			411			666 395
tC, single (s)			4.1			6.4 6.2
tC, 2 stage (s)						
tF (s)			2.2			3.5 3.3
p0 queue free %			98			94 92
cM capacity (veh/h)			1148			417 654
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	411	19	233	77		
Volume Left	0	19	0	24		
Volume Right	32	0	0	53		
cSH	1700	1148	1700	950		
Volume to Capacity	0.24	0.02	0.14	0.08		
Queue Length 95th (ft)	0	1	0	7		
Control Delay (s)	0.0	8.2	0.0	12.0		
Lane LOS	A			B		
Approach Delay (s)	0.0	0.6			12.0	
Approach LOS				B		
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			32.3%	ICU Level of Service		A
Analysis Period (min)			15			

382: Grand Oaks Ave. & Walnut St.  
 HCM Unsignalized Intersection Capacity Analysis

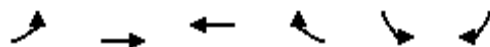
Existing Conditions  
 Timing Plan: PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑	↘	
Traffic Volume (veh/h)	364	12	15	231	11	28
Future Volume (Veh/h)	364	12	15	231	11	28
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.95	0.95	0.65	0.65
Hourly flow rate (vph)	418	14	16	243	17	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			432			418
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			432			418
tC, single (s)			4.1			6.2
tC, 2 stage (s)						
tF (s)			2.2			3.3
p0 queue free %			99			93
cM capacity (veh/h)			1128			635
Direction, Lane #	EB 1	EB 2	WB 1	NB 1		
Volume Total	418	14	259	60		
Volume Left	0	0	16	17		
Volume Right	0	14	0	43		
cSH	1700	1700	1128	546		
Volume to Capacity	0.25	0.01	0.01	0.11		
Queue Length 95th (ft)	0	0	1	9		
Control Delay (s)	0.0	0.0	0.6	12.4		
Lane LOS			A	B		
Approach Delay (s)	0.0		0.6	12.4		
Approach LOS				B		
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization			37.3%	ICU Level of Service	A	
Analysis Period (min)			15			

385: Colorado Blvd. & Oak Ave  
 HCM Unsignalized Intersection Capacity Analysis




















Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	20	984	771	26	10	30
Future Volume (Veh/h)	20	984	771	26	10	30
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.95	0.95	0.63	0.63
Hourly flow rate (vph)	22	1058	812	27	16	48
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			422			
pX, platoon unblocked						
vC, conflicting volume	839				1398	420
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	839				1398	420
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				87	92
cM capacity (veh/h)	791				128	582
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	22	529	529	541	298	64
Volume Left	22	0	0	0	0	16
Volume Right	0	0	0	0	27	48
cSH	791	1700	1700	1700	1700	309
Volume to Capacity	0.03	0.31	0.31	0.32	0.18	0.21
Queue Length 95th (ft)	2	0	0	0	0	19
Control Delay (s)	9.7	0.0	0.0	0.0	0.0	19.7
Lane LOS	A					C
Approach Delay (s)	0.2			0.0		19.7
Approach LOS						C
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization			40.4%		ICU Level of Service	A
Analysis Period (min)			15			

388: Grand Oaks Ave. & Colorado Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	956	20	31	793	10	8	1	33	1	1	10
Future Volume (Veh/h)	8	956	20	31	793	10	8	1	33	1	1	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.62	0.62	0.62	0.60	0.60	0.60
Hourly flow rate (vph)	9	1039	22	34	862	11	13	2	53	2	2	17
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		411										
pX, platoon unblocked				0.88			0.88	0.88	0.88	0.88	0.88	
vC, conflicting volume	873			1061			1585	2009	530	1527	2014	436
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	873			797			1393	1874	195	1327	1880	436
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			95			84	97	93	98	97	97
cM capacity (veh/h)	768			722			81	59	716	86	58	568
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	9	693	368	34	575	298	68	21				
Volume Left	9	0	0	34	0	0	13	2				
Volume Right	0	0	22	0	0	11	53	17				
cSH	768	1700	1700	722	1700	1700	252	240				
Volume to Capacity	0.01	0.41	0.22	0.05	0.34	0.18	0.27	0.09				
Queue Length 95th (ft)	1	0	0	4	0	0	26	7				
Control Delay (s)	9.7	0.0	0.0	10.2	0.0	0.0	24.4	21.4				
Lane LOS	A			B			C	C				
Approach Delay (s)	0.1			0.4			24.4	21.4				
Approach LOS							C	C				
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			42.0%		ICU Level of Service			A				
Analysis Period (min)			15									

390: Oak Ave. & Colorado Blvd.  
 HCM Unsignalized Intersection Capacity Analysis

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↘	
Traffic Volume (veh/h)	983	11	10	1127	15	18
Future Volume (Veh/h)	983	11	10	1127	15	18
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.95	0.95	0.56	0.56
Hourly flow rate (vph)	1057	12	11	1186	27	32
<b>Pedestrians</b>						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	318					
pX, platoon unblocked					0.91	
vC, conflicting volume			1069	1678		534
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1069	1555		534
tC, single (s)			4.1	6.8		6.9
tC, 2 stage (s)						
tF (s)			2.2	3.5		3.3
p0 queue free %			98	71		93
cM capacity (veh/h)			648	93		490
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	705	364	11	593	593	59
Volume Left	0	0	11	0	0	27
Volume Right	0	12	0	0	0	32
cSH	1700	1700	648	1700	1700	166
Volume to Capacity	0.41	0.21	0.02	0.35	0.35	0.35
Queue Length 95th (ft)	0	0	1	0	0	37
Control Delay (s)	0.0	0.0	10.7	0.0	0.0	38.1
Lane LOS	B			E		
Approach Delay (s)	0.0		0.1			38.1
Approach LOS						E
<b>Intersection Summary</b>						
Average Delay			1.0			
Intersection Capacity Utilization			44.8%	ICU Level of Service		A
Analysis Period (min)			15			

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	924	9	11	786	9	17
Future Vol, veh/h	924	9	11	786	9	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	97	97	65	65
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	994	10	11	810	14	26

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1004	0	1426
Stage 1	-	-	-	-	999
Stage 2	-	-	-	-	427
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	686	-	126
Stage 1	-	-	-	-	317
Stage 2	-	-	-	-	626
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	686	-	122
Mov Cap-2 Maneuver	-	-	-	-	122
Stage 1	-	-	-	-	317
Stage 2	-	-	-	-	608

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	22.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	243	-	-	686	-
HCM Lane V/C Ratio	0.165	-	-	0.017	-
HCM Control Delay (s)	22.7	-	-	10.3	0.1
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-



Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↕	
Traffic Vol, veh/h	28	916	763	20	16	34
Future Vol, veh/h	28	916	763	20	16	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	97	97	57	57
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	1018	787	21	28	60

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	808	0	-	0	1369 404
Stage 1	-	-	-	-	798 -
Stage 2	-	-	-	-	571 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	813	-	-	-	138 596
Stage 1	-	-	-	-	404 -
Stage 2	-	-	-	-	529 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	813	-	-	-	126 596
Mov Cap-2 Maneuver	-	-	-	-	126 -
Stage 1	-	-	-	-	368 -
Stage 2	-	-	-	-	529 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	24.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	813	-	-	-	272
HCM Lane V/C Ratio	0.038	-	-	-	0.322
HCM Control Delay (s)	9.6	0.4	-	-	24.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.3

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	921	11	7	781	2	17
Future Vol, veh/h	921	11	7	781	2	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	97	97	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1023	12	7	805	3	25

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1035	0	1446
Stage 1	-	-	-	-	1029
Stage 2	-	-	-	-	417
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	667	-	122
Stage 1	-	-	-	-	306
Stage 2	-	-	-	-	633
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	667	-	120
Mov Cap-2 Maneuver	-	-	-	-	120
Stage 1	-	-	-	-	306
Stage 2	-	-	-	-	621

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	376	-	-	667	-
HCM Lane V/C Ratio	0.074	-	-	0.011	-
HCM Control Delay (s)	15.3	-	-	10.5	0.1
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-



Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	29	881	641	15	2	21
Future Vol, veh/h	29	881	641	15	2	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	84	84	64	64
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	1024	763	18	3	33

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	781	0	0	1352	391
Stage 1	-	-	-	772	-
Stage 2	-	-	-	580	-
Critical Hdwy	4.14	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	3.52	3.32
Pot Cap-1 Maneuver	832	-	-	141	608
Stage 1	-	-	-	416	-
Stage 2	-	-	-	523	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	832	-	-	128	608
Mov Cap-2 Maneuver	-	-	-	128	-
Stage 1	-	-	-	376	-
Stage 2	-	-	-	523	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	832	-	-	-	458
HCM Lane V/C Ratio	0.041	-	-	-	0.078
HCM Control Delay (s)	9.5	0.4	-	-	13.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	903	13	20	642	4	7
Future Vol, veh/h	903	13	20	642	4	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	84	84	46	46
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1050	15	24	764	9	15

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1065	0	1488
Stage 1	-	-	-	-	1058
Stage 2	-	-	-	-	430
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	650	-	115
Stage 1	-	-	-	-	295
Stage 2	-	-	-	-	624
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	650	-	108
Mov Cap-2 Maneuver	-	-	-	-	108
Stage 1	-	-	-	-	295
Stage 2	-	-	-	-	584

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	23.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	214	-	-	650	-
HCM Lane V/C Ratio	0.112	-	-	0.037	-
HCM Control Delay (s)	23.9	-	-	10.7	0.3
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

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	27	910	18	8	587	9	11	3	13	11	6	17
Future Vol, veh/h	27	910	18	8	587	9	11	3	13	11	6	17
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	50	-	-	40	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	89	89	89	84	84	84	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	948	19	9	660	10	13	4	15	17	9	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	670	0	0	967	0	0	1367	1702	484	1215	1706	335
Stage 1	-	-	-	-	-	-	1014	1014	-	683	683	-
Stage 2	-	-	-	-	-	-	353	688	-	532	1023	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	916	-	-	708	-	-	106	91	529	137	90	661
Stage 1	-	-	-	-	-	-	256	314	-	405	447	-
Stage 2	-	-	-	-	-	-	637	445	-	499	311	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	916	-	-	708	-	-	90	87	529	125	86	661
Mov Cap-2 Maneuver	-	-	-	-	-	-	90	87	-	125	86	-
Stage 1	-	-	-	-	-	-	248	304	-	392	441	-
Stage 2	-	-	-	-	-	-	591	439	-	464	301	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.1			35.7			32		
HCM LOS							E			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	149	916	-	-	708	-	-	185
HCM Lane V/C Ratio	0.216	0.031	-	-	0.013	-	-	0.283
HCM Control Delay (s)	35.7	9.1	-	-	10.2	-	-	32
HCM Lane LOS	E	A	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0	-	-	1.1

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-



Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	FF			FF	FF	
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-



Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-



Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TT			TT	TT	
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	60
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	0	0	1
Stage 1	-	-	-	-	0
Stage 2	-	-	-	-	1
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	-	-	1022
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	1022
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	1022
Mov Cap-2 Maneuver	-	-	-	-	1022
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	1022

Approach	NB	SB	NW
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	NWLn2	SBL	SBT
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TT			TT	TT	TT
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-



Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↗	↕↕	↗	↗	↕↕	↗
Traffic Vol, veh/h	6	0	46	9	0	17	46	1110	13	14	1101	35
Future Vol, veh/h	6	0	46	9	0	17	46	1110	13	14	1101	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	60	-	0	40	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	81	81	81	100	100	100	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	0	60	11	0	21	46	1110	13	15	1147	36

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1824	2392	574	1806	2415	555	1183	0	0	1123	0	0
Stage 1	1177	1177	-	1202	1202	-	-	-	-	-	-	-
Stage 2	647	1215	-	604	1213	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	48	33	462	50	32	475	586	-	-	618	-	-
Stage 1	203	263	-	196	256	-	-	-	-	-	-	-
Stage 2	426	252	-	452	253	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	42	30	462	40	29	475	586	-	-	618	-	-
Mov Cap-2 Maneuver	42	30	-	40	29	-	-	-	-	-	-	-
Stage 1	187	257	-	181	236	-	-	-	-	-	-	-
Stage 2	375	232	-	384	247	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	24.9		52.3		0.5		0.1	
HCM LOS	C		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	586	-	-	42	462	40	475	618	-	-
HCM Lane V/C Ratio	0.078	-	-	0.186	0.129	0.278	0.044	0.024	-	-
HCM Control Delay (s)	11.7	-	-	109.3	13.9	126.6	12.9	11	-	-
HCM Lane LOS	B	-	-	F	B	F	B	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.6	0.4	0.9	0.1	0.1	-	-

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	31	820	785	20	12	33
Future Vol, veh/h	31	820	785	20	12	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	882	844	22	14	38

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	866	0	-	0	1362 433
Stage 1	-	-	-	-	855 -
Stage 2	-	-	-	-	507 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	773	-	-	-	139 571
Stage 1	-	-	-	-	377 -
Stage 2	-	-	-	-	570 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	773	-	-	-	127 571
Mov Cap-2 Maneuver	-	-	-	-	127 -
Stage 1	-	-	-	-	345 -
Stage 2	-	-	-	-	570 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	773	-	-	-	296
HCM Lane V/C Ratio	0.043	-	-	-	0.175
HCM Control Delay (s)	9.9	0.4	-	-	19.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	1	0	0	2	2	1	2	2	1
Stage 1	-	-	-	-	-	-	1	1	-	1	1	-
Stage 2	-	-	-	-	-	-	1	1	-	1	1	-
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	1622	-	-	1622	-	-	1020	894	1084	1020	894	1084
Stage 1	-	-	-	-	-	-	1022	895	-	1022	895	-
Stage 2	-	-	-	-	-	-	1022	895	-	1022	895	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1622	-	-	1622	-	-	1020	894	1084	1020	894	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	1020	894	-	1020	894	-
Stage 1	-	-	-	-	-	-	1022	895	-	1022	895	-
Stage 2	-	-	-	-	-	-	1022	895	-	1022	895	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1622	-	-	1622	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

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	20	784	13	5	603	5	5	18	9	3	14	13
Future Vol, veh/h	20	784	13	5	603	5	5	18	9	3	14	13
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	60	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	89	89	89	67	67	67	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	862	14	6	678	6	7	27	13	4	19	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	684	0	0	876	0	0	1274	1609	438	1182	1613	342
Stage 1	-	-	-	-	-	-	913	913	-	693	693	-
Stage 2	-	-	-	-	-	-	361	696	-	489	920	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	905	-	-	766	-	-	124	104	567	145	103	654
Stage 1	-	-	-	-	-	-	294	350	-	400	443	-
Stage 2	-	-	-	-	-	-	630	441	-	529	348	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	905	-	-	766	-	-	101	101	567	110	100	654
Mov Cap-2 Maneuver	-	-	-	-	-	-	101	101	-	110	100	-
Stage 1	-	-	-	-	-	-	287	342	-	390	439	-
Stage 2	-	-	-	-	-	-	583	437	-	464	340	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			47.5			34.8		
HCM LOS							E			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	131	905	-	-	766	-	-	160
HCM Lane V/C Ratio	0.365	0.024	-	-	0.007	-	-	0.25
HCM Control Delay (s)	47.5	9.1	-	-	9.7	-	-	34.8
HCM Lane LOS	E	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.5	0.1	-	-	0	-	-	0.9

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	1	0	0	2	2	1	2	2	1
Stage 1	-	-	-	-	-	-	1	1	-	1	1	-
Stage 2	-	-	-	-	-	-	1	1	-	1	1	-
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	1622	-	-	1622	-	-	1020	894	1084	1020	894	1084
Stage 1	-	-	-	-	-	-	1022	895	-	1022	895	-
Stage 2	-	-	-	-	-	-	1022	895	-	1022	895	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1622	-	-	1622	-	-	1020	894	1084	1020	894	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	1020	894	-	1020	894	-
Stage 1	-	-	-	-	-	-	1022	895	-	1022	895	-
Stage 2	-	-	-	-	-	-	1022	895	-	1022	895	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1622	-	-	1622	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-



Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1	0	-	0	1 1
Stage 1	-	-	-	-	1 -
Stage 2	-	-	-	-	0 -
Critical Hdwy	4.13	-	-	-	6.63 6.93
Critical Hdwy Stg 1	-	-	-	-	5.83 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.219	-	-	-	3.519 3.319
Pot Cap-1 Maneuver	1621	-	-	-	1022 1083
Stage 1	-	-	-	-	1022 -
Stage 2	-	-	-	-	- -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1621	-	-	-	1022 1083
Mov Cap-2 Maneuver	-	-	-	-	1022 -
Stage 1	-	-	-	-	1022 -
Stage 2	-	-	-	-	- -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1621	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1	0	2
Stage 1	-	-	-	-	1
Stage 2	-	-	-	-	1
Critical Hdwy	-	-	4.13	-	6.63
Critical Hdwy Stg 1	-	-	-	-	5.83
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.219	-	3.519
Pot Cap-1 Maneuver	-	-	1621	-	1020
Stage 1	-	-	-	-	1022
Stage 2	-	-	-	-	1022
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1621	-	1020
Mov Cap-2 Maneuver	-	-	-	-	1020
Stage 1	-	-	-	-	1022
Stage 2	-	-	-	-	1022

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1621	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	↑
Traffic Vol, veh/h	843	13	9	809	6	8
Future Vol, veh/h	843	13	9	809	6	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	22
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	906	14	10	870	9	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	920	0	1368 460
Stage 1	-	-	-	-	913 -
Stage 2	-	-	-	-	455 -
Critical Hdwy	-	-	4.14	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	-	-	2.22	-	3.52 3.32
Pot Cap-1 Maneuver	-	-	738	-	138 548
Stage 1	-	-	-	-	352 -
Stage 2	-	-	-	-	606 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	738	-	134 548
Mov Cap-2 Maneuver	-	-	-	-	134 -
Stage 1	-	-	-	-	352 -
Stage 2	-	-	-	-	590 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	21.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	134	548	-	-	738	-
HCM Lane V/C Ratio	0.064	0.021	-	-	0.013	-
HCM Control Delay (s)	33.7	11.7	-	-	9.9	0.1
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	25	835	18	13	776	16	3	0	8	12	0	29
Future Vol, veh/h	25	835	18	13	776	16	3	0	8	12	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	94	94	94	92	92	92	68	68	68
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	908	20	14	826	17	3	0	9	18	0	43

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	843	0	0	928	0	0	1413	1843	464	1371	1845	422
Stage 1	-	-	-	-	-	-	972	972	-	863	863	-
Stage 2	-	-	-	-	-	-	441	871	-	508	982	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	789	-	-	733	-	-	98	74	545	105	74	580
Stage 1	-	-	-	-	-	-	271	329	-	316	370	-
Stage 2	-	-	-	-	-	-	565	367	-	516	325	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	789	-	-	733	-	-	83	66	545	95	66	580
Mov Cap-2 Maneuver	-	-	-	-	-	-	83	66	-	95	66	-
Stage 1	-	-	-	-	-	-	252	306	-	294	357	-
Stage 2	-	-	-	-	-	-	505	354	-	472	302	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.4			22.6			25.8		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	216	789	-	-	733	-	-	233
HCM Lane V/C Ratio	0.055	0.034	-	-	0.019	-	-	0.259
HCM Control Delay (s)	22.6	9.7	0.3	-	10	0.2	-	25.8
HCM Lane LOS	C	A	A	-	B	A	-	D
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	1



Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕↗		↖	↕↗			↕↗			↕↗	
Traffic Vol, veh/h	5	800	12	16	601	2	3	0	14	0	2	2
Future Vol, veh/h	5	800	12	16	601	2	3	0	14	0	2	2
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	40	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	86	86	86	47	47	47	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	889	13	19	699	2	6	0	30	0	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	701	0	0	902	0	0	1298	1647	451	1195	1652	351
Stage 1	-	-	-	-	-	-	908	908	-	738	738	-
Stage 2	-	-	-	-	-	-	390	739	-	457	914	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	892	-	-	749	-	-	119	98	556	142	98	645
Stage 1	-	-	-	-	-	-	296	352	-	376	422	-
Stage 2	-	-	-	-	-	-	606	422	-	553	350	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	892	-	-	749	-	-	112	95	556	131	95	645
Mov Cap-2 Maneuver	-	-	-	-	-	-	112	95	-	131	95	-
Stage 1	-	-	-	-	-	-	294	350	-	373	411	-
Stage 2	-	-	-	-	-	-	581	411	-	520	348	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.3			17.4			27.8		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	327	892	-	-	749	-	-	166
HCM Lane V/C Ratio	0.111	0.006	-	-	0.025	-	-	0.048
HCM Control Delay (s)	17.4	9.1	-	-	9.9	-	-	27.8
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.2

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Traffic Vol, veh/h	9	782	4	10	592	4	3	2	8	1	4	16
Future Vol, veh/h	9	782	4	10	592	4	3	2	8	1	4	16
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	60	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	89	89	89	81	81	81	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	859	4	11	665	4	4	2	10	1	5	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	669	0	0	863	0	0	1238	1572	432	1140	1572	335
Stage 1	-	-	-	-	-	-	881	881	-	689	689	-
Stage 2	-	-	-	-	-	-	357	691	-	451	883	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	917	-	-	775	-	-	132	109	572	156	109	661
Stage 1	-	-	-	-	-	-	308	363	-	402	445	-
Stage 2	-	-	-	-	-	-	633	444	-	557	362	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	917	-	-	775	-	-	122	106	572	148	106	661
Mov Cap-2 Maneuver	-	-	-	-	-	-	122	106	-	148	106	-
Stage 1	-	-	-	-	-	-	305	359	-	398	439	-
Stage 2	-	-	-	-	-	-	601	438	-	538	358	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.2			22.1			17.8		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	226	917	-	-	775	-	-	306
HCM Lane V/C Ratio	0.071	0.011	-	-	0.014	-	-	0.078
HCM Control Delay (s)	22.1	9	-	-	9.7	-	-	17.8
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕		↙	↕				↕		↕	
Traffic Vol, veh/h	17	754	13	11	542	18	2	10	45	2	12	19
Future Vol, veh/h	17	754	13	11	542	18	2	10	45	2	12	19
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	75	-	-	105	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	96	96	96	84	84	84	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	802	14	11	565	19	2	12	54	3	16	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	584	0	0	816	0	0	1158	1451	408	1040	1449	292
Stage 1	-	-	-	-	-	-	845	845	-	597	597	-
Stage 2	-	-	-	-	-	-	313	606	-	443	852	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	987	-	-	807	-	-	151	130	593	185	130	704
Stage 1	-	-	-	-	-	-	324	377	-	456	490	-
Stage 2	-	-	-	-	-	-	672	485	-	564	374	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	987	-	-	807	-	-	128	126	593	152	126	704
Mov Cap-2 Maneuver	-	-	-	-	-	-	128	126	-	152	126	-
Stage 1	-	-	-	-	-	-	318	370	-	448	483	-
Stage 2	-	-	-	-	-	-	618	478	-	487	367	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.2			11.7			23		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	593	987	-	-	807	-	-	244
HCM Lane V/C Ratio	0.09	0.018	-	-	0.014	-	-	0.18
HCM Control Delay (s)	11.7	8.7	-	-	9.5	-	-	23
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.6

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-



Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	↑
Traffic Vol, veh/h	767	8	5	563	12	8
Future Vol, veh/h	767	8	5	563	12	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	88	88	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	825	9	6	640	14	10

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	834	0	1162
Stage 1	-	-	-	-	830
Stage 2	-	-	-	-	332
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	795	-	188
Stage 1	-	-	-	-	388
Stage 2	-	-	-	-	699
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	795	-	186
Mov Cap-2 Maneuver	-	-	-	-	186
Stage 1	-	-	-	-	388
Stage 2	-	-	-	-	691

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	20.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	186	585	-	-	795	-
HCM Lane V/C Ratio	0.078	0.016	-	-	0.007	-
HCM Control Delay (s)	26	11.3	-	-	9.6	0.1
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗			↕↗	
Traffic Vol, veh/h	21	730	5	8	554	8	2	3	9	2	5	10
Future Vol, veh/h	21	730	5	8	554	8	2	3	9	2	5	10
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	60	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	86	86	86	70	70	70	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	777	5	9	644	9	3	4	13	3	7	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	653	0	0	782	0	0	1168	1495	391	1102	1493	327
Stage 1	-	-	-	-	-	-	824	824	-	667	667	-
Stage 2	-	-	-	-	-	-	344	671	-	435	826	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	930	-	-	832	-	-	149	122	608	166	122	669
Stage 1	-	-	-	-	-	-	333	385	-	414	455	-
Stage 2	-	-	-	-	-	-	645	453	-	570	385	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	930	-	-	832	-	-	136	118	608	154	118	669
Mov Cap-2 Maneuver	-	-	-	-	-	-	136	118	-	154	118	-
Stage 1	-	-	-	-	-	-	325	376	-	404	450	-
Stage 2	-	-	-	-	-	-	615	448	-	539	376	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			20.3			21.5		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	255	930	-	-	832	-	-	242
HCM Lane V/C Ratio	0.078	0.024	-	-	0.011	-	-	0.099
HCM Control Delay (s)	20.3	9	-	-	9.4	-	-	21.5
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.3

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	345	29	18	217	12	27
Future Vol, veh/h	345	29	18	217	12	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	40
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	93	93	51	51
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	379	32	19	233	24	53

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	411	0	666
Stage 1	-	-	-	-	395
Stage 2	-	-	-	-	271
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1148	-	425
Stage 1	-	-	-	-	681
Stage 2	-	-	-	-	775
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1148	-	418
Mov Cap-2 Maneuver	-	-	-	-	418
Stage 1	-	-	-	-	681
Stage 2	-	-	-	-	762

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	418	654	-	-	1148	-
HCM Lane V/C Ratio	0.056	0.081	-	-	0.017	-
HCM Control Delay (s)	14.1	11	-	-	8.2	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.3	-	-	0.1	-

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	364	12	15	231	11	28
Future Vol, veh/h	364	12	15	231	11	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	25	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	95	95	65	65
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	418	14	16	243	17	43

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	432	0	693
Stage 1	-	-	-	-	418
Stage 2	-	-	-	-	275
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1128	-	409
Stage 1	-	-	-	-	664
Stage 2	-	-	-	-	771
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1128	-	402
Mov Cap-2 Maneuver	-	-	-	-	402
Stage 1	-	-	-	-	664
Stage 2	-	-	-	-	759

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	546	-	-	1128	-
HCM Lane V/C Ratio	0.11	-	-	0.014	-
HCM Control Delay (s)	12.4	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	984	771	26	10	30
Future Vol, veh/h	20	984	771	26	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	70	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	95	95	63	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	1058	812	27	16	48

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	839	0	-	0	1399 420
Stage 1	-	-	-	-	826 -
Stage 2	-	-	-	-	573 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	791	-	-	-	132 582
Stage 1	-	-	-	-	390 -
Stage 2	-	-	-	-	527 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	791	-	-	-	128 582
Mov Cap-2 Maneuver	-	-	-	-	128 -
Stage 1	-	-	-	-	379 -
Stage 2	-	-	-	-	527 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	791	-	-	-	308
HCM Lane V/C Ratio	0.027	-	-	-	0.206
HCM Control Delay (s)	9.7	-	-	-	19.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗			↔			↔	
Traffic Vol, veh/h	8	956	20	31	793	10	8	1	33	1	1	10
Future Vol, veh/h	8	956	20	31	793	10	8	1	33	1	1	10
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	85	-	-	60	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	62	62	62	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	1039	22	34	862	11	13	2	53	2	2	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	873	0	0	1061	0	0	1568	2009	531	1475	2015	437
Stage 1	-	-	-	-	-	-	1068	1068	-	936	936	-
Stage 2	-	-	-	-	-	-	500	941	-	539	1079	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	768	-	-	652	-	-	75	58	493	88	58	567
Stage 1	-	-	-	-	-	-	237	296	-	285	342	-
Stage 2	-	-	-	-	-	-	521	340	-	494	293	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	768	-	-	652	-	-	68	54	493	73	54	567
Mov Cap-2 Maneuver	-	-	-	-	-	-	68	54	-	73	54	-
Stage 1	-	-	-	-	-	-	234	292	-	282	324	-
Stage 2	-	-	-	-	-	-	477	322	-	433	289	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.4			30.6			21.3		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	207	768	-	-	652	-	-	241
HCM Lane V/C Ratio	0.327	0.011	-	-	0.052	-	-	0.083
HCM Control Delay (s)	30.6	9.7	-	-	10.8	-	-	21.3
HCM Lane LOS	D	A	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.4	0	-	-	0.2	-	-	0.3

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	983	11	10	1127	15	18
Future Vol, veh/h	983	11	10	1127	15	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1057	12	11	1186	27	32

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1069	0	1678
Stage 1	-	-	-	-	1063
Stage 2	-	-	-	-	615
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	648	-	86
Stage 1	-	-	-	-	293
Stage 2	-	-	-	-	502
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	648	-	85
Mov Cap-2 Maneuver	-	-	-	-	85
Stage 1	-	-	-	-	293
Stage 2	-	-	-	-	493

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	41.8
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	155	-	-	648	-
HCM Lane V/C Ratio	0.38	-	-	0.016	-
HCM Control Delay (s)	41.8	-	-	10.6	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	1.6	-	-	0.1	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-



Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	924	9	11	786	9	17
Future Vol, veh/h	924	9	11	786	9	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	97	97	65	65
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	994	10	11	810	14	26

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1004	0	1426
Stage 1	-	-	-	-	999
Stage 2	-	-	-	-	427
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	686	-	126
Stage 1	-	-	-	-	317
Stage 2	-	-	-	-	626
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	686	-	122
Mov Cap-2 Maneuver	-	-	-	-	122
Stage 1	-	-	-	-	317
Stage 2	-	-	-	-	608

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	22.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	243	-	-	686	-
HCM Lane V/C Ratio	0.165	-	-	0.017	-
HCM Control Delay (s)	22.7	-	-	10.3	0.1
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-



Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↕	
Traffic Vol, veh/h	28	916	763	20	16	34
Future Vol, veh/h	28	916	763	20	16	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	97	97	57	57
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	1018	787	21	28	60

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	808	0	-	0	1369 404
Stage 1	-	-	-	-	798 -
Stage 2	-	-	-	-	571 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	813	-	-	-	138 596
Stage 1	-	-	-	-	404 -
Stage 2	-	-	-	-	529 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	813	-	-	-	126 596
Mov Cap-2 Maneuver	-	-	-	-	126 -
Stage 1	-	-	-	-	368 -
Stage 2	-	-	-	-	529 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	24.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	813	-	-	-	272
HCM Lane V/C Ratio	0.038	-	-	-	0.322
HCM Control Delay (s)	9.6	0.4	-	-	24.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.3

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	921	11	7	781	2	17
Future Vol, veh/h	921	11	7	781	2	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	97	97	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1023	12	7	805	3	25

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1035	0	1446
Stage 1	-	-	-	-	1029
Stage 2	-	-	-	-	417
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	667	-	122
Stage 1	-	-	-	-	306
Stage 2	-	-	-	-	633
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	667	-	120
Mov Cap-2 Maneuver	-	-	-	-	120
Stage 1	-	-	-	-	306
Stage 2	-	-	-	-	621

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	376	-	-	667	-
HCM Lane V/C Ratio	0.074	-	-	0.011	-
HCM Control Delay (s)	15.3	-	-	10.5	0.1
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	29	881	641	15	2	21
Future Vol, veh/h	29	881	641	15	2	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	84	84	64	64
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	1024	763	18	3	33

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	781	0	0	1352	391
Stage 1	-	-	-	772	-
Stage 2	-	-	-	580	-
Critical Hdwy	4.14	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	3.52	3.32
Pot Cap-1 Maneuver	832	-	-	141	608
Stage 1	-	-	-	416	-
Stage 2	-	-	-	523	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	832	-	-	128	608
Mov Cap-2 Maneuver	-	-	-	128	-
Stage 1	-	-	-	376	-
Stage 2	-	-	-	523	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	832	-	-	-	458
HCM Lane V/C Ratio	0.041	-	-	-	0.078
HCM Control Delay (s)	9.5	0.4	-	-	13.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	903	13	20	642	4	7
Future Vol, veh/h	903	13	20	642	4	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	84	84	46	46
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1050	15	24	764	9	15

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1065	0	1488
Stage 1	-	-	-	-	1058
Stage 2	-	-	-	-	430
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	650	-	115
Stage 1	-	-	-	-	295
Stage 2	-	-	-	-	624
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	650	-	108
Mov Cap-2 Maneuver	-	-	-	-	108
Stage 1	-	-	-	-	295
Stage 2	-	-	-	-	584

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	23.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	214	-	-	650	-
HCM Lane V/C Ratio	0.112	-	-	0.037	-
HCM Control Delay (s)	23.9	-	-	10.7	0.3
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

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	27	910	18	8	587	9	11	3	13	11	6	17
Future Vol, veh/h	27	910	18	8	587	9	11	3	13	11	6	17
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	50	-	-	40	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	89	89	89	84	84	84	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	948	19	9	660	10	13	4	15	17	9	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	670	0	0	967	0	0	1367	1702	484	1215	1706	335
Stage 1	-	-	-	-	-	-	1014	1014	-	683	683	-
Stage 2	-	-	-	-	-	-	353	688	-	532	1023	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	916	-	-	708	-	-	106	91	529	137	90	661
Stage 1	-	-	-	-	-	-	256	314	-	405	447	-
Stage 2	-	-	-	-	-	-	637	445	-	499	311	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	916	-	-	708	-	-	90	87	529	125	86	661
Mov Cap-2 Maneuver	-	-	-	-	-	-	90	87	-	125	86	-
Stage 1	-	-	-	-	-	-	248	304	-	392	441	-
Stage 2	-	-	-	-	-	-	591	439	-	464	301	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.1			35.7			32		
HCM LOS							E			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	149	916	-	-	708	-	-	185
HCM Lane V/C Ratio	0.216	0.031	-	-	0.013	-	-	0.283
HCM Control Delay (s)	35.7	9.1	-	-	10.2	-	-	32
HCM Lane LOS	E	A	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0	-	-	1.1

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-



Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TT			TT	TT	
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	FF			FF	FF	
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-



Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-



Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↔			↔	↔	↔
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	60
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	0	0	1
Stage 1	-	-	-	-	0
Stage 2	-	-	-	-	1
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	-	-	1022
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	1022
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	1022
Mov Cap-2 Maneuver	-	-	-	-	1022
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	1022

Approach	NB	SB	NW
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBT	NBRNWLn1NWLn2	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-



Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TT			TT	TT	TT
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔	↔	↕↕	↔	↔	↕↕	↔
Traffic Vol, veh/h	6	0	46	9	0	17	46	1110	13	14	1101	35
Future Vol, veh/h	6	0	46	9	0	17	46	1110	13	14	1101	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	60	-	0	40	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	81	81	81	100	100	100	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	0	60	11	0	21	46	1110	13	15	1147	36

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1824	2392	574	1806	2415	555	1183	0	0	1123	0	0
Stage 1	1177	1177	-	1202	1202	-	-	-	-	-	-	-
Stage 2	647	1215	-	604	1213	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	48	33	462	50	32	475	586	-	-	618	-	-
Stage 1	203	263	-	196	256	-	-	-	-	-	-	-
Stage 2	426	252	-	452	253	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	42	30	462	40	29	475	586	-	-	618	-	-
Mov Cap-2 Maneuver	42	30	-	40	29	-	-	-	-	-	-	-
Stage 1	187	257	-	181	236	-	-	-	-	-	-	-
Stage 2	375	232	-	384	247	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	24.9		52.3		0.5		0.1	
HCM LOS	C		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	586	-	-	42	462	40	475	618	-	-
HCM Lane V/C Ratio	0.078	-	-	0.186	0.129	0.278	0.044	0.024	-	-
HCM Control Delay (s)	11.7	-	-	109.3	13.9	126.6	12.9	11	-	-
HCM Lane LOS	B	-	-	F	B	F	B	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.6	0.4	0.9	0.1	0.1	-	-

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	31	820	785	20	12	33
Future Vol, veh/h	31	820	785	20	12	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	882	844	22	14	38

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	866	0	-	0	1362 433
Stage 1	-	-	-	-	855 -
Stage 2	-	-	-	-	507 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	773	-	-	-	139 571
Stage 1	-	-	-	-	377 -
Stage 2	-	-	-	-	570 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	773	-	-	-	127 571
Mov Cap-2 Maneuver	-	-	-	-	127 -
Stage 1	-	-	-	-	345 -
Stage 2	-	-	-	-	570 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	773	-	-	-	296
HCM Lane V/C Ratio	0.043	-	-	-	0.175
HCM Control Delay (s)	9.9	0.4	-	-	19.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	1	0	0	2	2	1	2	2	1
Stage 1	-	-	-	-	-	-	1	1	-	1	1	-
Stage 2	-	-	-	-	-	-	1	1	-	1	1	-
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	1622	-	-	1622	-	-	1020	894	1084	1020	894	1084
Stage 1	-	-	-	-	-	-	1022	895	-	1022	895	-
Stage 2	-	-	-	-	-	-	1022	895	-	1022	895	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1622	-	-	1622	-	-	1020	894	1084	1020	894	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	1020	894	-	1020	894	-
Stage 1	-	-	-	-	-	-	1022	895	-	1022	895	-
Stage 2	-	-	-	-	-	-	1022	895	-	1022	895	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1622	-	-	1622	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-



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	20	784	13	5	603	5	5	18	9	3	14	13
Future Vol, veh/h	20	784	13	5	603	5	5	18	9	3	14	13
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	60	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	89	89	89	67	67	67	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	862	14	6	678	6	7	27	13	4	19	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	684	0	0	876	0	0	1274	1609	438	1182	1613	342
Stage 1	-	-	-	-	-	-	913	913	-	693	693	-
Stage 2	-	-	-	-	-	-	361	696	-	489	920	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	905	-	-	766	-	-	124	104	567	145	103	654
Stage 1	-	-	-	-	-	-	294	350	-	400	443	-
Stage 2	-	-	-	-	-	-	630	441	-	529	348	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	905	-	-	766	-	-	101	101	567	110	100	654
Mov Cap-2 Maneuver	-	-	-	-	-	-	101	101	-	110	100	-
Stage 1	-	-	-	-	-	-	287	342	-	390	439	-
Stage 2	-	-	-	-	-	-	583	437	-	464	340	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			47.5			34.8		
HCM LOS							E			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	131	905	-	-	766	-	-	160
HCM Lane V/C Ratio	0.365	0.024	-	-	0.007	-	-	0.25
HCM Control Delay (s)	47.5	9.1	-	-	9.7	-	-	34.8
HCM Lane LOS	E	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.5	0.1	-	-	0	-	-	0.9

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	1	0	0	2	2	1	2	2	1
Stage 1	-	-	-	-	-	-	1	1	-	1	1	-
Stage 2	-	-	-	-	-	-	1	1	-	1	1	-
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	1622	-	-	1622	-	-	1020	894	1084	1020	894	1084
Stage 1	-	-	-	-	-	-	1022	895	-	1022	895	-
Stage 2	-	-	-	-	-	-	1022	895	-	1022	895	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1622	-	-	1622	-	-	1020	894	1084	1020	894	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	1020	894	-	1020	894	-
Stage 1	-	-	-	-	-	-	1022	895	-	1022	895	-
Stage 2	-	-	-	-	-	-	1022	895	-	1022	895	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1622	-	-	1622	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1	0	-	0	1 1
Stage 1	-	-	-	-	1 -
Stage 2	-	-	-	-	0 -
Critical Hdwy	4.13	-	-	-	6.63 6.93
Critical Hdwy Stg 1	-	-	-	-	5.83 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.219	-	-	-	3.519 3.319
Pot Cap-1 Maneuver	1621	-	-	-	1022 1083
Stage 1	-	-	-	-	1022 -
Stage 2	-	-	-	-	- -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1621	-	-	-	1022 1083
Mov Cap-2 Maneuver	-	-	-	-	1022 -
Stage 1	-	-	-	-	1022 -
Stage 2	-	-	-	-	- -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1621	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1	0	2
Stage 1	-	-	-	-	1
Stage 2	-	-	-	-	1
Critical Hdwy	-	-	4.13	-	6.63
Critical Hdwy Stg 1	-	-	-	-	5.83
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.219	-	3.519
Pot Cap-1 Maneuver	-	-	1621	-	1020
Stage 1	-	-	-	-	1022
Stage 2	-	-	-	-	1022
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1621	-	1020
Mov Cap-2 Maneuver	-	-	-	-	1020
Stage 1	-	-	-	-	1022
Stage 2	-	-	-	-	1022

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1621	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-



Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	↑
Traffic Vol, veh/h	843	13	9	809	6	8
Future Vol, veh/h	843	13	9	809	6	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	22
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	906	14	10	870	9	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	920	0	1368 460
Stage 1	-	-	-	-	913 -
Stage 2	-	-	-	-	455 -
Critical Hdwy	-	-	4.14	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	-	-	2.22	-	3.52 3.32
Pot Cap-1 Maneuver	-	-	738	-	138 548
Stage 1	-	-	-	-	352 -
Stage 2	-	-	-	-	606 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	738	-	134 548
Mov Cap-2 Maneuver	-	-	-	-	134 -
Stage 1	-	-	-	-	352 -
Stage 2	-	-	-	-	590 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	21.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	134	548	-	-	738	-
HCM Lane V/C Ratio	0.064	0.021	-	-	0.013	-
HCM Control Delay (s)	33.7	11.7	-	-	9.9	0.1
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	25	835	18	13	776	16	3	0	8	12	0	29
Future Vol, veh/h	25	835	18	13	776	16	3	0	8	12	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	94	94	94	92	92	92	68	68	68
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	908	20	14	826	17	3	0	9	18	0	43

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	843	0	0	928	0	0	1413	1843	464	1371	1845	422
Stage 1	-	-	-	-	-	-	972	972	-	863	863	-
Stage 2	-	-	-	-	-	-	441	871	-	508	982	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	789	-	-	733	-	-	98	74	545	105	74	580
Stage 1	-	-	-	-	-	-	271	329	-	316	370	-
Stage 2	-	-	-	-	-	-	565	367	-	516	325	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	789	-	-	733	-	-	83	66	545	95	66	580
Mov Cap-2 Maneuver	-	-	-	-	-	-	83	66	-	95	66	-
Stage 1	-	-	-	-	-	-	252	306	-	294	357	-
Stage 2	-	-	-	-	-	-	505	354	-	472	302	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.4			22.6			25.8		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	216	789	-	-	733	-	-	233
HCM Lane V/C Ratio	0.055	0.034	-	-	0.019	-	-	0.259
HCM Control Delay (s)	22.6	9.7	0.3	-	10	0.2	-	25.8
HCM Lane LOS	C	A	A	-	B	A	-	D
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	1

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Traffic Vol, veh/h	5	800	12	16	601	2	3	0	14	0	2	2
Future Vol, veh/h	5	800	12	16	601	2	3	0	14	0	2	2
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	40	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	86	86	86	47	47	47	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	889	13	19	699	2	6	0	30	0	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	701	0	0	902	0	0	1298	1647	451	1195	1652	351
Stage 1	-	-	-	-	-	-	908	908	-	738	738	-
Stage 2	-	-	-	-	-	-	390	739	-	457	914	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	892	-	-	749	-	-	119	98	556	142	98	645
Stage 1	-	-	-	-	-	-	296	352	-	376	422	-
Stage 2	-	-	-	-	-	-	606	422	-	553	350	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	892	-	-	749	-	-	112	95	556	131	95	645
Mov Cap-2 Maneuver	-	-	-	-	-	-	112	95	-	131	95	-
Stage 1	-	-	-	-	-	-	294	350	-	373	411	-
Stage 2	-	-	-	-	-	-	581	411	-	520	348	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.3			17.4			27.8		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	327	892	-	-	749	-	-	166
HCM Lane V/C Ratio	0.111	0.006	-	-	0.025	-	-	0.048
HCM Control Delay (s)	17.4	9.1	-	-	9.9	-	-	27.8
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.2

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Traffic Vol, veh/h	9	782	4	10	592	4	3	2	8	1	4	16
Future Vol, veh/h	9	782	4	10	592	4	3	2	8	1	4	16
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	60	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	89	89	89	81	81	81	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	859	4	11	665	4	4	2	10	1	5	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	669	0	0	863	0	0	1238	1572	432	1140	1572	335
Stage 1	-	-	-	-	-	-	881	881	-	689	689	-
Stage 2	-	-	-	-	-	-	357	691	-	451	883	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	917	-	-	775	-	-	132	109	572	156	109	661
Stage 1	-	-	-	-	-	-	308	363	-	402	445	-
Stage 2	-	-	-	-	-	-	633	444	-	557	362	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	917	-	-	775	-	-	122	106	572	148	106	661
Mov Cap-2 Maneuver	-	-	-	-	-	-	122	106	-	148	106	-
Stage 1	-	-	-	-	-	-	305	359	-	398	439	-
Stage 2	-	-	-	-	-	-	601	438	-	538	358	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.2			22.1			17.8		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	226	917	-	-	775	-	-	306
HCM Lane V/C Ratio	0.071	0.011	-	-	0.014	-	-	0.078
HCM Control Delay (s)	22.1	9	-	-	9.7	-	-	17.8
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗				↖		↖↗	
Traffic Vol, veh/h	17	754	13	11	542	18	2	10	45	2	12	19
Future Vol, veh/h	17	754	13	11	542	18	2	10	45	2	12	19
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	75	-	-	105	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	96	96	96	84	84	84	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	802	14	11	565	19	2	12	54	3	16	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	584	0	0	816	0	0	1158	1451	408	1040	1449	292
Stage 1	-	-	-	-	-	-	845	845	-	597	597	-
Stage 2	-	-	-	-	-	-	313	606	-	443	852	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	987	-	-	807	-	-	151	130	593	185	130	704
Stage 1	-	-	-	-	-	-	324	377	-	456	490	-
Stage 2	-	-	-	-	-	-	672	485	-	564	374	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	987	-	-	807	-	-	128	126	593	152	126	704
Mov Cap-2 Maneuver	-	-	-	-	-	-	128	126	-	152	126	-
Stage 1	-	-	-	-	-	-	318	370	-	448	483	-
Stage 2	-	-	-	-	-	-	618	478	-	487	367	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.2			11.7			23		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	593	987	-	-	807	-	-	244
HCM Lane V/C Ratio	0.09	0.018	-	-	0.014	-	-	0.18
HCM Control Delay (s)	11.7	8.7	-	-	9.5	-	-	23
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.6

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-



Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	1022	-	-	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	↑
Traffic Vol, veh/h	767	8	5	563	12	8
Future Vol, veh/h	767	8	5	563	12	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	88	88	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	825	9	6	640	14	10

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	834	0	1162
Stage 1	-	-	-	-	830
Stage 2	-	-	-	-	332
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	795	-	188
Stage 1	-	-	-	-	388
Stage 2	-	-	-	-	699
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	795	-	186
Mov Cap-2 Maneuver	-	-	-	-	186
Stage 1	-	-	-	-	388
Stage 2	-	-	-	-	691

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	20.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	186	585	-	-	795	-
HCM Lane V/C Ratio	0.078	0.016	-	-	0.007	-
HCM Control Delay (s)	26	11.3	-	-	9.6	0.1
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗			↕↗	
Traffic Vol, veh/h	21	730	5	8	554	8	2	3	9	2	5	10
Future Vol, veh/h	21	730	5	8	554	8	2	3	9	2	5	10
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	60	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	86	86	86	70	70	70	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	777	5	9	644	9	3	4	13	3	7	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	653	0	0	782	0	0	1168	1495	391	1102	1493	327
Stage 1	-	-	-	-	-	-	824	824	-	667	667	-
Stage 2	-	-	-	-	-	-	344	671	-	435	826	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	930	-	-	832	-	-	149	122	608	166	122	669
Stage 1	-	-	-	-	-	-	333	385	-	414	455	-
Stage 2	-	-	-	-	-	-	645	453	-	570	385	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	930	-	-	832	-	-	136	118	608	154	118	669
Mov Cap-2 Maneuver	-	-	-	-	-	-	136	118	-	154	118	-
Stage 1	-	-	-	-	-	-	325	376	-	404	450	-
Stage 2	-	-	-	-	-	-	615	448	-	539	376	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			20.3			21.5		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	255	930	-	-	832	-	-	242
HCM Lane V/C Ratio	0.078	0.024	-	-	0.011	-	-	0.099
HCM Control Delay (s)	20.3	9	-	-	9.4	-	-	21.5
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.3

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	345	29	18	217	12	27
Future Vol, veh/h	345	29	18	217	12	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	40
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	93	93	51	51
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	379	32	19	233	24	53

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	411	0	666	395
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	271	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1148	-	425	654
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	775	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1148	-	418	654
Mov Cap-2 Maneuver	-	-	-	-	418	-
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	762	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	418	654	-	-	1148	-
HCM Lane V/C Ratio	0.056	0.081	-	-	0.017	-
HCM Control Delay (s)	14.1	11	-	-	8.2	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.3	-	-	0.1	-

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	364	12	15	231	11	28
Future Vol, veh/h	364	12	15	231	11	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	25	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	95	95	65	65
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	418	14	16	243	17	43

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	432	0	693
Stage 1	-	-	-	-	418
Stage 2	-	-	-	-	275
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1128	-	409
Stage 1	-	-	-	-	664
Stage 2	-	-	-	-	771
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1128	-	402
Mov Cap-2 Maneuver	-	-	-	-	402
Stage 1	-	-	-	-	664
Stage 2	-	-	-	-	759

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	546	-	-	1128	-
HCM Lane V/C Ratio	0.11	-	-	0.014	-
HCM Control Delay (s)	12.4	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	984	771	26	10	30
Future Vol, veh/h	20	984	771	26	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	70	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	95	95	63	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	1058	812	27	16	48

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	839	0	-	0	1399 420
Stage 1	-	-	-	-	826 -
Stage 2	-	-	-	-	573 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	791	-	-	-	132 582
Stage 1	-	-	-	-	390 -
Stage 2	-	-	-	-	527 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	791	-	-	-	128 582
Mov Cap-2 Maneuver	-	-	-	-	128 -
Stage 1	-	-	-	-	379 -
Stage 2	-	-	-	-	527 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	791	-	-	-	308
HCM Lane V/C Ratio	0.027	-	-	-	0.206
HCM Control Delay (s)	9.7	-	-	-	19.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗			↔			↔	
Traffic Vol, veh/h	8	956	20	31	793	10	8	1	33	1	1	10
Future Vol, veh/h	8	956	20	31	793	10	8	1	33	1	1	10
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	85	-	-	60	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	62	62	62	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	1039	22	34	862	11	13	2	53	2	2	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	873	0	0	1061	0	0	1568	2009	531	1475	2015	437
Stage 1	-	-	-	-	-	-	1068	1068	-	936	936	-
Stage 2	-	-	-	-	-	-	500	941	-	539	1079	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	768	-	-	652	-	-	75	58	493	88	58	567
Stage 1	-	-	-	-	-	-	237	296	-	285	342	-
Stage 2	-	-	-	-	-	-	521	340	-	494	293	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	768	-	-	652	-	-	68	54	493	73	54	567
Mov Cap-2 Maneuver	-	-	-	-	-	-	68	54	-	73	54	-
Stage 1	-	-	-	-	-	-	234	292	-	282	324	-
Stage 2	-	-	-	-	-	-	477	322	-	433	289	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.4			30.6			21.3		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	207	768	-	-	652	-	-	241
HCM Lane V/C Ratio	0.327	0.011	-	-	0.052	-	-	0.083
HCM Control Delay (s)	30.6	9.7	-	-	10.8	-	-	21.3
HCM Lane LOS	D	A	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.4	0	-	-	0.2	-	-	0.3



Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	983	11	10	1127	15	18
Future Vol, veh/h	983	11	10	1127	15	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1057	12	11	1186	27	32

























Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1069	0	1678
Stage 1	-	-	-	-	1063
Stage 2	-	-	-	-	615
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	648	-	86
Stage 1	-	-	-	-	293
Stage 2	-	-	-	-	502
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	648	-	85
Mov Cap-2 Maneuver	-	-	-	-	85
Stage 1	-	-	-	-	293
Stage 2	-	-	-	-	493

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	41.8
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	155	-	-	648	-
HCM Lane V/C Ratio	0.38	-	-	0.016	-
HCM Control Delay (s)	41.8	-	-	10.6	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	1.6	-	-	0.1	-

322: Bonnie Ave. & Colorado Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	818	218	95	631	28	156	100	129	34	159	39
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	4.2	4.6	4.6	4.2	4.6	4.0
Minimum Green (s)	8.0	8.0	8.0	8.0	8.0	8.0	9.0	9.0	9.0	9.0	9.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	40	818	218	95	631	28	156	100	129	34	198	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.97	0.85
Saturated Flow (vph)	1615	3237	1445	1615	3237	1445	3136	1700	1445	1615	3141	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	Yes			Yes			Yes			Yes		
Reference Time (s)	3.0	30.3	18.1	7.1	23.4	2.3	6.0	7.1	10.7	2.5	7.6	0.0
Adj Reference Time (s)	12.9	35.2	23.0	12.9	28.3	12.9	13.2	13.6	15.3	13.2	13.6	0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		108	1618		105	1700		108	1571	
Reference Time A (s)	44.6	30.3		105.9	23.4		89.5	7.1		37.9	7.6	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		0	3141	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		10.5	7.6	
Reference Time (s)		44.6			105.9			89.5			10.5	
Adj Reference Time (s)		49.5			110.8			94.1			15.1	
Split Option												
Ref Time Combined (s)	3.0	30.3		7.1	23.4		6.0	7.1		2.5	7.6	
Ref Time Separate (s)	3.0	30.3		7.1	23.4		6.0	7.1		2.5	6.1	
Reference Time (s)	30.3	30.3		23.4	23.4		7.1	7.1		7.6	7.6	
Adj Reference Time (s)	35.2	35.2		28.3	28.3		13.6	13.6		13.6	13.6	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	48.1		26.8									
Permitted Option (s)	110.8		94.1									
Split Option (s)	63.5		27.2									
Minimum (s)	48.1		26.8		74.9							
Right Turns												
	EBR	WBR	NBR									
Adj Reference Time (s)	23.0	12.9	15.3									
Cross Thru Ref Time (s)	13.6	13.6	35.2									
Oncoming Left Ref Time (s)	12.9	12.9	13.2									
Combined (s)	49.5	39.4	63.7									
Intersection Summary												
Intersection Capacity Utilization			62.4%		ICU Level of Service				B			
Reference Times and Phasing Options do not represent an optimized timing plan.												

61: Catalina Ave. & Washington Blvd.  
Intersection Capacity Utilization

Existing Conditions  
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕↕			↕↕			↕			↕		
Volume (vph)	29	877	22	20	751	22	16	18	24	40	9	21	
Pedestrians													
Ped Button													
Pedestrian Timing (s)													
Free Right	No			No			No			No			
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	
Lost Time (s)	5.3	5.3	4.0	5.3	5.3	4.0	5.3	5.3	4.0	5.3	5.3	4.0	
Minimum Green (s)	7.0	7.0	4.0	7.0	7.0	4.0	8.0	8.0	4.0	8.0	8.0	4.0	
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120	
Volume Combined (vph)	0	928	0	0	793	0	0	58	0	0	70	0	
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Factor (vph)	0.95	0.99	0.85	0.95	0.99	0.85	0.95	0.92	0.85	0.95	0.93	0.85	
Saturated Flow (vph)	0	3220	0	0	3219	0	0	1572	0	0	1577	0	
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pedestrian Frequency (%)	0.00		0.00		0.00		0.00		0.00		0.00		
Protected Option Allowed	No		No		No		No		No		No		
Reference Time (s)	0.0		0.0		0.0		0.0		0.0		0.0		
Adj Reference Time (s)	0.0		0.0		0.0		0.0		0.0		0.0		
Permitted Option													
Adj Saturation A (vph)	0	789	0	0	889	0	0	1515	0	0	820	0	
Reference Time A (s)	0.0	61.7	0.0	0.0	48.1	0.0	0.0	4.6	0.0	0.0	10.2	0.0	
Adj Saturation B (vph)	NA	NA	NA	NA	NA	0	0	0	0	0	0	0	
Reference Time B (s)	NA	NA	NA	NA	NA	9.2	12.4	11.0	13.3	11.0	13.3	13.3	
Reference Time (s)	61.7		48.1		4.6		10.2		10.2		10.2		
Adj Reference Time (s)	67.0		53.4		13.3		15.5		15.5		15.5		
Split Option													
Ref Time Combined (s)	0.0	34.6	0.0	0.0	29.6	0.0	0.0	4.4	0.0	0.0	5.3	0.0	
Ref Time Seperate (s)	2.2	32.6	1.5	1.5	28.0	1.2	1.2	1.4	3.0	3.0	0.7	0.7	
Reference Time (s)	34.6	34.6	29.6	29.6	29.6	4.4	4.4	4.4	5.3	5.3	5.3	5.3	
Adj Reference Time (s)	39.9	39.9	34.9	34.9	34.9	13.3	13.3	13.3	13.3	13.3	13.3	13.3	
Summary	EB WB		NB SB		Combined								
Protected Option (s)	NA		NA										
Permitted Option (s)	67.0		15.5										
Split Option (s)	74.7		26.6										
Minimum (s)	67.0		15.5		82.6								
Right Turns													
Adj Reference Time (s)													
Cross Thru Ref Time (s)													
Oncoming Left Ref Time (s)													
Combined (s)													
Intersection Summary													
Intersection Capacity Utilization	68.8%		ICU Level of Service		C								
Reference Times and Phasing Options do not represent an optimized timing plan.													

357: Craig Ave. & Colorado Blvd.  
Intersection Capacity Utilization

Existing Conditions  
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	927	27	26	742	42	20	29	21	27	60	37
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.9	4.9	4.9	4.0	4.6	4.6	4.0	4.6	4.6	4.0
Minimum Green (s)	10.0	10.0	10.0	10.0	10.0	4.0	9.0	9.0	4.0	9.0	9.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	31	927	27	26	784	0	0	70	0	0	124	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.94	0.85	0.95	0.94	0.85
Saturated Flow (vph)	1615	3237	1445	1615	3211	0	0	1600	0	0	1606	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	2.3	34.4	2.2	1.9	29.3	0.0			0.0			0.0
Adj Reference Time (s)	14.9	39.3	14.9	14.9	34.2	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		108	1605		0	1077		0	1314	
Reference Time A (s)	34.6	34.4		29.0	29.3		0.0	7.8		0.0	11.3	
Adj Saturation B (vph)	NA	NA		NA	NA		0	0		0	0	
Reference Time B (s)	NA	NA		NA	NA		9.5	13.2		10.0	17.3	
Reference Time (s)		34.6			29.3			7.8			11.3	
Adj Reference Time (s)		39.5			34.2			13.6			15.9	
Split Option												
Ref Time Combined (s)	2.3	34.4		1.9	29.3		0.0	5.2		0.0	9.3	
Ref Time Separate (s)	2.3	34.4		1.9	27.7		1.5	2.2		2.0	4.5	
Reference Time (s)	34.4	34.4		29.3	29.3		5.2	5.2		9.3	9.3	
Adj Reference Time (s)	39.3	39.3		34.2	34.2		13.6	13.6		13.9	13.9	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	54.2		NA									
Permitted Option (s)	39.5		15.9									
Split Option (s)	73.5		27.5									
Minimum (s)	39.5		15.9		55.4							
Right Turns												
	EBR											
Adj Reference Time (s)	14.9											
Cross Thru Ref Time (s)	13.9											
Oncoming Left Ref Time (s)	14.9											
Combined (s)	43.7											
Intersection Summary												
Intersection Capacity Utilization			46.1%		ICU Level of Service					A		
Reference Times and Phasing Options do not represent an optimized timing plan.												

347: Craig Ave. & Foothill Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.0	5.3	5.3	4.0	4.6	4.6	4.0	4.6	4.6	4.0
Minimum Green (s)	6.0	6.0	4.0	6.0	6.0	4.0	8.0	8.0	4.0	8.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3237	0	1615	3237	0	0	1700	0	0	1700	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0			0.0
Adj Reference Time (s)	11.3	11.3	0.0	11.3	11.3	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		108	1618		0	1700		0	1700	
Reference Time A (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Adj Saturation B (vph)	0	3237		0	3237		0	1700		0	1700	
Reference Time B (s)	8.0	0.0		8.0	0.0		0.0	0.0		0.0	0.0	
Reference Time (s)		0.0			0.0			0.0			0.0	
Adj Reference Time (s)		11.3			11.3			12.6			12.6	
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Ref Time Seperate (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Reference Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Adj Reference Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	22.6		NA									
Permitted Option (s)	11.3		12.6									
Split Option (s)	0.0		0.0									
Minimum (s)	0.0		0.0		0.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												

Intersection Summary

Intersection Capacity Utilization 0.0% ICU Level of Service A  
 Reference Times and Phasing Options do not represent an optimized timing plan.

182: El Molino Ave. & California Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	67	1080	36	19	803	63	22	196	68	52	328	42
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.0	5.3	5.3	4.0	3.9	3.9	4.0	3.9	3.9	3.9
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	8.0	8.0	4.0	8.0	8.0	8.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	67	1116	0	0	885	0	0	286	0	0	380	42
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.96	0.85	0.95	0.99	0.85
Saturated Flow (vph)	1615	3221	0	0	3199	0	0	1633	0	0	1688	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			3.5
Adj Reference Time (s)			0.0			0.0			0.0			12.0
Permitted Option												
Adj Saturation A (vph)	108	1611		0	954		0	769		0	1067	
Reference Time A (s)	74.7	41.6		0.0	50.9		0.0	44.6		0.0	42.7	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		74.7			50.9			44.6			42.7	
Adj Reference Time (s)		80.0			56.2			48.6			46.7	
Split Option												
Ref Time Combined (s)	5.0	41.6		0.0	33.2		0.0	21.0		0.0	27.0	
Ref Time Seperate (s)	5.0	40.2		1.4	30.1		1.6	14.4		3.9	23.2	
Reference Time (s)	41.6	41.6		33.2	33.2		21.0	21.0		27.0	27.0	
Adj Reference Time (s)	46.9	46.9		38.5	38.5		25.0	25.0		31.0	31.0	
Summary												
Protected Option (s)	NA		NA									
Permitted Option (s)	80.0		48.6									
Split Option (s)	85.4		56.0									
Minimum (s)	80.0		48.6		128.6							
Right Turns												
Adj Reference Time (s)	SBR											
Cross Thru Ref Time (s)	12.0											
Oncoming Left Ref Time (s)	38.5											
Combined (s)	25.0											
Intersection Summary												
Intersection Capacity Utilization	107.2%		ICU Level of Service		G							
Reference Times and Phasing Options do not represent an optimized timing plan.												

170: El Molino Ave. & Cordova St.  
Intersection Capacity Utilization

Existing Conditions  
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	19	380	38	67	478	27	22	216	56	52	280	41
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.0	5.3	5.3	4.0	4.6	4.6	4.0	4.6	4.6	4.0
Minimum Green (s)	6.0	6.0	4.0	6.0	6.0	4.0	8.0	8.0	4.0	8.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	19	418	0	67	505	0	0	294	0	0	373	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	0.99	0.85	0.95	0.97	0.85	0.95	0.98	0.85
Saturated Flow (vph)	1615	3193	0	1615	3211	0	0	1645	0	0	1660	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	1.4	15.7	0.0	5.0	18.9	0.0			0.0			0.0
Adj Reference Time (s)	11.3	21.0	0.0	11.3	24.2	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1596		108	1605		0	1414		0	1032	
Reference Time A (s)	21.2	15.7		74.7	18.9		0.0	25.0		0.0	43.4	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		21.2			74.7			25.0			43.4	
Adj Reference Time (s)		26.5			80.0			29.6			48.0	
Split Option												
Ref Time Combined (s)	1.4	15.7		5.0	18.9		0.0	21.4		0.0	27.0	
Ref Time Seperate (s)	1.4	14.3		5.0	17.9		1.6	15.7		3.9	20.2	
Reference Time (s)	15.7	15.7		18.9	18.9		21.4	21.4		27.0	27.0	
Adj Reference Time (s)	21.0	21.0		24.2	24.2		26.0	26.0		31.6	31.6	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	35.5		NA									
Permitted Option (s)	80.0		48.0									
Split Option (s)	45.2		57.6									
Minimum (s)	35.5		48.0		83.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			69.5%		ICU Level of Service		C					
Reference Times and Phasing Options do not represent an optimized timing plan.												

174: El Molino Ave. & Del Mar Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	827	82	127	928	36	34	224	64	40	322	24
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.8	4.8	4.0	4.8	4.8	4.0	4.1	4.1	4.0	4.1	4.1	4.0
Minimum Green (s)	10.0	10.0	4.0	10.0	10.0	4.0	8.0	8.0	4.0	8.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	33	909	0	127	964	0	0	322	0	0	386	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	0.99	0.85	0.95	0.97	0.85	0.95	0.99	0.85
Saturated Flow (vph)	1615	3193	0	1615	3219	0	0	1641	0	0	1675	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	2.5	34.2	0.0	9.4	35.9	0.0			0.0			0.0
Adj Reference Time (s)	14.8	39.0	0.0	14.8	40.7	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1597		108	1609		0	1232		0	1271	
Reference Time A (s)	36.8	34.2		141.5	35.9		0.0	31.4		0.0	36.4	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		36.8			141.5			31.4			36.4	
Adj Reference Time (s)		41.6			146.3			35.5			40.5	
Split Option												
Ref Time Combined (s)	2.5	34.2		9.4	35.9		0.0	23.6		0.0	27.6	
Ref Time Seperate (s)	2.5	31.1		9.4	34.6		2.5	16.4		3.0	23.0	
Reference Time (s)	34.2	34.2		35.9	35.9		23.6	23.6		27.6	27.6	
Adj Reference Time (s)	39.0	39.0		40.7	40.7		27.7	27.7		31.7	31.7	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	55.5		NA									
Permitted Option (s)	146.3		40.5									
Split Option (s)	79.7		59.4									
Minimum (s)	55.5		40.5		96.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			80.1%		ICU Level of Service		D					
Reference Times and Phasing Options do not represent an optimized timing plan.												



133: El Molino Ave. & Orange Grove Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Volume (vph)	55	837	78	32	614	39	56	232	88	35	100	33
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.0	5.3	5.3	4.0	4.9	4.9	4.0	4.9	4.9	4.0
Minimum Green (s)	10.0	10.0	4.0	10.0	10.0	4.0	7.0	7.0	4.0	7.0	7.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	55	915	0	32	653	0	0	376	0	0	168	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	0.99	0.85	0.95	0.96	0.85	0.95	0.96	0.85
Saturated Flow (vph)	1615	3195	0	1615	3208	0	0	1628	0	0	1633	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	4.1	34.4	0.0	2.4	24.4	0.0			0.0			0.0
Adj Reference Time (s)	15.3	39.7	0.0	15.3	29.7	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1598		108	1604		0	1333		0	1080	
Reference Time A (s)	61.3	34.4		35.7	24.4		0.0	33.8		0.0	18.7	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		61.3			35.7			33.8			18.7	
Adj Reference Time (s)		66.6			41.0			38.7			23.6	
Split Option												
Ref Time Combined (s)	4.1	34.4		2.4	24.4		0.0	27.7		0.0	12.3	
Ref Time Seperate (s)	4.1	31.4		2.4	23.0		4.2	17.1		2.6	7.3	
Reference Time (s)	34.4	34.4		24.4	24.4		27.7	27.7		12.3	12.3	
Adj Reference Time (s)	39.7	39.7		29.7	29.7		32.6	32.6		17.2	17.2	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	55.0		NA									
Permitted Option (s)	66.6		38.7									
Split Option (s)	69.4		49.9									
Minimum (s)	55.0		38.7		93.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			78.1%		ICU Level of Service		D					
Reference Times and Phasing Options do not represent an optimized timing plan.												

246: Hudson Ave. & California Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	185	999	11	14	794	144	6	14	1	0	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.0	4.9	4.9	4.0	4.9	4.9	4.0	4.0	4.0	4.0
Minimum Green (s)	6.0	6.0	4.0	6.0	6.0	4.0	7.0	7.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	185	1010	0	0	952	0	0	21	0	0	0	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.98	0.85	0.95	0.98	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3232	0	0	3161	0	0	1664	0	0	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1616		0	1093		0	308		0	0	
Reference Time A (s)	206.2	37.5		0.0	49.2		0.0	8.2		0.0	0.0	
Adj Saturation B (vph)	NA	NA		NA	NA		0	0		0	0	
Reference Time B (s)	NA	NA		NA	NA		8.4	9.5		0.0	0.0	
Reference Time (s)		206.2			49.2			8.2			0.0	
Adj Reference Time (s)		211.1			54.1			13.1			8.0	
Split Option												
Ref Time Combined (s)	13.7	37.5		0.0	36.1		0.0	1.5		0.0	0.0	
Ref Time Seperate (s)	13.7	37.1		1.0	30.1		0.4	1.0		0.0	0.0	
Reference Time (s)	37.5	37.5		36.1	36.1		1.5	1.5		0.0	0.0	
Adj Reference Time (s)	42.4	42.4		41.0	41.0		11.9	11.9		0.0	0.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	211.1		13.1									
Split Option (s)	83.4		11.9									
Minimum (s)	83.4		11.9		95.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			79.5%		ICU Level of Service		D					
Reference Times and Phasing Options do not represent an optimized timing plan.												

241: Hudson Ave. & Cordova St.  
Intersection Capacity Utilization

Existing Conditions  
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	462	0	0	507	79	52	282	138	0	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	3.9	3.9	4.0	4.0	3.9	4.0	3.2	3.2	3.9	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	37	462	0	0	586	0	0	334	138	0	0	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.98	0.85	0.95	0.99	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3237	0	0	3171	0	0	3212	1445	0	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	2.7	17.1	0.0	0.0	22.2	0.0			11.5			0.0
Adj Reference Time (s)	8.0	21.1	0.0	0.0	26.2	0.0			15.5			0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		0	1586		0	122		0	0	
Reference Time A (s)	41.2	17.1		0.0	22.2		0.0	61.9		0.0	0.0	
Adj Saturation B (vph)	NA	NA		NA	NA		0	1618		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		11.9	16.4		NA	NA	
Reference Time (s)		41.2			22.2			16.4			0.0	
Adj Reference Time (s)		45.2			26.2			20.4			8.0	
Split Option												
Ref Time Combined (s)	2.7	17.1		0.0	22.2		0.0	12.5		0.0	0.0	
Ref Time Separate (s)	2.7	17.1		0.0	19.2		3.9	10.5		0.0	0.0	
Reference Time (s)	17.1	17.1		22.2	22.2		12.5	12.5		0.0	0.0	
Adj Reference Time (s)	21.1	21.1		26.2	26.2		16.5	16.5		0.0	0.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	34.2		NA									
Permitted Option (s)	45.2		20.4									
Split Option (s)	47.3		16.5									
Minimum (s)	34.2		16.5		50.7							
Right Turns												
	NBR											
Adj Reference Time (s)	15.5											
Cross Thru Ref Time (s)	21.1											
Oncoming Left Ref Time (s)	0.0											
Combined (s)	36.6											
Intersection Summary												
Intersection Capacity Utilization			42.2%		ICU Level of Service		A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

243: Hudson Ave. & Del Mar Blvd.  
 Intersection Capacity Utilization



























Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	914	0	0	997	88	168	238	210	0	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.3	4.3	4.0	4.0	4.3	4.0	3.6	3.6	3.6	4.0	4.0	4.0
Minimum Green (s)	10.0	10.0	4.0	4.0	10.0	4.0	8.0	8.0	8.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	50	914	0	0	1085	0	0	406	210	0	0	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.98	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3237	0	0	3197	0	0	3170	1445	0	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	3.7	33.9	0.0	0.0	40.7	0.0			17.4			0.0
Adj Reference Time (s)	14.3	38.2	0.0	0.0	45.0	0.0			21.4			0.0
Permitted Option												
Adj Saturation A (vph)	108	1618		0	1599		0	106		0	0	
Reference Time A (s)	55.7	33.9		0.0	40.7		0.0	190.8		0.0	0.0	
Adj Saturation B (vph)	NA	NA		NA	NA		0	1618		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		20.5	19.3		NA	NA	
Reference Time (s)		55.7			40.7			20.5			0.0	
Adj Reference Time (s)		60.0			45.0			24.5			8.0	
Split Option												
Ref Time Combined (s)	3.7	33.9		0.0	40.7		0.0	15.4		0.0	0.0	
Ref Time Seperate (s)	3.7	33.9		0.0	37.4		12.5	8.8		0.0	0.0	
Reference Time (s)	33.9	33.9		40.7	40.7		15.4	15.4		0.0	0.0	
Adj Reference Time (s)	38.2	38.2		45.0	45.0		19.4	19.4		0.0	0.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	59.3		NA									
Permitted Option (s)	60.0		24.5									
Split Option (s)	83.2		19.4									
Minimum (s)	59.3		19.4		78.7							
Right Turns												
	NBR											
Adj Reference Time (s)	21.4											
Cross Thru Ref Time (s)	38.2											
Oncoming Left Ref Time (s)	0.0											
Combined (s)	59.6											
Intersection Summary												
Intersection Capacity Utilization			65.6%		ICU Level of Service		C					
Reference Times and Phasing Options do not represent an optimized timing plan.												

221: Lake Ave. & Orange Grove Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Volume (vph)	178	662	99	120	450	122	112	891	158	181	864	153
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	3.2	6.3	4.0	3.2	6.3	4.0	3.2	6.3	6.3	3.2	6.3	6.3
Minimum Green (s)	7.0	7.0	4.0	7.0	7.0	4.0	7.0	10.0	10.0	7.0	10.0	10.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	178	761	0	120	572	0	112	891	158	181	864	153
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.97	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3174	0	1615	3133	0	1615	3237	1445	1615	3237	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			Yes			Yes	
Reference Time (s)	13.2	28.8	0.0	8.9	21.9	0.0	8.3	33.0	13.1	13.4	32.0	12.7
Adj Reference Time (s)	17.2	35.1	0.0	12.9	28.2	0.0	12.3	39.3	19.4	17.4	38.3	19.0
Permitted Option												
Adj Saturation A (vph)	108	1587		108	1567		108	1618		108	1618	
Reference Time A (s)	198.4	28.8		133.7	21.9		124.8	33.0		201.7	32.0	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		198.4			133.7			124.8			201.7	
Adj Reference Time (s)		204.7			140.0			131.1			208.0	
Split Option												
Ref Time Combined (s)	13.2	28.8		8.9	21.9		8.3	33.0		13.4	32.0	
Ref Time Seperate (s)	13.2	25.0		8.9	17.2		8.3	33.0		13.4	32.0	
Reference Time (s)	28.8	28.8		21.9	21.9		33.0	33.0		32.0	32.0	
Adj Reference Time (s)	35.1	35.1		28.2	28.2		39.3	39.3		38.3	38.3	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	48.0		56.8									
Permitted Option (s)	204.7		208.0									
Split Option (s)	63.3		77.7									
Minimum (s)	48.0		56.8		104.8							
Right Turns												
	NBR		SBR									
Adj Reference Time (s)	19.4		19.0									
Cross Thru Ref Time (s)	35.1		28.2									
Oncoming Left Ref Time (s)	17.4		12.3									
Combined (s)	71.9		59.5									
Intersection Summary												
Intersection Capacity Utilization			87.3%		ICU Level of Service		E					
Reference Times and Phasing Options do not represent an optimized timing plan.												

235: Los Robles Ave. & California Blvd.  
Intersection Capacity Utilization


























Existing Conditions  
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	112	1054	27	31	815	77	20	365	82	36	396	53
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.9	5.9	4.0	5.9	5.9	4.0	3.9	3.9	3.9	3.9	3.9	3.9
Minimum Green (s)	6.0	6.0	4.0	6.0	6.0	4.0	8.0	8.0	8.0	8.0	8.0	8.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	112	1081	0	0	923	0	0	385	82	0	432	53
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.99	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3225	0	0	3191	0	0	1696	1445	0	1693	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			6.8			4.4
Adj Reference Time (s)			0.0			0.0			12.0			12.0
Permitted Option												
Adj Saturation A (vph)	108	1612		0	748		0	969		0	763	
Reference Time A (s)	124.8	40.2		0.0	64.1		0.0	47.7		0.0	68.0	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		124.8			64.1			47.7			68.0	
Adj Reference Time (s)		130.7			70.0			51.7			72.0	
Split Option												
Ref Time Combined (s)	8.3	40.2		0.0	34.7		0.0	27.2		0.0	30.6	
Ref Time Separate (s)	8.3	39.2		2.3	30.6		1.5	25.8		2.7	28.0	
Reference Time (s)	40.2	40.2		34.7	34.7		27.2	27.2		30.6	30.6	
Adj Reference Time (s)	46.1	46.1		40.6	40.6		31.2	31.2		34.6	34.6	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	130.7		72.0									
Split Option (s)	86.7		65.9									
Minimum (s)	86.7		65.9		152.6							
Right Turns												
	NBR		SBR									
Adj Reference Time (s)	12.0		12.0									
Cross Thru Ref Time (s)	46.1		40.6									
Oncoming Left Ref Time (s)	34.6		31.2									
Combined (s)	92.7		83.9									
Intersection Summary												
Intersection Capacity Utilization			127.2%		ICU Level of Service		H					
Reference Times and Phasing Options do not represent an optimized timing plan.												


























223: Los Robles Ave. & Cordova St.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Volume (vph)	39	226	23	101	444	126	29	477	39	103	450	103
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	6.3	6.3	4.0	6.3	6.3	4.0	3.9	3.9	4.0	3.9	3.9	3.9
Minimum Green (s)	6.0	6.0	4.0	6.0	6.0	4.0	30.3	30.3	4.0	30.3	30.3	30.3
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	39	249	0	101	570	0	29	516	0	103	450	103
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	0.97	0.85	0.95	0.99	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3192	0	1615	3129	0	1615	3200	0	1615	1700	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	Yes			Yes			Yes			Yes		
Reference Time (s)	2.9	9.4	0.0	7.5	21.9	0.0	2.2	19.3	0.0	7.7	31.8	8.6
Adj Reference Time (s)	12.3	15.7	0.0	13.8	28.2	0.0	34.3	34.3	0.0	34.3	35.8	34.3
Permitted Option												
Adj Saturation A (vph)	108	1596		108	1565		108	1600		108	1700	
Reference Time A (s)	43.5	9.4		112.6	21.9		32.3	19.3		114.8	31.8	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		43.5			112.6			32.3			114.8	
Adj Reference Time (s)		49.8			118.9			36.3			118.8	
Split Option												
Ref Time Combined (s)	2.9	9.4		7.5	21.9		2.2	19.3		7.7	31.8	
Ref Time Seperate (s)	2.9	8.5		7.5	17.0		2.2	17.9		7.7	31.8	
Reference Time (s)	9.4	9.4		21.9	21.9		19.3	19.3		31.8	31.8	
Adj Reference Time (s)	15.7	15.7		28.2	28.2		34.3	34.3		35.8	35.8	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	40.5		70.1									
Permitted Option (s)	118.9		118.8									
Split Option (s)	43.8		70.1									
Minimum (s)	40.5		70.1		110.5							
Right Turns												
	SBR											
Adj Reference Time (s)	34.3											
Cross Thru Ref Time (s)	28.2											
Oncoming Left Ref Time (s)	34.3											
Combined (s)	96.8											
Intersection Summary												
Intersection Capacity Utilization			92.1%		ICU Level of Service				F			
Reference Times and Phasing Options do not represent an optimized timing plan.												

230: Los Robles Ave. & Del Mar Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Volume (vph)	54	854	37	96	796	70	36	414	73	91	370	114
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	3.2	6.3	4.0	6.3	6.3	4.0	5.9	5.9	5.9	5.9	5.9	3.2
Minimum Green (s)	5.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	6.0	6.0	6.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	54	891	0	96	866	0	36	414	73	91	370	114
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	0.99	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	1615	3217	0	1615	3198	0	1615	1700	1445	1615	1700	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	Yes			Yes			Yes			Yes		
Reference Time (s)	4.0	33.2	0.0	7.1	32.5	0.0	2.7	29.2	6.1	6.8	26.1	9.5
Adj Reference Time (s)	9.0	39.5	0.0	13.4	38.8	0.0	11.9	35.1	12.0	12.7	32.0	13.5
Permitted Option												
Adj Saturation A (vph)	108	1608		108	1599		108	1700		108	1700	
Reference Time A (s)	60.2	33.2		107.0	32.5		40.1	29.2		101.4	26.1	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		60.2			107.0			40.1			101.4	
Adj Reference Time (s)		66.5			113.3			46.0			107.3	
Split Option												
Ref Time Combined (s)	4.0	33.2		7.1	32.5		2.7	29.2		6.8	26.1	
Ref Time Seperate (s)	4.0	31.9		7.1	29.9		2.7	29.2		6.8	26.1	
Reference Time (s)	33.2	33.2		32.5	32.5		29.2	29.2		26.1	26.1	
Adj Reference Time (s)	39.5	39.5		38.8	38.8		35.1	35.1		32.0	32.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	53.0		47.8									
Permitted Option (s)	113.3		107.3									
Split Option (s)	78.3		67.1									
Minimum (s)	53.0		47.8		100.8							
Right Turns												
	NBR		SBR									
Adj Reference Time (s)	12.0		13.5									
Cross Thru Ref Time (s)	39.5		38.8									
Oncoming Left Ref Time (s)	12.7		11.9									
Combined (s)	64.2		64.2									
Intersection Summary												
Intersection Capacity Utilization			84.0%		ICU Level of Service				E			
Reference Times and Phasing Options do not represent an optimized timing plan.												



69: Orange Grove Blvd. & Madison Ave.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	22	924	684	12	17	36
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	5.3	5.3	4.6	4.0	4.6	4.0
Minimum Green (s)	6.0	6.0	4.0	4.0	7.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	22	924	696	0	53	0
Lane Utilization Factor	1.00	0.95	0.95	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.88	0.85
Saturated Flow (vph)	1615	3237	3228	0	1502	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	1.6	34.3	25.9	0.0		0.0
Adj Reference Time (s)	11.3	39.6	30.5	0.0		0.0
Permitted Option						
Adj Saturation A (vph)	108	1618	1614		100	
Reference Time A (s)	24.5	34.3	25.9		63.5	
Adj Saturation B (vph)	NA	NA	NA		NA	
Reference Time B (s)	NA	NA	NA		NA	
Reference Time (s)		34.3	25.9			
Adj Reference Time (s)		39.6	30.5			
Split Option						
Ref Time Combined (s)	1.6	34.3	25.9		4.2	
Ref Time Seperate (s)	1.6	34.3	25.4		1.4	
Reference Time (s)	34.3	34.3	25.9		4.2	
Adj Reference Time (s)	39.6	39.6	30.5		11.6	
Summary						
	EB WB		SB		Combined	
Protected Option (s)	41.8		NA			
Permitted Option (s)	39.6		Err			
Split Option (s)	70.0		11.6			
Minimum (s)	39.6		11.6		51.2	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization			42.6%		ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.

319: Colorado Blvd. & Marion Ave.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	52	1061	783	15	25	40
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.9	4.9	4.6	4.0
Minimum Green (s)	10.0	10.0	10.0	10.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	52	1061	783	15	65	0
Lane Utilization Factor	1.00	0.95	0.95	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.89	0.85
Saturated Flow (vph)	1615	3237	3237	1445	1513	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	3.9	39.3	29.0	1.2		0.0
Adj Reference Time (s)	14.9	44.2	33.9	14.9		0.0
Permitted Option						
Adj Saturation A (vph)	108	1618	1618		101	
Reference Time A (s)	58.0	39.3	29.0		77.3	
Adj Saturation B (vph)	NA	NA	NA		NA	
Reference Time B (s)	NA	NA	NA		NA	
Reference Time (s)		58.0	29.0			
Adj Reference Time (s)		62.9	33.9			
Split Option						
Ref Time Combined (s)	3.9	39.3	29.0		5.2	
Ref Time Seperate (s)	3.9	39.3	29.0		2.0	
Reference Time (s)	39.3	39.3	29.0		5.2	
Adj Reference Time (s)	44.2	44.2	33.9		12.6	
Summary	EB WB		SB		Combined	
Protected Option (s)	48.8		NA			
Permitted Option (s)	62.9		Err			
Split Option (s)	78.2		12.6			
Minimum (s)	48.8		12.6		61.4	
Right Turns	WBR					
Adj Reference Time (s)	14.9					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	14.9					
Combined (s)	29.8					

Intersection Summary

Intersection Capacity Utilization 51.2% ICU Level of Service A  
 Reference Times and Phasing Options do not represent an optimized timing plan.

295: Colorado Blvd. & Sierra Bonita Ave.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	42	1038	750	79	39	48
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.9	4.9	4.9	4.9	4.6	4.0
Minimum Green (s)	10.0	10.0	10.0	10.0	8.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	42	1038	750	79	87	0
Lane Utilization Factor	1.00	0.95	0.95	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.90	0.85
Saturated Flow (vph)	1615	3237	3237	1445	1524	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	3.1	38.5	27.8	6.6		0.0
Adj Reference Time (s)	14.9	43.4	32.7	14.9		0.0
Permitted Option						
Adj Saturation A (vph)	108	1618	1618		102	
Reference Time A (s)	46.8	38.5	27.8		102.7	
Adj Saturation B (vph)	NA	NA	NA		NA	
Reference Time B (s)	NA	NA	NA		NA	
Reference Time (s)		46.8	27.8			
Adj Reference Time (s)		51.7	32.7			
Split Option						
Ref Time Combined (s)	3.1	38.5	27.8		6.8	
Ref Time Seperate (s)	3.1	38.5	27.8		3.1	
Reference Time (s)	38.5	38.5	27.8		6.8	
Adj Reference Time (s)	43.4	43.4	32.7		12.6	
Summary	EB WB		SB		Combined	
Protected Option (s)	47.6		NA			
Permitted Option (s)	51.7		Err			
Split Option (s)	76.1		12.6			
Minimum (s)	47.6		12.6		60.2	
Right Turns	WBR					
Adj Reference Time (s)	14.9					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	14.9					
Combined (s)	29.8					

Intersection Summary

Intersection Capacity Utilization 50.2% ICU Level of Service A  
 Reference Times and Phasing Options do not represent an optimized timing plan.

254: Sierra Bonita Ave. & Washington Blvd.  
 Intersection Capacity Utilization

Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Volume (vph)	13	808	16	22	772	18	17	5	34	29	8	16
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.3	4.3	4.0	4.3	4.3	4.0	3.6	3.6	4.0	3.6	3.6	4.0
Minimum Green (s)	8.0	8.0	4.0	8.0	8.0	4.0	9.0	9.0	4.0	9.0	9.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	837	0	0	812	0	0	56	0	0	53	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.90	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	3225	0	0	3222	0	0	1522	0	0	1579	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1095		0	857		0	1430		0	897	
Reference Time A (s)	0.0	43.0		0.0	50.7		0.0	4.7		0.0	7.1	
Adj Saturation B (vph)	NA	NA		NA	NA		0	0		0	0	
Reference Time B (s)	NA	NA		NA	NA		9.3	12.4		10.2	12.0	
Reference Time (s)		43.0			50.7			4.7			7.1	
Adj Reference Time (s)		47.3			55.0			13.0			13.0	
Split Option												
Ref Time Combined (s)	0.0	31.1		0.0	30.2		0.0	4.4		0.0	4.0	
Ref Time Seperate (s)	1.0	30.0		1.6	28.7		1.3	0.4		2.2	0.6	
Reference Time (s)	31.1	31.1		30.2	30.2		4.4	4.4		4.0	4.0	
Adj Reference Time (s)	35.4	35.4		34.5	34.5		13.0	13.0		13.0	13.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	55.0		13.0									
Split Option (s)	70.0		26.0									
Minimum (s)	55.0		13.0		68.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			56.7%		ICU Level of Service		B					
Reference Times and Phasing Options do not represent an optimized timing plan.												

15: Wilson Ave. & Orange Grove Blvd.  
 Intersection Capacity Utilization

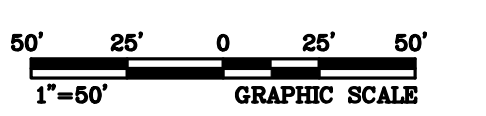
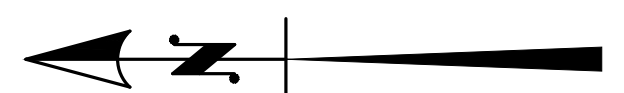
Existing Conditions  
 Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Volume (vph)	13	843	40	23	585	5	66	56	135	3	33	14
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.7	4.7	4.0	4.7	4.7	4.0	3.6	3.6	4.0	3.6	3.6	4.0
Minimum Green (s)	10.0	10.0	4.0	10.0	10.0	4.0	10.0	10.0	4.0	10.0	10.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	13	883	0	23	590	0	0	257	0	0	50	0
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	1.00	0.85	0.95	0.91	0.85	0.95	0.96	0.85
Saturated Flow (vph)	1615	3215	0	1615	3233	0	0	1546	0	0	1624	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	1.0	33.0	0.0	1.7	21.9	0.0			0.0			0.0
Adj Reference Time (s)	14.7	37.7	0.0	14.7	26.6	0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	108	1607		108	1616		0	626		0	1543	
Reference Time A (s)	14.5	33.0		25.6	21.9		0.0	49.3		0.0	3.9	
Adj Saturation B (vph)	NA	NA		NA	NA		0	0		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		12.9	27.9		NA	NA	
Reference Time (s)		33.0			25.6			27.9			3.9	
Adj Reference Time (s)		37.7			30.3			31.9			14.0	
Split Option												
Ref Time Combined (s)	1.0	33.0		1.7	21.9		0.0	19.9		0.0	3.7	
Ref Time Seperate (s)	1.0	31.5		1.7	21.7		4.9	4.4		0.2	2.4	
Reference Time (s)	33.0	33.0		21.9	21.9		19.9	19.9		3.7	3.7	
Adj Reference Time (s)	37.7	37.7		26.6	26.6		23.9	23.9		14.0	14.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	52.4		NA									
Permitted Option (s)	37.7		31.9									
Split Option (s)	64.3		37.9									
Minimum (s)	37.7		31.9		69.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			58.0%		ICU Level of Service		B					
Reference Times and Phasing Options do not represent an optimized timing plan.												

# Appendix C – Conceptual Design Plans

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REVISIONS				
NUMBER	DATE	INITIALS	DESCRIPTIONS	APPRVD

PLANS PREPARED UNDER THE SUPERVISION OF:

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 Tel: (714) 573-0317 Fax: (714) 573-9534

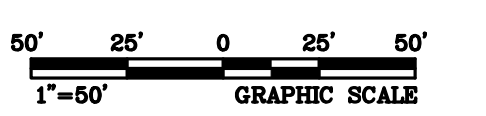
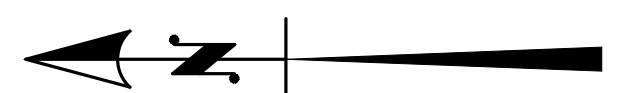
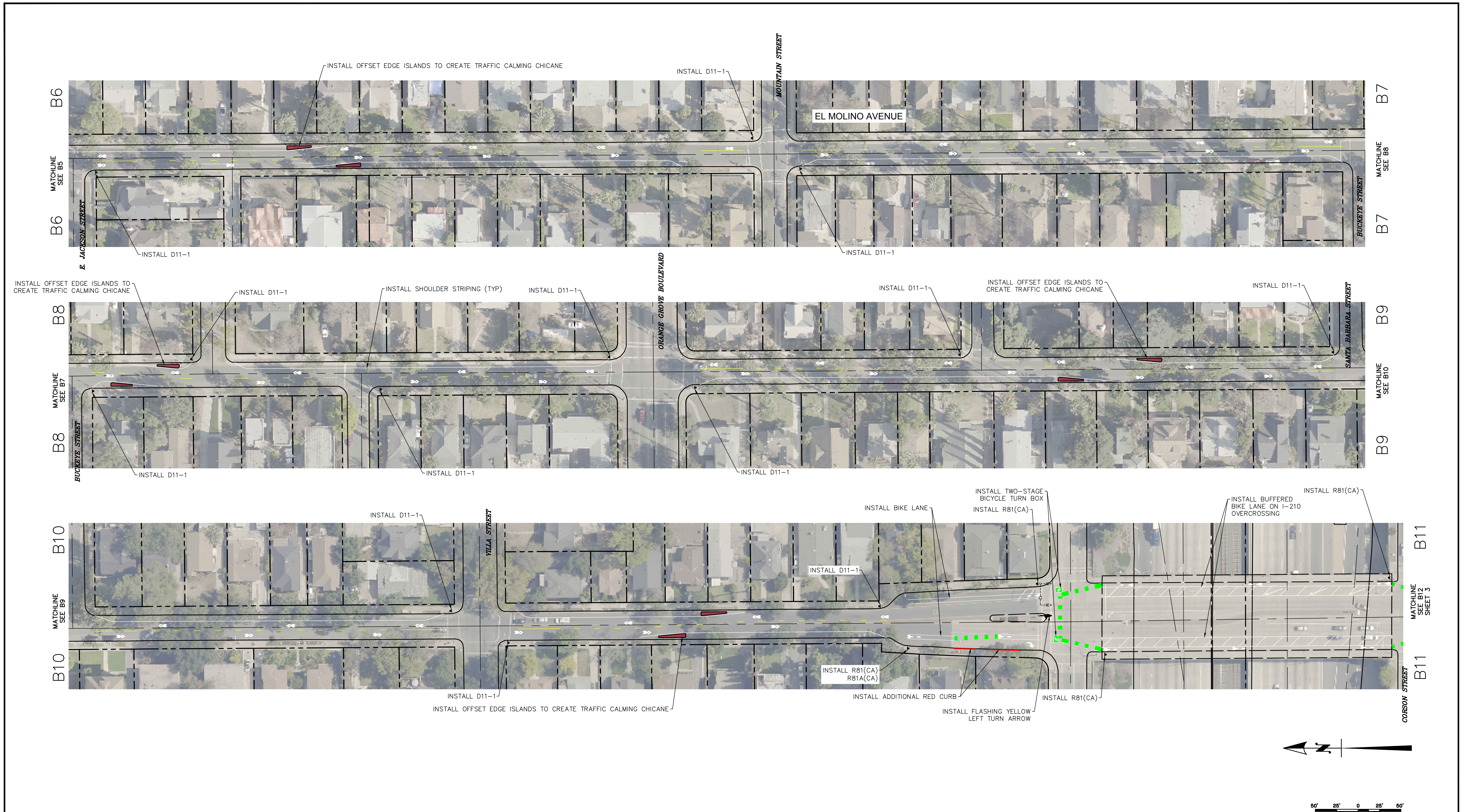
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**EL MOLINO AVENUE  
CONCEPT PLAN**


**CITY OF PASADENA**  
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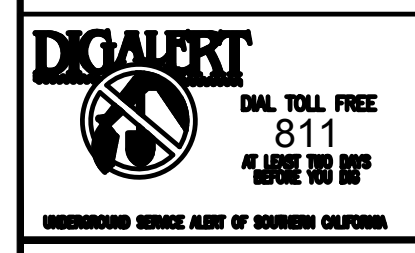
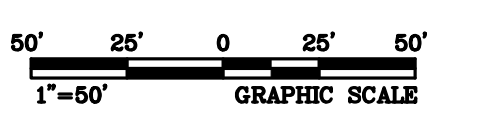
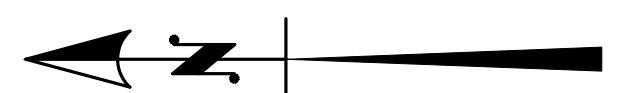
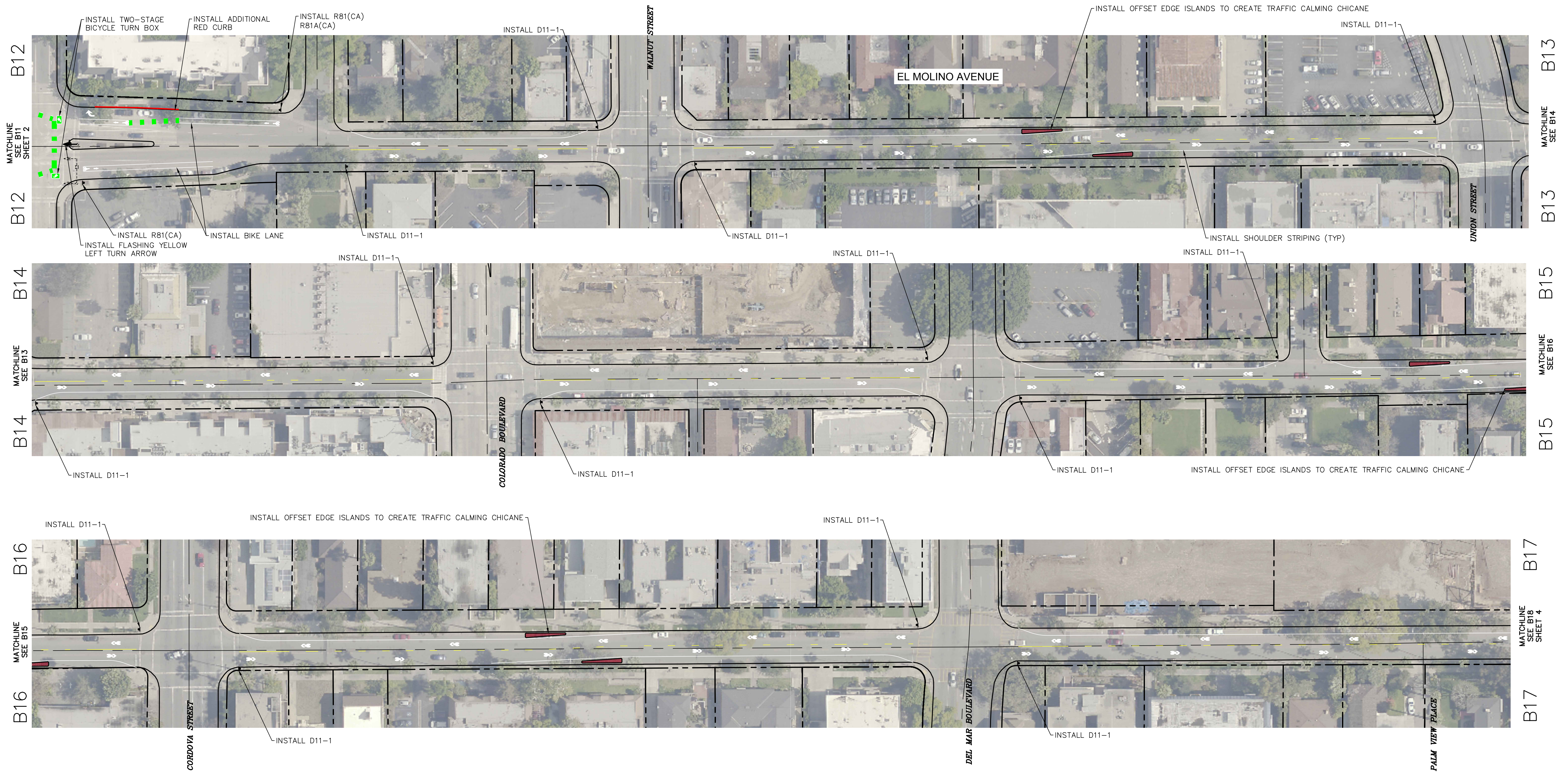
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INSTALL OFFSET EDGE ISLANDS TO CREATE TRAFFIC CALMING CHICANE

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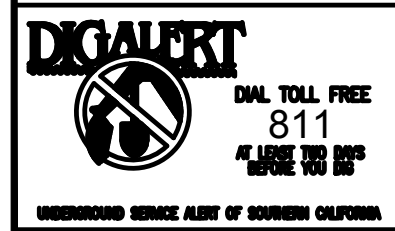
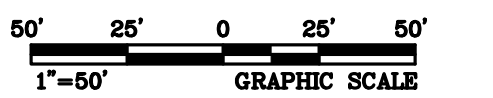


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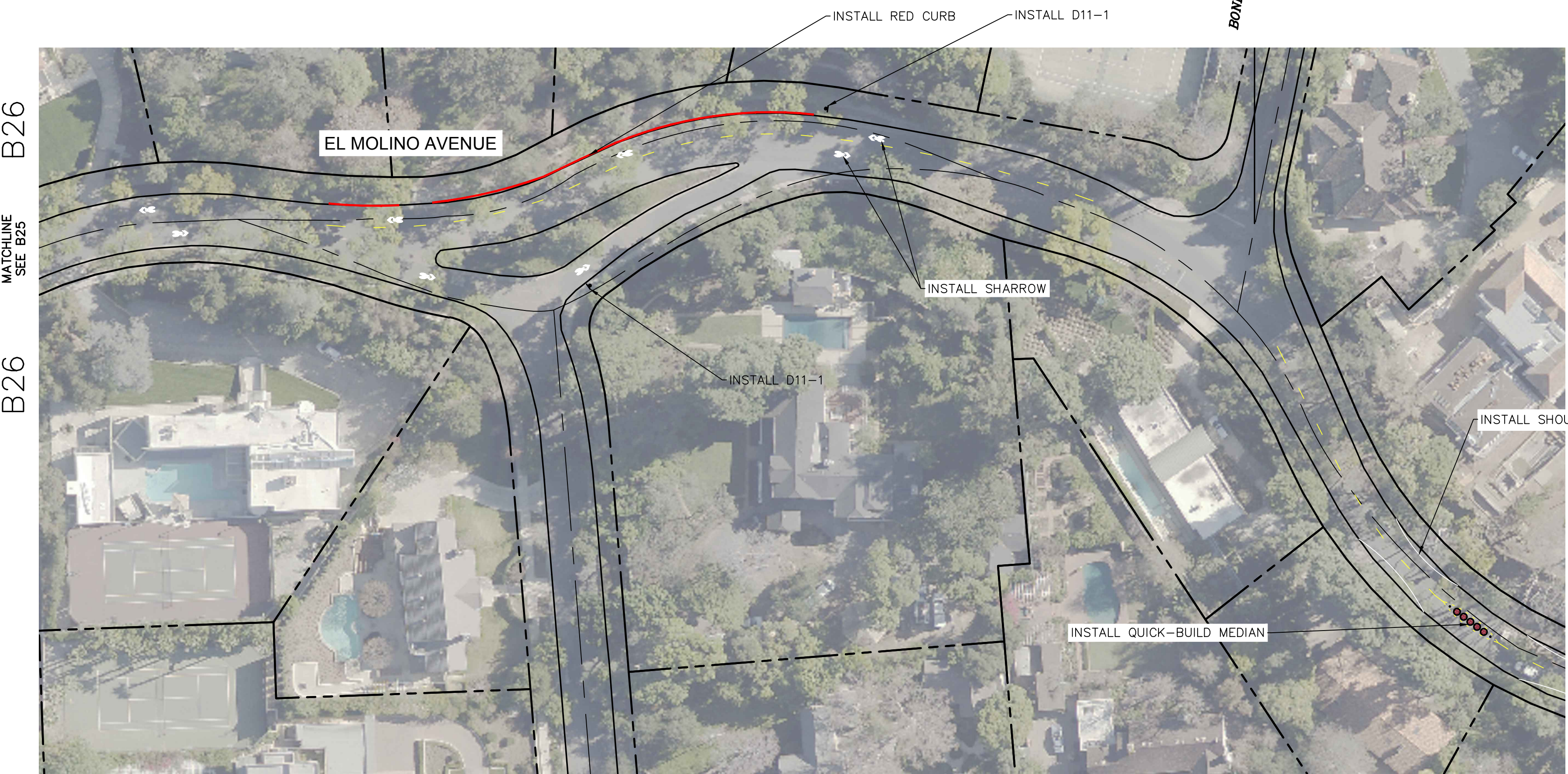
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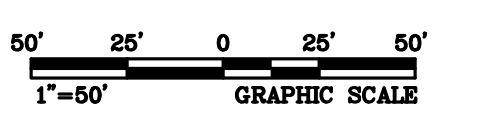
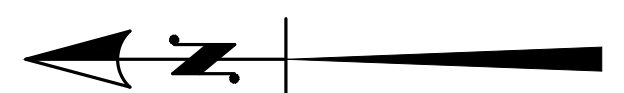
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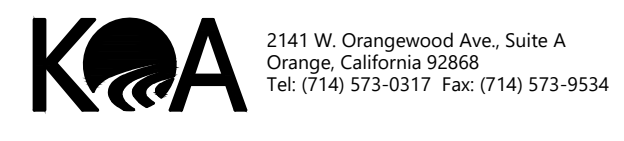
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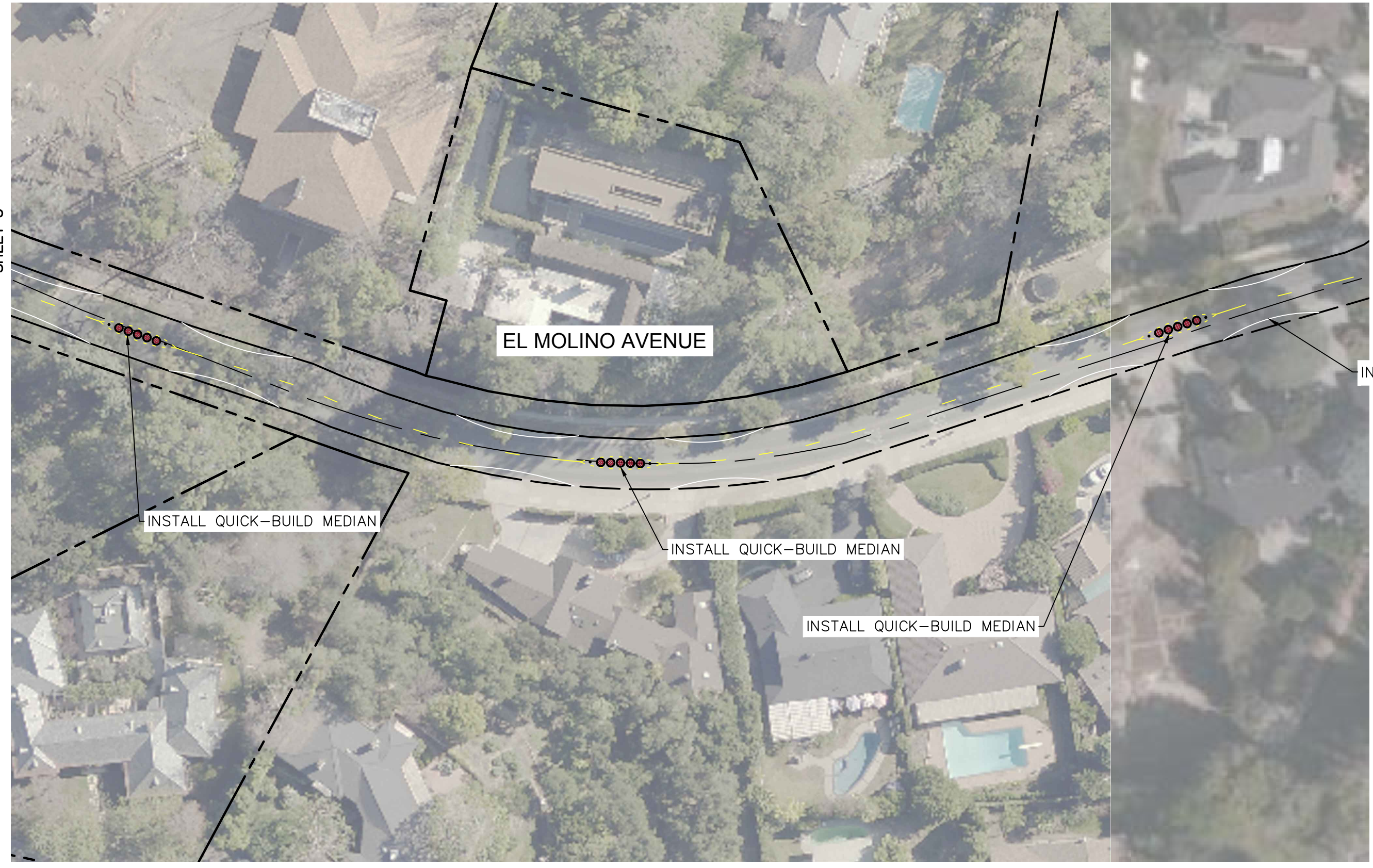
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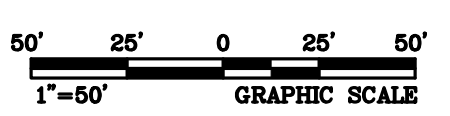
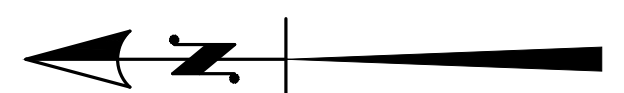
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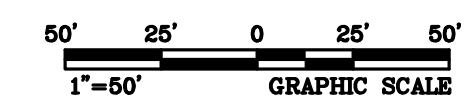
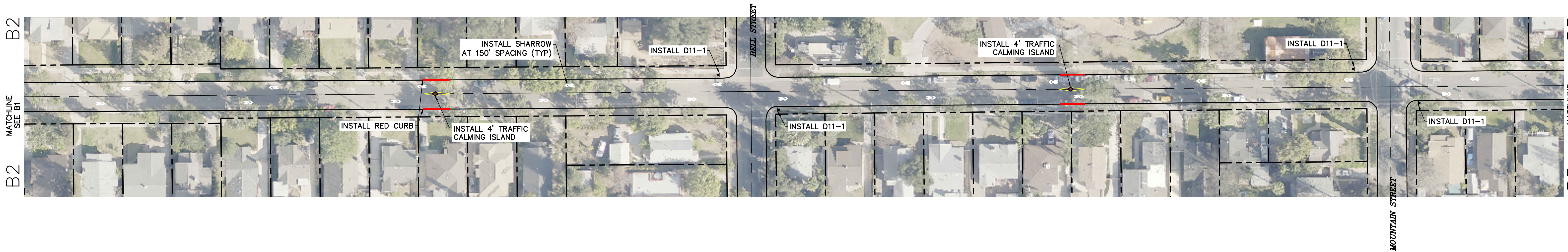
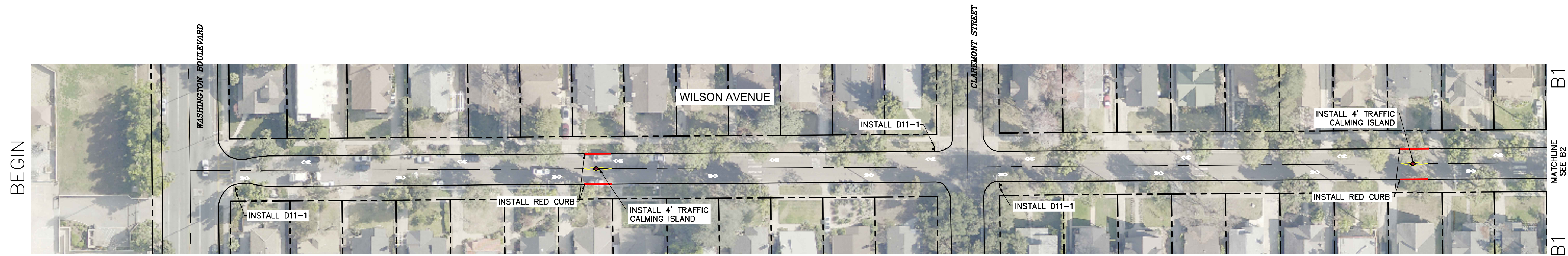
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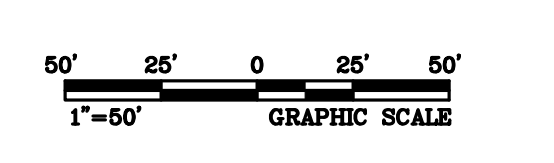
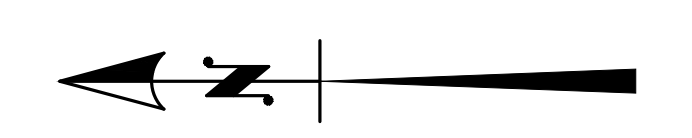
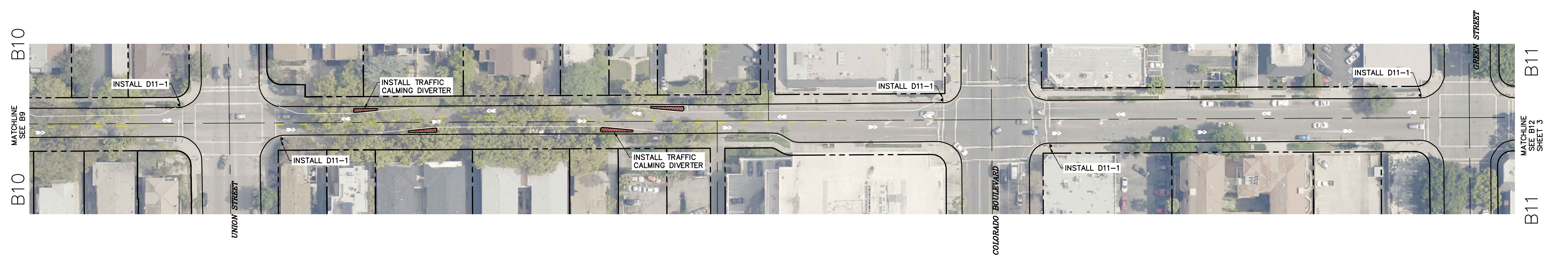
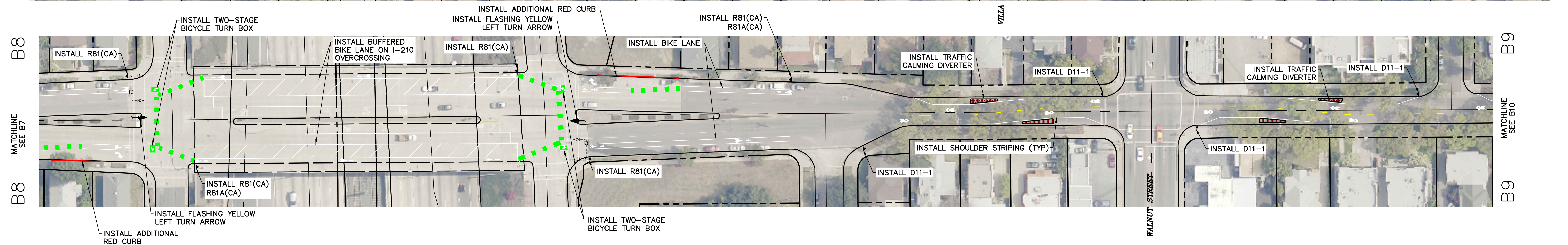
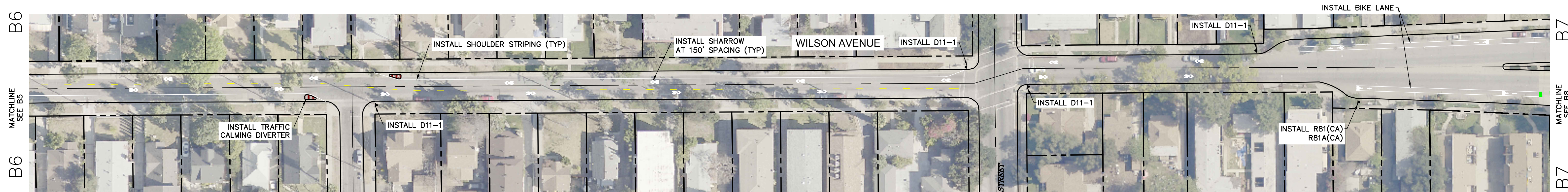
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**WILSON AVENUE  
 CONCEPT PLAN**


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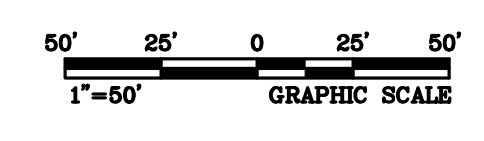
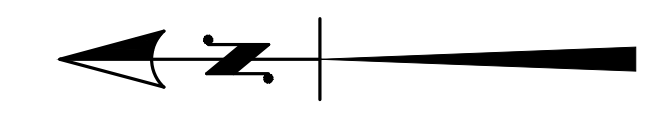
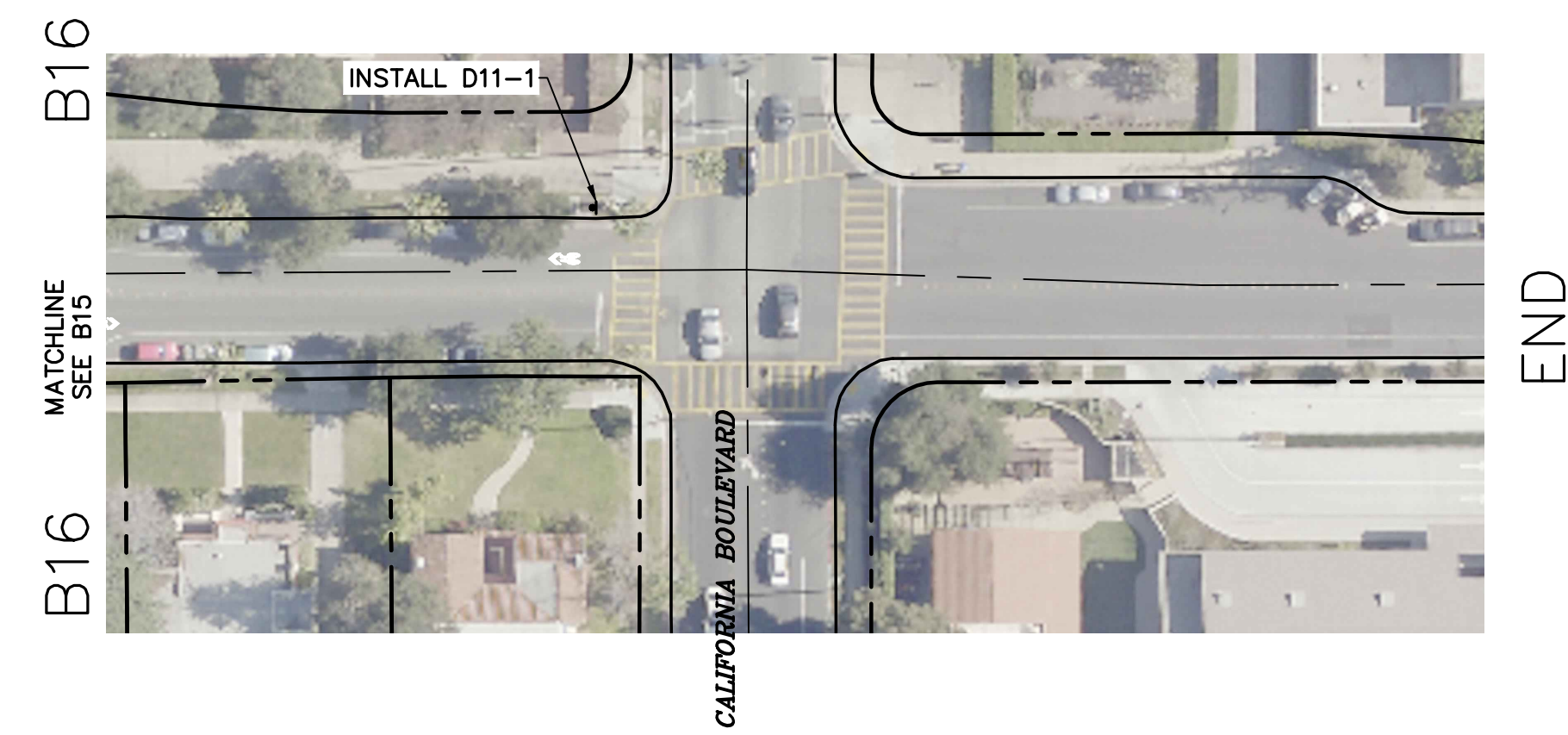
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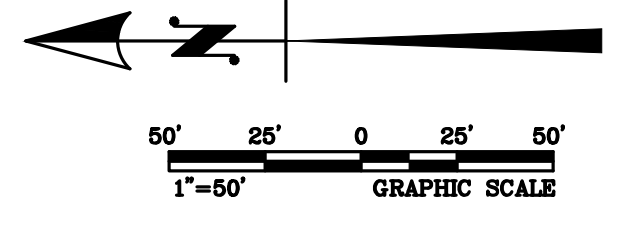
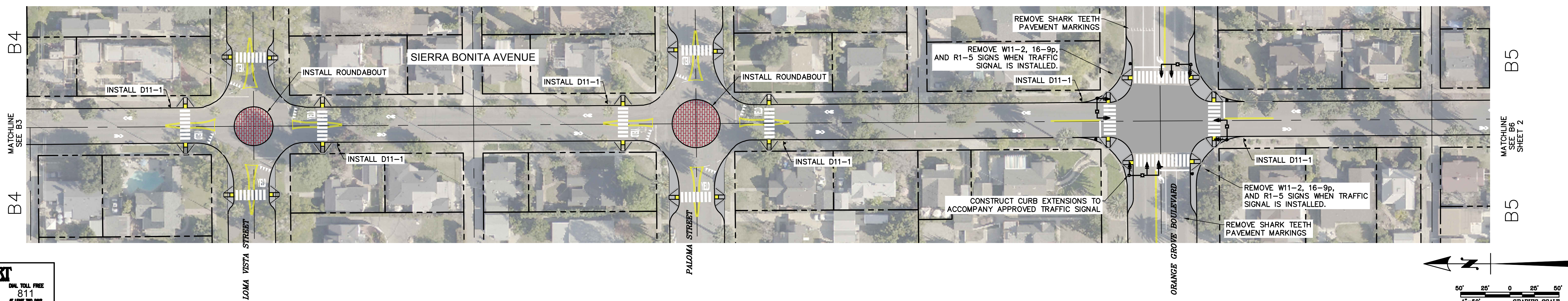
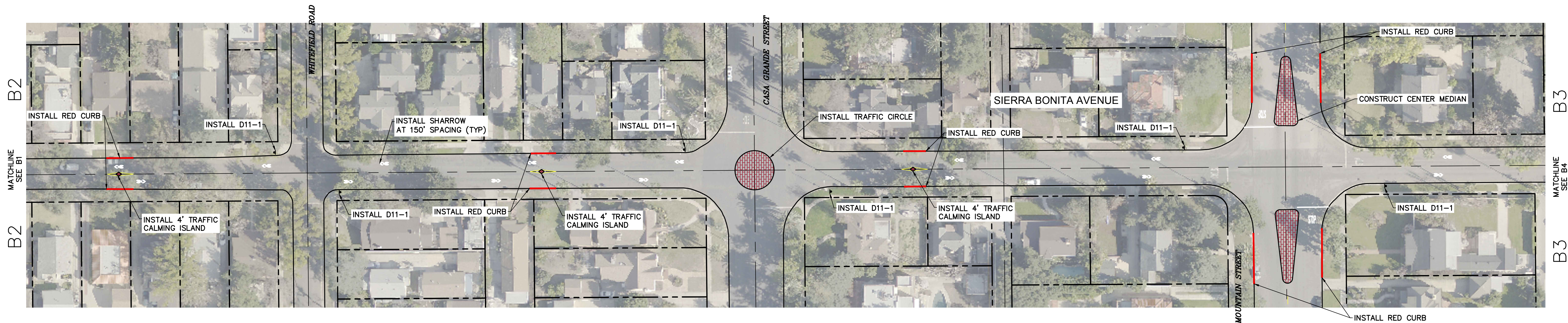
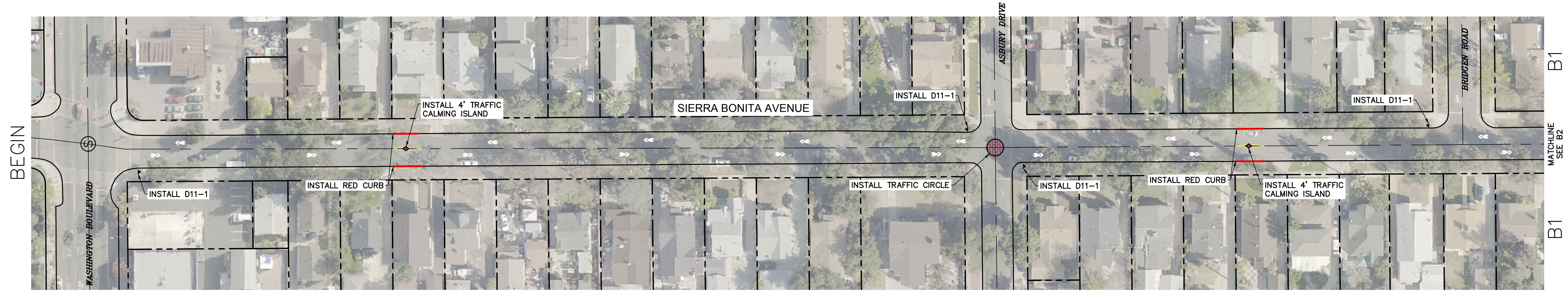
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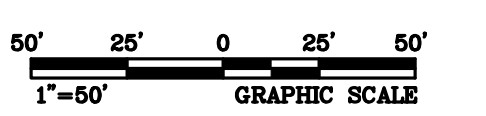
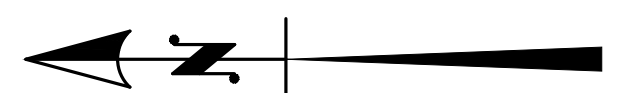
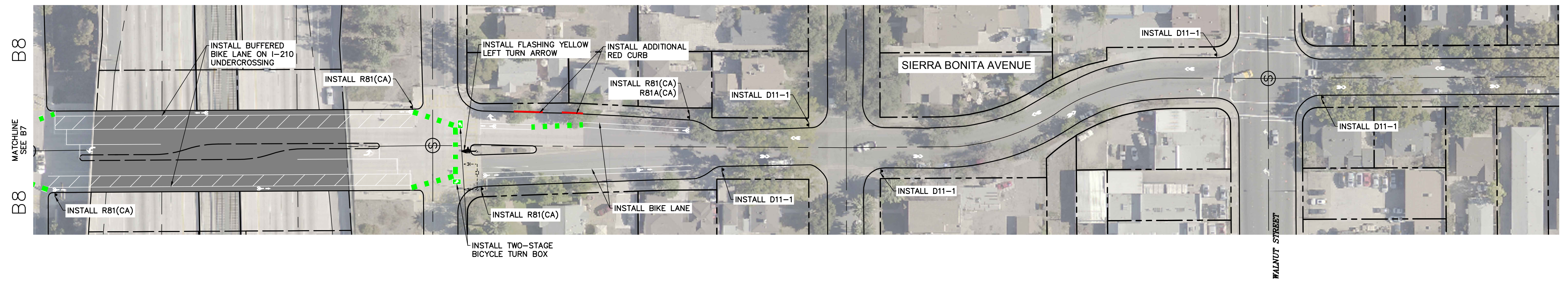
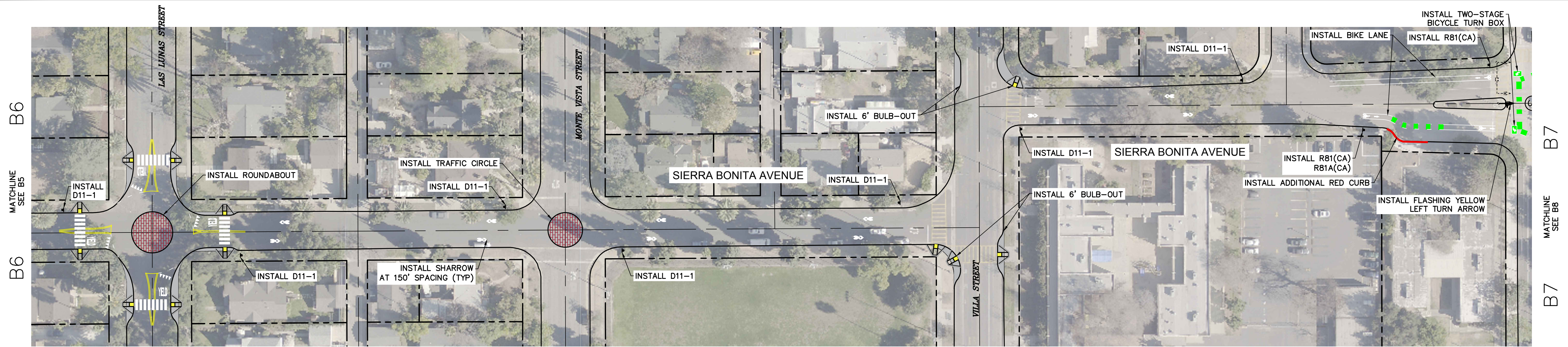
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**SIERRA BONITA AVENUE  
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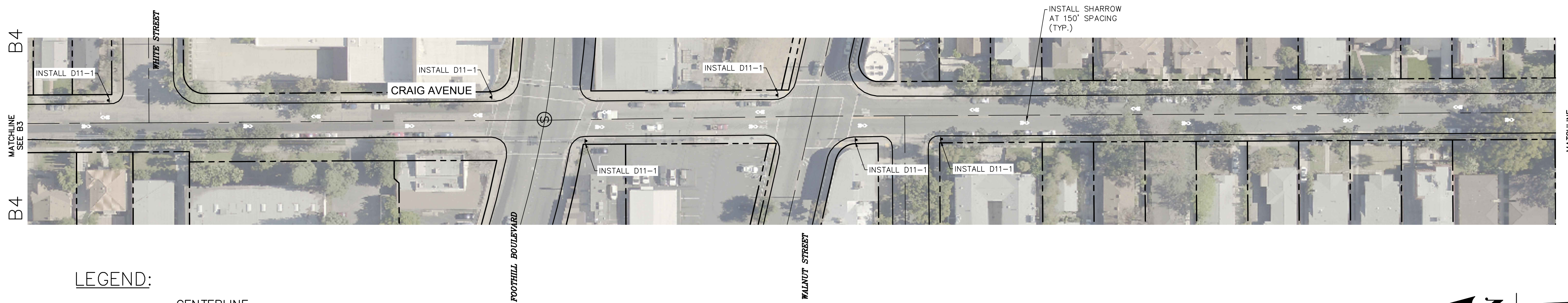
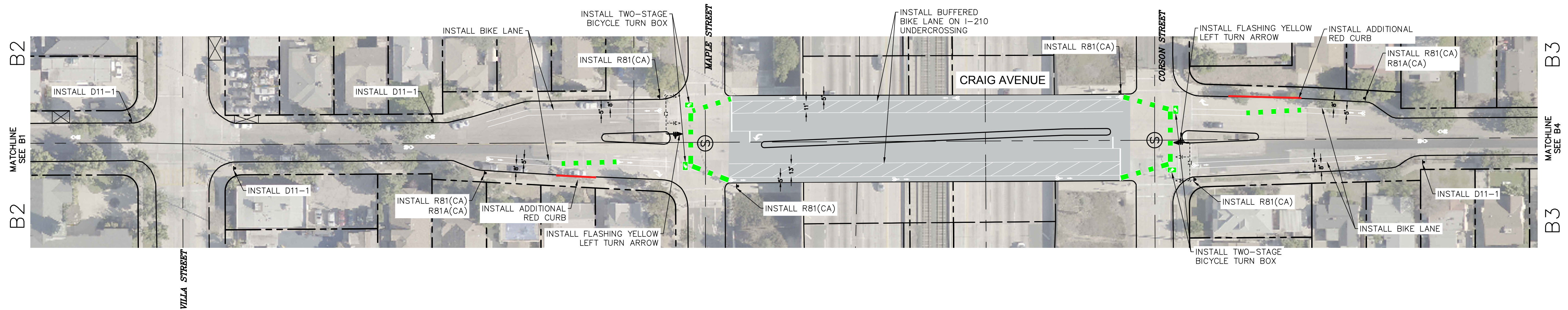
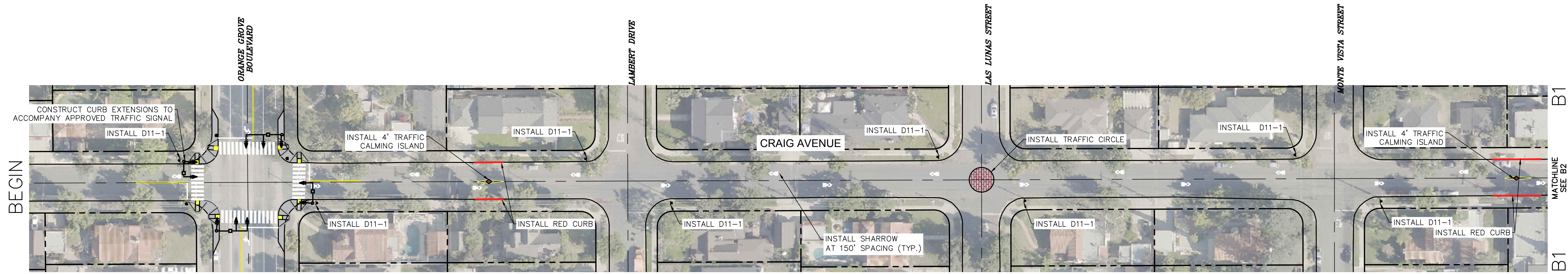
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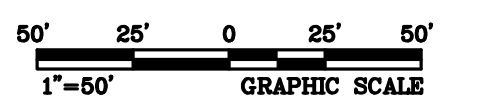
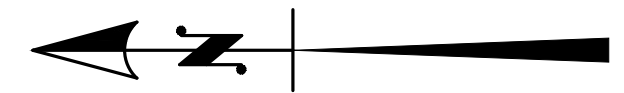
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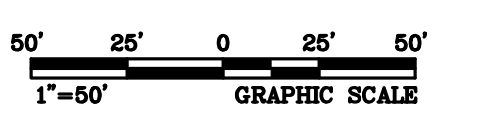
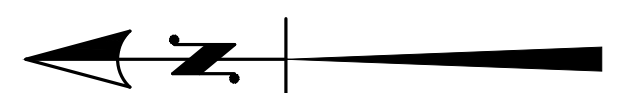
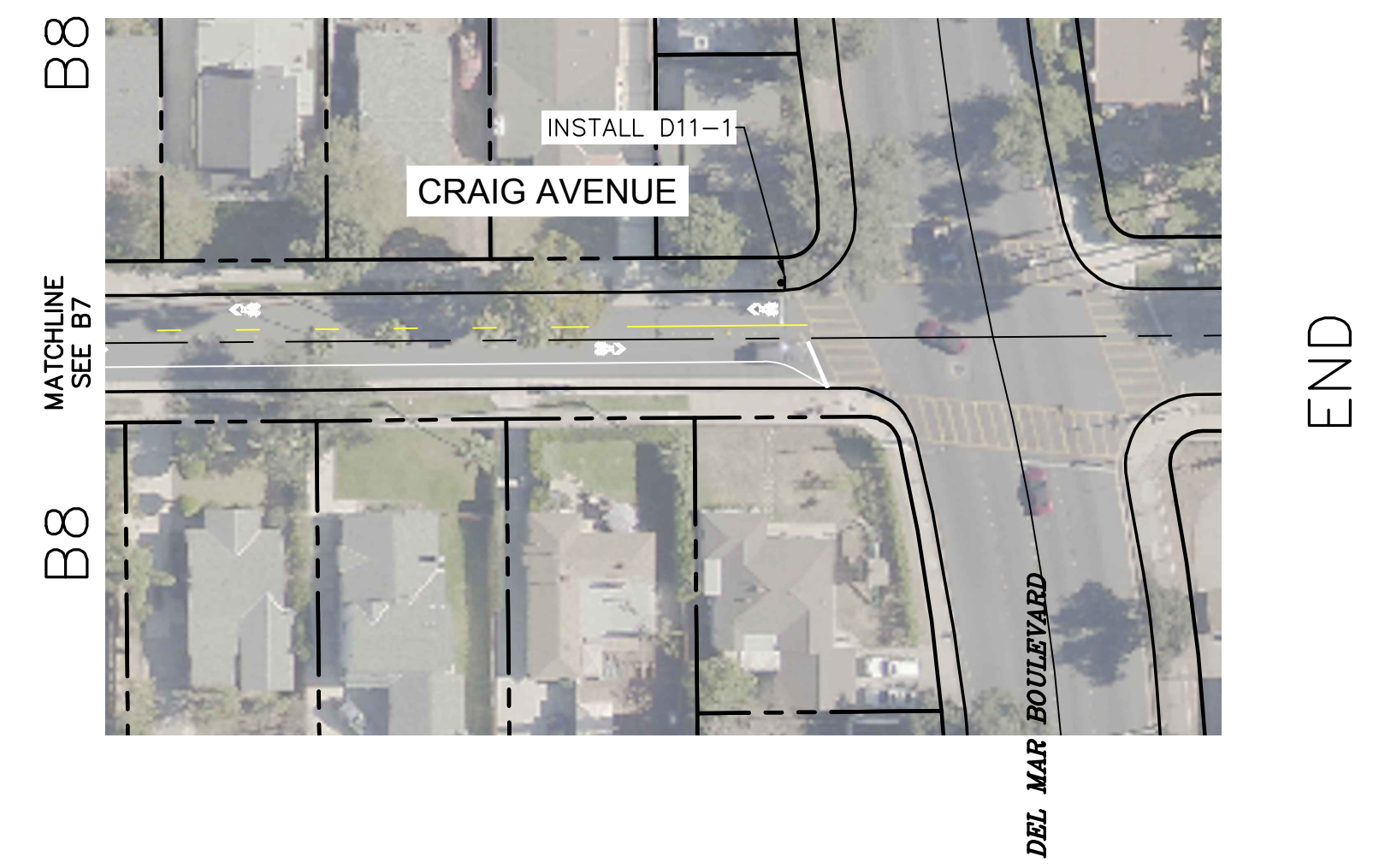
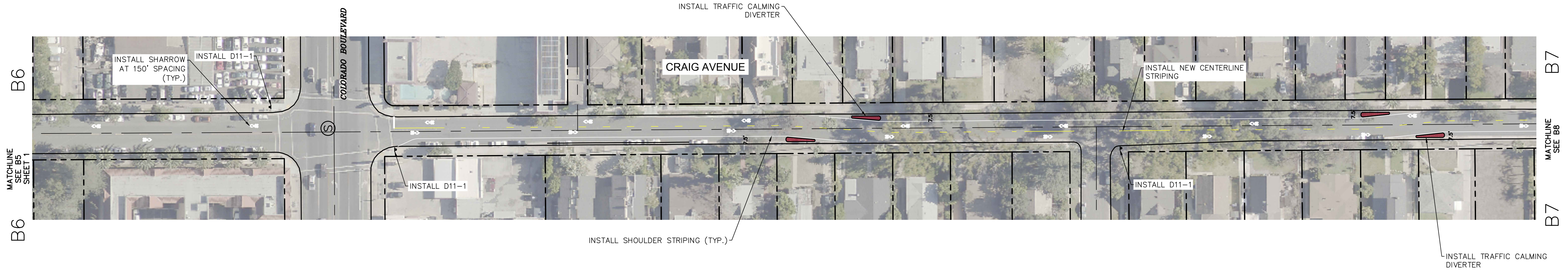
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**CRAIG AVENUE  
 CONCEPT PLAN**


**CITY OF PASADENA**  
 DEPARTMENT OF PUBLIC SERVICES / TRANSPORTATION SERVICE DIVISION

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# Appendix D – Prioritization Analysis

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## Corridor Prioritization

Category	Criteria	Description	Points Possible	Detailed Measure	Source
SAFETY	Historical Collisions	Average # of pedestrian-, bicycle-, and vehicle-involved collisions per 0.25 miles are >13.00 (15pts) Average # of pedestrian-, bicycle-, and vehicle-involved collisions per 0.25 miles are between 6.00 and 12.99 (10pts) Average # of pedestrian-, bicycle-, and vehicle-involved collisions per 0.25 miles are <5.99 (5pts)	15	Number of collisions within 150ft of corridor; calculate average number per 0.25 miles (normalized by length)	1/27/2015 to 1/14/2020; within 150ft of corridor; vehicle, bike, ped; City of Pasadena
TRANSFORMATION & READINESS	Corridor Significance	Corridor length is greater than 3.0 miles (10pts) Corridor length is greater than 2.0 miles (7pts) Corridor length is greater than 1.0 miles (5pt)	10	Length of corridor	KOA Corporation
	Existing Level of Traffic Stress (LTS)	Average normalized corridor level of traffic stress is between 1.00 and 2.29 (10pts) Average normalized corridor level of traffic stress is between 2.30 and 4.00 (5pts)	10	Normalized average LTS rank of existing corridors. Higher priority is given to lower stress corridor to support more inclusive and comfortable corridors	2020 Pasadena LTS Methods (KOA Corporation)
	Existing Usage	Average roadway ADT is >4,000 (15pts) Average roadway ADT is between 2,000 and 3,999 (10pts) Average roadway ADT is <2,000 (5pts)	15	Sum of average daily volume for roadway divided by number of ADT data segments	Study roadway ADT Counts 2019 or TMC data
ACCESS	Access to Open Space	Corridor directly connects to an open space or recreational facility (10pts) Corridor connects to existing facility that connects to an open space or recreational facility (5pts) Corridor does not provide access to an open space or recreational facility (0pts)	10	Open space is directly adjacent to corridor or is accessible via other existing route	Land Use & Existing Conditions
	Access to School or University	Corridor directly connects to two or more schools and/or universities (10pts) Corridor directly connects to one school and/or university (5pts) Corridor does not provide access to a school or university (0pts)	10	School parcels are directly adjacent to corridor or accessible via another existing bike route	Land Use & Existing Conditions
	Access to Existing Bikeways	Corridor connects to an average of 3.00 or more existing bike facilities per mile (15pts) Corridor connects to an average of 2.01 to 2.99 existing bike facilities per mile (10pts) Corridor connects to an average of 1.01 to 1.99 existing bike facilities per mile (5pts) Corridor does not make additional connection (0pts)	15	Average number of existing bike lanes or bike routes corridor connects per mile (normalized by length) based on existing 2019 bike facility	Existing Conditions
HEALTH & ENVIRONMENT	CalEnviroScreen3.0	Corridor is within a health-burdened area (based on CalEnviroScreen 3.0 census tract data >= 60th percentile tract) (15pts) Corridor is not within a health-burdened area (0pts)	15	Census Tract areas that are greater than or equal to 60th percentile CES3.0 score	CES3.0, Update June 2018

TOTAL SCORE 100

Corridor Name			El Molino Avenue	Wilson Avenue	Sierra Bonita Avenue	Craig Avenue
<b>Total (weighted)</b>			<b>75</b>	<b>67</b>	<b>60</b>	<b>45</b>
<b>Rank</b>			<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Historical Collisions</b>	<i>Collisions Total</i>	15pts Max	196	140	37	54
	<i>Collisions per 0.25-mile</i>		12.19	15.35	5.71	12.05
	<b>Collision Score</b>		<b>10</b>	<b>15</b>	<b>5</b>	<b>10</b>
<b>Corridor Significance</b>	<i>Corridor Length (mi)</i>	10pts Max	4.02	2.28	1.62	1.12
	<b>Length Score</b>		<b>10</b>	<b>7</b>	<b>5</b>	<b>5</b>
<b>Existing Level of Traffic Stress (LTS)</b>	<i>Average LTS</i>	10pts Max	2.33	2.13	2.22	2.38
	<b>Average LTS Score</b>		<b>5</b>	<b>10</b>	<b>10</b>	<b>5</b>
<b>Existing Usage</b>	<i>Average Usage (ADT)</i>	15pts Max	6029	1812	1050	1719
	<b>Usage Score</b>		<b>15</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>Access to Open Space</b>	<i>Access to Open Space</i>	10pts Max	Directly	Directly	Directly	Indirectly
	<b>Score</b>		<b>10</b>	<b>10</b>	<b>10</b>	<b>5</b>
<b>Access to School or University</b>	<i>Access to Educational</i>	10pts Max	One	Two or more	Two or more	One
	<b>Score</b>		<b>5</b>	<b>10</b>	<b>10</b>	<b>5</b>
<b>Access to Existing Bikeways</b>	<i>Existing Bikeways Connections</i>	15pts Max	5	5	5	3
	<i>Normalized Average per Mile</i>		1.24	2.19	3.09	2.68
	<b>Existing Bikeway Score</b>		<b>5</b>	<b>10</b>	<b>15</b>	<b>10</b>
<b>CalEnviroScreen3.0</b>	<i>CES Access</i>	15pts Max	>60thP	<60thP	<60thP	<60thP
	<b>CES Score</b>		<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>

# Appendix E – Cost Estimates

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El Molino Avenue - Detailed Cost Estimates						
Corridor:		El Molino Avenue (approx. 3.8 miles)				
City:		Pasadena				
Item	Location	Improvement	Unit	Qty.	Unit Price	Amount
1	Entire Corridor	Bike Signage and Sharrow markings along corridor	LS	1	\$110,000.00	\$110,000.00
2	Entire Corridor	Install APS at all signalized intersections throughout the corridor.	EA	20	\$2,000.00	\$40,000.00
3	North of Elizabeth St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$15,000.00	\$15,000.00
4	South of Howard St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$12,000.00	\$12,000.00
5	North of Washington Blvd	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$15,000.00	\$15,000.00
6	Washington Blvd	Install bike lane through existing intersection diverter allowing southbound bicycle	LS	1	\$50,000.00	\$50,000.00
7	North & South of Claremont St	Install Traffic Calming Diverter both sides. x2 (with shoulder stripe)	LS	1	\$30,000.00	\$30,000.00
8	North of Mountain St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$15,000.00	\$15,000.00
9	Mountain St	Install Bike Detection (Video detection: entire intersection) & Install traffic calming median island south of Mountain Street	LS	1	\$60,000.00	\$60,000.00
10	Elmira St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$10,000.00	\$10,000.00
11	Orange Grove Blvd	Install bulbout curb extension and allow only bicycles to travel northbound (see concept) & Install bike detection and Bicycle signal head for NB direction	LS	1	\$65,000.00	\$65,000.00
12	South of Orange Grove Blvd	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$12,000.00	\$12,000.00
13	Villa St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
14	South of Villa Street	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00
15	South of Villa St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$12,000.00	\$12,000.00
16	Maple St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00
17	Corson St to Maple St	Buffered Bike Lane (Both sides of roadway, striping with bollards)	LS	1	\$15,000.00	\$15,000.00
18	Corson St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00
19	South of Corson St	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00
20	Walnut St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
21	North of Union St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$15,000.00	\$15,000.00
22	Union St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
23	Colorado Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
24	Green St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
25	North of Cordova St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$15,000.00	\$15,000.00
26	Cordova St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
27	North of Del Mar Blvd	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$15,000.00	\$15,000.00
28	Del Mar Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
29	North of Villa St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$15,000.00	\$15,000.00
30	California Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
31	Pinehurst Dr	Install white edgeline striping 8 feet from curb north and south of Pinehurst Drive (to the next intersections)	LF	1600	\$3.00	\$4,800.00
32	Woodland Rd	Relocation of center yellow centerline to add SB bike land along east side of center median, and red curb	LS	1	\$5,000.00	\$5,000.00
33	North of Bonita Dr	Install Red Curb	LS	1	\$2,000.00	\$2,000.00
34	South of Bonita Dr	Install quick-build median. (with shoulder stripe)	LS	1	\$12,000.00	\$12,000.00
35	South of Bonita Dr	Install quick-build median. (with shoulder stripe)	LS	1	\$12,000.00	\$12,000.00
36	South of Bonita Dr	Install quick-build median. (with shoulder stripe)	LS	1	\$12,000.00	\$12,000.00
37	South of Bonita Dr	Install quick-build median. (with shoulder stripe)	LS	1	\$12,000.00	\$12,000.00
Subtotal:						\$977,800
30% Contingency:						\$293,340
3% Inflation per year:						\$29,334
Engineer's Construction Cost Estimate:						\$1,300,474
Design Cost:						\$146,670
<b>TOTAL ENGINEER'S ESTIMATE:</b>						<b>\$1,447,144</b>



## Wilson Street - Detailed Cost Estimate

Corridor:		Wilson Avenue (approx. 2.3 miles)				
City:		Pasadena				
Item	Location	Improvement	Unit	Qty.	Unit Price	Amount
1	Entire Corridor	Bike Signage and Sharrow markings along corridor	LS	1	\$70,000.00	\$70,000.00
2	Entire Corridor	Install APS at all signalized intersections throughout the corridor.	EA	14	\$2,000.00	\$28,000.00
3	North of Claremont St	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00
4	North of Bell St	Raised traffic calming median, striping, and Red Curb	LS	2	\$10,000.00	\$20,000.00
5	North of Mountain St	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00
6	North of Evelyn Place	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00
7	North of Orange Grove Blvd	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00
8	Orange Grove Blvd	Install Bike Detection (entire intersection) & curb extensions with bicycle crossing through intersection & Upgrade signal heads at intersection	LS	1	\$250,000.00	\$250,000.00
9	North of Villa St	Install Offset Edge Islands (with shoulder stripe)	LS	1	\$10,000.00	\$10,000.00
10	Villa St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
11	South of Villa Street	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00
12	Maple St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00
13	Corson St to Maple St	Buffered Bike Lane (Both sides of roadway)	LS	1	\$15,000.00	\$15,000.00
14	Corson St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00
15	South of Corson St	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00
16	North and South of Walnut	Install Offset Edge Islands both sides x2 (with shoulder stripe)	LS	1	\$40,000.00	\$40,000.00
17	Walnut St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
18	Union St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
19	Between Colorado Blvd and Union St	Install Offset Edge Islands both sides x2 (with shoulder stripe)	LS	1	\$40,000.00	\$40,000.00
20	Colorado Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
21	Green St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
22	Cordova St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
23	Del Mar Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
24	California Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00
Subtotal:						\$958,000
30% Contingency:						\$287,400
3% Inflation per year:						\$28,740
Engineer's Construction Cost Estimate:						\$1,274,140
Design Cost:						\$143,700
<b>TOTAL ENGINEER'S ESTIMATE:</b>						<b>\$1,417,840</b>

### Sierra Bonita Avenue - Detailed Cost Estimate

Corridor:		Sierra Bonita Avenue (approx. 1.6 miles)					
City:		Pasadena					
Item	Location	Improvement	Unit	Qty.	Unit Price	Amount	
1	Entire Corridor	Bike Signage and Sharrow markings along corridor	LS	1	\$55,000.00	\$55,000.00	
2	Entire Corridor	Install APS at all signalized intersections throughout the corridor.	EA	9	\$2,000.00	\$18,000.00	
3	Between Asbury Dr and Washnigton Blvd	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00	
4	Asbury Dr	Install Traffic Circle.	LS	1	\$150,000.00	\$150,000.00	
5	Between Brigden Rd and Asbury Dr	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00	
6	Between Whitefield Rd and Brigden Rd	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00	
7	Between Casa Grande St and Whitefield Rd	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00	
8	Casa Grande St	Install Traffic Circle.	LS	1	\$200,000.00	\$200,000.00	
9	Between Mountain St and Casa Grande St	Raised traffic calming median, striping, and Red Curb	LS	1	\$10,000.00	\$10,000.00	
10	Mountain St	Raised medians at East and West legs (mountain St) and red curb	LS	1	\$40,000.00	\$40,000.00	
11	Loma Vista St	Install Roundabout with bulbouts (drainage considerations)	LS	1	\$400,000.00	\$400,000.00	
12	Paloma St	Install Roundabout with bulbouts (drainage considerations)	LS	1	\$400,000.00	\$400,000.00	
13	Orange Grove Blvd	Install Traffic Signal with curb extensions and two crosswalks	LS	1	\$400,000.00	\$400,000.00	
14	Las Lunas St	Install Roundabout with bulbouts (drainage considerations)	LS	1	\$400,000.00	\$400,000.00	
15	Monte Vista St	Install Traffic Circle.	LS	1	\$200,000.00	\$200,000.00	
16	Villa St	Install Bulb outs.	EA	5	\$30,000.00	\$150,000.00	
17	South of Villa Street	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00	
18	Maple St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00	
19	Corson St to Maple St	Buffered Bike Lane (Both sides of roadway, striping with bollards)	LS	1	\$15,000.00	\$15,000.00	
20	Corson St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00	
21	South of Corson St	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00	
22	Walnut St	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00	
23	Colorado Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00	
Subtotal:						\$2,683,000	
30% Contingency:						\$804,900	
3% Inflation per year:						\$80,490	
Engineer's Construction Cost Estimate:						\$3,568,390	
Design Cost:						\$402,450	
<b>TOTAL ENGINEER'S ESTIMATE:</b>						<b>\$3,970,840</b>	

### Craig Avenue - Detailed Cost Estimate

Corridor:		Craig Avenue (approx. 1.1 miles)					
City:		Pasadena					
Item	Location	Improvement	Unit	Qty.	Unit Price	Amount	
1	Entire Corridor	Bike Signage and Sharrow markings along corridor	LS	1	\$55,000.00	\$55,000.00	
2	Entire Corridor	Install APS at all signalized intersections throughout the corridor.	EA	8	\$2,000.00	\$16,000.00	
3	Orange Grove Blvd	Install Traffic Signal with new crosswalks (landscaping work, new curb ramps, striping)	LS	1	\$400,000.00	\$400,000.00	
4	South of Orange Grove Blvd	Install 4' Traffic Calming Island	LS	1	\$10,000.00	\$10,000.00	
5	Las Lunas Street	Install Traffic Circle	LS	1	\$200,000.00	\$200,000.00	
6	South of Monte Vista St	Install 4' Traffic Calming Island	LS	1	\$10,000.00	\$10,000.00	
7	South of Villa Street	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00	
8	Maple St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00	
9	Corson St to Maple St	Buffered Bike Lane (Both sides of roadway, striping with bollards)	LS	1	\$15,000.00	\$15,000.00	
10	Corson St	Install Bike Detection (Video detection: entire intersection) & bike intersection crossing with two-stage bike turn box & Install flashing yellow left turn arrow	LS	1	\$60,000.00	\$60,000.00	
11	South of Corson St	Install Bike Lane with green thermoplastic intersection striping	LS	1	\$2,500.00	\$2,500.00	
12	Foothill Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00	
13	Colorado Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00	
14	South of Colorado	Install Traffic Calming Diverter (Both sides)	LS	1	\$20,000.00	\$20,000.00	
15	North of Del Mar	Install Traffic Calming Diverter (Both sides)	LS	1	\$20,000.00	\$20,000.00	
16	Del Mar Blvd	Install Bike Detection (Video detection: entire intersection)	LS	1	\$40,000.00	\$40,000.00	
Subtotal:						\$991,000	
30% Contingency:						\$297,300	
3% Inflation per year:						\$29,730	
Engineer's Construction Cost Estimate:						\$1,318,030	
Design Cost:						\$148,650	
<b>TOTAL ENGINEER'S ESTIMATE:</b>						<b>\$1,466,680</b>	

# **Appendix F – Caltrans Interim Count Methodology Guidance for Active Transportation Program**

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# **INTERIM COUNT METHODOLOGY GUIDANCE FOR ACTIVE TRANSPORTATION PROGRAM (ATP)**



This Interim Count Methodology Guidance (Interim Guidance) is intended to guide ATP applicants and project awardees in meeting the minimum expectations for conducting user counts, surveys, and evaluation requirements for active transportation projects funded through the Active Transportation Program (ATP).

These instructions are labeled **INTERIM** to acknowledge that more research, feedback, collaboration, and documentation is needed prior to finalizing guidance on: 1) determining the number and location of the counts that should be required for varying project types and 2) only estimating the total number of active transportation users generated by ATP funds within specified project limits based on limited count locations. To this goal, the Active Transportation Resource Center (ATRC) is exploring options for developing more expansive statewide guidance for the evaluation of ATP funded projects.

This Interim Guide covers the following six topics that represent central steps to ensure that ATP applicants and awardees can provide consistent and uniform project-user data in their applications and in subsequent project progress and completion reports:

1. Determining the Type of Count Data Collection Needed [Page 2](#)
2. Determining the Number of Count Locations Needed [Page 4](#)
3. Selecting Count Locations [Page 7](#)
4. Conducting Pedestrian and Bicycle Counts [Page 8](#)
5. Estimating the Total Volume within the Project Limits [Page 10](#)
6. Approval Process for Other Count Methodologies [Page 17](#)

The guidance provided here shall be used for any ATP project applications which require user data and for all ATP-funded projects that receive a construction phase California Transportation Commission (CTC) allocation at or after the October 2019 meeting. Any project that has already completed the pre-construction phase counts shall use the same methodology for the post-construction counts. Since there is a vast range of evaluation and techniques that exist for collecting data on bicycle and pedestrian volumes, agencies wishing to utilize methodologies that do not conform to the methodologies shown in Tables 1 through 3, must secure approval of their methodology from the Caltrans ATP Office prior to initiating data collection efforts. See “Approval Process for Other Methodologies.”

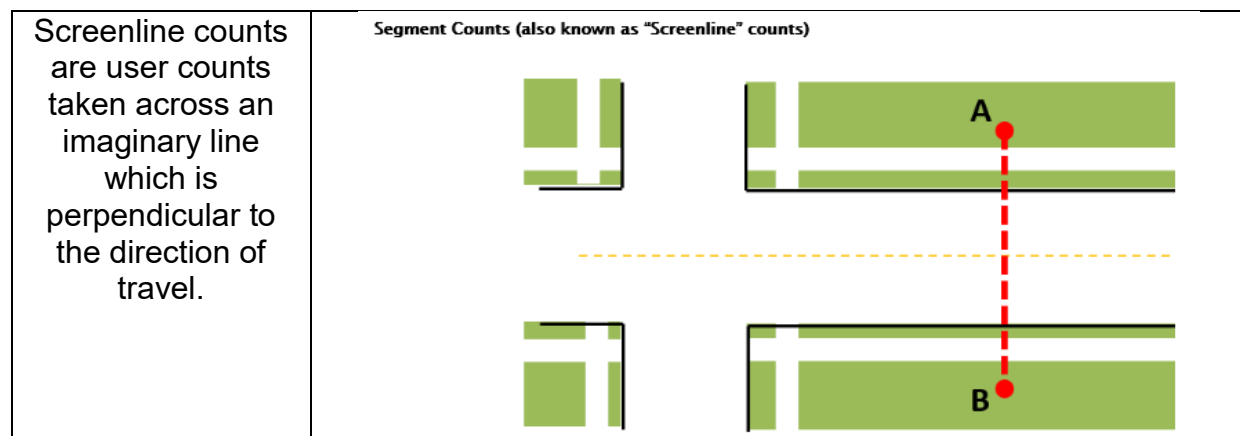
**1. Determining the Type of Count Data Collection Needed**

The ATP currently funds infrastructure, non-infrastructure (NI), and plan project types, as well as projects that combine infrastructure and NI strategies. While these project types necessitate different ways to collect the data, all projects (except for plan projects) are required to collect the necessary user data so that Caltrans can report on the impact of ATP investments in relation to the ATP’s legislated goals and the CTC’s SB 1 Accountability Requirements. Table 1 summarizes the preferred type of user data that is needed for each project type. For projects that include infrastructure and NI components, a combination of data collection strategies should be used.

As shown in Table 3, for Safe Routes to School (SRTS) and community/jurisdiction-wide NI projects, obtaining field counts is not considered an ideal methodology for project evaluation purposes. Instead, project-specific surveys and/or modeling may be more appropriate. SRTS NI awardees must complete student travel tallies. Additional details are provided in Appendix A of this document. If an agency believes an alternative method of data collection would be more suitable, it must have its methodology approved by the Caltrans ATP Office prior to beginning their data collection, see Section 6. Agencies will be asked to fully document their proposed methodology to a level that ensures consistency in how before and after user counts are conducted.

For Plan projects, obtaining “Before/After” user counts will not show any meaningful difference in volumes until an improvement identified in the plan is implemented. Therefore, agencies awarded a plan project are not required to conduct or report user counts, but they may do so if they wish to obtain current user levels.

A variety of methodologies exist for collecting user counts (Please see a list of references at the end of this guide). Common methods include screenline counts (see the diagram below), intersection counts, student travel tallies, and parent and/or community-wide surveys. In addition, within a particular methodology there are often many varieties of counting. For example, screenline counts can be completed manually, by video, using automated technologies, etc. Surveys can be administered online or in-person. This Interim Guide provides standard expectations for estimating user counts for each type of ATP project; and seeks to follow national best practices and accommodate existing regional pedestrian and bicycle count methodologies across California.



**Count Data Collection Methods (Table 1)**

ATP Project Types	Recommended Count Type & Method	Duration	Alternative Count Type & Method	Duration
Infrastructure  (Including SRTS Infrastructure projects)	Automated 24 Hour  Manual Count from Video 24 Hour	One Week	Manual In-field Counts  Peak Period	4-total Hours on 3 Weekdays (T, W, TH) at 7 – 9 AM and 4 – 6 PM and 1 Weekend day 11 AM - 1 PM*
Safe Routes to School Non-Infrastructure	Classroom Student Travel Tallies (at each school in project) **	Two Days for Tallies-averaged	Automated or Manual Volume Counts (Per Infrastructure Recommendations)	
Community Wide/ Jurisdiction Wide Non-Infrastructure	Surveys***/ Modeling	Variable	Automated or Manual Volume Counts (Per Infrastructure Recommendations)	

\*For manual counts, it is preferable that counts be taken on three consecutive days during the AM and PM 2-hour PEAK plus one weekend day's 2-hour peak. This interim guidance will allow an agency to opt to conduct one weekday am/pm 2-hour peak + one weekend day 2-hour peak count. If the location's 2-hour peak is different from these, that 2-hour period should be used.

\*\* See Appendix A for details on the Student Travel Tallies.

\*\*\*FHWA's Non-Motorized Transportation Pilot Program – Community Wide Evaluation Study and the Mineta Institute's Pedestrian and Bicycle Survey are two available examples. Additional ideas for collecting data to inform community-wide non-infrastructure evaluation can be also be found in Alta Planning +Design's Measure for Success: New Tools for Shaping Transportation Behavior. Your MPO may also have suggested tools and methods. See References for related links.

**Note:** New facilities, such as a new Class 1 trail, do not require pre-construction user counts. The initial user count will be assumed to be zero. An agency may elect to do field counts at location(s) that have an existing facility, such as a dirt trail, for reporting purposes.

## **2. Determining the Number of Count Locations Needed**

Active Transportation Program projects vary greatly in size, shape, and type, and each of these variables directly impacts the number, location, and types of data collection efforts that are necessary to measure project success. There are well-established common practices for conducting the physical active transportation field counts (as discussed in the following sections) but little state or national guidance exists on how to determine the number and location of the counts necessary to establish reliable estimations of the total number of active transportation users within a specified project limit.

The goal of this Interim Guidance is to establish a minimum number of count locations for the widely varying ATP project types that accounts for both the limited resources available to conduct counts and the need for developing reliable user estimates for ATP reporting. This document establishes interim guidance on this topic with the understanding that it can be adjusted as more research, feedback, and data becomes available.

While this Interim Guidance acknowledges that the minimum “number” of counts is being intentionally constrained to reduce the burden on agencies implementing ATP projects, there is also an expectation that projects seeking larger amounts of ATP funding will provide higher levels of ‘before vs. after’ user count data. Therefore, this guidance requires larger ATP projects to provide more count locations.

For projects that include both infrastructure and NI components, a combination of data collection strategies should be used; however, the combined count requirements could produce an unintended burden on the agency. If an agency believes this applies to their project, they must have their methodology for the total number of count locations/types approved by Caltrans ATP Office prior to beginning their data collection.

The following tables provide simple, high-level guidance to ATP applicants and project implementers when determining the required/recommended evaluation to determine project success for either Infrastructure (Table 2) or Non-Infrastructure (Table 3) projects.



**Data Collection Requirements for Infrastructure Projects (Table 2)**

<b>ATP Infrastructure Project Types*</b>	<b>Minimum Required # of count locations (# maximum)</b>	<b>Alternative Minimum Required # of count locations</b>
<b>Small Infrastructure Projects</b> (Total Project Cost less than \$1.5M)	1	N/A
<b>Medium Infrastructure Projects Multiple Corridors/Intersections and Networks</b> (Total Project Cost between \$1.5M and \$7M)	1 per two Corridors or Intersections (3 maximum)	0.05 * Total Centerline or Center lane Miles of Project <sup>4</sup>
<b>Large Infrastructure Projects Multiple Corridors/Intersections and Networks</b> (Total Project Cost greater than \$7M)	1 per Corridor or Intersection (7 maximum)	0.10 * Total Centerline or Center lane Miles of Project <sup>5</sup>

\*Includes SRTS Infrastructure Projects

<sup>4,5</sup>Washington State DOT, A Guidebook for When and Where to Count

**Data Collection Methodology for Non-Infrastructure (NI) Projects (Table 3)**

<b>ATP Non-infrastructure Project Types</b>	<b>Minimum Required #</b>	<b>Alternative Minimum Required #</b>
Safe Routes to School Projects	1 Set of Tallies*/School	N/A
Community/Jurisdiction Wide	Survey***	Modeling

\*See Appendix A for details on the Student Travel Tallies.

\*\*\*FHWA's Non-Motorized Transportation Pilot Program – Community Wide Evaluation Study and the Mineta Institute's Pedestrian and Bicycle Survey are two available examples. Additional ideas for collecting data to inform community-wide non-infrastructure evaluation can be also be found in Alta Planning +Design's Measure for Success: New Tools for Shaping Transportation Behavior. Your MPO may also have suggested tools and methods. See References for related links.

The following four examples demonstrate the wide variety of ATP Infrastructure projects. With each of these example projects, the number and location of the user counts necessary to establish reliable estimations of the total number of active transportation users within the project limits would vary.

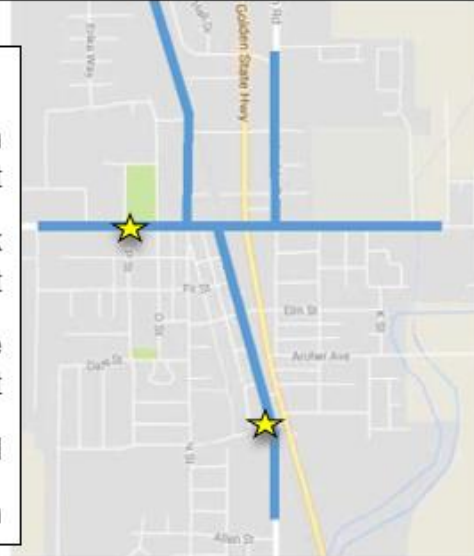
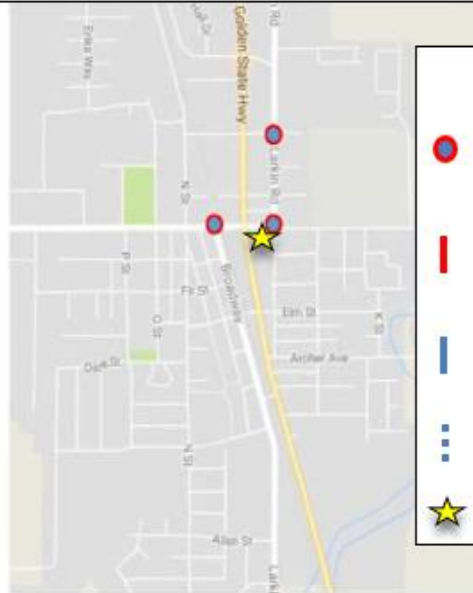
Count Location Examples 1 through 4

**Example 1: \$1M total project cost (Small)  
Intersection Improvement only project-**

- Only 1 count is required
- Conduct count at intersection with highest number of expected users.

**Example 2: \$2M total project cost (Medium)  
Bike lane only project-**

- 4 corridors = 2 counts are required
- Conduct counts at locations with highest number of expected users.



**Legend**

- Intersection Improvement
- Sidewalk Improvement
- Bike Lane Improvement
- ⋯ Multi-Use Trail
- ★ Count Location

**Example 3: \$1.4M total project cost (Small)  
Sidewalk gap closure only project-**

- Only 1 count is required
- Conduct count at a location with highest number of expected users.

**Example 4: \$10M total project cost (Large)  
With all improvement types**

- 5 bike corridors, 7 intersections, 9 sidewalks = 7 counts are required
- Ideally counts would be taken at locations where both bike and pedestrian data can be gathered.



### 3. Selecting Count Locations

Knowing that the number of active transportation field-counts for ATP project applications is constrained, it is critical that applicants carefully select the most effective locations for their limited counts. There is no set formula for determining the best count locations, but instead there are some generally accepted best practices that need to be combined with the project implementer's knowledge and judgement of the project limits. The following [National Bicycle and Pedestrian Documentation \(NBPD\) Project](#) criteria are recommended for short-duration (week-long or peak period) counts:

- Locations where pedestrian and bicycle activity is high (downtowns, near schools, parks, etc.) to increase accuracy;
- Representative locations in urban, suburban, and rural locations;
- Key corridors that can be used to gauge the impacts of future improvements;
- Locations where counts have been conducted historically;
- Locations where ongoing counts are being conducted by other agencies through a variety of means, including videotaping;
- Gaps, pinch points, and locations that are operationally difficult for bicyclists and pedestrians (potential improvement areas);
- Locations where either bicycle and/or pedestrian collision numbers are high; and
- Select locations that meet as many of these criteria as possible.

In the case of ATP projects, the following should also be considered:

- For corridors where a single count is being conducted, it should be centrally located along the corridor or at a location where volumes are expected to be high;
- For networks, counts should be spread throughout the network in varying land uses, on varying roadway types, and in locations where future improvements are expected;
- For long corridors, multiple count locations will improve the accuracy of user volume estimations.

Additional guidance on siting count locations can be found in the following resources:

- 2016 FHWA Traffic Monitoring Guide (TMG) (Chapter 4): [https://www.fhwa.dot.gov/policyinformation/tmguid/tmg\\_fhwa\\_pl\\_17\\_003.pdf](https://www.fhwa.dot.gov/policyinformation/tmguid/tmg_fhwa_pl_17_003.pdf)
- Nation Cooperative Highway Research Program (NCHRP) 797 – Guidebook on Pedestrian and Bicycle Volume Data Collection (Chapter 3): <https://www.nap.edu/catalog/22223/guidebook-on-pedestrian-and-bicycle-volume-data-collection>
- Washington State Department of Transportation – Collecting Network-wide Bicycle and Pedestrian Data: A Guidebook for When and Where to Count (Chapter 4): <https://www.wsdot.wa.gov/research/reports/800/collecting-network-wide-bicycle-and-pedestrian-data-guidebook-when-and-where>

- SCAG Active Transportation Database (Creating a Count Program):  
<https://atdb.scag.ca.gov/Pages/Tutorials.aspx>

For SRTS Infrastructure projects, there should be at least one count at each school served by the project. Count location(s) should be conducted along the improved route where volume is expected to change. As previously noted, for SRTS NI projects, agencies can work with local school administrators to administer in-classroom Student Travel Tallies to determine the number of students walking to and from school, instead of field-counts. (See Appendix A).

#### 4. Conducting Pedestrian and Bicycle Counts:

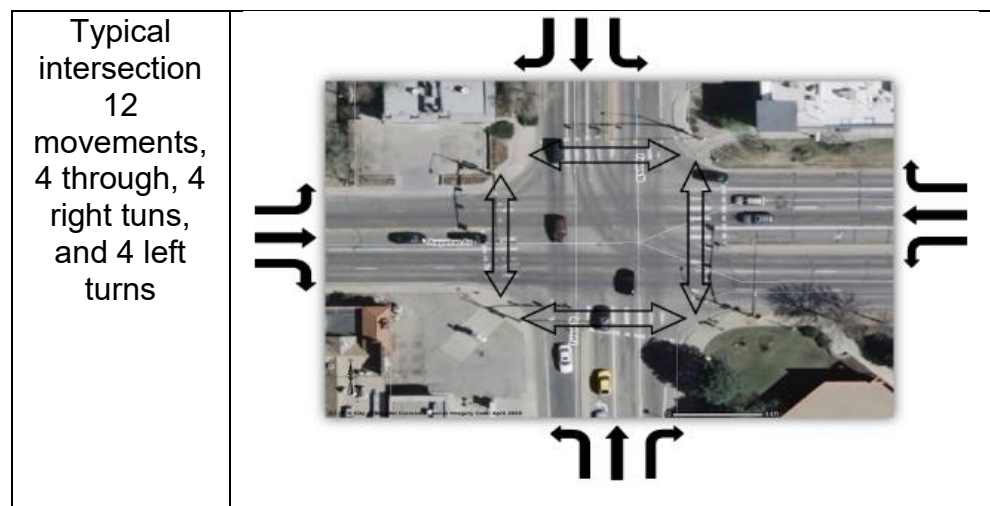
In an effort to create consistency for ATP applications/projects in how user counts are conducted and the resulting data, this Interim Guide establishes baseline requirements for user counts and recommends that all fields-counts be consistent with [Southern California Association of Governments \(SCAG\) Active Transportation Database](#). Agencies not wishing to use SCAG's methodology and database should follow the guidance in the Federal Highway Administration 2016 TMG and/or the NCHRP Report 797 (listed on page 7 as well as in the Reference section).

All of these best practices will impact the resulting count data and are required to be followed for ATP projects:

- General consistency for all methods
  - a. All counts should be conducted no more than six months before the construction phase begins and again at least six months after it is completed. If this timeframe would make item *b* below impossible, the agency should receive approval for an alternative date. Agencies are encouraged but not required to conduct additional counts two years after the project has been completed, to allow projects to come to "maturity."
  - b. Before and after user counts are to be conducted at the same location on the same days of the week, the same time(s) of day, and the same week of the year. This will reduce the chances of variability due to seasonal or daily changes in travel behavior.
    - i. If inclement weather or another constraint is present, counts should be rescheduled to the next possible day that is the same day of the week. For example, if the count was expected to take place on a Tuesday-Thursday-Saturday during the second week of July, and it rained, the count should be rescheduled for the Tuesday-Thursday-Saturday in the third week of July.
  - c. Consistency related to location, time of year and weather conditions is extremely important and should be accounted for prior to initiating user data collection.
- Consistency in tracking and recording data in before and after counts:
  - a. Counts should be consistent with the 2016 TMG format.
    - i. In basic terms this means that directionality (flows) and the mode of travel should be captured for each facility being measured. For

example, a typical screenline count on a two-way street with sidewalks would have four facilities (two sidewalks and either two bikeways or two general travel lanes) and a minimum of eight mode/direction combinations. This assumes only bikes and pedestrians are counted. If wheelchairs and other wheeled devices are captured there would be sixteen combinations. SCAG's *Active Transportation Database is consistent with this methodology. Agencies interested in using SCAG's methodology and storing their data in the database should contact [atdb@scag.ca.gov](mailto:atdb@scag.ca.gov) to discuss coordination.*

- ii. Alternatively, aggregate information can be gathered for a location for all facilities in each direction for each mode/direction combination. This method is usually used for trails or with manual counts using paper tally sheets to reduce the complexity for the counter.
- b. Counts should be conducted at the lowest level of aggregation possible. Typically for automated counters, this can be done with timestamps for each bicyclist or pedestrian. SCAG's mobile Bike Ped Counter application also allows for timestamped data for each record. For manual counts, data should be aggregated into 15-minute increments or bins. 15-minute bins are also acceptable for automated counters.
- c. Manual Counts:
- i. For manual screenline counts, SCAG has developed a paper count form and a mobile application that can be used to count locations: <https://atdb.scag.ca.gov/Pages/Tutorials.aspx>. As noted above, agencies can use other formats if they conform to Federal Highway Administration 2016 TMG and/or the NCHRP Report 797.
  - ii. For manual intersection counts, NCHRP 797 (pg. 119-120) should be consulted and a 12-movement method should be used to capture the entry and exit of each bicyclist and pedestrian. Agencies can use other formats if they conform to the TMG standards.



- iii. User data such as helmet use, gender, and age should be captured when possible.
  - iv. Ideally, counts would be taken on three consecutive weekdays or for a continuous 24-hour period to provide more accurate measurements. This Interim Guide allows data to be collected for a minimum of six hours at each location including one weekday AM and PM peak, and one weekend day peak. See table 1.
- d. Automated Counts:
- i. Automated Counts should be completed for a minimum of 24 hours per day for one week.
  - ii. A variety of technologies and methods currently exist for collecting both bicycle and pedestrian counts. Please see the Reference section at the end of this document that include recommendations on technology types.
- Safe Routes to School Non-Infrastructure
    - a. Appendix A has additional guidance for conducting student travel tallies.
    - b. If the project only spans one school year, tallies should be taken on the same days of the week on days with similar temperature and weather conditions.
  - Community wide/Jurisdiction wide Non-Infrastructure
    - a. Surveys can utilize in-person or electronic methods, but implementers should consider how the target community will access the platform and resource the effort accordingly. This may require paid staff to conduct surveys in person.
    - b. Modeling efforts should be conducted in partnership with county and regional planning organizations whenever possible.
    - c. The use of big data will be considered by Caltrans on a case by case basis until final guidance on this topic can be developed. Agencies wishing to use big data sources should secure prior approval.

##### **5. Estimating the Total Volume (Number of Users) within the Project Limits:**

Once the actual field-count data has been collected (manual or automated or surveys), the final step in the ATP reporting process is to estimate the total number of active transportation users within the proposed project limits.

**For the Active Transportation Program, the units for a project's total number of users are to be in Daily Pedestrian Volume and Daily Bicycle Volume**

For this Interim Guide, the priority has been to establish a consistent and repeatable approach for estimating the total number of users for the individual ATP projects. For ATP reporting purposes, establishing a methodology that will result in consistent before

and after counts for individual project analysis is a higher priority than the numeric accuracy of the total number of users.

In order to make a highly reliable estimate of the total number of users within a project's boundaries based on a relatively small number of spot-location counts, extensive details of the active transportation travel patterns and complex calculation-factors are required. It is understood that at the time this guidance is being developed, these details and corresponding calculation-factors are not available for most California cities and counties. Therefore, in this interim guidance, the number of factors and the complexity of the adjustment calculations are intentionally constrained, with the goal of meeting the needs of ATP reporting while minimizing the time and resources to complete the calculations.

### **This ATP guidance breaks the “total volume” for bicyclists and pedestrians calculation process into two steps:**

**Step 1**- Converting the count data into Average Daily Volume for each of the individual count locations:

For this Interim Guide, the Average Daily Volume will be an average for the whole week. For most projects with will be an average of the 5 weekdays and 2 weekend days. The process for calculating this single value for each count location will vary significantly based on “Type of Count Data Collection Needed”. With this in mind, two calculation methodologies are provided (24-hour counts and Manual Partial-day counts):

#### **24-hour Counts:**

- For locations with a full week of 24-hour count data, the calculation is much easier. The implementing agency can simply take the total users for a 7-day period and divide by 7. The result = “Total Daily Volume” for the individual count location ( $tdt_{c\text{-location}}$ ).
- Use this number in Step 2.

#### **Manual Partial-Day Counts:**

- For locations with partial-day field counts, each weekday and weekend field-count will be converted into an estimation of the “Total Daily Volume” for the full 24-hour period.
- In order to do this, there needs to be a method of estimating the number of users in each hour of the weekday and weekend for the specific count location.
  - a. Ideally, this distribution of “Daily Pedestrian Volume” and “Daily Bicycle Volume” would be known for each count location. But at the time this guidance is being developed, this is not a practical expectation.
  - b. In locations where this active transportation data is not known, daily vehicle average daily traffic counts ( $\#_{td}$ ) can be used. (If traffic

count data for the exact count location is not available, the agency should use data from a nearby location)

- Once the 24-hour vehicle count is made for each location ( $\#_{td}$ ), then the pedestrian and bicycle count data collected for the peak hours on the weekdays and weekends can be extrapolated into 24-hour totals.
- The following is a brief example of how to convert the count data into total Average Daily Volume for each of the individual count locations. (Note: This process needs to be completed for both “Pedestrian” and “Bicycle” counts.) **For examples, see Appendix B.**

**Converting Weekday Counts Example:** 7 – 9 AM and 4 – 6 PM counts:

1. If counts were taken on multiple weekdays, the first step is to calculate a single average total count value for each of the blocks of times counted.
2. Using the 24-hour vehicle count total for an average weekday ( $\#_{td-weekday}$ ), calculate the general ratio of the pedestrian and bicycle counts between 7-9 AM ( $\#_{7-9}$ ) plus 4-6 PM ( $\#_{4-6}$ ) as compared to the full 24-hour counts. Here is a sample calc:  

$$\frac{(\#_{7-9} + \#_{4-6})}{\#_{td-weekday}} = \text{ratio of count volumes vs. total volumes (}rv_{\text{weekday}}\text{)}$$
3. Then **divide** the sum of the actual count data collected from 7-9 AM and 4-6 PM by this general ratio.  

$$\frac{(\text{Count}\#_{7-9} + \text{Count}\#_{4-6})}{rv_{\text{weekday}}} = \text{an estimation of the total daily volume for the full 24-hour period of an average weekday (}tdt_{\text{weekday}}\text{)}.$$

**Converting Weekend Counts Example:** Saturday 11 AM - 1 PM count:

1. Using the 24-hour vehicle count for an average weekend ( $\#_{td-weekend}$ ), calculate the general ratio of the counts between 11AM - 1 PM ( $\#_{11-1}$ ) as compared to the full 24-hour counts. Here is a sample calc:  

$$\frac{(\#_{11-1})}{\#_{td-weekend}} = \text{ratio of count volumes vs. total volumes (}rv_{\text{weekend}}\text{)}$$
2. Then **divide** the actual count data collected from 11AM - 1 PM by this general ratio.  

$$\frac{\text{Count}\#_{11-1}}{rv_{\text{weekend}}} = \text{an estimation of the total daily volume for the full 24-hour period of an average weekend (}tdt_{\text{weekend}}\text{)}.$$

**Converting Weekday and Weekend volumes into an Average Daily Volume:**

1. Once the total daily volumes are estimated for the weekdays ( $tdt_{\text{weekday}}$ ) and weekend-days ( $tdt_{\text{weekend}}$ ), then these values can be used to calculate a single average “Total Daily Volume”.
2. Take 5 times the weekday value plus 2 times the weekend-day value and divide by 7



$$(5 \times \text{tdt}_{\text{weekend}} + 2 \times \text{tdt}_{\text{weekend}}) / 7 = \text{total daily volume for the count location (tdt}_{\text{c-location}})$$

3. Use this number in Step 2.

**For SRTS and/or other project/count types:**

- ATP includes a wide range of projects that are expected to utilize very different count types that result in many different types of count data.
- For this interim guidance, local agencies are expected to establish **consistent and repeatable approaches** for estimating the total daily volume for each of their count locations. Agencies are encouraged to consult with Caltrans staff as they establish their approaches.

**Step 2- Converting the Average Daily Volume(s) into a single Total Project Volume:**

With each of the project's count-location volumes converted into a single "Total Daily Volume" value (separate values for "Pedestrians" and "Bicycles"), the final step is to convert these Total Daily Volume values for each count-location into an estimation of the project's total number of users presented in total "Daily Pedestrian Volume" and total "Daily Bicycle Volume".

*Note: For this step (more than for any of the previous steps), the emphasis is placed on establishing a methodology that will result in consistent and repeatable before and after counts for individual projects. For this Interim Guidance, the numeric-accuracy of the following calculations will vary widely depending on the size and complexity of each individual project.*

**Projects with a single improvement location using a vehicular count data conversion:**

- When the total daily volume calculated for the count location is considered a reasonable approximation of the total daily volume of users within the overall the project limits, then the 'total daily volume' value from Step 1 (above) can be used as the final total volume of users in the project limits.
  1. The 'daily volume' value from step 1 should be multiplied by an adjustment factor(s). This factor is expected to vary based on the number and length of improvement locations within the overall project limits.
  2. **This factor must be the same for the before and after counts.**
  3. This factor must be established by the implementing agency.
  4. The following two brief example calculations are intended to provide the implementing agency some insight on how to establish this factor. This example is based on Count Location Example1 shown above on Page 6 in Section 2 of this guidance.

***For an example of how to develop and utilize this process see Appendix B.***

**Count Location Example 1- This example shows a project improving 3 intersections with only one count location:**

- When the project includes multiple corridors/intersections and/or long corridors, the single count location is probably not a reasonable approximation of the total volume of users in the project limits. For these projects, a second calculation is needed to convert the single location volume to an approximate total daily volume of the overall the project limits:

- If the agency has reason to believe that each intersection will have similar numbers of users and most users-trips only cross through one of the intersections, then the agency can simply multiply the 'total daily volume' value calculated in Step 1 by a factor of 3:

$$\text{tdt}_{\text{c-location}} \times 3 = \text{total daily volume for the entire project limits}$$

***For an example of how to develop and utilize these factors, see Appendix B, Example 1.***

OR

- If the agency has reason to believe that each intersection will have widely varying numbers of users, then the agency could multiply the 'total daily volume' value calculated in Step 1 by 2 different factors for the intersections not counted:

$$\text{tdt}_{\text{c-location}} + \text{tdt}_{\text{c-location}} \times \text{Factor 1} + \text{tdt}_{\text{c-location}} \times \text{Factor 2} = \text{total daily volume for the entire project limits}$$

***For an example of how to develop and utilize these factors, see Appendix B, Example 1A.***

OR

- If the agency has reason to believe that a large percentage of the users at the count location are also traveling through the other intersections, then a reduction-factors should be applied to the other two intersections, so multi-location user-trips are not double counted:

$$\text{tdt}_{\text{c-location}} + \text{tdt}_{\text{c-location}} \times \text{Reduction-factor 1} + \text{tdt}_{\text{c-location}} \times \text{Reduction-factor 2} = \text{total daily volume for the entire project limits}$$

***For an example of how to develop and utilize these factors, see Appendix B, Example 1B.***

**Count Location Example 3: This example project shows a project improving numerous (9) small segments of sidewalk with only one count location:**

- If the agency has reason to believe that each segment of sidewalk will have widely varying numbers of users, then the agency could multiply the 'total daily volume' value calculated in Step 1 by different factors for each of the segments not counted:

$$\text{tdt}_{\text{c-location}} + \text{tdt}_{\text{c-location}} \times \text{Factor 1} + \text{tdt}_{\text{c-location}} \times \text{Factor 2} + \text{tdt}_{\text{c-location}} \times \text{Factor 3} + \text{tdt}_{\text{c-location}} \times \text{Factor 4} + \text{tdt}_{\text{c-location}} \times \text{Factor 5} + \text{tdt}_{\text{c-location}} \times \text{Factor 6} + \text{tdt}_{\text{c-location}} \times \text{Factor 7} + \text{tdt}_{\text{c-location}} \times \text{Factor 8} = \text{total daily volume for the entire project limits}$$

***For an example of how to develop and utilize these factors, see Appendix B, Example 3.***

AND

- If the agency has reason to believe that a large percentage of the user-trips at the count location (or on a corridor) are also traveling through one or more of the other segments/corridors, then reduction-factors should be applied so the expected multi-location user-trips are not double counted.

**Projects with multiple count locations:**

- When the sum of the total daily volumes calculated for the count locations is considered a reasonable approximation of the total daily volume of users within the overall the project limits, then the sum of the 'daily volume' values from each location in Step 1 (above) can be used as the final total volume of users in the project limits.
- When the project includes multiple corridors and/or intersections where counts were not taken, then the sum of the total daily volumes calculated for the count locations is probably not a reasonable approximation of the total volume of users in the project limits. For these projects, a second calculation is needed to convert the count location volumes to an approximate total daily volume of the overall the project limits:
  1. The 'daily volume' values calculated from Step 1 need to be multiplied by an adjustment factor. These adjustments are expected to vary based on the number and length of improvement locations within the overall project limits. These factors will need to account for each of the corridors and/or intersections that did not have counts collected at them.
  2. **This factor must be the same for the before and after counts.**
  3. This factor must be established by the implementing agency.
  4. The following two brief example calculations are intended to provide the implementing agency some insight on how to establish this factor. These examples are based on the count location

examples shown above on Page 6 in Section 2 of this guidance.  
***For an example of how to develop and utilize these factors, see Appendix B.***

**Count Location Example 2: This example shows a project adding Class 2 bike lanes to 4 corridors with only two required count locations:**

- For projects with multiple count locations and with additional improvement corridors locations that don't require counts, the implementing agency needs to consider adjustment factors for the segments/corridors with and without count locations.
- Where the agency believes that the field count volume(s) is a good representation of the total volume for one or more of the corridors, then they can simply use that value for the total daily volume for the corridor.

$$tdt_{c\text{-location-1}} + tdt_{c\text{-location-2}} + tdt_{c\text{-location-(1 or 2)}} \times \text{Factor 1} + tdt_{c\text{-location-(1 or 2)}} \times \text{Factor 2} = \text{total daily volume for the entire project limits}$$

***For an example of how to develop and utilize these factors, see Appendix B, Example 2.***

**Count Location Example 4: This example project shows a large project improving 5 bike corridors, 7 intersections, and 9 sidewalk segments with only 7 count locations:**

- Although this project has far more improvement locations than any of the other examples discussed above, the process for estimating the volume at each of the project's improvement locations and then summing them together is similar. Therefore, this guidance will refer to the other examples instead of restating the same process for this example project.

**SRTS NI Projects:**

- For SRTS NI projects that have Student Travel Tally Project data the method to calculate the Average Daily Bicycle and Pedestrian Volumes is as follows:
  - Pedestrian Volume = Enrollment multiplied by the AM plus PM Walk percentages (as a decimal) divided by two.
  - Bicycle Volume = Enrollment multiplied by the AM plus PM Bike percentages (as a decimal), divided by two.

***For an example of how to develop and utilize this process see Appendix A.***

**6. Approval Process for Other Count Methodologies:**

If an agency determines that none of the previously mentioned methodologies are appropriate for their project they can request that Caltrans Office of State Funded projects approve a substitute methodology. The process is as follows:

- Contact your ATP Manager and notify them that you are planning to request approval of a count method that is not mentioned in this guidance.
- E-mail the manager your proposed count methodology and equations along with a map that indicates your proposed count locations.
  - Include any reference literature that supports your proposed method.
- Count methodology approval will be made via an e-mail and may take up to one month.

Glossary:

- Allocation

When a project is ready to proceed, the CTC must vote to allocate the funds. Any work that is started prior to the funds being allocated is not eligible for reimbursement.
- Centerline or Centerlane mile

The length of a roadway from its starting point to its endpoint.
- Non-Infrastructure (NI)

A project that does not result in construction; but does education and encouragement activities.
- Infrastructure

A project that constructs facilities, such as bike lanes or sidewalk.
- Plan project

A community-wide active transportation plan, including bike, pedestrian, safe routes to schools, or comprehensive active transportation plans.
- Screenline Counts or Segment Counts

User counts taken across an imaginary line which is perpendicular to the direction of travel.
- Parent Surveys

A survey designed to help understand the various forms of travel used by students use to get from home to school and back.
- Student Travel Tallies

Data on how students get from home to school and back.

## Appendix A – Interim SRTS NI Count Guidance

This guidance addresses minimum standards for evaluation data collection for ATP Safe Routes to School Non-Infrastructure awardees. All ATP applicants and awardees must do the necessary advanced preparation to ensure pre- and post-project data collection protocols meet the following requirements for each school targeted by the project or covered under the umbrella of the project for a school district/region-wide project:

- *Utilization of the National Center for Safe Routes to School (NCSRTS) Student Travel Tally form and protocol OR utilization of an existing regional or local Student Travel Tally form that captures student travel mode data similar to the NCSRTS tool.* NCSRTS forms and an online data management system is available, free of charge, at <http://saferoutesdata.org>. Please check with your MPO to see if an alternate form may be available.
- *Administration of the Student Travel Tally on two (2) separate days within the same week.*
- *Consistent timing of pre-project implementation ('Before') data collection:*
  - Within six (6) months prior to the implementation of the first ATP public education, encouragement or enforcement activity, and
  - Within the regular school year.
- *Consistent timing of post-project implementation ('After') data collection:*
  - Within six (6) months after the completion of the last ATP public education, encouragement, or enforcement activity;
  - Within the regular school year; and, if possible,
  - Within the same month and roughly the same days during which the 'Before' data collection occurred.

ATP awardees that conducted Student Travel Tally counts as part of their ATP application may be able to use that data for their 'Before' count reporting requirements if the data meet the standards above and were conducted within a year of the program's initial education, encouragement, or enforcement activity start date. Agencies must verify this allowance with the Caltrans ATP NI Program Manager and will need to document this information as part of their ATP reporting requirements.

ATP applicants and awardees must submit tally summary reports for each school and/or aggregate reports that combine data from multiple schools as part of their applications and/or project reporting requirements. Additional assistance on meeting the data

(Appendix A continued)

collection requirements are available from the Active Transportation Resource Center by emailing [atsp@cdph.ca.gov](mailto:atsp@cdph.ca.gov).

### **Student Tally report conversion to Average Daily Bicycle and Pedestrian Volumes**

The Travel Tally Project is a TWO (2) DAY in-classroom data collection exercise to capture how students travel to and from school. Analysis of students' travel behavior assists Safe Routes to School (SRTS) in developing plans to reduce speed and promote responsible travel by adults and children on our city streets.

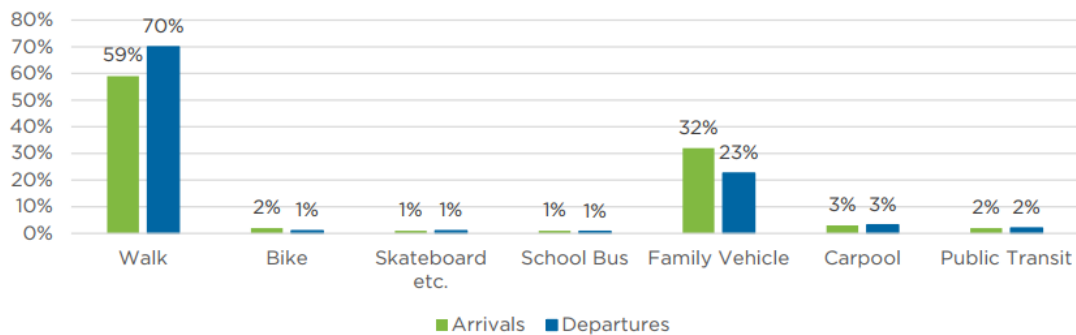
**Dates of Data Collection:** Sept 13<sup>th</sup> and 14<sup>th</sup>, 2017

**Weather:** Sunny

**Students:**

- Enrollment 715
- Survey Participation 71%

#### Student Mode Share by School Arrival vs Departure



The calculations for the Safe Routes to Schools Average Daily Bicycle and Pedestrian Volumes will be as follows (the data from this report shows that the data for kindergarten was collected, but was not utilized in calculating the percentages shown above):

$$\text{Average Daily Pedestrian Volume} = 715 * (.59 + .70) = 922.4 / 2 = \underline{461}$$

$$\text{Average Daily Bicycle Volume} = 715 * (.02 + .01) = 21.4 / 2 = \underline{11}$$

### **Overview of the Safe Routes to School Evaluation Data System**

In 2006, the National Center for Safe Routes to School (NCSRTS) ([www.saferoutesinfo.org](http://www.saferoutesinfo.org)) developed a centralized data collection and reporting system to evaluate the uptake of the Federal SRTS Program. Use of the NCSRTS Data System has the potential to save valuable ATP resources by eliminating the need for ATP SRTS NI awardees to design their own data collection process. This system is available online at <http://saferoutesdata.org/>. Use of the data system is free for participating SRTS practitioners.



## (Appendix A continued)

The NCSRTS' Data System allows local, regional, and state SRTS partners to enter/view data from a standardized Student Travel Tally form. The system can generate summary reports to make it easy to share findings about walking and biking rates for students.

### Overview of NCSRTS Student Travel Tally form

The Student Travel Tally form captures how students get to and from school over a few days (Tuesday – Thursday) in a given week. This form requires an in-class hand-raising protocol to collect data and a prepared individual to count and record the data on either electronic or paper form.

The NCSRTS Student Travel Tally demonstrates high test-retest reliability and validity with parental responses. More information is available here:

<https://activelivingresearch.org/reliability-and-validity-safe-routes-school-parent-and-student-surveys>

ATP applicants/awardees must register for an account at <http://saferoutesdata.org> to use the NCSRTS Data System.

The NCSRTS has prepared a helpful resource entitled *Navigating the Data System 2.0* to assist data system users with getting started:

[http://saferoutesdata.org/downloads/SafeRoutesData\\_NavigatingtheDataSystem\\_2.0.pdf](http://saferoutesdata.org/downloads/SafeRoutesData_NavigatingtheDataSystem_2.0.pdf)

Additional support is available by contacting: [data@saferoutesinfo.org](mailto:data@saferoutesinfo.org)

### Additional tips from the NCSRTS for Working with Schools

[http://guide.saferoutesinfo.org/evaluation/ways\\_to\\_collect\\_information.cfm](http://guide.saferoutesinfo.org/evaluation/ways_to_collect_information.cfm))

Data collection will require close coordination with the school. Schools may have rules about collecting information from students. Data collection will require time and commitment from teachers, school staff, and administrators in order to be successful.

## References

2016 FHWA Traffic Monitoring Guide (TMG) (Chapter 4):

[https://www.fhwa.dot.gov/policyinformation/tmguidetmg\\_fhwa\\_pl\\_17\\_003.pdf](https://www.fhwa.dot.gov/policyinformation/tmguidetmg_fhwa_pl_17_003.pdf)

Nation Cooperative Highway Research Program (NCHRP) 797 – Guidebook on Pedestrian and Bicycle Volume Data Collection (Chapter 3)

<https://www.nap.edu/catalog/22223/guidebook-on-pedestrian-and-bicycle-volume-data-collection>

Washington State Department of Transportation – Collecting Network-wide Bicycle and Pedestrian Data: A Guidebook for When and Where to Count (Chapter 4):

<https://www.wsdot.wa.gov/research/reports/800/collecting-network-wide-bicycle-and-pedestrian-data-guidebook-when-and-where>

SCAG Active Transportation Database (Creating a Count Program):

<https://atdb.scag.ca.gov/Pages/Tutorials.aspx>

Appendix B – Sample Calculations  
**Converting Vehicular Count data to Average Daily Bicycle and Pedestrian Volumes**

Time Period	Weekday	Weekend	Weekday Peak 2-hour		Weekend 2- hour peak	
	Vehicle Counts	Vehicle Counts	Bike Counts	Ped. Counts	Bike Counts	Ped. Counts
Midnight	2	3				
1:00 AM	0	2				
2:00 AM	1	0				
3:00 AM	3	3				
4:00 AM	4	3				
5:00 AM	12	6				
6:00 AM	15	8				
7:00 AM	26	11	3	8		
8:00 AM	33	10	6	12		
9:00 AM	20	13				
10:00 AM	21	14				
11:00 AM	22	15			3	6
Noon	35	18			4	8
1:00 PM	22	17				
2:00 PM	23	17				
3:00 PM	26	18				
4:00 PM	36	21	4	9		
5:00 PM	44	24	8	10		
6:00 PM	30	23				
7:00 PM	29	14				
8:00 PM	25	10				
9:00 PM	15	12				
10:00 PM	8	5				
11:00 PM	6	6				
<b>Total</b>	<b>458</b>	<b>273</b>				

$$\text{Step 1-weekday} = (26+33+36+44)/458 =$$

$$f_{\text{weekday}} = 0.303$$

$$\text{Step 1-weekend} = (15+18)/273 =$$

$$f_{\text{weekend}} = 0.121$$

**Pedestrian**

$$\text{tdt}_{\text{weekday}} = (8+12+9+10)/0.303 =$$

**Average daily pedestrian volume**

$$128.7$$

$$(5 * 128.7 + 2 * 115.7)/7 = \boxed{124.9}$$

$$\text{tdt}_{\text{weekend}} = (6+8)/0.121 =$$

$$115.7$$

**Bicycle**

$$\text{tdt}_{\text{weekday}} = (3+6+4+8)/0.303 =$$

**Average daily bicycle volume**

$$69.3$$

$$(5 * 69.3 + 2 * 57.8)/7 = \boxed{66}$$

$$\text{tdt}_{\text{weekend}} = (3+4)/0.121 =$$

$$57.8$$

(Appendix B – Continued)**Example 1- Improving 3 Intersections and using 1 Count Location** (assuming all 3 intersections have similar numbers of users)

The agency can choose to use one of the following methods to count the users at the intersection with the highest volume (in order of preference)-

1. A week of automated 24-hour non-motorized counts
2. An automated 24-hour non-motorized count
3. Use the previous example to convert vehicular count data

Once the total daily volume has been counted or calculated at the intersection with the highest number of users; if the agency believes that that the other two intersections will have similar numbers of users. Then multiply the 'total daily volume' value by a factor of 3, to get the volume for the entire project.

**The Average Daily Pedestrian Volume calculation for this example would be as follows:**

1. Divide the total of the week of automated bicycle and pedestrian counts by 7 to get the daily average at that location, then multiply by 3 to get the Average Daily Volume for the project
2. Multiply the total of the 24-hour counts for Bicycles and Pedestrians by 3 to get the Average Daily Volume for the project
3. Multiply the calculated Average daily volume for Bicycles and Pedestrians by 3 to get the Average Daily Volume for the project

**The Average Daily Bicycle Volume calculation for this example would be as follows:**

$tdt_{c-location} \times 3 = \text{total daily volume for the entire project limits}$

- Using the Average Daily Bicycle Volume calculated above, the Average Daily Bicycle Volume for the project will be  $(66 * 3) = \mathbf{198}$

**Example 1A- Improving 3 Intersections and using 1 Count Location** (assuming all 3 intersections have different users)

(Appendix B – Continued)

Once the volume has been calculated at the intersection with the highest number of users, a factor can be applied to that number based on an estimate or assumption of how much lower the user volume will be at the other two locations.

If the agency assumes that one intersection will have 70% of both bicycles and pedestrians as the count intersection and the third intersection will have 50% of both types of users as the count intersection.

**The Average Daily Bicycle Volume calculation for this example would be as follows:**

$tdt_{c-location} + tdt_{c-location} \times \text{Factor 1} + tdt_{c-location} \times \text{Factor 2} = \text{total daily volume for the entire project limits}$

- Using the Average Daily Bicycle Volume calculated above, the Average Daily Bicycle Volume for the project will be  $(66 + 66 \cdot .70 + 66 \cdot .50) = \underline{145.2}$

**Example 1B- Improving 3 Intersections and using 1 Count Location** (assuming 1 intersection is close enough to the count intersection that some of the user are the same. The 3<sup>rd</sup> intersection has different users)

If the agency assumes that one intersection will have 70% of both bicycles and pedestrians as the count intersection; but because the intersections are adjacent that 15% of the users have been counted by the automated count and the third intersection will have 50% of both types of users as the count intersection.

**The Average Daily Bicycle Volume calculation for this example would be as follows:**

$tdt_{c-location} + tdt_{c-location} \times \text{Reduction-factor 1} + tdt_{c-location} \times \text{Reduction-factor 2} = \text{total daily volume for the entire project limits}$

- Using the Average Daily Bicycle Volume calculated above, the Average Daily Bicycle Volume for the project will be  $(66 + (66 \cdot (.70 - (.70 \cdot .15)))) + 66 \cdot .50) = \underline{138.3}$

(Appendix B – Continued)**Example 2- This example shows a project adding class 2 bike lanes to 4 corridors with only 2 required count locations**

Where the agency believes that the field count volume(s) is a good representation of the total volume for one or more of the corridors, then they can simply use that value for the total daily volume for the corridor.

**The Average Daily Bicycle Volume calculation for this example would be as follows:**

$tdt_{c\text{-location-1}} + tdt_{c\text{-location-2}} + tdt_{c\text{-location-(1 or 2)}} \times \text{Factor 1} + tdt_{c\text{-location-(1 or 2)}} \times \text{Factor 2} = \text{total daily volume for the entire project limits}$

- Using the Average Daily Bicycle Volumes derived from the 2 count locations, the Average Daily Bicycle Volume for the project will be  $66 + 82 + 66 * .80 + 82 * .90 = \underline{274.6}$

**Example 3- This example shows a project improving numerous (9) small segments of sidewalk with only one required count location**

If the agency believes that each segment of the sidewalk will have widely varying numbers of users, then the agency can multiply the 'total daily volume' value that was calculated in Step 1 by different factors for each of the segments that aren't getting a count.

**The Average Daily Pedestrian Volume calculation for this example would be as follows:**

$tdt_{c\text{-location}} + tdt_{c\text{-location}} \times \text{Factor 1} + tdt_{c\text{-location}} \times \text{Factor 2} + tdt_{c\text{-location}} \times \text{Factor 3} + tdt_{c\text{-location}} \times \text{Factor 4} + tdt_{c\text{-location}} \times \text{Factor 5} + tdt_{c\text{-location}} \times \text{Factor 6} + tdt_{c\text{-location}} \times \text{Factor 7} + tdt_{c\text{-location}} \times \text{Factor 8} = \text{total daily volume for the entire project limits}$

- Using the Average Daily Pedestrian Volume calculated above, the Average Daily Bicycle Volume for the project will be  $125 + 125 * 0.53 + 125 * 0.75 + 125 * 0.99 + 125 * .90 + 125 * .95 + 125 * 0.8 + 125 * 0.85 + 125 * 0.83 = \underline{950}$