

# HOMESTEAD ROAD SAFE ROUTES TO SCHOOL STUDY

Final Report

May 2019

Caltrans · Valley Transportation Authority · Sunnyvale · Cupertino · Kimley»Horn



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# INTRODUCTION

Homestead Road (the "Corridor") is a major east-west corridor that spans from Santa Clara University to Foothill Expressway, traversing four jurisdictions including the cities of Santa Clara, Cupertino, Sunnyvale, and Los Altos. Within the Homestead Road Safe Routes to School Study ("Study") limits, between N. Stelling Road/Hollenbeck Avenue and Grant Road, Homestead Road serves as both a major regional east-west connection and a local connection for three public schools, including West Valley Elementary School, Cupertino Middle School, and Homestead High School. Through this Study, the County of Santa Clara, in partnership with the Cities of Los Altos, Sunnyvale, and Cupertino, Santa Clara Valley Transportation Authority (VTA), and Caltrans ("Partner Agencies"), is seeking to identify and develop near-term improvements within the Study limits to ensure safe access to schools along the Corridor. Near-term improvements will primarily include infrastructure that promotes multimodal access for all ages and abilities, developed through a transparent public process focused on feasible and implementable solutions.

The Final Report summarizes the following:

- Description of the Study Area including Study limits and existing access conditions for each of the three schools within the Study Area
- Summary of primary Project objectives based on Project Team, Stakeholder and Community input
- Summary of previous and on-going planning efforts that impact the study limits
- Description of the Study development including public and stakeholder process and schedule
- Existing Conditions within the Study area including traffic operations, collision analysis, and opportunities and constraints to address in proposed near-term recommendations
- Development of the Preferred Alternative within the Study area including traffic operations and recommendations to achieve the project goals
- Funding opportunities and next steps for the project

# PROJECT OBJECTIVES

The purpose of this study is to identify and develop near-term bicycle and pedestrian infrastructure improvements along Homestead Road between Grant Road and N. Stelling Road. Improvements will be developed to satisfy the following Project objectives:

- Develop infrastructure recommendations that are feasible and implementable in the near-term
- Recommend bicycle and pedestrian improvements that serve all ages and abilities
- Connect students along the Homestead Road corridor to West Valley Elementary School, Cupertino Middle School, and Homestead High School
- Address the safety and security of users
- Identify various grant funding opportunities for the proposed improvements



# STUDY AREA

## Study Limits

The Study limits are Grant Road to the west and N. Stelling Road to the east along Homestead Road, inclusive of approximately 800 feet of S. Bernardo Avenue north of Homestead Road. There are ten intersections along Homestead Road that will be analyzed for the study including:

1. Foothill Expressway/Homestead Road
2. Grant Road/Homestead Road
3. Fallen Leaf Lane/Homestead Road
4. Belleville Way/Homestead Road
5. Maxine Avenue-SR-85 SB Off-Ramp/Homestead Road
6. S. Bernardo Avenue-SR-85 NB On-Ramp/Homestead Road
7. Wright Avenue/Homestead Road
8. S. Mary Avenue/Homestead Road
9. Kennewick Drive/Homestead Road
10. Hollenbeck Avenue-N. Stelling Road/Homestead Road

**Figure 1** shows the Study limits and intersections.

# Homestead Road Safe Routes to School



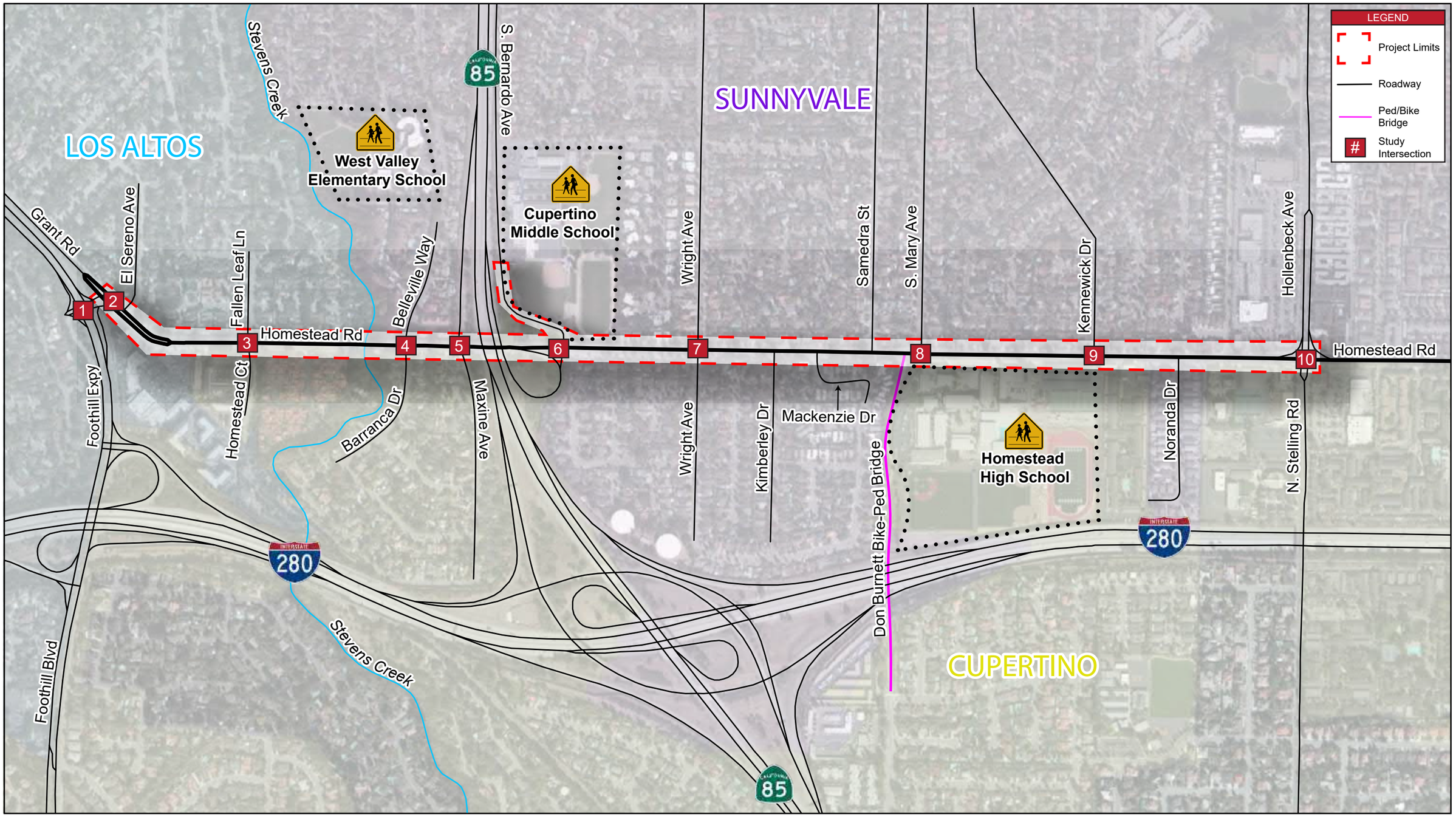


FIGURE 1 - PROJECT LOCATION MAP



## Schools

### West Valley Elementary School

West Valley Elementary School (West Valley) serves students from Kindergarten to fifth grade. Classes begin at 8:00AM with a staggered release time between 2:05PM and 2:35PM, except on Tuesdays when all students are released at 1:30PM. West Valley is located on Belleville Way north of Homestead Road, northwest of the I-280 and SR-85 interchange. The school is bounded by multifamily residential to the south and single family residential to the north, east, and west. There is a one-way southbound drop-off/pick-up area along Belleville Way and an informal drop-off/pick-up along Bedford Avenue. There are sidewalks along both Belleville Way and Bedford Avenue, with school crosswalks at the ingress access to the drop-off/pick up area along Belleville Way, on the north and west side of the intersection. A shared-use path that crosses Stevens Creek to connect the school fields, on the backside of the school, with Fallen Leaf Lane provides an alternative pedestrian and bicycle access for students. The shared-use path can be accessed via local streets, including Fallen Leaf Lane, El Sereno Lane, and Crist Drive. These three local streets are stop-controlled at Homestead Road and do not have sidewalks or marked bicycle facilities.

According to West Valley Elementary School's suggested routes to school, students are encouraged to use Crist Drive, El Sereno Avenue, or Fallen Leaf Lane to access the shared-use path that crosses Stevens Creek to the west of West Valley Elementary School. Students are not encouraged to use Homestead Road.

### Cupertino Middle School

Cupertino Middle School serves students from sixth grade to eighth grade. Classes begin at 8:10AM, except for Wednesdays when classes start at 9:35AM, with a release at 2:54PM. Cupertino Middle School is located along South Bernardo Avenue bounded by Homestead Road to the south and Helena Drive to the north, northeast of the I-280 and SR-85 interchange. There are two one-way northbound drop-off/pick-up areas along South Bernardo Avenue, with the northern area restricted to bus drop-off/pick-up. The South Bernardo Avenue and Homestead Road intersection serves as the SR-85 northbound on-ramp, with a two-stage pedestrian crossing on the south leg and marked school crosswalks on the north, east, and west legs. South Bernardo Avenue has continuous sidewalks on the Cupertino Middle School frontage and sidewalks on the west side up to the south drop-off/pick-up area where a school crosswalk is installed to provide continuous pedestrian facilities. South Bernardo Avenue does not have marked bicycle facilities. Cupertino Middle School can also be accessed via Wright Avenue and Helena Drive. The Wright Avenue/Homestead Road intersection has school crosswalks at all intersection approaches and bicycle detection on the southbound approach. Wright Avenue and Helena Drive have continuous sidewalks leading to Cupertino Middle School.

Cupertino Middle School does not have a published safe routes to school plan, but through field observations, students were observed to use the shared-use path and sidewalk along the north side of Homestead Road. Once across the SR-85 bridge, students utilized the shared-use path behind the gas station at Bernardo Avenue to access the school. From the east, students use Homestead Road to the sidewalk along the east side of Bernardo Avenue.

### Homestead High School

Homestead High School serves students from ninth grade to twelfth grade, with a total enrollment of approximately 2,400 students. Classes begin at 8:00AM on Monday, Tuesday, and Thursday and at 9:00AM Wednesday and Friday, with a release at 3:25PM every weekday. Homestead High School is located along Homestead Road between South Mary Avenue and Kennewick Drive, and bounded by the Mary Avenue Bridge Trail to the west, I-280 to the south, multi-family residential to the east, and Homestead Road to the north. There are relatively wide sidewalks on the Homestead Road frontage, approximately ten feet wide. The school is served by VTA Local



Route 53, with an eastbound stop located at the pick-up/drop-off loop on Homestead Road and a westbound stop located nearside at the Mary Avenue/Homestead Road intersection. The pick-up/drop-off loop, the Horseshoe, is located about 100 feet east of the Mary Avenue/Homestead Road intersection. Based on field observations, vehicles queue into the buffered bike lane during peak times.

According to Homestead High School's suggest routes to school, students travelling from the west are encouraged to use the shared-use path between Grant Road and Fallen Leaf Lane, then cross the existing bike lane at Fallen Leaf Lane. Students from the east are encouraged to use Homestead Road to access the school. Field observations confirmed that high school students utilize the suggested routes.

# PREVIOUS AND ONGOING PLANNING EFFORTS

There have been multiple previous and ongoing planning efforts within the study area that informed the background conditions of the Study. The efforts are summarized below.

## Walk Audit

A walk audit was conducted on May 17, 2018 to inventory existing conditions as a baseline to identify multimodal improvements. The project area spanned between Grant Road and the frontage of Homestead High School. A summary of the walk audit was developed which provides general background information and identifies nine primary issues observed within the project area. The nine primary issues identified include:

A. **Grant Road & Foothill Expressway.** Left turns from Grant Road onto Foothill Expressway difficult for bicyclists.
B. **Fallen Leaf Lane & Homestead Road**: Vehicles don't consistently yield to pedestrians and bicyclists in crosswalk. Sightlines blocked by vegetation. Bicyclists ride through crosswalk.
C. **Homestead Road east of Stevens Creek**: Sidewalk gap on south side of Homestead Road.
D. **Homestead Road from Stevens Creek to Bernardo Avenue:** Path on north side of Homestead Road ends prior to the creek. Eastbound student bicyclists ride opposite traffic (i.e. westbound vehicle traffic) in bike lane.
E. **Belleville Way & Homestead Road:** Heavy school traffic. Corner waiting areas not big enough to accommodate bicyclists & pedestrians. Motorists run red light to make turn.
F. **SB SR-85 Off-Ramp & Homestead Road:** Southbound motorists making a right turn on red and looking east for vehicles do not anticipate or yield to bicyclists traveling eastbound on sidewalk.
G. **Path Access to Cupertino Middle School:** No signage indicating path between Homestead Road and S Bernardo Avenue that provides access to Cupertino Middle School. No curb ramps for bicyclists to get to path.
H. **NB SR-85 On-Ramp & Homestead Road:** Student bicyclists must contend with weaving traffic entering high-speed slip ramp.
I. **Bernardo Avenue & Homestead Road**: Pedestrian area on northeast corner of intersection is too small to accommodate the large volume of student bicyclists and pedestrians. Westbound motorists making right turn onto Bernardo Avenue conflict with pedestrians and commuter bicyclists traveling straight on Homestead Road. Limited sightlines. Very wide radius. On northeast corner, wide turning radii encourages higher speed turns.



## Homestead Road/Homestead High School Improvements

The City Sunnyvale is implementing pedestrian and bicycle improvements along Homestead Road near Homestead High School, funded through One Bay Area Grants (OBAG) 2 Vehicle Emission Reductions Based at Schools (VERBS) grant funding. The proposed improvements include a traffic signal modification at the Homestead Road/Mary Avenue and Homestead Road/Kennewick Drive intersections, installation of high visibility crosswalks, shortening crossing distance for pedestrians, installation of green buffered bike lanes along Homestead Road eastbound between MacKenzie Drive and Mary Avenue and the westbound approach at the Homestead Road/Mary Avenue intersection, and improvements of the existing path for bicycles to the high school from eastbound Homestead Road to the Mary Avenue Bridge Trail. **Figure 2** includes the improvements funded through the VERBS grant.

## Caltrans SCL/85 & ALA/80 Project

The Caltrans project on SCL/85 and ALA/80 will upgrade curb ramps and sidewalks to ADA standards at specific locations, including the 85 on-ramp and off-ramp at Homestead Road. The project is currently at the 95% design phase. The estimated construction start date is winter or spring of 2020. Caltrans has been actively engaged throughout the project process.

## Sunnyvale Speed Limit Adjacent to Schools Resolution

On October 30, 2018, the City of Sunnyvale City Council approved a resolution to lower the speed limit near schools to 15 mph. Cupertino Middle School was included on the list of 35 schools throughout the City. The limits of the new speed limit are 500 feet north of the school property line and Homestead Road on Bernardo Avenue. The installation timeframe is currently unknown.

IMPROVEMENTS BEING IMPLEMENTED AS PART OF SEPARATE PROJECT

INSTALL BUFFERED GREEN BIKE LANE

INSTALL BUFFERED GREEN BIKE LANE

MARY AVE

HOMESTEAD RD

MACKENZIE DR

HOMESTEAD HIGH SCHOOL

KENNEWICK DR

IMPROVEMENTS TO BE COMPLETED BY THE SCHOOL SEPARATE FROM VERBS PROGRAM

INSTALL ADA CURB RAMPS

CHANGE SIGNAL PHASING FROM 6 PHASE TO 8 PHASE INSTALL HIGH VISIBILITY PEDESTRIAN CROSSWALKS

PROVIDE CURB CUT AND/OR DRIVEWAY FOR BICYCLE TRAFFIC

PROVIDE BIKE PATH CONNECTION TO REDUCE BIKE/PEDESTRIAN CONFLICT AND ALLOW FOR QUICKER ACCESS TO SCHOOL

TIGHTEN CURB RADIUS TO ALLOW FOR SHORTER CROSSWALKS

STOP

IMPROVEMENTS TO BE COMPLETED BY THE SCHOOL SEPARATE FROM VERBS PROGRAM

MODIFY TRAFFIC SIGNAL TO ALLOW FOR IN AND OUT CIRCULATION INSTALL HIGH VISIBILITY CROSSWALKS

HOMESTEAD ROAD @ HOMESTEAD HIGH SCHOOL SIGNAL MODIFICATIONS AND PEDESTRIAN AND BICYCLE IMPROVEMENTS

FIGURE 2 - VERBS Grant Improvements



# PLAN DEVELOPMENT

## Project Process

The initial efforts of the Study involved gathering and analyzing data provided by local agencies or collected by the Consultant team, in addition to performing field observations of the Corridor. Field observations were performed by the Project Team with the Partner Agencies on October 18, 2018.

The existing conditions report, and input from Community Meeting #1 on November 26, 2018, was used to identify potential improvements along the corridor. The improvements identified are near-term improvements that serve all ages and abilities and connect users to the three schools along the corridor.

Concept plans of the improvements were developed in coordination with the Partner Agencies. These improvements were presented to the public to receive feedback at Community Meeting #2 on February 25, 2019. The input received from the second community meeting was used to refine the concept plans of the potential improvements, and identify a preferred alternative for the Corridor.

The outcome of the Study is a community-supported preferred alternative that achieves the project goals. An opinion of probable cost was developed for the preferred alternative. Funding opportunities and next steps have been identified for the project.

## Stakeholder and Public Involvement

### Community Meeting #1

The County of Santa Clara hosted Community Meeting #1 on November 26, 2018, from 6:00-8:00PM to discuss and present a recently underway study to improve mobility to three schools that exist along the Homestead Road corridor between Grant Road and N. Stelling Road/Hollenbeck Avenue. The three schools that are within the study are West Valley Elementary School, Cupertino Middle School, and Homestead High School. The meeting was held at the Homestead High School Auditorium.

Approximately sixty-two (62) community members attended the meeting. The County of Santa Clara was represented by Santa Clara County District 5 Supervisor Joe Simitian, Kristine Zanardi, Ananth Prasad, and Thien Pham. Representatives from all Partner Agencies were present.

The Project Team was represented by Ananth Prasad (County of Santa Clara), Thien Pham (County of Santa Clara), Adam Dankberg (Kimley-Horn), Brian Sowers (Kimley-Horn), Dennis Kearney (Kimley-Horn), Tyler Wacker (Kimley-Horn), and Anthony Nuti (Kimley-Horn).

This was the first community outreach meeting with members of the public for the Homestead Road Safe Routes to School Study. The purpose of the meeting was to introduce the scope of the study and provide a study schedule and process; present existing conditions observed through data collection and field observations; and received community feedback on existing issues and priorities for the corridor.

The meeting started just past 6:00 PM and included an introduction by Santa Clara District 5 Supervisor Joe Simitian. Adam Dankberg, the Kimley-Horn project manager, then explained the purpose and objectives of the Study and used a PowerPoint presentation to explain existing conditions. In addition, the Project Manager covered the schedule for the Study and opportunities for additional input from the public including future meetings and a project email. The meeting included a ‘Question and Answer’ portion where there was an opportunity for many questions from the public to be answered by the Project Team.



The second half of the meeting was an open house format and attendees were asked to go to two stations to give input on where they live, how they use the Homestead Road corridor, what modes of transportation they primarily use on the corridor, what school they are affiliated with, and to mark on a map where hot spots and problematic conditions exist. Attendees were free to leave the meeting whenever they chose during the open house session. The meeting ended at 8:00 PM and the meeting summary is included in the **Appendix**.

### Community Meeting #2

The County of Santa Clara hosted Community Meeting #2 on February 25, 2019, from 6:00-8:00PM to discuss and present conceptual designs of potential improvements to the Homestead Road corridor to better connect West Valley Elementary School, Cupertino Middle School, and Homestead High School. The meeting was held at the Homestead High School Auditorium.

Approximately sixty (60) community members attended the meeting. The County of Santa Clara was represented by Kristine Zanardi, Ananth Prasad, and Thien Pham. Representatives from all Partner Agencies were present.

The Project Team was represented by Ananth Prasad (County of Santa Clara), Thien Pham (County of Santa Clara), Adam Dankberg (Kimley-Horn), Brian Sowers (Kimley-Horn), Tyler Wacker (Kimley-Horn), and Anthony Nuti (Kimley-Horn).

This was the second community outreach meeting with members of the public for the Homestead Road Safe Routes to School Study. The purpose of the meeting was to provide an update to the community on the study status, present proposed concepts, receive community feedback on the proposed concepts that have been developed, and review next steps.

The meeting started just past 6:00 PM and included an introduction by Kristine Zanardi. Adam Dankberg, the Kimley-Horn project manager, then provided an update of which stage the Study is in and used a PowerPoint presentation to explain select proposed improvements. In addition, the Project Manager covered the schedule for the Study and opportunities for additional input from the public including comment cards and the project email. The meeting included a 'Question and Answer' portion where there was an opportunity for many questions from the public to be answered by the Project Team.

The second half of the meeting was an open house format and attendees were asked to go to a station to give input on the proposed improvements. Attendees used colored dots to express support (green), uncertainty/need more info (yellow), or do not support (red). Sticky notes were also provided to write down comments and place them on the proposed improvement posters. Attendees were free to leave the meeting whenever they chose during the open house session. The meeting ended at 8:00 PM and the meeting summary is included in the **Appendix**.

# EXISTING CONDITIONS

## Transportation Facilities

### Pedestrian Facilities

There are sidewalks along the entire study segment on both the north and south side of Homestead Road, except for a sidewalk gap of approximately 100 feet on the south side of Homestead Road at Stevens Creek. Sidewalks in the study area range in widths between four and ten feet.

### Bicycle Facilities

There are Class II bike lanes along the entire segment of Homestead Road with several locations that have green paint and bike lane buffers.



### Transit Facilities

VTA Local Route 53 operates along Homestead Road between Hollenbeck Avenue and Mary Avenue, providing service between the Sunnyvale Transit Center and West Valley College. There are three westbound stops and two eastbound stops along Homestead Road, primarily serving Homestead High School. Local Route 54 operates along Hollenbeck Avenue, with northbound and southbound stops at the Homestead Road intersection. Route 54 serves destinations between De Anza College and the Lockheed Martin Transit Center.

### Auto Facilities

The Corridor is a two-lane facility with a two-way center turn lane west of Belleville Way, a three-lane facility (two westbound lanes and one eastbound lane) with a two-way center turn lane between Belleville Way and Wright Avenue, and a four-lane facility with a two-way center turn lane east of Wright Avenue. There are nine signalized intersections and eight side-street stop-controlled intersections within the Study limits.

**Figure 3** illustrates existing transportation facilities in the Study Area.

# Homestead Road Safe Routes to School




GRAPHIC SCALE IN FEET
0 75 150 300

N

**LEGEND**

- School Locations
- School Boundary
- River/Creek
- Bike Lane
- Multi-Use Path
- Sidewalk
- Crosswalk
- City Boundary
- Side Street Stop Control
- Traffic Signal

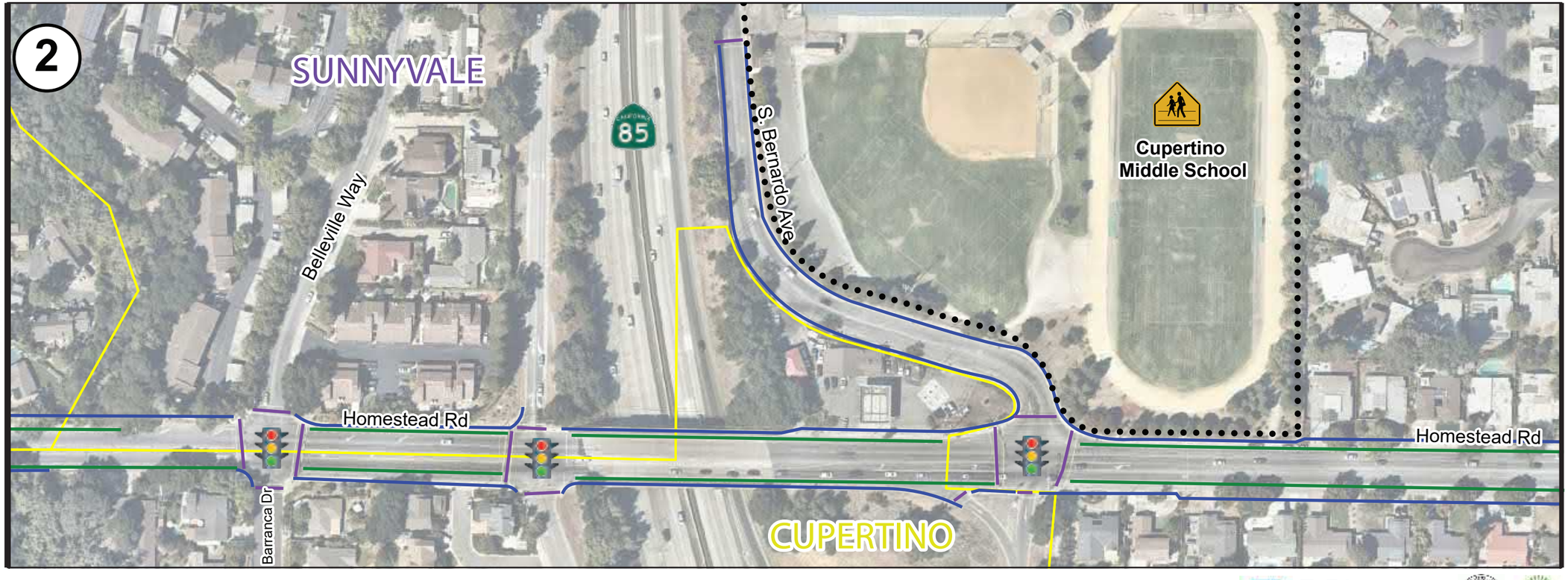


FIGURE 3 - EXISTING CONDITIONS (SHEET 1 OF 2)

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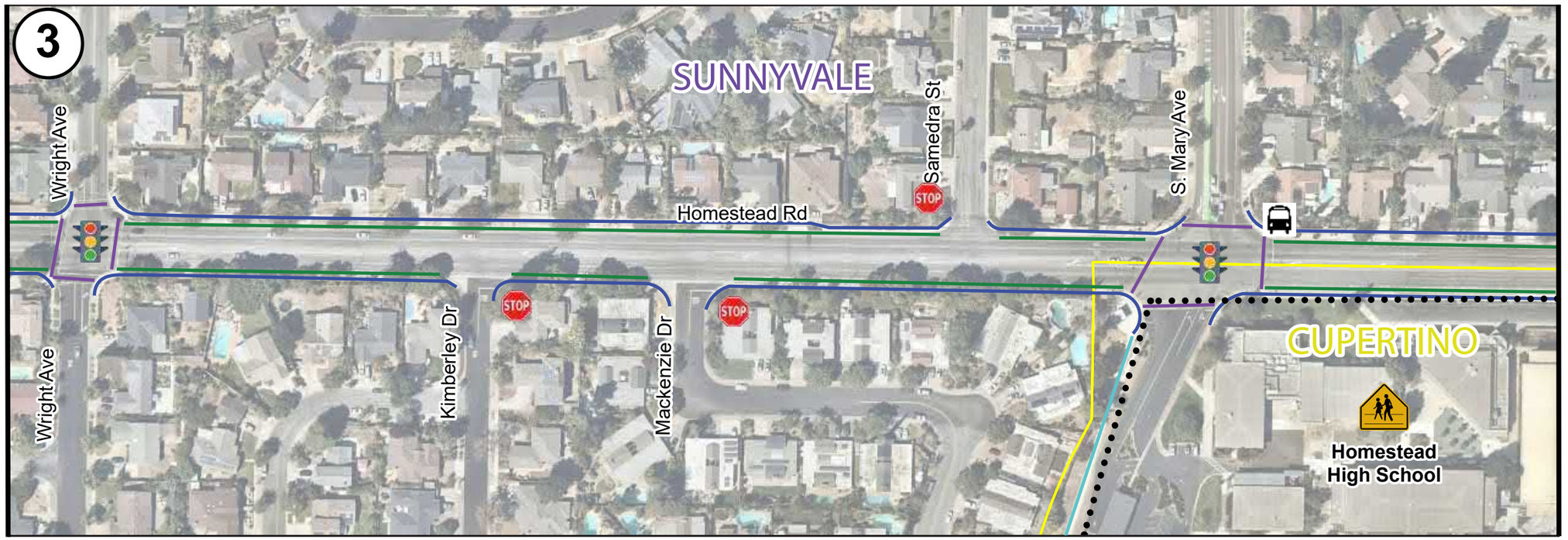
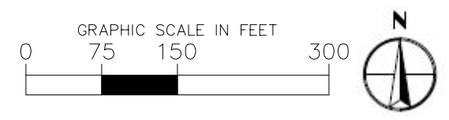
# Homestead Road Safe Routes to School





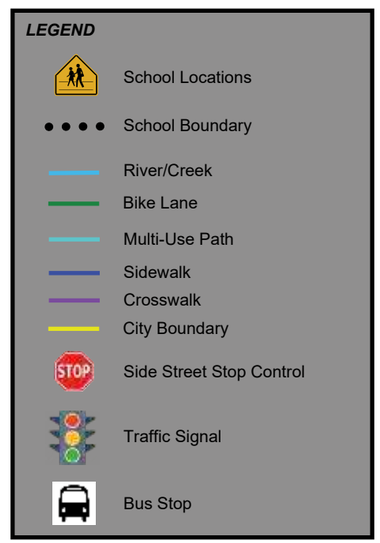





FIGURE 3 - EXISTING CONDITIONS (SHEET 2 OF 2)

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## Collision Analysis

Reported collision history for each study intersection was reviewed to identify potential intersection safety issues. Reported collision data were obtained from the Statewide Integrated Traffic Records System (SWITRS) for the most recent five-year period. **Figure 4** displays the location and quantity of collisions by study intersection. As shown, there are a total of 22 pedestrian/bicycle-related collisions within the study limits, of which eight are located at the N. Stelling Rd-Hollenbeck Ave/Homestead Rd intersection. The remaining 14 pedestrian/bicycle-related collisions are spread amongst the rest of the corridor and not concentrated at any one study intersection.

**Table 1** summarizes the pedestrian/bicycle collisions at the N. Stelling Rd-Hollenbeck Ave/Homestead Rd Intersection by collision type and direction. Based on the review of pedestrian/bicycle collisions at this intersection, the eight reported collisions do not have a clear pattern.

**Table 1: Collision Summary at N. Stelling Rd-Hollenbeck Ave/Homestead Rd Intersection**

| Date | Mode | Collision Type | Direction | Lighting | Cause |
|---|---|---|---|---|---|
| **Mar-13** | Bicycle | Sideswipe | East | Day | Westbound right-turning vehicle sideswipes westbound bicycle |
| **Feb-13** | Pedestrian | Auto/Ped | North | Day | Southbound vehicle in pedestrian right-of-way |
| **Jul-14** | Bicycle | Other | NA | Dusk | Bicycle in the vehicle right-of-way |
| **Oct-14** | Pedestrian | Broadside | South | Dusk | Unknown |
| **Jan-15** | Pedestrian | Auto/Ped | South | Dark | Northbound vehicle in pedestrian right-of-way |
| **Dec-15** | Pedestrian | Auto/Ped | South | Day | Northbound vehicle in pedestrian right-of-way |
| **Sep-17** | Pedestrian | Auto/Ped | East | Day | Westbound vehicle in pedestrian right-of-way |
| **Mar-18** | Bicycle | Sideswipe | South | Day | Northbound right-turning vehicle sideswipes northbound bicycle |

# Homestead Road Safe Routes to School



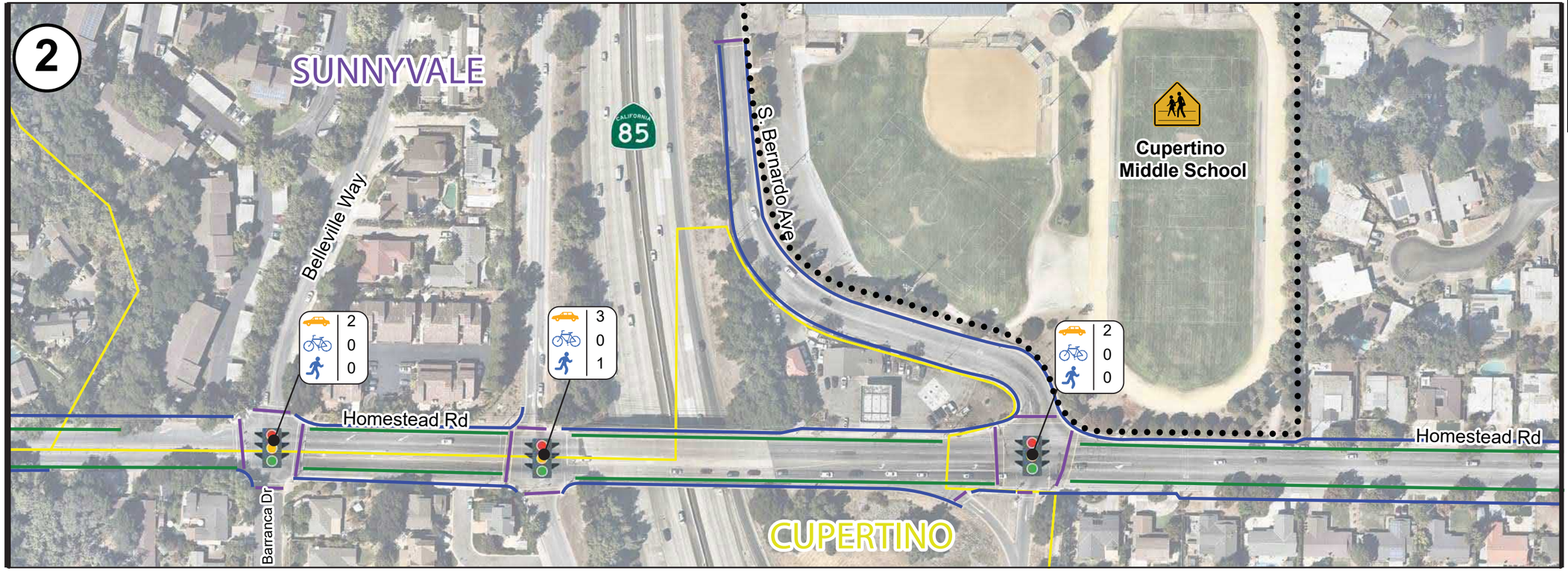

MATCH LINE
SEE BELOW

GRAPHIC SCALE IN FEET
0 75 150 300

N

**LEGEND**

- School Locations
- School Boundary
- River/Creek
- Bike Lane
- Multi-Use Path
- Sidewalk
- Crosswalk
- City Boundary
- Side Street Stop Control
- Traffic Signal
- Motor Vehicle, Injury
- Parked Motor Vehicle, Injury
- Ped, Injury
- Bicycle, Injury
- Fixed Object, Injury
- Number of Incidents (#)




MATCH LINE
SEE ABOVE

MATCH LINE
SEE SHEET 2

FIGURE 4 - Collision History (2013-2018) (SHEET 1 OF 2)

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# Homestead Road Safe Routes to School

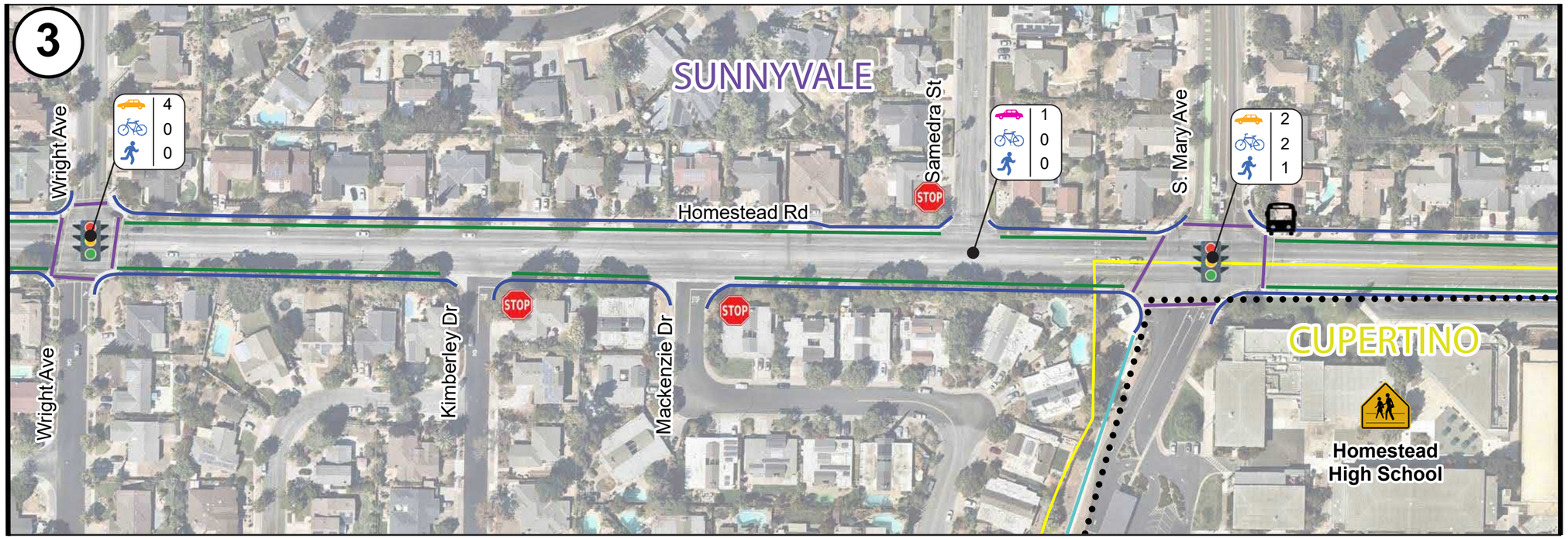


GRAPHIC SCALE IN FEET
0 75 150 300

N

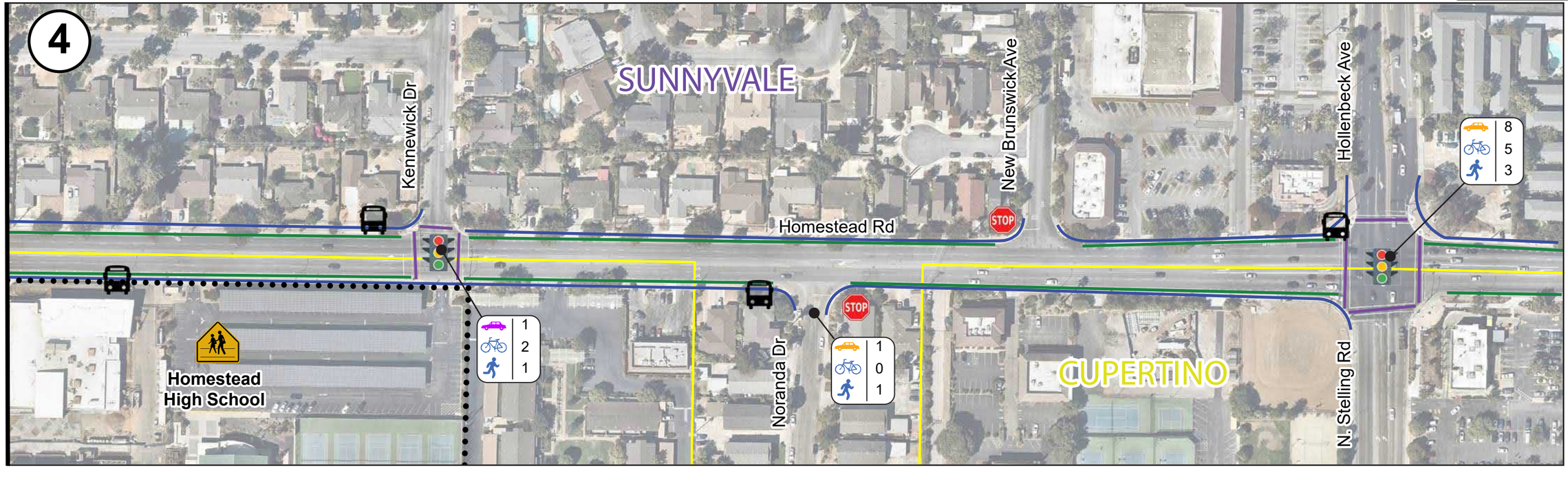
**LEGEND**

- School Locations
- School Boundary
- River/Creek
- Bike Lane
- Multi-Use Path
- Sidewalk
- Crosswalk
- City Boundary
- Side Street Stop Control
- Traffic Signal
- Motor Vehicle, Injury
- Parked Motor Vehicle, Injury
- Ped, Injury
- Bicycle, Injury
- Fixed Object, Injury




MATCH LINE SEE SHEET 1

MATCH LINE SEE BELOW




MATCH LINE SEE ABOVE

FIGURE 4 - Collision History (2013-2018) (SHEET 2 OF 2)

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## Existing Traffic Operations Analysis

An existing traffic operations analysis was completed for the AM, school PM, and PM peak hours. The analysis evaluated each study intersection along the project corridor using Synchro traffic model software. The Synchro model analyses are based on the Highway Capacity Manual (HCM) methodology. It should be noted that the Santa Clara Valley Transportation Authority (VTA), which provides the overall standards and methodologies for traffic operations in Santa Clara County, uses the HCM 2000 methodology, and not the latest HCM 6th Edition methodology. The following sections summarize the model development process, the Level of Service (LOS) methodology, and the results of the intersection analysis.

### Model Development

Existing conditions traffic models were developed in Synchro software for each of the peak periods. Peak hour turning movement volumes, existing lane information, and existing timing parameters were used for development of the models. The peak hour turning movement volumes were collected in October and December 2018, while local schools were in session and outside of any holidays. The vehicle counts are shown in **Figure 5**; bicycle counts are shown in **Figure 6**; and pedestrian counts are shown in **Figure 7**. The existing lane information was reviewed in the field and input into the Synchro model for each intersection. The existing intersection lane geometry used for analyses is shown in **Figure 8**. The latest timing sheets were provided by each corresponding jurisdiction and entered into the Synchro models.

## Analysis Methodology

Traffic operations analysis at intersections is based on the concept of level of service (LOS).

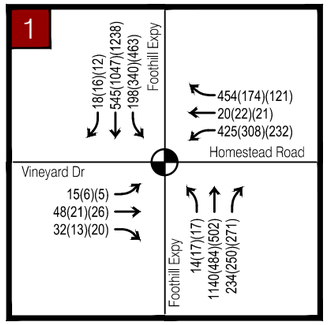
The LOS of an intersection is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity. Levels of service for this study were determined using methods defined in the Highway Capacity Manual, 2000 and appropriate traffic analysis software. The HCM methodology utilizes average delay per vehicle based upon peak hourly traffic volumes, peak hour factors, number of lanes, etc., in the calculation.

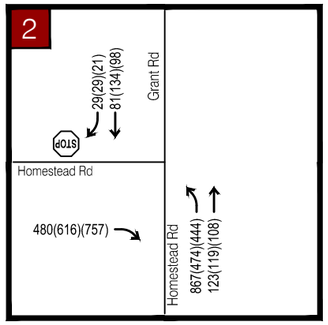
The HCM includes procedures for analyzing side-street stop-controlled (SSSC), all-way stop-controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement and major street left-turns. Conversely, the AWSC and signalized intersection procedures define LOS as a function of average control delay for the intersection as a whole.

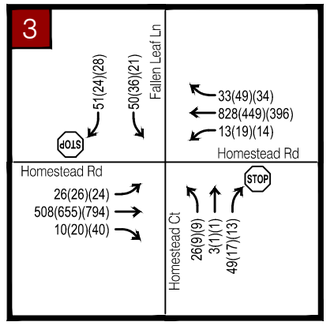
**Table 2** relates the operational characteristics associated with each LOS category for signalized intersections. **Table 3** relates the operational characteristics associated with each LOS category for unsignalized intersections.

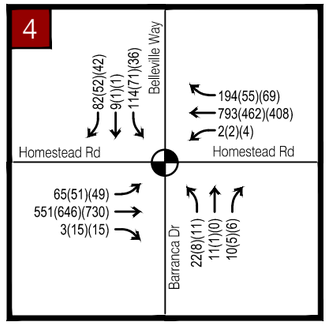
# Homestead Road Safe Routes to School

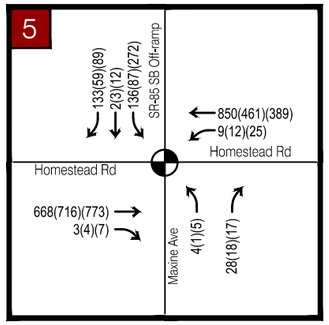


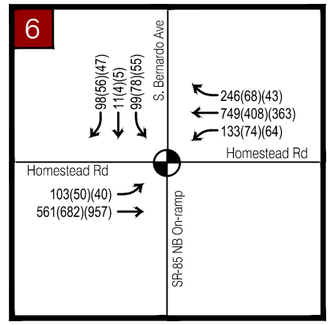


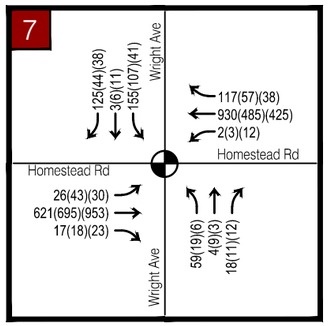



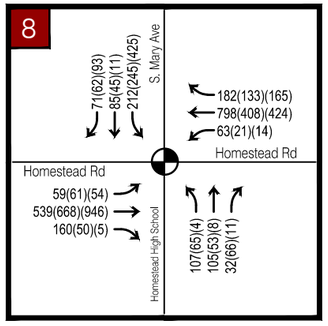



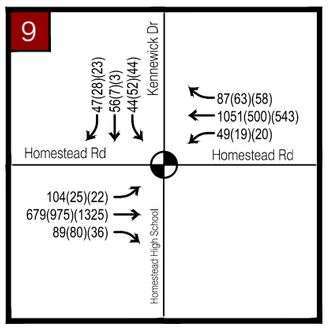



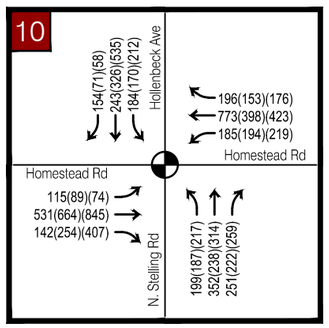



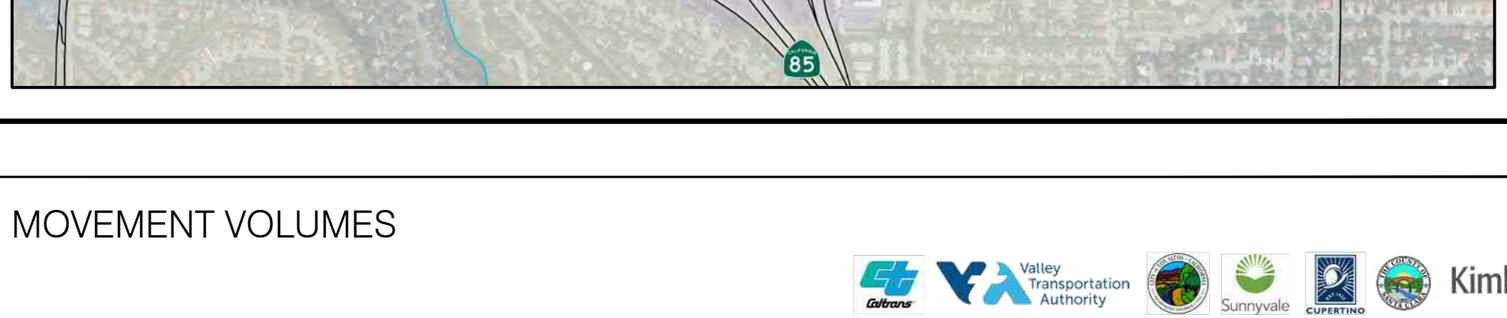



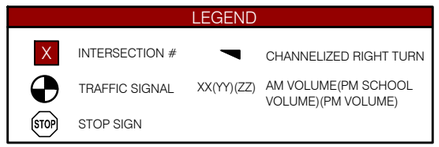





FIGURE 5 - EXISTING PEAK HOUR AUTO TURNING MOVEMENT VOLUMES

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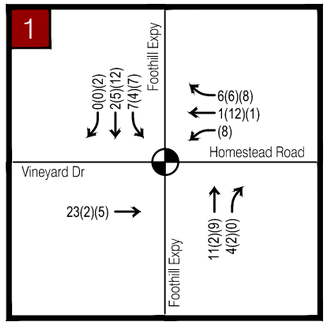
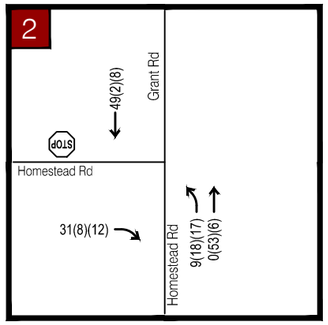
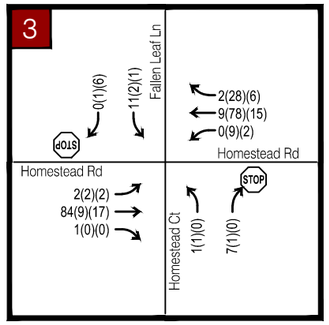
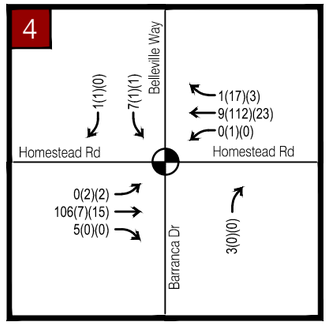
# Homestead Road Safe Routes to School

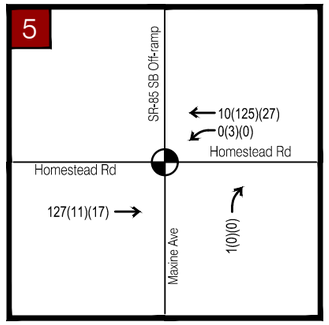


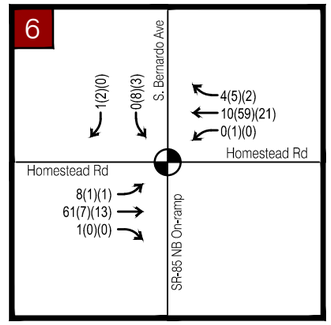


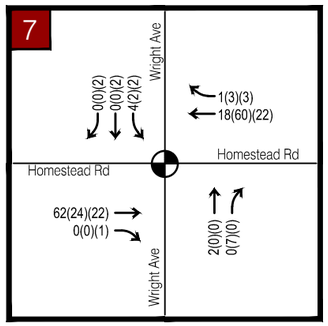



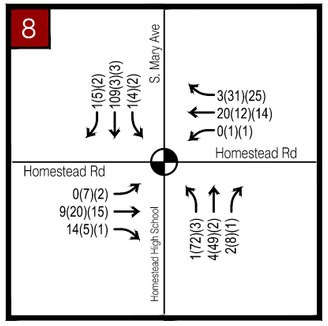



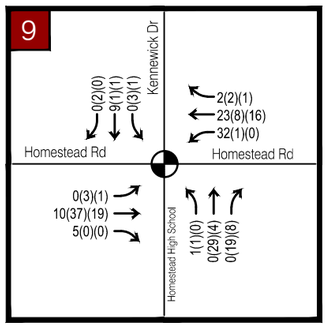



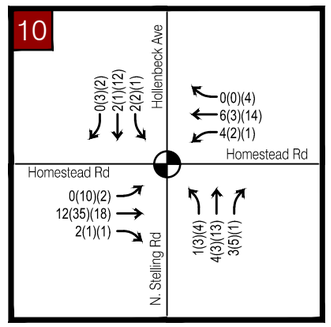



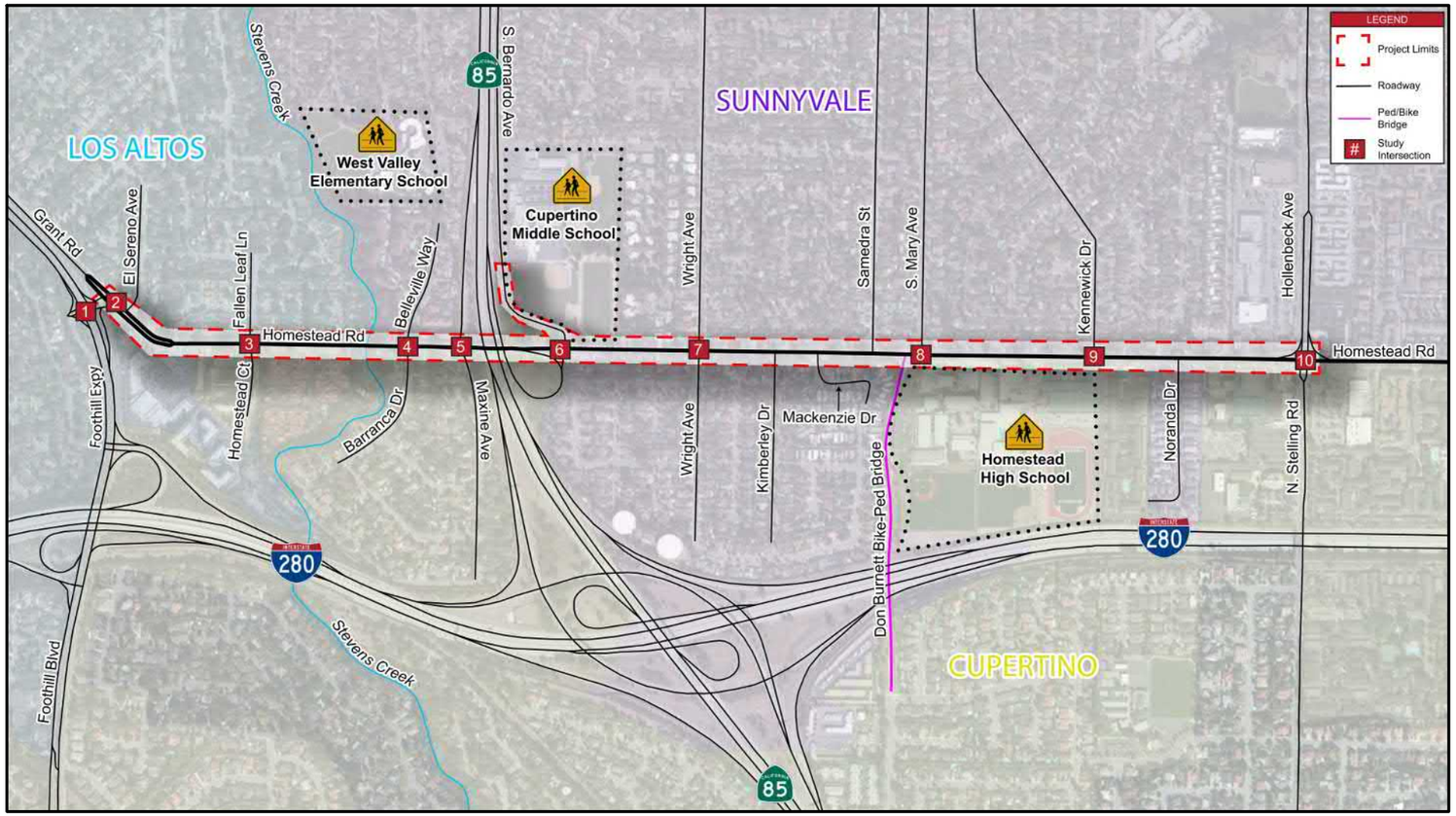




LEGEND

- X — INTERSECTION #
- CHANNELIZED RIGHT TURN
- TRAFFIC SIGNAL
- XX(YY)(ZZ) — AM VOLUME(PM SCHOOL VOLUME)(PM VOLUME)
- STOP — STOP SIGN

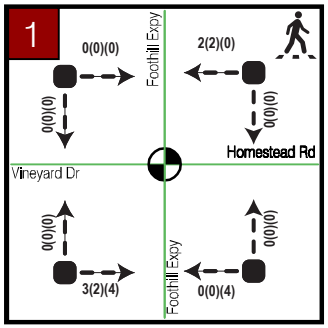
NORTH

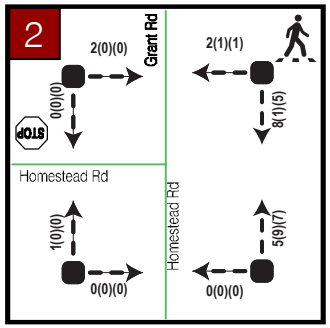
FIGURE 6 - EXISTING PEAK HOUR BICYCLE TURNING MOVEMENT VOLUMES

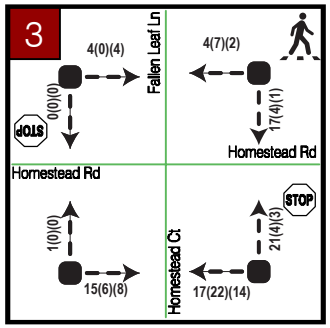
Caltrans · Valley Transportation Authority · Sunnyvale · Cupertino · Kimley»Horn

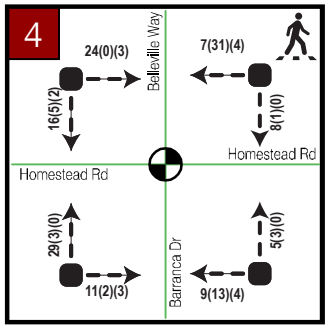
# Homestead Road
# Safe Routes To School

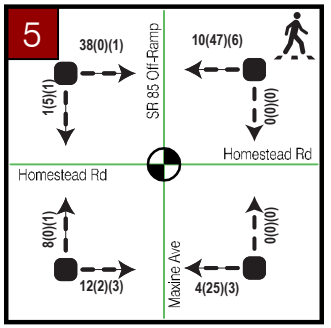


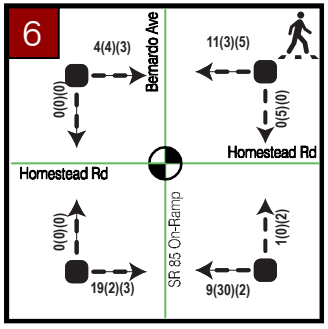


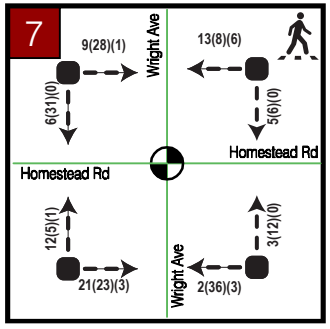



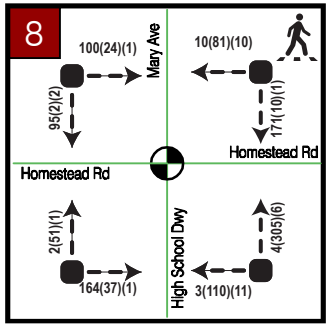



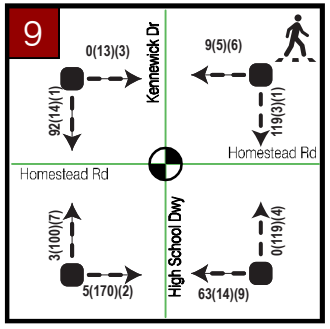



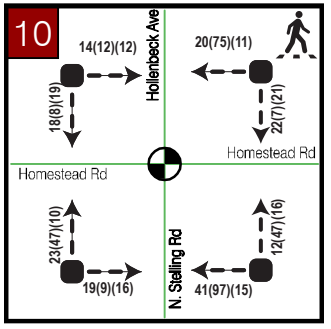



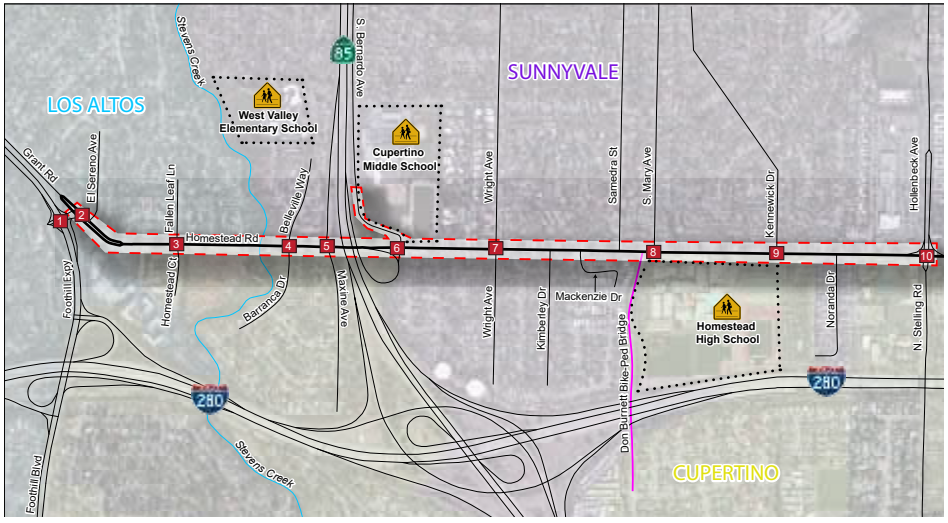





**LEGEND**

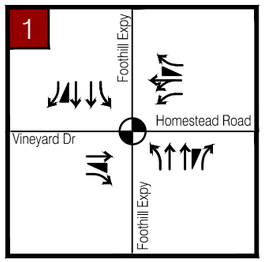
| | |
|---|---|
| X | INTERSECTION # |
| | TRAFFIC SIGNAL |
| STOP | STOP CONTROL |
| XX(XX)(XX) | AM PEAK (PM SCHOOL VOLUME)(PM PEAK) |

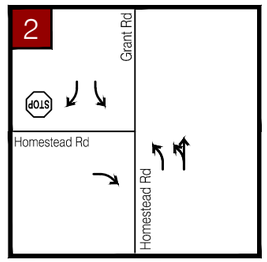
FIGURE 7 - EXISTING PEAK HOUR PEDESTRIAN VOLUMES

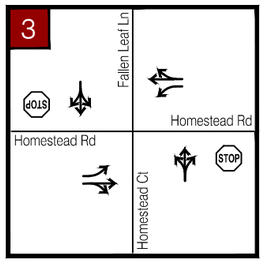
Kimley»Horn

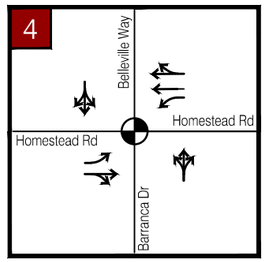
# Homestead Road Safe Routes to School

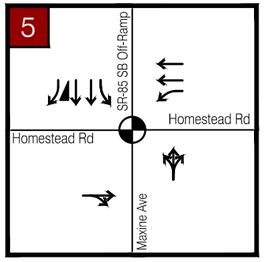


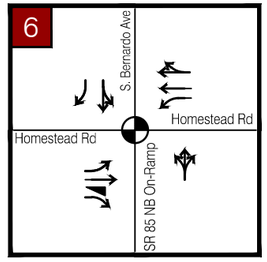


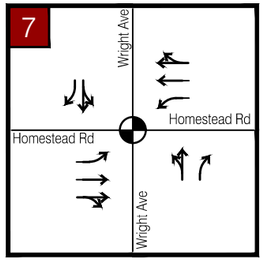



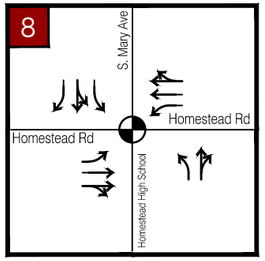



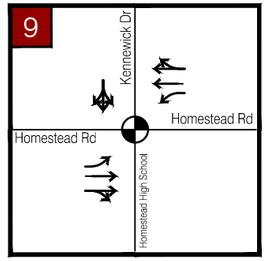



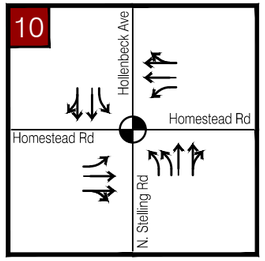



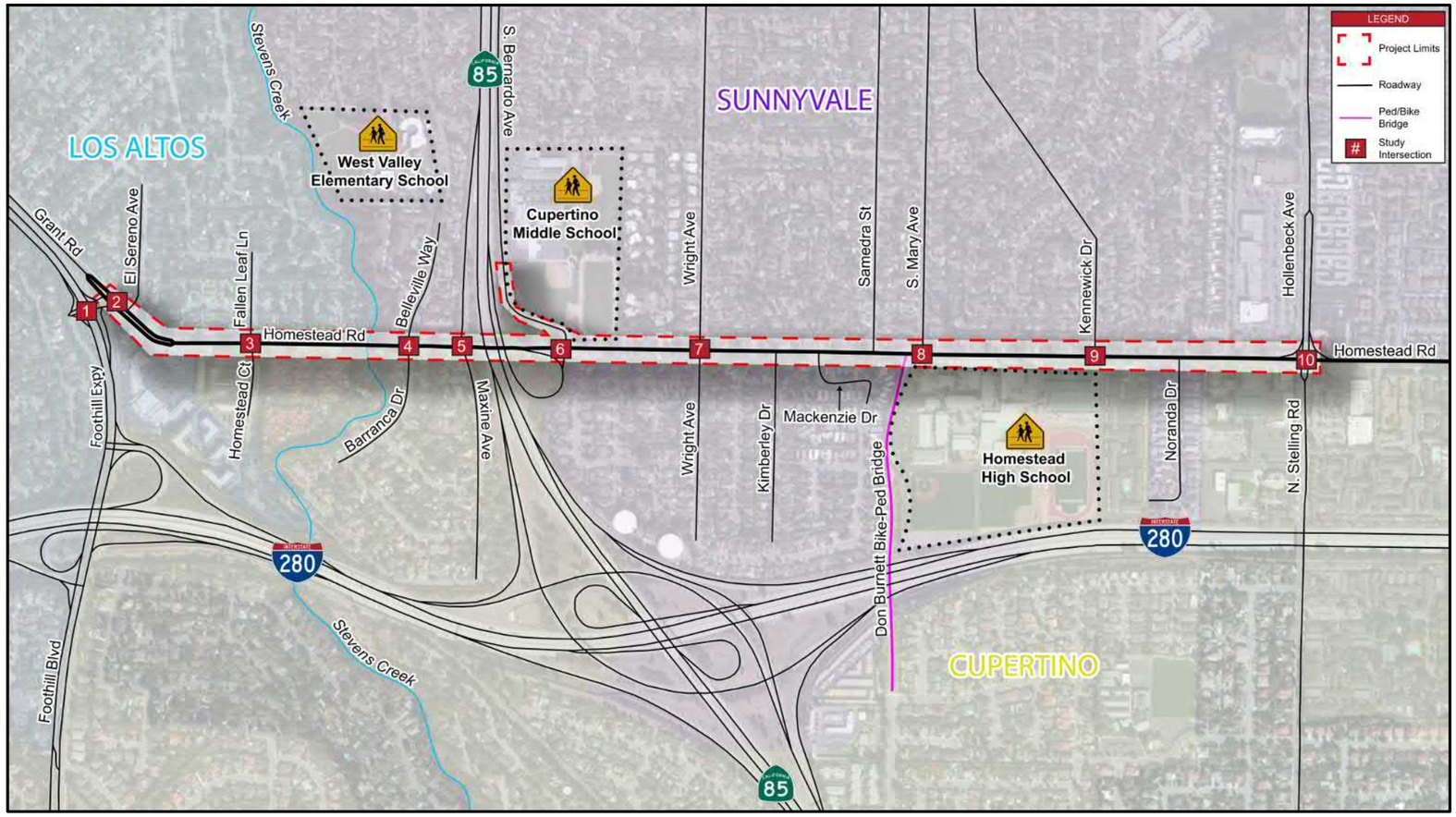




LEGEND

- X — INTERSECTION #
- TRAFFIC SIGNAL
- STOP — STOP SIGN
- CHANNELIZED RIGHT TURN

NORTH

FIGURE 8 - EXISTING INTERSECTION GEOMETRY

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**Table 2: Signalized Intersection Level of Service Definitions**

| Level of Service | Description | Avg. control delay per vehicle (sec/veh) |
|---|---|---|
| A | Free flow with no delays. Users are virtually unaffected by others in the traffic stream. | ≤ 10 |
| B | Stable traffic. Traffic flows smoothly with few delays. | > 10 – 20 |
| C | Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays. | > 20 – 35 |
| D | Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours. | > 35 – 55 |
| E | Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing. | > 55 – 80 |
| F | Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing. | > 80 |

**Table 3: Unsignalized Intersection Level of Service Definitions**

| Level of Service | Description | Unsignalized (Avg. control delay per vehicle sec/veh.) |
|---|---|---|
| **A** | Free flow with no delays. Users are virtually unaffected by others in the traffic stream. | ≤ 10 |
| **B** | Stable traffic. Traffic flows smoothly with few delays. | > 10 – 15 |
| **C** | Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays. | > 15 – 25 |
| **D** | Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours. | > 25 – 35 |
| **E** | Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing. | > 35 – 50 |
| **F** | Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing. | > 50 |



Each jurisdiction along this study corridor has their own LOS criteria for acceptable operations. The following describes the acceptable LOS in each jurisdiction:

### Santa Clara County and Caltrans

Consistent with the LOS criteria documented in the *Transportation Impact Analysis Guidelines*[1], VTA accepts a minimum level of service of LOS E for a County intersection or Congestion Management Program (CMP) intersection. In addition, the level of service criteria for Caltrans and County controlled facilities is LOS E per the VTA Congestion Management Program.

### City of Sunnyvale

The LOS standard for City of Sunnyvale intersections is LOS D, except for City of Sunnyvale intersections that are designated as regionally significant, which allows for a minimum level of service of LOS E.

### City of Cupertino

The LOS standard for City of Cupertino intersections is LOS D at signalized intersections for both the AM and PM peak hours, per the City of Cupertino 2040 General Plan Amendment Draft EIR.

### City of Los Altos

The level of service (LOS) criteria for the City of Los Altos is LOS D per the Los Altos General Plan.

## Existing Level of Service (LOS) Results

Traffic operations were evaluated at the study intersections under existing traffic conditions. Results of the analysis are presented in **Table 4**. **Table 4** lists the LOS criteria, jurisdiction, intersection control, LOS, and delay for each intersection. The following intersections operate at an unacceptable LOS in the existing conditions:

- Homestead Road / Grant Road – operates at LOS E in the PM peak hour for the worst approach
- Homestead Road / Fallen Leaf Lane – operates at LOS F in the AM peak hour and LOS E in the school PM peak hour for the worst approach
- Homestead Road / Mary Avenue – operates at LOS E in the AM peak hour
- Homestead Road / Hollenbeck Avenue – operates at LOS E in the PM peak hour

Analysis sheets are provided in the **Appendix**.

### Homestead Road and Grant Road

The intersection of Homestead Road and Grant Road operates at LOS E in the PM peak hour for the worst approach. This intersection is a side-street stop-controlled intersection with a stop sign on the southbound approach on Grant Road. Homestead Road is uncontrolled, although it is in close proximity to the signalized intersection of Homestead Road and Foothill Expressway. Due to the high volumes on Homestead Road, the southbound approach (98 vehicles in the PM peak hour) has to wait for an acceptable gap. It should be noted that this intersection is heavily influenced by the intersection of Homestead Road and Foothill Expressway. The queues from the intersection of Homestead Road and Foothill Expressway extend into this intersection and beyond. These queues and the “Keep Clear” pavement markings do provide an acceptable gap for the southbound vehicles to proceed through the intersection. Therefore, the delay results from the Synchro models may overestimate the delay.

[1] *Transportation Impact Analysis Guidelines*, Santa Clara Valley Transportation Authority Guidelines, October 2014.



**Table 4: Existing Intersection Level of Service (LOS) Summary**

| # | Intersection | Criteria | Jurisdiction | Control[1] | AM Peak Hour | | School PM Peak Hour | | PM Peak Hour | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) |
| 1 | Homestead Road/Foothill Expressway | E | County | Signal | D | 44.1 | C | 32.5 | C | 34.2 |
| 2 | Homestead Road/Grant Road | D | Los Altos | SSSC | B | 1.3 | A | 2.0 | A | 3.5 |
| | Worst Approach | | | | C | 19.2 | C | 16.5 | **E** | **41.9** |
| 3 | Homestead Road/Fallen Leaf Lane | D | Los Altos | SSSC | D | 30.1 | A | 2.8 | A | 1.4 |
| | Worst Approach | | | | **F** | **376.8** | **E** | **41.7** | C | 24.9 |
| 4 | Homestead Road/Belleville Way | D | Sunnyvale | Signal | B | 14.8 | B | 15.1 | B | 15.8 |
| 5 | Homestead Road/Maxine Ave-SR 85 SB Off-ramp | E | Sunnyvale/Caltrans | Signal | B | 17.1 | B | 15.6 | C | 30.9 |
| 6 | Homestead Road/S Bernardo Ave-SR 85 NB Off-ramp | E | Sunnyvale/Caltrans | Signal | C | 26.2 | B | 15.1 | B | 18.3 |
| 7 | Homestead Road/Wright Avenue | D | Sunnyvale | Signal | C | 25.9 | B | 15.0 | B | 13.6 |
| 8 | Homestead Road/Mary Avenue | D | Sunnyvale | Signal | **E** | **78.7** | D | 41.3 | C | 31.7 |
| 9 | Homestead Road/Kennewick Drive | D | Sunnyvale | Signal | C | 22.0 | B | 14.1 | B | 11.9 |
| 10 | Homestead Road/Hollenbeck Avenue | D | Sunnyvale | Signal | D | 54.6 | D | 50.4 | **E** | **59.5** |

[1]Intersection Control: Signal or Side-street Stop-control (SSSC)



### Homestead Road and Fallen Leaf Lane

The intersection of Homestead Road and Fallen Leaf Lane operates at LOS F in the AM peak hour and LOS E for the school PM peak hour for the worst approach. This intersection is a side-street stop-controlled intersection with a stop sign on the southbound and northbound approaches and the eastbound and westbound approaches are uncontrolled. A pedestrian activated flashing beacon also exists for pedestrians who want to cross Homestead Road at this intersection. Due to the high volume on the uncontrolled approaches along Homestead Road, the southbound vehicles have to wait for an acceptable gap. There are 50 vehicles that are making a left turn in the AM peak hour, so these vehicles have to wait for both directions to clear before proceeding. This condition results in the high delay for this approach.

### Homestead Road and Mary Avenue

The intersection of Homestead Road and Mary Avenue operates at LOS E in the AM peak hour. This intersection has a high number of pedestrians and bicyclists traversing the intersection, in addition to the number of vehicles. The westbound approach has a high delay due to the right turning vehicles yielding to the high number of pedestrians on the conflicting north crosswalk. The outside westbound travel lane is a shared through-right turn lane, so the westbound right turning vehicles yielding to the pedestrians also results in a delay for the westbound through vehicles in the outside lane.

### Homestead Road and Hollenbeck Avenue

The intersection of Homestead Road and Hollenbeck Avenue operates at LOS E in the PM peak hour. This intersection has a high number of vehicles for the left turn movements that conflict with the opposing through movements.

## Opportunities and Constraints

Several “hot spot” locations have been identified for specific intersection or segment improvements, based on existing conditions analyses, including multimodal operations, field visits, and stakeholder and public input. Existing geometric constraints associated with these locations introduce opportunities for a more connected and safe network and complete street.

### Homestead Road-Grant Road/Foothill Expressway Intersection

The intersection has notable bicycle circulation challenges, particularly for southbound movements from Grant Road onto Homestead Road. Homestead Road and Grant Road have eastbound and westbound bike lanes, with the exception of a gap in bicycle facility eastbound 300 feet before and after the Homestead Road/Grant Road intersection. This gap in bicycle facility introduces connectivity issues and safety considerations for eastbound bicycle traffic, continuing from Grant Road to Homestead Road. Currently, bicyclists must merge into the eastbound travel lane leading to a stop-controlled approach before navigating a difficult intersection. The shared-use path on the north side of Homestead Road terminates at El Sereno Avenue.

### Homestead Road/El Sereno Avenue-Chevron Driveway

The intersection has notable vehicle circulation challenges, particularly for northbound left movements into the Chevron Driveway. Vehicles wanting to perform a northbound left turn do not have a separate turn pocket, like southbound traffic, which can cause queues while left turning vehicle wait for a gap to perform a left turn. Currently the intersection has a stop sign on El Sereno Avenue; however, no stop sign exists on the Chevron Driveway. Additionally, there are five (5) other driveways between El Sereno Avenue and Fallen Leaf Lane on the south side of Homestead Road that currently do not have stop signs. Bike lanes also exist for northbound and southbound traffic, and the shared-use path on the north side of Homestead Road terminates just south of El Sereno Avenue.



### Homestead Road/Fallen Leaf Lane Intersection

Fallen Leaf Lane is an important bicycle and pedestrian connection for the West Valley Elementary School, as it connects to the shared-use path that crosses Stevens Creek and accesses the school fields. The intersection is a side-street stop-controlled intersection with no bicycle or pedestrian priority treatments. A pedestrian activated flashing beacon also exists for pedestrians who want to cross Homestead Road at this intersection. Although the intersection has an existing pedestrian-activated flashing beacon, community input noted limited visibility of the flashing beacon system due to existing roadway geometry and vertical grade.

### Homestead Road between S. Bernardo Avenue and Belleville Way

Bicycle and pedestrian connectivity and safety is an existing concern along this segment of Homestead Road, particularly for eastbound travel. Both the West Valley Elementary School and the Cupertino Middle School are located on the north side of Homestead Road which introduces circulation challenges for eastbound bicycle and pedestrian traffic destined for the schools. Existing roadway geometries provide opportunities to repurpose travel lanes for additional sidewalk widths and bicycle facilities.

### Homestead Road/S. Bernardo Avenue-SR-85 NB On-Ramp Intersection

This intersection has a challenging geometry, including an eastbound channelized right-turn lane, long crosswalks, wide turning radii, and no bicycle priority treatments. There is an opportunity to improve this intersection to better serve multimodal travel.

### S. Bernardo Avenue/Shared-Use Path

There is an existing shared-use path that connects Homestead Road and S. Bernardo Avenue, behind the existing 76 gas station. S. Bernardo Avenue has relatively narrow sidewalks on both sides of the road that lead to an uncontrolled crosswalk at the southern middle school access. The sidewalk is too narrow to accommodate both bicyclists and pedestrians on the west side of the road.

### Homestead Road/Mary Avenue and Homestead Road/Kennewick Drive Intersections

Signal modifications and pedestrian and bicycle improvements are proposed at both intersections funded through a Vehicle Emissions Reductions Based at Schools (VERBS) grant. The improvements include high visibility crosswalks on all approaches, modified signal phasing, and tighter curb radii in conjunction with bulb-outs.

### Homestead High School Drop-Off Frontage

Based on field observations, the drop-off zone to the high school experiences congestion and spill-back onto Homestead Road. The existing green bike lane is often used as a storage lane for vehicles spilling onto Homestead Road, thereby forcing eastbound bicyclists to merge into the travel lane.

### Homestead Road/Hollenbeck Avenue Intersection

This intersection is a relatively large intersection with four through lanes and separate left-turn lanes at the intersection. The intersection currently does not provide bicycle priority treatments and has long crosswalks. Based on field observations, eastbound right-turning vehicles cross the bike lane causing notable safety issues.

In addition to these “hot spot” locations, there are additional constraints and opportunities worth noting. Bicycle facilities along Homestead Road are not consistent, Class I and Class II facilities are provided throughout the corridor with some gaps in the network. In addition, safer and more effective bicycle treatments at intersection may be provided. The shared-use path on the north side of Homestead Road provides off-street connections for both pedestrians and bicyclists between Stevens Creek and El Sereno Avenue. Opportunities to connect this shared-use path across barriers should be evaluated to provide off-street access to the more vulnerable student



populations, namely the elementary school and middle school. Sidewalks along the corridor vary in width and condition, ranging between four feet and ten feet. Existing transit service along the corridor lacks service and connections west of Mary Avenue.

# DEVELOPMENT OF PREFERRED ALTERNATIVE

## Project Alternatives

Proposed improvements were identified to provide solutions to the corridor "hot spot" locations detailed in the Existing Conditions Report and were based on feedback received at Community Meeting #1 and stakeholder input. The initial recommendations are potential improvements that were considered and evaluated, but are not the final project recommendations. The following are the improvements proposed along the study corridor:

**1. Install sidewalk along Vineyard Drive between Deodara Drive and Foothill Expressway**
Currently, there are no pedestrian connections along Vineyard Drive that connect to Homestead Road. Improvement #1 proposes to install a sidewalk along the north/west side of Vineyard Drive between Deodara Drive and Foothill Expressway.

**2. Tighten curb radii at Foothill Expressway/Homestead Road**
Improvement #2 proposes to reduce the curb radii of the southwest, northwest, and northeast corner at the intersection of Foothill Expressway and Homestead Road. Reduced curb radii result in vehicles turning at slower speeds.

Foothill Expressway south of Homestead Road will be evaluated with a future study and funded by Measure B.

**3. Improve bicycle circulation at Homestead Road-Grant Road/Foothill Expressway Intersection**

**A. Provide bike left turn in median and bike crossing improvements**
Improvement #3A proposes to modify the existing median at the southbound Grant Road approach to provide a southbound left turn for bicyclists to access Improvement #4. Bicyclists would cross auto traffic using the existing Class III bike route where the bike lane drops north of the intersection.

**B. Widen Grant Road 5 feet to accommodate bike lane**
Improvement #3B proposed to widen Grant Road 5' to provide a bike lane all the way to the intersection of Homestead Road-Grant Road/Foothill Expressway. The median would be modified to provide a queueing area for bikes to access Improvement #4. Bicycle intersection crossing markings would be striping to connect between the proposed bike lane and Improvement #4.

**4. Upgrade sidewalk to shared-use path between Grant Road and El Sereno Avenue**
Improvement #4 proposes to extend the shared-use path to Grant Road. The existing shared-use path ends at El Sereno Avenue. Improvement #4, combined with improvement #3, will provide a way for bicyclists to navigate around the intersection of Homestead Road-Grant Road and Foothill Expressway. The existing bike lane would need to be removed to provide the proposed shared-use path.

**5. Homestead Road and El Sereno Avenue Intersection Improvements**
Improvement #5 proposes intersection improvements at Homestead Road and El Sereno Avenue-Chevron Driveway intersection to help better facilitate access and intersection visibility.



Several options are available depending on further community engagement and development opportunities. The following options are available:

A. **Provide a westbound left-turn lane in the existing median**
B. **Modify the El Sereno approach to be right-in and right-out only, but maintain the eastbound left-turn from Homestead Road to El Sereno Avenue**
C. **Modify or consolidate private driveways as development opportunities occur**

**6. Install stop signs and pavement markings at unsignalized intersections between El Sereno Avenue and Fallen Leaf Lane**

Improvement #6 proposes to add stop signs and STOP pavement markings at the six unsignalized intersection between El Sereno Avenue and Fallen Leaf Lane along the south side of Homestead Road. There is currently no traffic control at the existing driveways.

**7. Signalize Homestead Road/Fallen Leaf Lane**

Improvement #7 proposes to install a traffic signal at the intersection of Homestead Road and Fallen Leaf Lane. In addition, an exclusive pedestrian/bicycle phase was evaluated for pedestrians and bicyclists to cross Homestead Road. The exclusive phase would provide pedestrians and bicyclists traveling eastbound on the shared-use path on the north side of Homestead Road to transition to the eastbound on-street bicycle facility along the south side of Homestead Road which is a common movement for Homestead High School students.

**8. Widen existing shared-use path where ROW allows between El Sereno Avenue and Stevens Creek**

Improvement #8 proposes to widen the existing shared-use path between El Sereno Avenue and Stevens Creek. The path is currently 8' in existing conditions and there is available ROW to widen the shared-use path to provide a more comfortable facility for two-way traffic.

**9. Modify Stevens Creek bridge cross section and extend shared-use path**

Improvement #9 proposes to modify the Stevens Creek bridge cross section to connect the shared-use path across Stevens Creek. This improvement would require a reduction in lane width and relocating the existing curb.

**10. Install new sidewalk to close existing sidewalk gap west of Barranca Drive**

Improvement #10 proposes to install a sidewalk to close to the existing sidewalk gap between Stevens Creek and Barranca Drive along the southside of Homestead Road.

**11. Provide Multimodal Connection Across SR-85**

The project team developed two alternatives to provide a multimodal connection across SR-85.

A. **Repurpose a Westbound Lane between Belleville Way and Bernardo Avenue to a two-way cycle track**

Improvement #11A proposes to remove one of the westbound lanes along Homestead Road between Belleville Way and Bernardo Avenue. This would result in one westbound through lane at the intersection of Homestead Road/S Bernardo Avenue, at the intersection of Homestead Road/SB SR-85 off-ramp, and at the intersection of Homestead Road/Belleville Way. This improvement would allow for the installation of a two-way cycle track, or other enhanced bicycle facility, on the north side of Homestead Road between Belleville Way and S Bernardo Avenue.



**B. Upgrade Sidewalk to Shared-Use Path with Bike Lane Removal**

Improvement #11B proposes to upgrade the northern sidewalk across the SR-85 bridge to a shared-use path. To accommodate the new shared-use path, the bike lane would be removed; however, bicyclists would still be able to use the shared-use path. This improvement would allow for bidirectional flow of students biking or walking to Cupertino Middle School or Homestead High School on the north side of the SR-85 bridge.

### 12. No Right Turn on Red for Southbound Approach at Homestead Road/SB SR-85 Off-ramp

Improvement #12 proposes to restrict vehicles from making a right turn on red for the southbound right turn movement at the intersection of Homestead Road/SB SR-85 off-ramp.

### 13. Upgrade sidewalks to shared-use paths along Bernardo Avenue

Improvement #13 proposes to upgrade the existing sidewalks along Bernardo Avenue to shared-use paths. Along the west side of Bernardo Avenue, the proposed widening is between the existing crosswalk to CMS and the shared-use path behind the gas station. The lane widths would need to be reduced and the existing curb relocated to the east.

Along the east side of Bernardo Avenue, CMS verbally agreed to allow the widening to occur within their ROW, or to the east of the existing sidewalk. The chain-link fence would need to be relocated.

### 14. Provide a RRFB or PHB across Bernardo Avenue at the existing CMS crosswalk

Improvement #14 proposes to provide a rectangular rapid flash beacon (RRFB) or a pedestrian hybrid beacon (PHB) across Bernardo Avenue at the existing CMS crosswalk. The crosswalk is currently unprotected. The crosswalk is proposed to be upgraded to a high-visibility crosswalk.

### 15. Provide Eastbound Right Turn Lane at the Intersection of Homestead/Bernardo/SR-85 On Ramp and Remove Free Right Turn Condition

Improvement #15 will remove the existing eastbound free right turn condition and create an eastbound right turn pocket for 265 feet at the intersection of Homestead/Bernardo/SR-85 On Ramp. In existing conditions, vehicle queues from vehicles making the right turn onto NB SR-85 extend into the eastbound through lane, causing higher delays for the eastbound through traffic. With the addition of a 265-foot eastbound right turn lane, eastbound right turning vehicles will be provided with additional queuing storage and impacts to eastbound through traffic would be reduced.

In existing conditions, a crosswalk exists at the beginning of the free right turn lane with no signage to yield to pedestrians. This crosswalk creates a conflict zone between pedestrians/bicyclists and vehicles speeding up to get on the freeway. With the removal of the free eastbound right turn, vehicles would make the eastbound right turn at a controlled signal. In addition, the curb radius would be tighter, and consequently reduce the speed of vehicles making the eastbound right turn.

Near-term intersection improvements are currently being evaluated by the Caltrans SCL/85 & ALA/80 Project.

### 16. Provide Protected Northbound and Southbound Left Turns at Homestead Road/Wright Avenue

Improvement #16 proposes to add a protected northbound left turn lane and a protected southbound left turn lane at the intersection of Homestead Avenue/Wright Avenue and protected left-turn signal phasing. This would include restriping the northbound and southbound approaches



to each be a left turn lane and a shared through/right turn lane. In existing conditions, the north- and southbound approaches are striped as a right-turn only lane and shared left/through lane.

### 17. Upgrade sidewalk to shared-use path in front of Homestead High School

Improvement #17 proposes to widen the existing sidewalk between the middle HHS driveway and Kennewick Drive to a shared-use path. This would provide a way for bicyclists to access the bike lockers that are accessed via the middle HHS driveway.

### 18. Install bike ramp at southwest corner of Homestead Road/ Mary Avenue

Improvement #18 proposes to install a bike ramp at the southwest corner of Homestead Road and Mary Avenue south of Homestead Road. The VERBs grant did not include a solution for southbound bicyclists to access the bicycle-pedestrian bridge without interfering with pedestrians.

### 19. Provide Bicycle Boxes at Homestead Road/Hollenbeck Avenue/N. Stelling Road

Improvement #19 proposes to add bicycle boxes at the intersection of Homestead Road/Hollenbeck Avenue/N. Stelling Road. This will result in restricting vehicles from making a right turn on red for all approaches.

### 20. Typical corridor wide improvements

#### A. Provide bike intersection crossing markings

Bike intersections crossing markings organize bicyclists through intersections and provide a separate space from auto traffic. Typically, bicycle intersection crossing markings can green dashes or white transverse dashed lines.

#### B. Provide high-visibility crosswalks

High-visibility crosswalks increase visibility of crosswalks and improve compliance of vehicles yielding and stopping behind crosswalks. The ladder pattern was utilized for the study, but other high-visibility patterns may be used as well.

#### C. Provide green paint at bicycle conflict areas

Bicycle conflict areas are where bus stops or driveways area. Green dashes help highlight that the space is for bicycles.

#### D. Reduce Lane Widths to 11’ and install Class IV bike lanes where ROW allows

Class IV protected bike lanes help improve the comfort of bicycle facilities. Currently, the corridor only has Class II bike lanes or Class II buffered bike lanes. A vertical separation element must be provided within the buffer to upgrade to Class IV. Buffer types vary between flexi-posts, planters, rain gardens, concrete medians, and other types. No specific buffer type is proposed at this point of the project.

#### E. Upgrade curbs ramps to comply with ADA

There are several curb ramps that do not comply with ADA standards along the corridor. This improvement proposes to upgrade the curb ramps to comply with those standards.

#### F. Reduce curb radii where applicable

Reducing curb radii helps reduce vehicle speeds when turning. They also help reduce pedestrian crossing distances if a bulb-out is provided as well. There are some intersections along the corridor that

#### G. Coordinate Traffic Signals along Corridor

Coordinating the traffic signals along the corridor would provide an overall benefit to the corridor by reducing vehicle delay and the associated driver frustrations. Since the traffic signals are currently managed individually by the respective Partner Agencies and are of different controller types, full implementation of this improvement would require coordination



between the agencies to implement a common cycle length, time source, and/or communication across the corridor. The specifics of this improvement should be considered during the design phase. For the purpose of the analysis of this study, the corridor was coordinated based on using existing cycle lengths. The cycle lengths remained the same as existing cycle length, but the offsets and splits at individual intersections were optimized.

## Review of Project Alternatives

All alternatives were reviewed by the Partner Agencies, the County, and Kimley-Horn staff. After agency review, it was determined that Improvement #3A, Improvement #5, Improvement #11A, and Improvement #19 should not be included in the preferred alternative.

For Improvement #3A, the potential conflict of weaving vehicles and bicyclists to reach the median left-turn lane was discussed. Improvement #3B was determined to be the preferred alternative.

For Improvement #5, several alternatives were proposed but a preferred alternative could not be determined. The City of Los Altos should continue evaluating the options to determine the appropriate improvement. A westbound left-turn lane was proposed by the City of Los Altos, but the impacts of the left-turn were not evaluated with this study.

For Improvement #11A, the effects of reducing an auto travel lane were discussed. The improvement was analyzed using grown near-term volumes, but an in-depth future model forecast was not developed. The preferred option was determined to be the one that did not reduce auto travel lanes.

For Improvement #19, two-stage turn queue boxes were determined to not be a preferred alternative for the intersection. Two-stage turn queue boxes require no right turn on red restrictions at the intersection. The improvement was analyzed using grown near-term volumes and caused some additional delay at the intersection.

The improvements identified were modified to reflect the feedback provided and concept plans were developed for further feedback and analysis. The concept plans were presented at Community Meeting #2 for feedback. Public comments were collected, and the preferred alternative was refined based on community input. The comments are included in the Community Meeting #2 Summary in the **Appendix**.

The City of Los Altos provided additional recommendations beyond the scope and limits of this study that need to be further analyzed. These recommendations are noted on the concept plans. The recommendations provided that are beyond the scope of this study are:

- Install speed humps along Vineyard Drive
- Install all-way stop sign at Deodara Drive
- Install ped-activated flashing beacon at northbound approach of Foothill Expressway
- Extend shared-use path to Crist Drive
- Consider red crosswalk table at Grant Road/Homestead Road and northbound approach of Foothill Expressway



## Preferred Alternative

The preferred alternative concept plan is included in the **Appendix**. The preferred alternative achieves the study objectives of developing infrastructure recommendations that are feasible and implementable in the near-term. The recommended improvements aim to serve all ages and abilities and better connect the students of West Valley Elementary School, Cupertino Middle School, and Homestead High School. The concept plans were developed with coordination between the Partner Agencies and the community.

An opinion of probable cost was conducted for the preferred alternative. The cost was developed using recent bids for similar bike/pedestrian and Safe Routes to School projects within Santa Clara County. The Caltrans cost data book was also utilized to develop costs. Various soft costs were included in the unit price for each improvement. A contingency of 50% was applied to the total cost that are assumed to cover items not explored at the current stage of the project. The opinion of probable cost is included in the **Appendix**.

## Preferred Alternative Traffic Operations Analysis

A traffic operations analysis was completed for the AM, school PM, and PM peak hours for the preferred alternative. The analysis evaluated each study intersection along the project corridor using Synchro traffic model software. The model analyses are based on the Highway Capacity Manual (HCM) methodology. It should be noted that the Santa Clara Valley Transportation Authority (VTA), which provides the overall standards and methodologies for traffic operations in Santa Clara County, uses the HCM 2000 methodology, and not the latest HCM 6$^{th}$ Edition methodology. The following sections summarize the model development process, the Level of Service (LOS) methodology, and the results of the intersection analysis.

One model was developed that included each improvement listed above to determine the potential impacts on the corridor. Near-term signal cycle lengths for AM, school PM, and PM peak hours were assumed to be the same as existing cycle lengths. Near-term volumes assumed a growth of 1.5 percent annually over five (5) years from the existing condition to the auto and pedestrian/bicycle volumes and were used for all analyses of the proposed improvements. The near-term volumes were analyzed using the existing geometry of the corridor and with the preferred alternative

## Preferred Alternative Level of Service (LOS) Results

Traffic operations were evaluated at the study intersections under the near-term preferred alternative traffic conditions. Results of the analysis are presented in **Table 5**. **Table 5** lists the LOS criteria, jurisdiction, intersection control, LOS, and delay for each intersection. The following intersections operate at an unacceptable LOS in the near-term no build and near-term preferred alternative traffic conditions:

- Homestead Road / Grant Road – operates at LOS F in the PM peak hour for the worst approach
- Homestead Road / Fallen Leaf Lane – operates at LOS C or better in all peak hours
- Homestead Road / Mary Avenue – operates at LOS F in the AM peak hour
- Homestead Road / Hollenbeck Avenue – operates at LOS E in the PM peak hour

Analysis sheets are provided in the **Appendix**.



### Homestead Road and Grant Road

The intersection of Homestead Road and Grant Road operates at LOS F in the PM peak hour for the worst approach. As noted in the existing conditions analysis, this intersection is a side-street stop-controlled intersection with a stop sign on the southbound approach on Grant Road and is in close proximity to the signalized intersection of Homestead Road and Foothill Expressway. No improvements are recommended to improve the auto capacity of this intersection.



**Table 5: Preferred Alternative Intersection Level of Service (LOS) Summary**

| # | Intersection | Criteria | Jurisdiction | Control[1] | Near-Term No Build | | | | | | Near-Term Preferred Alternative | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | AM Peak Hour | | School PM Peak Hour | | PM Peak Hour | | AM Peak Hour | | | School PM Peak Hour | | | PM Peak Hour | | |
| | | | | | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | Δ Delay (sec) | LOS | Delay (sec) | Δ Delay (sec) | LOS | Delay (sec) | Δ Delay (sec) |
| 1 | Homestead Road/Foothill Expressway | E | County | Signal | D | 50.8 | C | 33.8 | C | 35.0 | D | 50.8 | 0 | C | 33.8 | 0 | C | 35.0 | 0 |
| 2 | Homestead Road/Grant Road | D | Los Altos | SSSC | A | 1.5 | A | 2.1 | A | 5.1 | B | 1.7 | 0.2 | A | 2.1 | 0 | B | 5.3 | 0.2 |
| | Worst Approach | | | | C | 21.3 | C | 18.0 | **F** | **60.6** | D | 25.0 | 3.7 | C | 18.1 | 0.1 | **F** | **63.1** | **2.5** |
| 3 | Homestead Road/Fallen Leaf Lane | D | Los Altos | SSSC/ Signal[2] | **F** | **69.7** | A | 3.7 | A | 2.0 | C | 21.8 | - | B | 16.5 | - | B | 17.4 | - |
| | Worst Approach | | | | **F** | **OVRFL** | **F** | **58.9** | D | 34.3 | | | | | | | | | |
| 4 | Homestead Road/Belleville Way | D | Sunnyvale | Signal | B | 15.4 | B | 15.5 | B | 16.3 | B | 14.6 | -0.8 | B | 13.4 | -2.1 | B | 11.4 | -4.9 |
| 5 | Homestead Road/Maxine Ave-SR 85 SB Off-ramp | E | Sunnyvale/Caltrans | Signal | B | 18.3 | B | 16.6 | C | 33.2 | B | 19.6 | 1.3 | B | 13.8 | -2.8 | C | 30.6 | -2.6 |
| 6 | Homestead Road/S Bernardo Ave-SR 85 NB Off-ramp | E | Sunnyvale/Caltrans | Signal | C | 28.1 | B | 15.8 | B | 19.3 | C | 20.2 | -7.9 | B | 14.4 | -1.4 | B | 15.9 | -3.4 |
| 7 | Homestead Road/Wright Avenue | D | Sunnyvale | Signal | C | 27.7 | B | 14.9 | B | 14.2 | C | 23.9 | -3.8 | B | 18.5 | 3.6 | B | 11.1 | -3.1 |
| 8 | Homestead Road/Mary Avenue | D | Sunnyvale | Signal | **F** | **102.6** | D | 43.2 | C | 33.0 | **F** | **97.2** | **-5.4** | D | 37.1 | -6.1 | D | 35.6 | 2.6 |
| 9 | Homestead Road/Kennewick Drive | D | Sunnyvale | Signal | C | 23.7 | B | 15.2 | B | 13.6 | C | 22.8 | -0.9 | B | 16.4 | 1.2 | B | 10.2 | -3.4 |
| 10 | Homestead Road/Hollenbeck Avenue | D | Sunnyvale | Signal | **E** | **59.5** | D | 53.3 | **E** | **71.0** | D | 53.2 | -6.3 | D | 44.3 | -9 | **E** | **62.5** | **-8.5** |

Notes: OVRFL = overflow conditions where the delay exceeds 400 seconds

[1]Intersection Control: Signal or Side-street Stop-control (SSSC)

[2]Intersection #3 operates as a Side-street Stop-control (SSSC) in the Existing condition and as a Signal with Preferred Alternative



### Homestead Road and Fallen Leaf Lane

Without signalization, the intersection of Homestead Road and Fallen Leaf Lane operates at LOS F in the AM peak hour and the school PM peak hour for the worst approach. This intersection is a side-street stop-controlled intersection with a stop sign on the southbound and northbound approaches and the eastbound and westbound approaches are uncontrolled. A traffic signal is recommended as part of the preferred alternative which will improve the capacity of the intersection. The intersection operates at LOS C or better with signalization. The traffic signal would be coordinated with the other traffic signals along the corridor.

### Homestead Road and Mary Avenue

The intersection of Homestead Road and Mary Avenue operates at LOS F in the AM peak hour in the no-build and preferred alternative scenario. This intersection has a high number of pedestrians and bicyclists traversing the intersection, in addition to the number of vehicles. The coordination of the traffic signals along the corridor help improve operations slightly, but no other improvements are recommended to improve the auto capacity of this intersection.

### Homestead Road and Hollenbeck Avenue

The intersection of Homestead Road and Hollenbeck Avenue operates at LOS E in the AM and PM peak hour. This intersection has a high number of vehicles for the left turn movements that conflict with the opposing through movements. The coordination of the traffic signals along the corridor help improve operations slightly, but no other improvements are recommended to improve the auto capacity of this intersection.

### Coordination of Traffic Signals along Corridor

The traffic signals along the corridor were coordinated based on the existing cycle lengths for each peak period analyzed. Since the traffic signals are currently managed individually by the respective Partner Agencies and are of different controller types, full implementation of this improvement would require coordination between the agencies to implement a common cycle length, time source, and/or communication across the corridor. For the purpose of the analysis of this study, the corridor was coordinated based on using existing cycle lengths. The cycle lengths remained the same as existing cycle lengths, but the offsets and the splits at individual intersections were optimized, resulting in improved operations at some locations. The specifics of this improvement should be considered during the design phase. It is assumed that the full implementation of this improvement would reduce the travel time along the corridor.

# FUNDING & NEXT STEPS

## Funding Sources

### Measure B

Measure B is a potential funding source provided by VTA. Measure B proposed a 0.5% sales tax to help fund projects that include, but are not limited to, bicycle and pedestrian safety improvements. Measure B will give priority to projects that connect to schools and make walking or biking a safer and more convenient means of transportation for all county residents and visitors.

In the Measure B ballot, Attachment A through D list out the potential projects that are eligible for Measure B funding. The Homestead Road Safe Routes to School Project is eligible for Measure B funding because this project is in the Santa Clara Countywide Bike Plan outlined in Attachment A of the Measure B ballot.

As of this report, no applications are being accepted; however, it is anticipated that a call for projects will go out in Winter 2019/2020. More information about Measure B funding can be found at: http://www.vta.org/measure-b-2016



### Active Transportation Program (ATP)

The Active Transportation Program (ATP) is funding provided by Caltrans to encourage increased use of active modes of transportation. Goals of the ATP include, but are not limited to:

- Increase the proportion of trips accomplished by walking and biking,
- Increase safety and mobility for non-motorized users,
- And provide a broad spectrum of projects to benefit many types of active transportation

The 2019 ATP Cycle 5 call for projects is anticipated announced in the Spring of 2020. Cycle 5 is expected to include about $440 million in ATP funding made up of Federal funding, State SB1 and State Highway Account funding. More information about ATP funding can be found at: http://www.dot.ca.gov/hq/LocalPrograms/atp/

### Sustainable Communities Grants

The Sustainable Communities Grants is a funding source provided by Caltrans. The purpose of this funding source is to encourage local and regional planning that furthers state goals including practices provided in the Regional Transportation Plan (RTP). This funding source provided a total of $29.5 million to eligible projects.

The application deadline for the Sustainable Communities Grants ended in November 2018 and another call for projects has not be announced. More information about the Sustainable Communities Grants can be found at: http://www.dot.ca.gov/hq/tpp/grants.html

### One Bay Area Grants (OBAG)

The One Bay Area Grant program (OBAG) is a grant that was established in 2012 to use federal funds for bicycle and pedestrian improvements or Safe Routes to School Programs. Project applications for the second round of OBAG (OBAG 2) was completed in August 2017 and would provide a total of $386 million to eligible projects over 5 years.

The third round of OBAG funding has not been announced. More information about OBAG funding can be found at:

https://mtc.ca.gov/our-work/fund-invest/investment-strategies-commitments/focused-growth/one-bay-area-grants

## Next Steps

The next steps for the Homestead Road Safe Routes to School Project are to apply for grant funding based on the funding sources identified. It is intended that the Partner Agencies will jointly apply for grant funding. A ‘project champion’ from each agency should be appointed.

The construction and implementation timeline is unknown. It is not guaranteed that grant funding can be secured. If grant funding is not secured, other means of funding should be explored by the Partner Agencies.



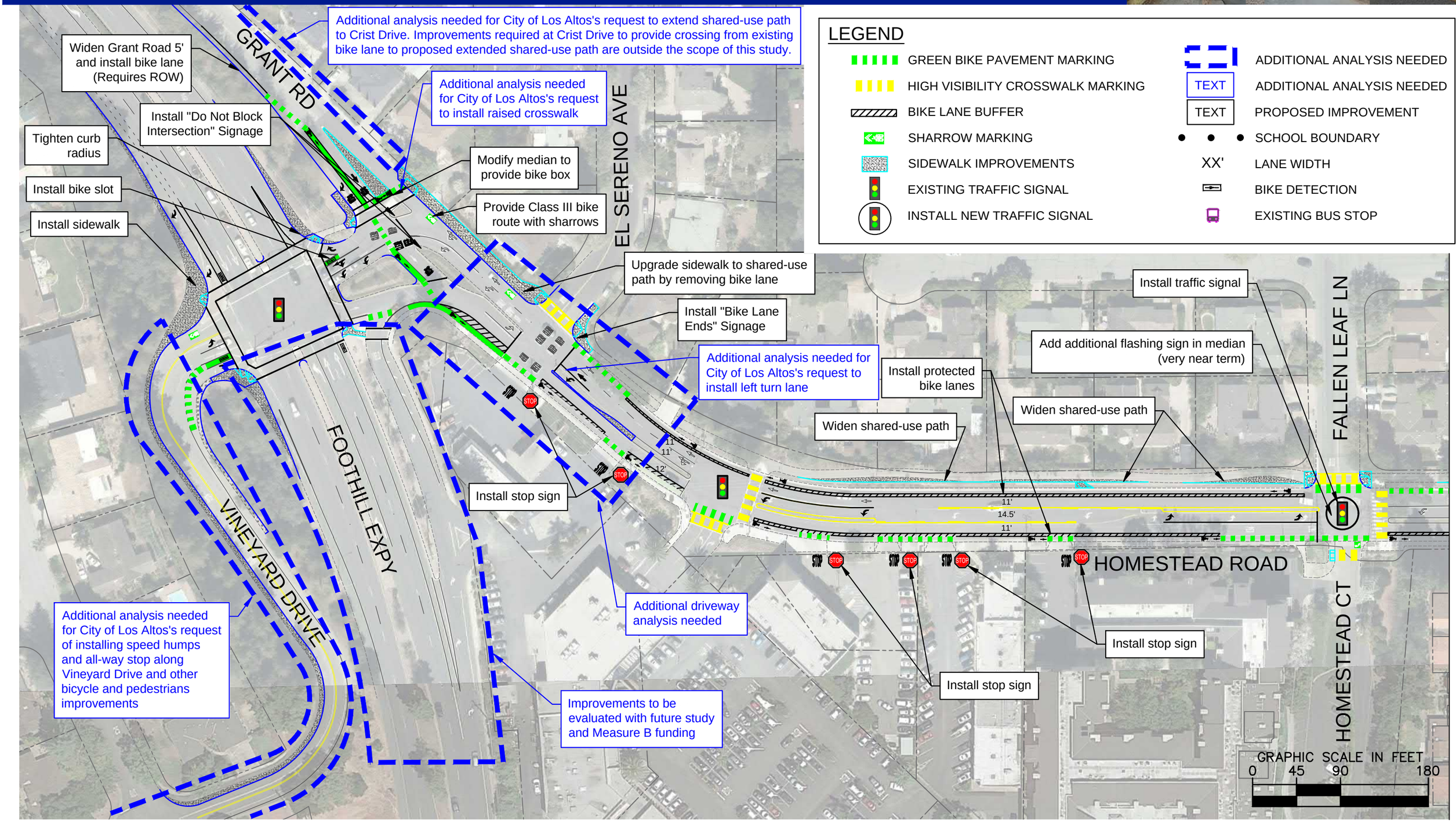
# APPENDIX

A. Preferred Alternative Concept Plan
B. Opinion of Probable Cost
C. Community Meeting #1 Summary
D. Community Meeting #2 Summary
E. Collected Traffic Count Data
F. Synchro Worksheets



# A. Preferred Alternative Concept Plan

# Homestead Road Safe Routes to School




## LEGEND

- GREEN BIKE PAVEMENT MARKING
- HIGH VISIBILITY CROSSWALK MARKING
- BIKE LANE BUFFER
- SHARROW MARKING
- SIDEWALK IMPROVEMENTS
- EXISTING TRAFFIC SIGNAL
- INSTALL NEW TRAFFIC SIGNAL
- ADDITIONAL ANALYSIS NEEDED
- TEXT — ADDITIONAL ANALYSIS NEEDED
- TEXT — PROPOSED IMPROVEMENT
- SCHOOL BOUNDARY
- XX' — LANE WIDTH
- BIKE DETECTION
- EXISTING BUS STOP

SEE SHEET 2

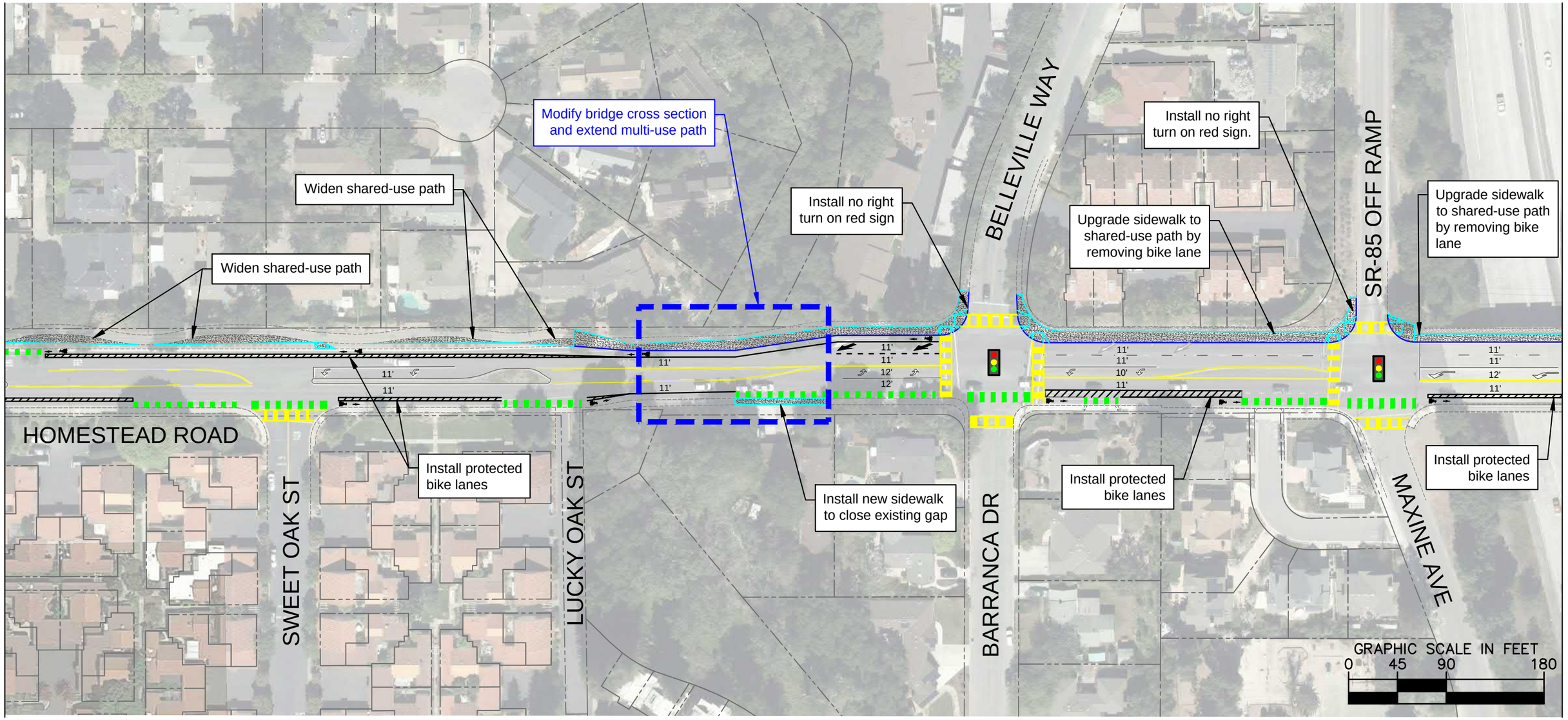


Caltrans · Valley Transportation Authority · Sunnyvale · Cupertino · Kimley»Horn

# Homestead Road Safe Routes to School

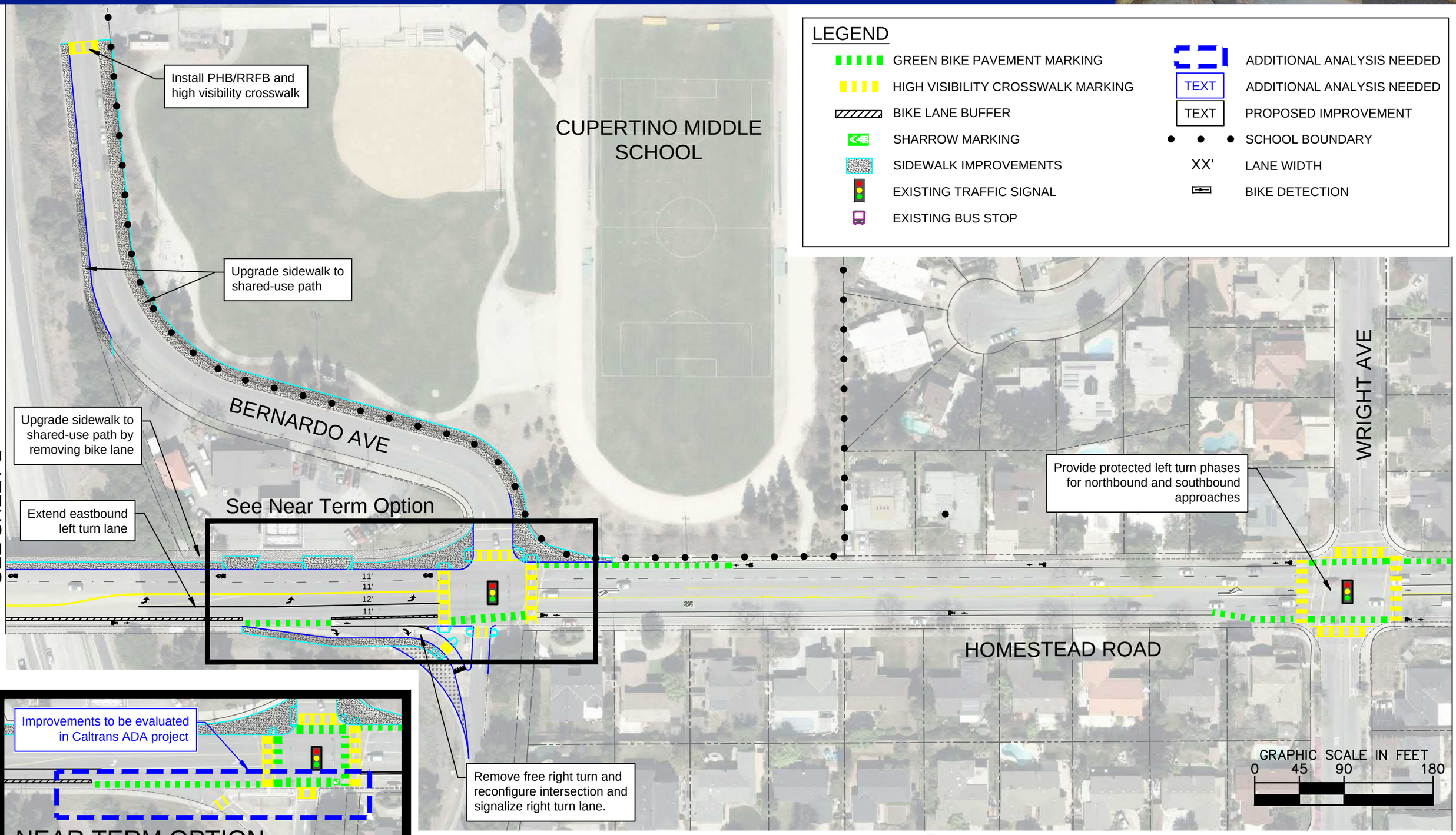
## LEGEND

- GREEN BIKE PAVEMENT MARKING
- HIGH VISIBILITY CROSSWALK MARKING
- BIKE LANE BUFFER
- SHARROW MARKING
- SIDEWALK IMPROVEMENTS
- EXISTING TRAFFIC SIGNAL
- BIKE DETECTION
- SCHOOL BOUNDARY
- EXISTING BUS STOP
- ADDITIONAL ANALYSIS NEEDED
- TEXT — ADDITIONAL ANALYSIS NEEDED
- TEXT — PROPOSED IMPROVEMENT
- XX' — LANE WIDTH




Proposed Improvements 2 of 6

# Homestead Road Safe Routes to School




## LEGEND

- GREEN BIKE PAVEMENT MARKING
- HIGH VISIBILITY CROSSWALK MARKING
- BIKE LANE BUFFER
- SHARROW MARKING
- SIDEWALK IMPROVEMENTS
- EXISTING TRAFFIC SIGNAL
- EXISTING BUS STOP
- ADDITIONAL ANALYSIS NEEDED
- TEXT — ADDITIONAL ANALYSIS NEEDED
- TEXT — PROPOSED IMPROVEMENT
- SCHOOL BOUNDARY
- XX' — LANE WIDTH
- BIKE DETECTION




Proposed Improvements 3 of 6

Caltrans · Valley Transportation Authority · Sunnyvale · Cupertino · Kimley»Horn

# Homestead Road Safe Routes to School

## LEGEND

- GREEN BIKE PAVEMENT MARKING
- HIGH VISIBILITY CROSSWALK MARKING
- BIKE LANE BUFFER
- SHARROW MARKING
- SIDEWALK IMPROVEMENTS
- EXISTING TRAFFIC SIGNAL
- BIKE DETECTION
- SCHOOL BOUNDARY
- EXISTING BUS STOP
- ADDITIONAL ANALYSIS NEEDED
- TEXT — ADDITIONAL ANALYSIS NEEDED
- TEXT — PROPOSED IMPROVEMENT
- XX' — LANE WIDTH

SEE SHEET 3

SEE SHEET 5

HOMESTEAD ROAD

SAMEDRA ST

MARY AVE

KIMBERLEY DR

MACKENZIE DR

HOMESTEAD HIGH SCHOOL

10'
10'
10'
11'
12.5'

11'
11'

Provide protected left-turn phases for the northbound and southbound approaches. Install high visibility crosswalks (VERBs Grant)

Widen sidewalk

Install protected bike lane

Tighten curb radius to allow for shorter crosswalks (VERBs Grant)

Install bike ramp

Install protected bike lane

GRAPHIC SCALE IN FEET
0 45 90 180

# Homestead Road Safe Routes to School

## LEGEND

- GREEN BIKE PAVEMENT MARKING
- HIGH VISIBILITY CROSSWALK MARKING
- BIKE LANE BUFFER
- SHARROW MARKING
- SIDEWALK IMPROVEMENTS
- EXISTING TRAFFIC SIGNAL
- BIKE DETECTION
- SCHOOL BOUNDARY
- EXISTING BUS STOP
- ADDITIONAL ANALYSIS NEEDED
- TEXT — ADDITIONAL ANALYSIS NEEDED
- TEXT — PROPOSED IMPROVEMENT
- XX' — LANE WIDTH

SEE SHEET 4

SEE SHEET 6

KENNEWICK DR

HOMESTEAD ROAD

11'

11'

Install protected bike lane

Modify driveway to allow for in and out circulation (VERBs Grant)

Upgrade sidewalk to shared-use path

Modify traffic signal to allow for in and out circulation. Install high visibility crosswalks. (VERBs Grant)

HOMESTEAD HIGH SCHOOL

GRAPHIC SCALE IN FEET
0 45 90 180

Proposed Improvements 5 of 6

Caltrans · Valley Transportation Authority · Sunnyvale · Cupertino · Kimley»Horn

# Homestead Road Safe Routes to School

## LEGEND

- GREEN BIKE PAVEMENT MARKING
- HIGH VISIBILITY CROSSWALK MARKING
- BIKE LANE BUFFER
- SHARROW MARKING
- SIDEWALK IMPROVEMENTS
- EXISTING TRAFFIC SIGNAL
- BIKE DETECTION
- SCHOOL BOUNDARY
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- ADDITIONAL ANALYSIS NEEDED
- TEXT — ADDITIONAL ANALYSIS NEEDED
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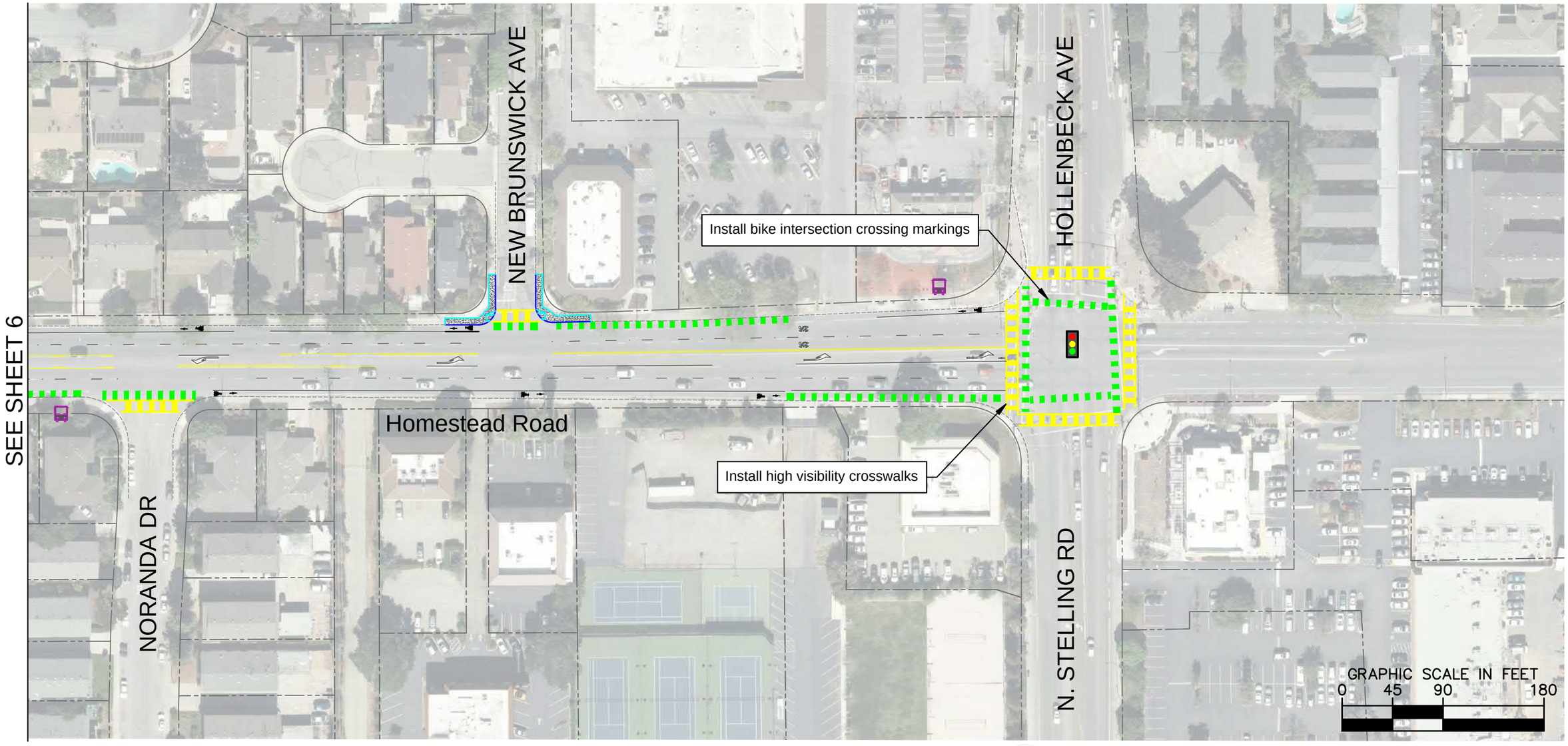


Proposed Improvements 6 of 6

Caltrans · Valley Transportation Authority · Sunnyvale · Cupertino · Kimley»Horn



# B. Opinion of Probable Cost

**Opinion of Probable Cost**
**for**
**Homestead Road Safe Routes to School Improvements**

**Prepared By: Kimley-Horn** **Date: May 2019**

| # | DESCRIPTION | QUANTITY | UNIT | COST / UNIT | TOTAL COST |
|---|---|---|---|---|---|
| 1 | Install Flashing Sign and Post at Homestead Road/Fallen Leaf Lane (very near term) | 1 | EA | $ 10,000 | $10,000 |
| 2 | Install Thermoplastic Pavement Marking | 167 | EA | $ 140 | $23,380 |
| 3 | Install Green Thermoplastic Pavement Marking | 29,500 | SF | $ 14 | $407,100 |
| 4 | Install Thermoplastic Striping | 200,500 | LF | $ 3 | $553,380 |
| 5 | Install Concrete Sidewalk | 56,000 | SF | $ 55 | $3,091,200 |
| 6 | Install Concrete Curb and Reconstruct AC Pavement | 6,500 | LF | $ 210 | $1,365,000 |
| 7 | Install Traffic Signal at Homestead Road/Fallen Leaf Lane | 1 | EA | $ 700,000 | $700,000 |
| 8 | Install Sign and Post | 8 | EA | $ 1,200 | $9,600 |
| 9 | Install Curb Access Ramps | 44 | EA | $ 14,000 | $616,000 |
| 10 | Modify Traffic Signal (Bernardo Avenue, Wright Avenue) | 2 | EA | $ 200,000 | $400,000 |
| 11 | Install RRFB at CMS | 1 | EA | $ 42,000 | $42,000 |
| 12 | Install Chainlink Fence | 1,200 | LF | $ 140 | $168,000 |
| | | | | **Total** | **$7,385,660** |
| | | **Total Cost with Contingency (50%)** | | | **$11,078,490** |

**Notes:**

1. The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.
2. This OPC was prepared without City review and approval, and as such, may be subject to change during the City permitting process(es).
3. Underground non-pavement utilities such as, but not limited to, water, sanitary sewer, and gas are assumed to be at an adequate depth.
4. Miscellaneous soft costs were applied individually to each project line item above. Soft costs were assumed to be 4% Admin, 4% Environmental, 15%
5. Projects listed as line items above do not include any contingency as a factor for the cost. Contingency was only applied towards the Construction/Engineering for the project as a whole.
6. The assumed contingency assumes to cover items not explored at the current stage. Items include but are not limited to:
   - Unknown improvements needed as part of the project (such as drainage improvements, pavement failure repair, landscaping/irrigation replacement, restriping, impacts to lighting/electrical, utility relocations that are not under franchise)
   - More costly approach to the design/construction of the improvements than anticipated
   - Environmental unknowns (contaminated soil, regulatory-required mitigations, high groundwater)
   - Unscoped right-of-way acquisition, including temporary permits
   - Federalizing the project and the additional costs of performing NEPA, coordinating with Caltrans
7. Cost shown is based on 2019 dollars.



# C. Community Meeting #1 Summary

# Homestead Road Safe Routes to School Study
## Community Meeting #1 Summary

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The County of Santa Clara hosted a community meeting on November 26, 2018, from 6:00-8:00PM to discuss and present a recently underway study to improve mobility to three schools that exist along the Homestead Road corridor between Grant Road and N. Stelling Road/Hollenbeck Avenue. The three schools that are within the study are West Valley Elementary School, Cupertino Middle School, and Homestead High School. The meeting was held at the Homestead High School Auditorium.

Approximately sixty-two (62) community members attended the meeting. The County of Santa Clara was represented by Santa Clara District 5 Supervisor Joe Simitian, Kristine Zanardi, Ananth Prasad, and Thien Pham. Representatives from all partner agencies were present.

The Project Team was represented by Ananth Prasad (County of Santa Clara), Thien Pham (County of Santa Clara), Adam Dankberg (Kimley-Horn), Brian Sowers (Kimley-Horn), Dennis Kearney (Kimley-Horn), Tyler Wacker (Kimley-Horn), and Anthony Nuti (Kimley-Horn).

This was the first community outreach meeting with members of the public for the Homestead Road Safe Routes to School Study. The purpose of the meeting was to introduce the scope of the study and provide a study schedule and process; present existing conditions observed through data collection and field observations; and receive community feedback on existing issues and priorities for the corridor.

The meeting started just past 6:00PM and included an introduction by Santa Clara District 5 Supervisor Joe Simitian. Adam Dankberg, the Kimley-Horn project manager, then explained the purpose and objectives of the Study and used a PowerPoint presentation to explain existing conditions. In addition, the Project Manager covered the schedule for the Study and opportunities for additional input from the public including future meetings and a project email. The meeting included a ‘Question and Answer’ portion where there was an opportunity for many questions from the public to be answered by the Project Team.

The second half of the meeting was an open house format and attendees were asked to go to two stations to give input on where they live, how they use the Homestead Road corridor, what modes of transportation they primarily use on the corridor, what school they are affiliated with, and to mark on a map where hot spots and problematic conditions exist. Attendees were free to leave the meeting whenever they chose during the open house session. The meeting ended at 8:00PM and the information received from Community Meeting #1 is documented below.

Homestead Road Safe Routes to School Study
Community Meeting #1 Summary

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During the 'Question and Answer' portion of the meeting, many questions, suggestions, and opinions were offered to the staff and project team. The questions and responses offered during the meeting are captured below in the order they were given at the meeting.

| Feedback/Question | Response |
|---|---|
| Will the project look at N/S connections from N. Stelling Road/Hollenbeck Avenue to Homestead Road? | Yes, improvements that help users access Homestead Road from N. Stelling Road/Hollenbeck Avenue will be considered. |
| How does your work involve all jurisdictions? | Representatives from each agency involved in process. The recommendations of the study will be vetted by the jurisdictions. The study may end up a multiagency grant application(s). |
| Is the hospital included in the study? | No. The hospital is not a part of the study. |
| There has been a lot of work done on the corridor, including the Stevens Creek Trail Study. | Comment noted. |
| The study should think about how the kids will bike or walk through the corridor. | Comment noted. |
| The study should look at changing transit service to serve the corridor. | Comment noted. |
| Will this be a "24-hour" study? Will is cover outside school hours? | Yes. The study will look at improvements for all bicyclists and all modes. |
| How is the project team getting the word for public outreach? | The project team is utilizing existing channels established by the different jurisdictions and interested attendees can sign up for updates on the project website. |
| At Homestead High School, administrators send out to various groups via NextDoor, email, via schools, etc. | Commented noted. |
| Improvements need to be compliant with the California Complete Streets Act and other agency policies. | Comment noted. |
| What kind of projects has the team done and what are some improvements? | The team will work closely together to come up with recommendations that are vetted by all the agencies involved. |
| If the goal is to get grants, will be picking projects that are suitable to the corridor? | We want to make sure we are identifying solutions that improve the corridor (i.e. better separation of modes and better visibility at conflict zones). |



Homestead Road Safe Routes to School Study
Community Meeting #1 Summary

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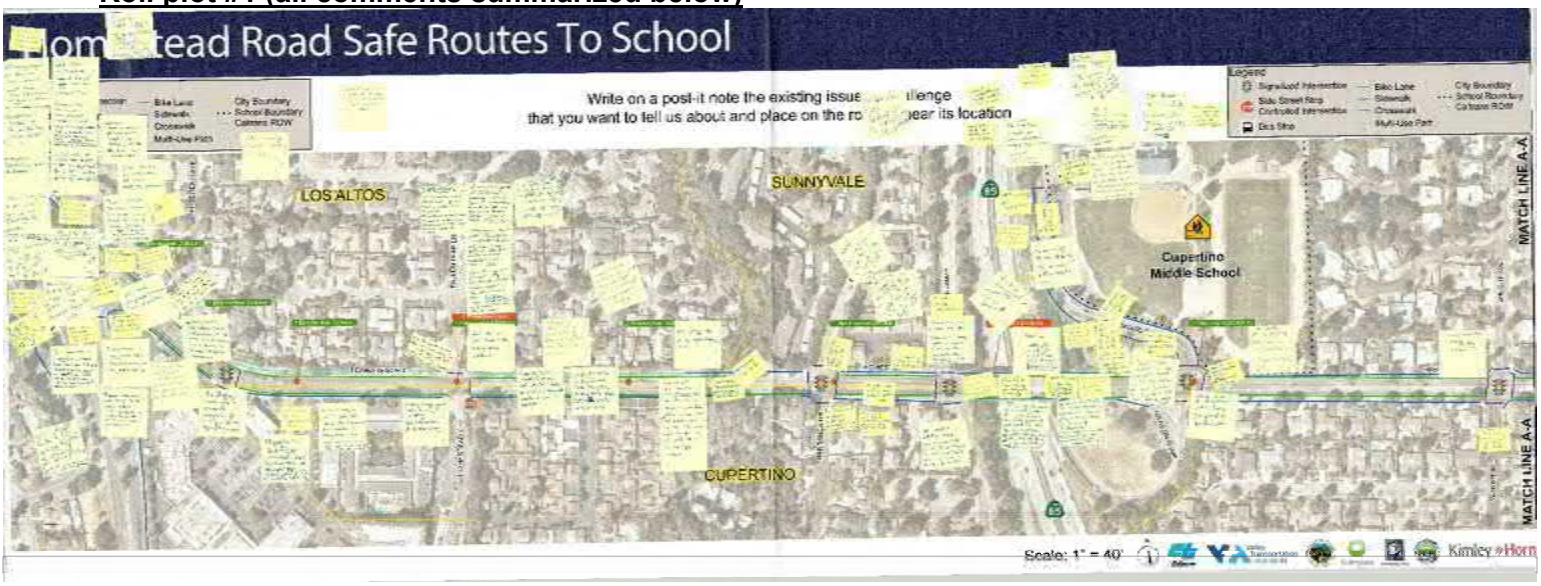
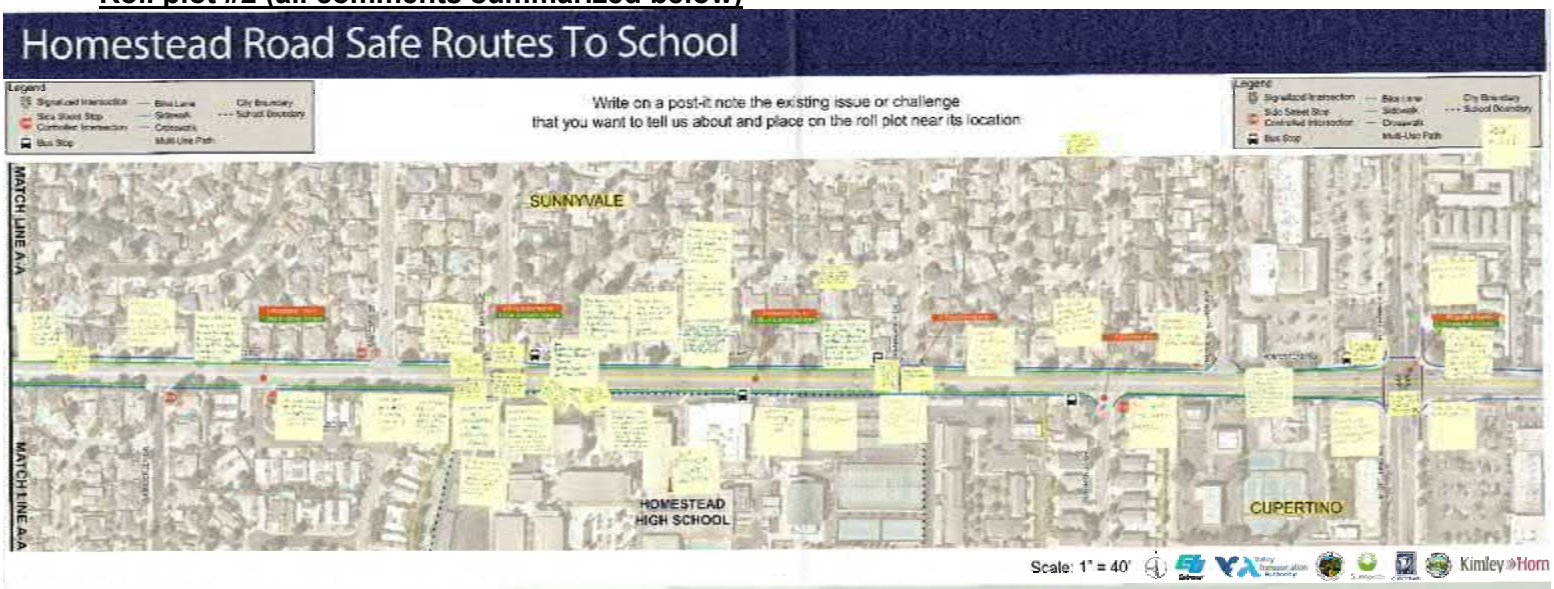
The following maps display the results of the meeting.

**Roll plot #1 (all comments summarized below)**




**Roll plot #2 (all comments summarized below)**



Homestead Road Safe Routes to School Study
Community Meeting #1 Summary

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**Mode of Transportation**


**Neighborhood Map**

Homestead Road Safe Routes to School Study
Community Meeting #1 Summary

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The following table summarizes the feedback received at Community Meeting #1 via the open house or comment card. Feedback that was emailed to the project email after the meeting are also included.

| Number | Homestead Road Safe Routes to School<br>Public Feedback received from Community Meeting #1 and Project Email |
|---|---|
| Feedback Received at Community Meeting #1, November 26, 2018 | |
| Foothill Road at Homestead Road | |
| 1 | Lack of safety for kids crossing Foothill Expressway to Homestead Road |
| 2 | Bike lane needed for either Vineyard Drive or Foothill Expressway |
| 3 | Bike path needed near Vineyard Drive |
| 4 | Bumpers needed on Vineyard Drive |
| 5 | Signal timing at Foothill Expressway needs work |
| 6 | Intersection lacks ADA ramps |
| 7 | Two crosswalks needed to cross Foothill Expressway for to and from school movements |
| Grant at Homestead Road | |
| 8 | Intersection is dangerous for bikes/cars |
| 9 | Kids bike on wrong side of the road |
| 10 | There is speeding on Grant Road |
| 11 | Difficult for kids cross from Grant Road to multiuse path |
| 12 | Additional lane needed for people turning right from Foothill Expressway |
| 13 | Non-continuous bike lanes results in dangerous crossings for bicyclists |
| El Sereno Avenue at Homestead Road | |
| 14 | Bikes turning left to enter bike lane from wrong side of road while cars also entering and exiting |
| Grant Road at Foothill Crossing exit | |
| 15 | Intersection is dangerous for bikes. Needs major redesign |
| Homestead Road at Fallen Leaf Lane/Homestead Court | |
| 16 | Kids bike on wrong side of the road |
| 17 | Interaction of two-way path and turning vehicles is dangerous |
| 18 | Sun glare impairs drivers from seeing pedestrians |
| 19 | Crossing guard needed |
| Homestead Road between Fallen Leaf Lane and Barranca Drive | |
| 20 | Kids do not follow rules |
| 21 | Multiuse path not safe/too narrow |
| 22 | No ramps to multiuse path |
| 23 | Multiuse path ends abruptly |

Homestead Road Safe Routes to School Study
Community Meeting #1 Summary

| | |
|---|---|
| Homestead Road at Barranca Drive/Belleville Way | |
| 24 | Sidewalk too narrow for morning pedestrian and bike traffic |
| 25 | Signal timing needs work |
| 26 | Need keep intersection clear sign |
| Homestead Road between Barranca Drive and SR-85 off-ramp/Maxine Avenue | |
| 27 | Signal timing needs work |
| Homestead Road at SR-85 off-ramp/Maxine Avenue | |
| 28 | Bicyclist bike on wrong side of the road |
| 29 | Two-way off-street bike path needed |
| 30 | Consider no right-turn off SR-85 off-ramp |
| 31 | Students cross against red light |
| 32 | Multiuse path needs to connect to the gas station path |
| 33 | Crossing guard needed |
| Homestead Road between SR-85 and Bernardo Avenue | |
| 34 | Kids bike on wrong side of the road |
| 35 | Allow kids to bike wrong way over overpass in morning |
| 36 | Make sidewalk wider |
| 37 | Remove painted island to increase left-turn pocket to Bernardo |
| Homestead Road at Bernardo Avenue | |
| 38 | No ramp from gas station path to Homestead Road |
| 39 | Cars go through gas station to bypass left-turn |
| 40 | Signal timing needs work |
| 41 | Cars don't stop at intersection and is dangerous for bikes |
| 42 | License plate readers needed at intersection |
| 43 | Parents park at gas station to pick-up students |
| 44 | Homeless encampment on pedestrian path is scary for kids |
| Bernardo Avenue at Cupertino Middle School | |
| 45 | Bikes in danger of cars |
| 46 | Little visibility for crosswalk near school |
| 47 | No clear way to get from bike cages to Bernardo Avenue |
| 48 | Kids ride on sidewalk making it very congested with pedestrians |
| 49 | Parents park in school lot for pickup times, interact with school kid exiting |
| 50 | No bike lanes on Bernardo Ave |
| Homestead Road between Bernardo Avenue and Wright Avenue | |
| 51 | No parking anytime in the bike lane needed on north side of Homestead Road |
| Homestead Road at Wright Avenue | |
| 52 | Cars turning left from Wright do not yield to cross traffic |

Homestead Road Safe Routes to School Study
Community Meeting #1 Summary

| | |
|---|---|
| 53 | Crossing guards are not effective |
| Homestead Road between Wright Avenue and Mary Avenue | |
| 54 | Hazards from either the trash or parked cars |
| 55 | Install bollards at intersections to separate cars and bikes |
| Homestead Road at Mary Avenue | |
| 56 | Signal timing needs to be improved for all modes |
| 57 | Cars turn right without stopping |
| 58 | Consider pedestrian scramble |
| 59 | Cars queue along Homestead Road waiting to get into the Horseshoe |
| 60 | Close the Horseshoe to drop-of and pick-up |
| Homestead Road between Mary Avenue and Kennewick Drive | |
| 61 | People turn left into Horseshoe from left-turn lane |
| 62 | Separate cars from bikes near the Horseshoe and add dedicated drop-off zones |
| 63 | Left turn out of west driveway of student parking is difficult |
| 64 | Students park on Louise Road |
| 65 | Evaluate more crossing guards |
| 66 | Evening and weekend parking should be allowed |
| 67 | 6pm is too early to allow parking |
| 68 | Parked cars make it unsafe to bike |
| 69 | Homestead needs full-time bike lanes |
| Homestead Road at Kennewick Drive | |
| 70 | Signal timing needs work |
| 71 | Consider pedestrian scramble |
| 72 | Student driveway is difficult to get in and out of |
| Homestead Road between Kennewick Drive and N. Stelling Road/Hollenbeck Avenue | |
| 73 | Separate cars from bikes |
| 74 | Make bike lanes full-time |
| 75 | Consider road diet |
| 76 | Vehicles parked in bike lane before 6pm |
| 77 | Consider mid-block crosswalk and HAWK at Noranda Drive |
| 78 | Students walk in bike lane during lunch |
| Homestead Road at N. Stelling Road/Hollenbeck Avenue | |
| 79 | Fix bike lane width at northwest corner. Too narrow |
| 80 | Westbound bike lanes should be wider |
| 81 | Street markings and signs should prevent right hook conflicts |
| 82 | Mark bike lanes across intersection |
| 83 | Consider bike boxes at 4 corners |

Homestead Road Safe Routes to School Study
Community Meeting #1 Summary

| | |
|---|---|
| 84 | Bike lanes on Hollenbeck should extend to intersection |
| General feedback | |
| 85 | There are 3 schools that start at the same time (8 am) which compounds the traffic congestion and makes it less safe for biking |
| 86 | Outreach should be to all residents. This group is not representative of all. |
| 87 | Look at cut-through traffic from Montclaire to the NW of Homestead Road |
| 88 | Please go back and revisit the effectiveness of previous traffic calming road changes. Did they improve anything? |
| 89 | Assuming that pedestrians and cyclists can share the Homestead Road corridor is not plausible |
| 90 | We drive to CMS because it is unsafe to bike. |
| 91 | Make it convenient to ride or walk and make it a no car school |
| 92 | Need wider bike/pedestrian bridge with gentler slope to the north of Homestead Road |
| 93 | Put in bike detection |
| 94 | Consider green bikes boxes for left-turns for bikes |
| 95 | Consider bulbouts |
| 96 | Not enough bike parking |
| Feedback received outside of Project Limits | |
| 97 | Cars exiting from Foothill @ Arboretum are going too fast |
| 98 | Missing major accident at Crist and Grant |
| 99 | Problems extend to Grant Rd for Highlands kids |
| 100 | Exit from St. Joseph to Foothill clogged at Montclaire dropoff time |
| 101 | Add crossing guard locations to map |
| 102 | Please make sure to look at 280 off ramp traffic |
| 103 | Fallen Leaf Ln @ Louise Ln 2 utility power towers in middle of the street |
| 104 | South Bernardo from the Dalles bridge is sketchy |
| 105 | CMS - No bike lanes |
| 106 | Helena Bike Cage |
| 107 | Helena: Not enough space for a biker |
| 108 | Add Helena to this study |
| Feedback received via Comment Cards at Community Meeting #1, November 26, 2018 | |
| 109 | **Neighborhood: Montclaire Los Altos**<br>HHS to offer a longer homework/study room and encourages shared rides<br>Fluorescent clothing should be required on bicyclists, lights too<br>VTA buses between Montclaire area and HHS<br>School must encourage carpooling<br>VTA must factor public safety in its ROI calculations |

Homestead Road Safe Routes to School Study
Community Meeting #1 Summary

| | |
|---|---|
| 110 | **Neighborhood: Grant Park**<br>AM: to school. When cars are entering and existing El Sereno and Fallen Leaf, bikes are coming out of our neighborhood crossing to the wrong side of the road, so they can turn left onto the bike path to go to school. This is so dangerous |
| 111 | **Neighborhood: Mary / Homestead**<br>Homestead needs full time bike lanes. Low collision rate is due to deterring cycling, not an indication of safe conditions. Limited time parking does not serve the needs of students (after school and weekend event) much less commuters and utility cyclists |
| 112 | **Neighborhood: Homestead Road**<br>Lack of education - students need to be coached on road rules- don't penalize the residents. Residents are not scapegoats for students and drivers' stupidity. Don't waste funds on research. Educate the students and fine the wrongful drivers. We need to share. Street parking should not be removed. |
| 113 | **Neighborhood: Highlands Los Altos**<br>What agency operates Foothill Xpwy and way hasn't the scope of this project included safe travels across Foothill to access the Grant frontage road and on to Homestead |
| Feedback received via document Commute to Cupertino Middle School | |
| 114 | **Arboretum and Grant Rd** - recommend green striped bike crossing or full crosswalk on Arboretum |
| 115 | **Homestead and Grant Rd intersection onto Foothill Expy** - green striped bike crossing be painted across Grant/Homestead Rd to clarify where bikes are crossing |
| 116 | **Exit of Foothill Expy to Homestead** - cars turning left onto Homestead Rd often take right of way over other vehicles, suggest "Bikes must stop" sign |
| 117 | **Homestead Rd over Stevens Creek** - recommend widening bridge for ped and bike traffic only to accommodate 10' wide two-way traffic. Continue asphalt path prior to Stevens Creek |
| 118 | Pave the green area on sidewalks between Stevens Creek overpass and Belleville ave on Grant rd sidewalk (southbound) to allow bikes and peds to share sidewalk. Expand sidewalk and remove merging lane to allow two-way traffic on Homestead sidewalk |
| 119 | **Homestead Rd between 85 and Belleville** - expand sidewalk to allow two-way traffic (10') for bikes and peds. Remove second lane on Homestead |
| 120 | **85 Exit onto Homestead Rd** - put no right on red sign, make signal more efficient, better signal cycling |
| 121 | **85 Bridge overpass: Homestead Rd** - make lane only one lane with merge of lanes prior to gas station, widen sidewalk to include bike lane to allow 2-way traffic for peds and bikes, 10' wide or 15' wide, allow onramp for bikes onto sidewalk can eliminate that side bike access, but requires on lane each way |
| 122 | **Homestead and Bernardo** - put a no right on red sign from 8 am to 8:15 am M-F, cars blow through red light getting their kids to school |

Homestead Road Safe Routes to School Study
Community Meeting #1 Summary

| | |
|---|---|
| 123 | **Gas Station** - post a no throughway sign at gas station entrance, car bypass left turn signal onto S. Bernardo to drive through the private driveway of the gas station. This problem occurs in the morning and afternoon pick up times. Put a right turn only exit sign on Bernardo exit ramp. |
| 124 | **Gas Station** - cars park on sidewalk and at the gas station waiting to pick up kids at 3pm. Kids routinely cross through the gas station car wash area, pickup cars make U-turns at the driveway exit area, cars exiting gas station make left turns often |
| 125 | **Ped Overpass on Bernardo** - make a bike lane on S. Bernardo or route all ped and bike traffic through the Dalles and Crornach Ave "school route" |
| 126 | **CMS** - make Helena drive from Edmonton ave S. Bernardo 1 way into S. Bernardo. Make S. Bernardo Dr from Helena Dr. to Homestead 1 way exit onto Homestead |
| 127 | **S. Bernardo** - put do not enter sign on S. Bernardo Dr to prevent entrance from Homestead. Do not enter sign on Helena Dr. |
| 128 | Bike travel distance and times from Google maps. Wolfe and Homestead 2.6 miles 14 minutes (8min at 5:45pm).<br>Benton Street near Lawrence Expy 4.2 miles (21 minute (13 min at 5:45pm))<br>Whole Foods on Stevens Creek in Cupertino, 2.1 miles, 11 minutes (8 minutes at 5:43 pm)<br>Los Altos Gold and Country Club 2.7 miles 15 minutes (11 min at 5:42 pm) |
| 129 | Make schools no cars except for medical exceptions or emergency pickup/dropoff |
| 130 | No parents in school parking lots/delineate school w. street cars |
| Feedback received via Project Email | |
| 131 | I am a resident of Homestead Road directly across from Homestead High School for over 15 years. My child attended West Valley Elementary, Cupertino Middle and Homestead High School. On Monday Nov 26th, 2018 I attended the Homestead Road safety meeting at Homestead High School. It was very surprising that residents of Homestead road were not informed of this important meeting wherein factors that would affect the residents were being discussed. I came to know of the meeting on the 25th of November due to a chance meeting with one of my neighbors who mentioned about it. I would very much appreciate if efforts are made to provide/make sure that information to the residents about meetings/events that affect the community are posted well in advance via regular US mail so that they can schedule their work timing to attend the meetings. I very much appreciate the efforts of the different school district to evaluate the current road use and the potential ways in which the traffic could be regulated in order to provide for greater safety to the students who attend the three schools that are located along the Homestead corridor. I see that Improvements to the side walk and proper marking of the bike lanes are being looked at as important issues that need immediate attention. Since I get to observe the road traffic and student movement on the main road, bike lane and side walk for over 15 years across from Homestead High School I would like to provide some background on what I perceive as issues that could greatly affect the safety of the students.<br>1. The bike lane on the Sunnyvale is rightly designated for exclusive use of the folks that ride the bike from 7.00 am to 6.00 pm on weekdays. This covers the working hours of the three schools that are part of the Homestead cohort. It would be |



helpful to mark the bike lane prominently so that vehicle drivers stay clear of the bike lanes. Unfortunately, I see that most often students DO NOT use the bike lane and they tend to use sidewalks especially on the Sunnyvale side across from Homestead High. A double line to designate the bike lane would provide for an additional room for the bicyclist to be at a distance of safety from the moving vehicular traffic. I see no reason to make any changes to the exclusive use timings of the bike lane as the current timing is more than sufficient to cover the working hours of the three schools.

2. There have been no reported traffic incidents involving students outside of the 7.00 am to 6.00 pm time frame for which the bike lane is designated for the exclusive use of the students who bike to the school. To raise any argument that changing the bike lane use timings to provide for greater safety for the students is a totally baloney. I see no justification for even thinking in this line and thus would strongly urge that the need for changing the use timing is never brought to the table for any discussion – now and in the future. Any concerns of the recreational bikers have no place in this discussion. They need to share the road with the residents. There are no two options in this regard.
3. The students seem to lack the knowledge of basic road rules. I see students who walk to the school as well as those that bike to the school seems to totally disregard the basic road rules and expect everyone around them to look out for them to avoid any untoward incident. They are always waiting to throw the blame on the others when in reality they are the cause of it. This shows total disrespect for the vehicle drivers who are additionally burdened by the callous attitude of the students. It would be helpful to include a “Road Rule and Ethics” course as part of the curriculum in the school and make it mandatory for the students to attend few classes to get some knowledge about the basic facts. Our tax money would be better spent on educating the students rather than throw it at some private research organization who are more interested in making a quick buck in exchange for some feedback with minimal reflection on how it would affect the residents since they are not part of the community. Education is the key to success rather than wasting money on all kinds of change that were being discussed during the meeting. Educating the students on basic road rules would go a long way as it would help them behave like good citizens now and when they grow up and bring their children to the school. They will be role models to their children and to the community in which reside.
4. As for the parents who drive their children to school – lesser said the better. Significant number of them seem to totally lack any knowledge of road rules and very often flaunt the basic road rules and thus put other drivers and students in complete danger. It would be helpful to heavily fine (up to 10x) even for small road rule infarction during the school hours and display their names along with their children name on a “wall of shame” visible to the public so that the parents make consorted efforts to follow road rules and set an example for their kids. The kids see their parents violate the rules, day in and day out, and thus they also tend to break the rules more often. Student drop-offs on the side of road in front of Homestead High – both Sunnyvale and Cupertino side of the road should



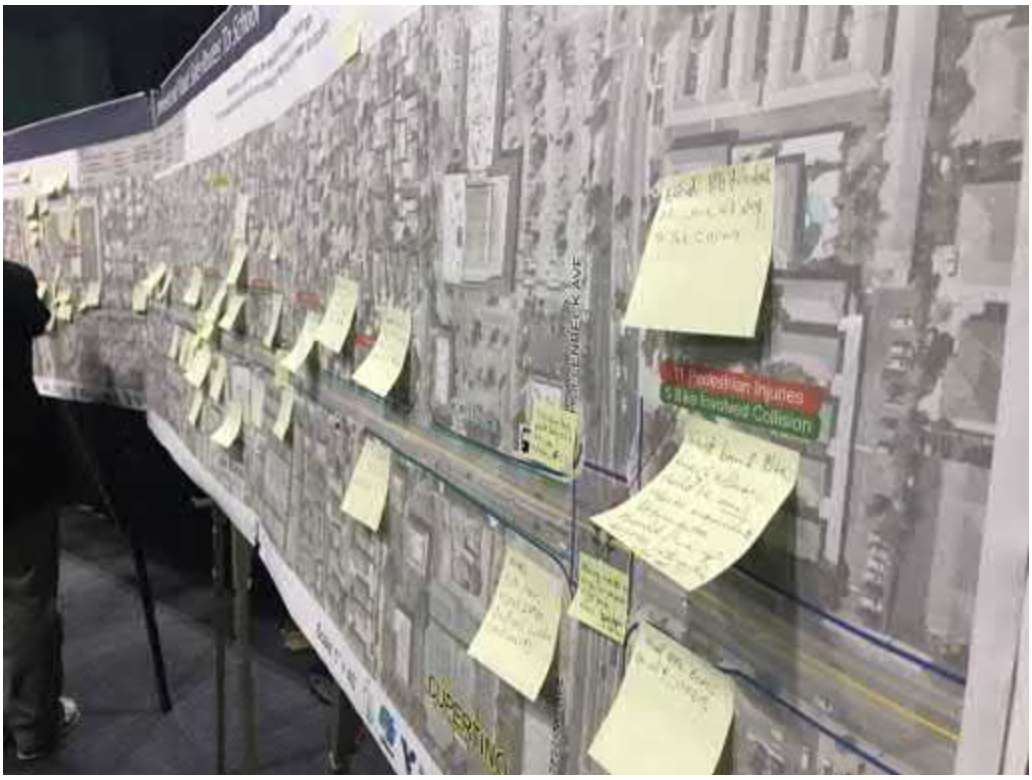
| | |
|---|---|
| | be banned. Any violation should invoke a large fine. This not only blocks the bicyclist path but could potentially result in serious injury to the rider.<br>5. More bikers travel the Mary road rather than Homestead road. Coming from Mary they directly enter Homestead High or turn right at Helena to get to Cupertino Middle. Thus, the bike lane use on Homestead is relatively low in comparison to Mary road. Majority of the school going bikers on Homestead road rarely use the bike lane with most preferring the side walk!! Any changes to the bike lane would be futile. One option would be make a single lane of traffic on both sides of Homestead Road from Stelling Road to Belleville Way and increase the width of the bike lane so that there is significant distance between the moving vehicular traffic and the bikes. This will also help to preserve the parking space along the Sunnyvale side of the road for the residents. This should be designated as residents only parking during the bike lane use hours to discourage students from using the spot. The residents would not mind if the parking continues to be restricted to 6.00 pm to 7.00 am during weekdays and all day during weekends and holidays. This should be a good compromise and provide greater room for the bikers and improve safety.<br>6. Any efforts to change the bike lane use timing will be detrimental to the residents who are already putting up with the chaos during the school hours and should not be burdened with a lack of parking for their guests during non-school hours. The residents cannot expect their guests to park their vehicles a mile from the homestead road and walk to our house. Incidentally during the meeting, I observed some recreational bikers putting up a pitch to make the bike lane as an exclusive use of the bikers at all times of the day and night. I would like to reiterate that this review is look for ways to bring about safety for the students and thus there is no place for any discussion on recreational bikers' agenda. Their agenda should not be entertained and the residents concern with regard to the need for parking should have the highest priority. Outside of the school hours the bike lane should be shared with residents who need the space for parking. There are no two options on this aspect. Removal of parking will greatly affect the value of the house and immensely inconvenience the residents and thus any talk of conversion of bike lane to exclusive use of bikers at all times should never be entertained. Residents need the parking space – There is no two options.<br>I commend the efforts of the community and the school district for their desire to take a hard look at the traffic issues and come up with a plan to provide better safety and security to the school kids. I will be happy to discuss further if there are questions that the team needs clarity based on my comments. |
| 132 | I noticed something else I wanted to write in about: On Mary Ave, there are two crossing guards in the morning (at the Helena intersection). I totally get it—Mary is a busy, wide street and it probably takes two crossing guards to be seen by both sides of traffic. But I think the most critical intersection to have two crossing guards is at the intersection of Helena and Wright, right by the middle school. If this isn't the busiest intersection for Cupertino Middle, then it's certainly up there. And I'm sure the committee's aware that there was a student hit by a car there earlier this year. If there were a crossing guard posted to take care of Helena and then one to take care of Wright, they could take turns. I'll bet it would improve the flow of traffic too. I honestly don't know how the crossing |



| | |
|---|---|
| | guard there has handled things by himself this long. (It can't be easy at all.) I also wanted to mention that last year I wrote in to the City of Sunnyvale, suggesting a four way stop sign be put it at Helena and The Dalles. That intersection gets really backed up in the mornings. |
| 133 | I was at the meeting at Homestead High School. Since then, I noticed the difference in the striping for crosswalks in the area being discussed and many I've seen in Mountain View. The ones in Mountain View are much more noticeable and obvious! I frequent the corner of Fallen Leaf and Homestead and have noticed that cars frequently do not stop at the BEGINNING of the crosswalk, but often roll into the crosswalk before coming to a complete stop. Part of this is due to not having visibility of the oncoming traffic. However, this results in not stopping until past the point that a pedestrian or bicyclist would be if crossing the street on the hike and bike trail. Perhaps better, more obvious striping would help. |

The following photos were taken at the public meeting.

Homestead Road Safe Routes to School Study
Community Meeting #1 Summary



Homestead Road Safe Routes to School Study
County Safe Routes to School Meeting (2/9/2018)

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The County of Santa Clara hosted a community meeting on February 9, 2018 to discuss and present concerns regarding Foothill Expressway, Grant Road, and sections of Homestead Road. Some comments received from this meeting are within the study area of the Homestead Road Safe Routes to School Study and have been included in the table below.

| Number | County Safe Routes to School Meeting |
|---|---|
| Feedback Received at Community Meeting, February 9, 2019 | |
| Traveling along Grant Road (Homestead Rd/Foothill Expy & Grant Rd) | |
| 1 | Southbound bike lane ends and becomes a sharrow (Class 3) |
| 2 | Students travel on wrong side of the road |
| 3 | Crossing El Sereno from the unexpected way with limited visibility |
| 4 | The class 1 path has pros and cons |
| 5 | The Triple Pass (Southbound bikes through<br>1. Stop and cross through traffic<br>2. Yield and cross through traffic<br>3. Cross through traffic into bike lane |
| 6 | Heavily congested intersection |
| 7 | Vehicles drive in bike lane |
| 8 | Cyclists are not visible on corner of Foothill |
| 9 | Younger cyclists use crosswalk and then “jump” back to lane |
| Traveling to/from Vineyard Dr (Vineyard Dr/Homestead Rd & Foothill Expy) | |
| 10 | Shoulder striping disappears on Vineyard – cyclists are in no man’s land |
| 11 | No ADA ramps at the intersection |
| 12 | Students don’t know how to use the bicycle sensor at the intersection |
| 13 | No signs/striping guiding drivers/cyclists |
| 14 | Narrow Road |
| 15 | No ADA curb ramps for use by cyclists |
| 16 | No signs to alert drivers/uncontrolled + favorite U turn spot |
| 17 | No Shoulder stripping near expressway intersection – starts later |
| Corner of Foothill and Homestead | |
| 18 | Drivers cut the corner and drive in the shoulder where the bike lane starts |
| Homestead Road Commercial Driveways | |
| 19 | 6 service entryways |
| 20 | Vehicles blocking the bike lane |
| 21 | No signs and guidance |





| | |
|---|---|
| 22 | Exits from commercial area allow left turns with limited visibility that risk students who are heading to class 1 path |
| 23 | Currently it is allowed to take left turns from El Sereno to Homestead endangering the cyclists |



# D. Community Meeting #2 Summary

# Homestead Road Safe Routes to School Study

## Community Meeting #2 Summary

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The County of Santa Clara hosted Community Meeting #2 on February 25, 2019, from 6:00-8:00PM to discuss and present conceptual designs of potential improvements to the Homestead Road corridor to better connect West Valley Elementary School, Cupertino Middle School, and Homestead High School. The meeting was held at the Homestead High School Auditorium.

Approximately sixty (60) community members attended the meeting. The County of Santa Clara was represented by Kristine Zanardi, Ananth Prasad, and Thien Pham. Representatives from all partner agencies were present.

The Project Team was represented by Ananth Prasad (County of Santa Clara), Thien Pham (County of Santa Clara), Adam Dankberg (Kimley-Horn), Brian Sowers (Kimley-Horn), Tyler Wacker (Kimley-Horn), and Anthony Nuti (Kimley-Horn).

This was the second community outreach meeting with members of the public for the Homestead Road Safe Routes to School Study. The purpose of the meeting was to provide an update to the community on the study status, present proposed concepts, receive community feedback on the proposed concepts that have been developed, and review next steps.

The meeting started just past 6:00 PM and included an introduction by Kristine Zanardi. Adam Dankberg, the Kimley-Horn project manager, then provided an update of which stage the Study is in and used a PowerPoint presentation to explain select proposed improvements. In addition, the Project Manager covered the schedule for the Study and opportunities for additional input from the public including comment cards and the project email. The meeting included a 'Question and Answer' portion where there was an opportunity for many questions from the public to be answered by the Project Team.

The second half of the meeting was an open house format and attendees were asked to go to a station to give input on the proposed improvements. Attendees used colored dots to express support (green), uncertainty/need more info (yellow), or do not support (red). Sticky notes were also provided to write down comments and place them on the proposed improvement posters. Attendees were free to leave the meeting whenever they chose during the open house session. The meeting ended at 8:00 PM and the information received from Community Meeting #2 is documented below.



Homestead Road Safe Routes to School Study
Community Meeting #2 Summary

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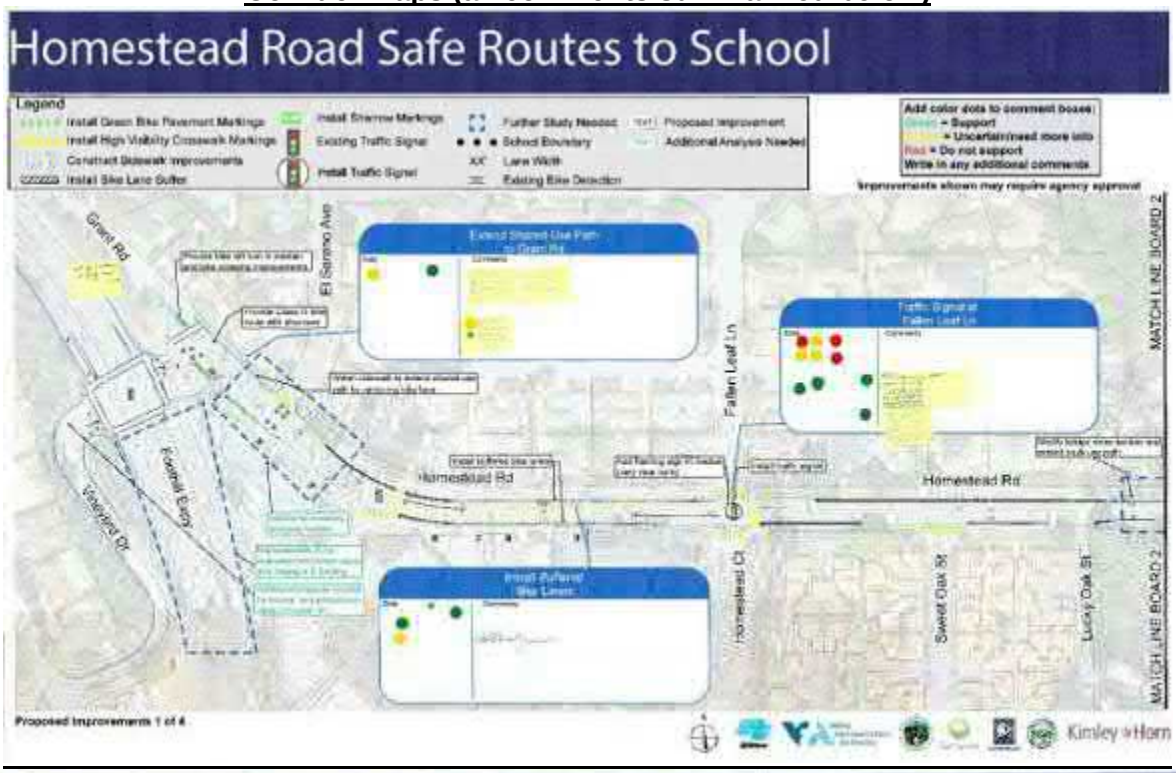
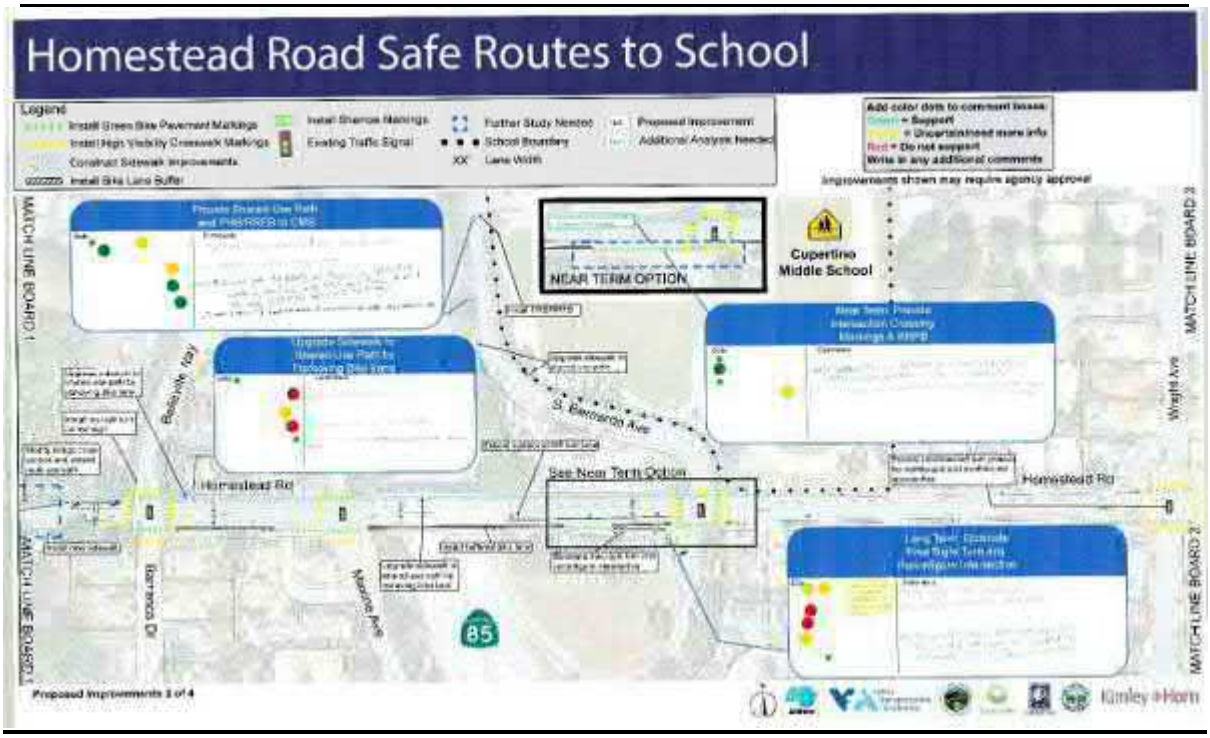
The following maps display the results of the meeting.

**Corridor Maps (all comments summarized below)**



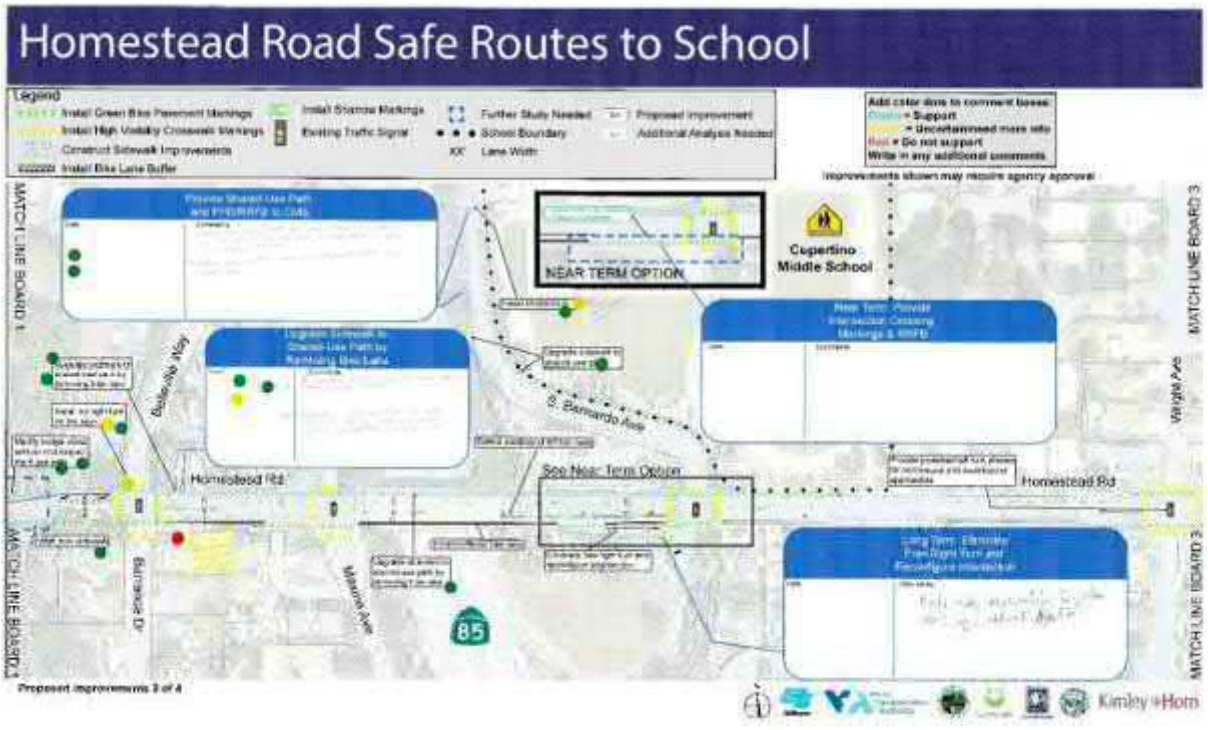
Homestead Road Safe Routes to School Study
Community Meeting #2 Summary

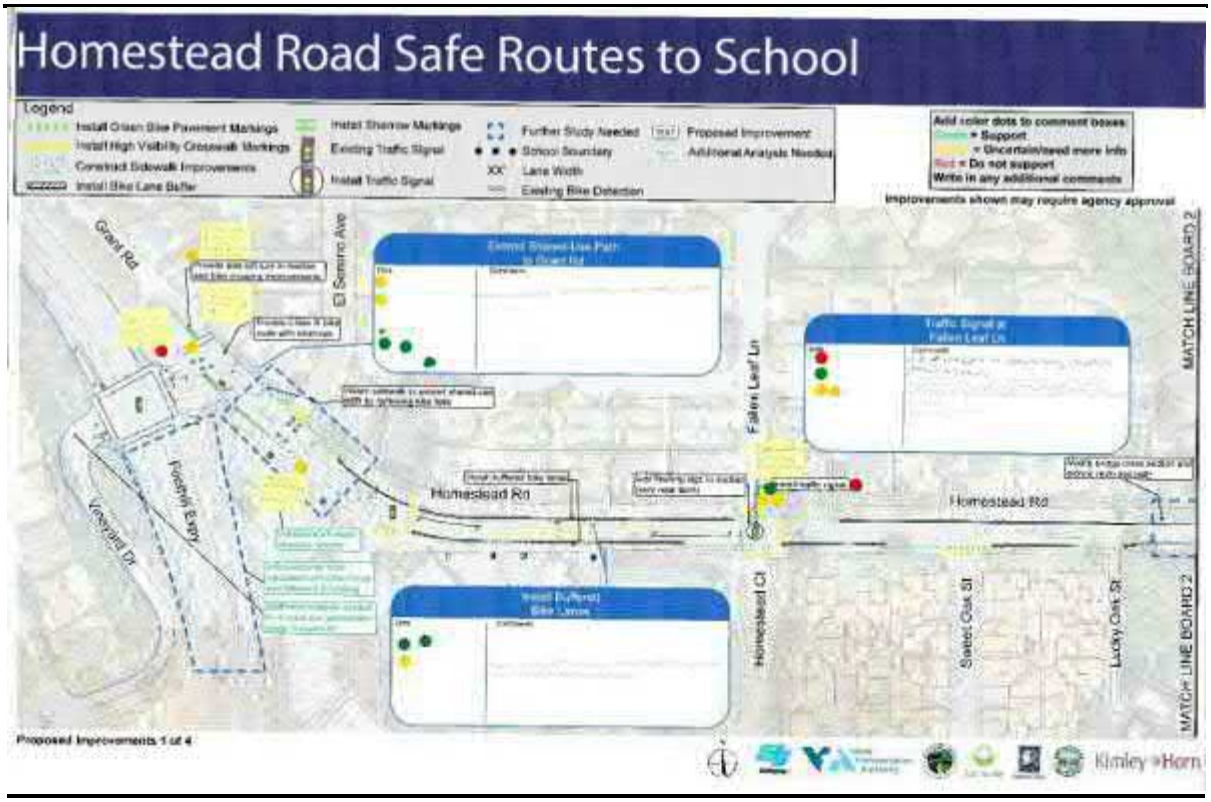

Homestead Road Safe Routes to School Study
Community Meeting #2 Summary




Homestead Road Safe Routes to School Study

Community Meeting #2 Summary



Homestead Road Safe Routes to School Study
Community Meeting #2 Summary

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The following photos were taken at the public meeting.


Homestead Road Safe Routes to School Study
Community Meeting #2 Summary

The attached table summarizes the feedback received at Community Meeting #2 via the open house or comment card. Feedback that was emailed to the project email after the meeting are also included.

| Number | Homestead Road Safe Routes to School<br>Public Comments as of 4/3/2019 | Project Team Response | | | | | Number of Dots at Community Meeting #2 (if applicable) | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Referred to Partner Agency | Will be Considered in Study | Out of Study Scope | Comment Noted (No Action) | Additional Remarks | Green (Support) | Yellow (Uncertain / Need More Info) | Red (Do Not Support) |
| Comments Received at Community Meeting #2, Feb 25, 2019 | | | | | | | | | |
| *Extend Shared-Use Path to Grant Road* | | | | | | | 6 | 4 | 0 |
| 1 | I don't use multi-path because I get stuck behind peds and slow bikes. I ride to school. I ride in the bike lane going home. Not the multi-use path. | | | | ● | | | | |
| 2 | Sharrows in this area dangerous. Yes, extend shared use path. | | | | ● | | | | |
| 3 | Need crossing guard between Foothill pork chops & guard use extension. | ● | | | | | | | |
| *Intersection of Grant Rd, Homestead Rd, Foothill Expy & El Sereno Ave* | | | | | | | | | |
| 4 | Will you add bike lane striping (at the intersection)? | | ● | | | Bike lane striping at the intersection will be analyzed in revised concept plans. | | | |
| 5 | How to get EB bikes to Homestead? | | ● | | | Bike lane striping at the intersection will be analyzed in revised concept plans. | | | |
| 6 | Access to median at Grant Road unsafe for kids in backed up traffic suggest another way such as guiding with green to crosswalk. | | ● | | | Bike lane striping at the intersection will be analyzed in revised concept plans. | 0 | 1 | 0 |
| 7 | Don't slow down Homestead to Foothill because no peds/bikes. | | | | ● | | 0 | 0 | 1 |
| Near Gas Station South Across the Street from El Sereno Ave | | | | | | | | | |
| 8 | Possible extend buffered bike lane to gas station exits? | | ● | | | Buffered bike lane will be analyzed in revised concept plans. | 0 | 1 | 0 |
| *Install Buffered Bike Lanes Between El Sereno and Fallen Leaf Ln* | | | | | | | 5 | 2 | 0 |
| 9 | Additional queuing | | | | ● | | | | |
| 10 | Extend back toward Foothill past gas station? Especially the gas station exit that allows left turns or through movements to El Sereno | | ● | | | Buffered bike lane will be analyzed in revised concept plans. | | | |
| *Traffic Signal at Fallen Leaf Ln* | | | | | | | 6 | 7 | 5 |
| 11 | Install traffic signal. | | ● | | | The proposed traffic signal will be coordinated with the existing traffic signals on the corridor. | | | |
| 12 | So needed but light timing critical. | | ● | | | The proposed traffic signal will be coordinated with the existing traffic signals on the corridor. | | | |
| 13 | We do not need another stop light. The timing of lights already causing problems. | | | | ● | | | | |
| 14 | So critical to put in a light here for safety. Cars wait so long to get out they do incredibly dangerous high speed turns to get into openings on Homestead regardless of Bike/Ped. However, light timing w/other series of lights between Foothill & Belleville will be essential to thruput. | | | | ● | | | | |
| 15 | The traffic signals need to all sync up on Homestead for this light to work. Also lights need to be traffic shaped for school commute/heavy traffic. | | ● | | | The proposed traffic signal will be coordinated with the existing traffic signals on the corridor. | | | |
| 16 | For safety, the light is great. But it must be synced with all lights along the corridor | | ● | | | The proposed traffic signal will be coordinated with the existing traffic signals on the corridor. | | | |
| *Provide Shared-Use Path and Pedestrian Hybrid Beacon/Rectangular Rapid Flashing Beacon (PHB/RRFB) to Cupertino Middle School (CM* | | | ● | | | | 6 | 2 | 0 |
| 17 | Extend Cross walk to allow cars into lot. | ● | | | | Cars currently allowed in parking lot. | | | |
| 18 | How about a walking bridge instead? | | | ● | | Not enough room or ROW for walking at existing crosswalk to CMS | | | |
| 19 | Yes, but don't put the RRFB at the existing intersection! Create a new "stop" during school commute time, the rest of the time (23 hrs day) traffic will flow naturally. | | ● | | | The proposed PHB/RRFB is placed at the exsting crosswalk based on partner agency input. | | | |
| 20 | I second that, (comment 19) time for school hours/student presence. Push button to cross. | | ● | | | The proposed PHB/RRFB is placed at the existing crosswalk based on partner agency input. | | | |
| 21 | Need to do something to address bikers & walkers on crowded multi-use path W. Valley babies walking & CMS/HS kids biking. | | ● | | | Widening the shared-use path will be analyzed in revised concept plans. | | | |
| 22 | Yes! Path extension all the way to CMS and added safety for kids to get to CMS | | | | ● | | | | |
| *Upgrade Sidewalk to Shared-Use Path by Removing Bike Lane* | | | | | | | 4 | 2 | 2 |
| 23 | Do not remove bike lanes please! | | | | ● | The shared-use path is the preferred option since removal of vehicular lanes to provide a multimodal facility on the north side of Homestead Road is not feasible per partner agency. | | | |
| 24 | Shared use may slow flow traffic | | | | ● | | | | |
| 25 | Like shared use-path/mutli-use good as long as enough space | | | | ● | | | | |
| 26 | Yes! Path extension all the way to CMS key for safety and getting kids out of car traffic | | | | ● | | | | |
| 27 | Suggest no right on red during school hours (SB Belleville Way). | | ● | | | No right turn on red will be anlayzed in revised concept plans. | | | |
| 28 | The kids jay walk. Can you put a crossing guard here (Homestead @ Belleville Way/Barranca Dr)? Lengthen time for crossing | ● | | | | | | | |
| Intersection of Belleville Way , Homestead Rd & Barranca Dr | | | | | | | 0 | 0 | 1 |
| 29 | Should eliminate the let turn lane eastbound and give right turn | ● | | ● | | The study is focused on bicycle and pedestrian improvements. Vehicular improvements will not be assessed in the study. | | | |
| 30 | Upgrade sidewalk to shared-use path by removing bike lane | | | | ● | | 2 | 0 | 0 |
| 31 | Install no right turn on red sign | | ● | | | No right turn on red will be anlayzed in revised concept plans. | 1 | 1 | 0 |
| 32 | Modify bridge cross section and extend multi-use path | ● | | | ● | | 2 | 0 | 0 |
| 33 | Install new sidewalk (West of Barranca) | | ● | | | New sidewalk proposed to close existing sidewalk gap west of Barranca Drive. | 1 | 0 | 0 |
| East of Maxine Ave & Homestead Rd | | | | | | | | | |
| 34 | Upgrade sidewalk to shared-use path by removing bike lane | | | | ● | | 1 | 0 | 0 |
| *Near Term: Provide Intersection Crossing Markings & RRFB* | | | | | | | 3 | 1 | 0 |
| 35 | Consider putting the crosswalk/RRFB away from the intersection, create a dedicated bike/ped stop only an hour a day | | ● | | | The proposed PHB/RRFB is placed at the exsting crosswalk based on partner agency input. | | | |
| 36 | Like the lights, but may cause huge flow impact at the traffic lights | | ● | | | The study will evaluate the impacts of the proposed improvements. | | | |
| *Long Term: Eliminate Free Right Turn and Reconfigure Intersection* | | | | | | | 1 | 3 | 2 |
| 37 | Make sure passability for bikers does not get reduced | | ● | | | The study is not recommending to degrade bicycle conditions. | | | |
| 38 | Back up into roadway | | ● | | | The study will evaluate the impacts of the proposed improvements. | | | |
| 39 | Will definitely hinder flow of traffic | | ● | | | The study will evaluate the impacts of the proposed improvements. | | | |
| 40 | Is there something like a light that stops the flow of the right turning cars to protect the bike traffic? This is where you want this | | ● | | | Bike signals are not appropriate for the proposed design. | | | |
| 41 | Does not look like the suggested improvement will improve any saftey concerns | | | | ● | | | | |
| Cupertino Middle School | | | | | | | | | |
| 42 | How will you ensure that traffic keeps flowing with installation of PHB/RRFB? | | ● | | | The study will evaluate the impacts of the proposed improvements. | 1 | 1 | 0 |
| 43 | Upgrade sidewalk to shared-use path | | | | ● | | 1 | 0 | 0 |
| *Install Buffered Bike Lanes West of Mary Ave* | | | | | | | 9 | 0 | 0 |
| 44 | Raised curb with flexi-posts every 2 feet to prevent passengers from existing cars waiting on Homestead Rd | | ● | | | Protected bike lanes will be analyzed in the revised concept plans. | | | |
| 45 | Could the bike lane be protected? | | ● | | | Protected bike lanes will be analyzed in the revised concept plans. | | | |

| Number | Homestead Road Safe Routes to School<br>Public Comments as of 4/3/2019 | Project Team Response | | | | | Number of Dots at Community Meeting #2 (if applicable) | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Referred to Partner Agency | Will be Considered in Study | Out of Study Scope | Comment Noted (No Action) | Additional Remarks | Green (Support) | Yellow (Uncertain / Need More Info) | Red (Do Not Support) |
| Intersection of Homestead Rd & Mary Ave | | | | | | | | | |
| 46 | Widen street (EB approach) and allow right turn on red | ● | ● | | | The study is focused on bicycle and pedestrian improvements. Vehicular improvements will not be assessed in the study. | | | |
| 47 | Please make crosswalk more visible to cars leaving parking lot | | ● | | | The study recommends high-visibilty crosswalks at all crosswalks. | | | |
| 48 | Left turn into horseshoe | ● | | ● | | The study is focused on bicycle and pedestrian improvements. Vehicular improvements will not be assessed in the study. | 0 | 0 | 1 |
| 49 | Make crosswalk wider so cars from lot will see bikes | ● | ● | | | Crosswalks are standard width. The study recommends high-visibiilty crosswalks at all crosswalks. | | | |
| *Install Buffered/Protected Bike Lanes East of Mary Ave* | | | | | | | 8 | 1 | 0 |
| 50 | Please keep all bike/ped movement off Homestead and Horseshoe | ● | | | | The study analyzed ways enhance bicyclist and pedestrian saftey | | | |
| 51 | Widen the curb from Homestead to Mary to slow down cars taking this turn to fast. (i.e. make corner tighter) | | ● | | | A bulb-out and tighter curb radius will be analzyed in the revised concept plans. | | | |
| 52 | Protected bike lane preferred | | ● | | | Protected bike lanes will be analyzed in the revised concept plans. | | | |
| West and East of Mary Ave | | | | | | | | | |
| 53 | Eliminate all on-street parking 24/7 along Homestead Road | ● | | | | | | | |
| *Install Buffered/Protected Bike Lanes West of Kennewick* | | | | | | | 5 | 0 | 0 |
| 54 | Protected bike lane preferred | | ● | | | Protected bike lanes will be analyzed in the revised concept plans. | | | |
| *Upgrade Sidewalk to Shared-Use Path in front of Homestead High School Parking Lot* | | | | | | | 4 | 2 | 1 |
| 55 | You need better description of how the shared-use paths are intented to work | | ● | | | Shared-use paths are intended to work for both bicycilsts and pedestrians. | | | |
| 56 | May slow the flow of traffic | | | | ● | | | | |
| *Extended Intersection Crossing Markings* | | | | | | | 6 | 0 | 0 |
| Comments Received By Comment Cards at Community Meeting #2, Feb 25, 2019 | | | | | | | | | |
| 56 | More protected bike lanes would be prefered | | ● | | | Protected bike lanes will be analyzed in the revised concept plans. | | | |
| 57 | Hwy 85 on/off ramps, Caltrans has plans for Hwy 85 @ Homestead improvements planned for 2020. How are they taken into account with relation to this study and its reccomendations/plans? | | ● | | | The project team has been coordinating with the Caltrans project. | | | |
| 57 | Reduce speed on roadways by narrowing lanes or road diets | | ● | | | The study recommended reducing lane widths to 11' where feasible. | | | |
| 57 | Use as many protected bike lanes as possible | | ● | | | Protected bike lanes will be analyzed in the revised concept plans. | | | |
| 57 | Address bus stop in bike lane at Mary/Homestead | ● | | | | | | | |
| 57 | Work with Homestead High School to connect/integrate bike lanes with interior routes to the bike racks | ● | | | | | | | |
| 57 | Multi-Use pathways are great but maybe separate bike and ped areas of path | | ● | | | Widening the shared-use path will be analyzed in revised concept plans. | | | |
| 58 | I object to any futher restriction of parking on Homestead. It is an infringement on my priviledge to have visitors. | ● | | | | | | | |
| Comments Received By Email After Community Meeting #2, March 12, 2019 | | | | | | | | | |
| 59 | Kudos to Sen. Simitian for bringing much-needed attention to these important safety issues. I am generally very pleased with the effort that has gone into addressing them, and my comments are directed toward the few (but significant) exceptions which I hope you will work to mitigate to the greatest extent possible.<br><br>First, it was a major disappointment to hear that extending the Multi-Use Path on the west side of the corridor will be achieved by eliminating the existing bike lane. Contrary to the wishful thinking of most traffic planners and others, MUPs are not a substitute for bike lanes. MUPs require cyclists to become rolling pedestrians, which does not serve the needs of commuters and other utility cyclists. And those who predictably refuse to submit to this unreasonable restriction will result in endless conflict (which will be blamed entirely on the cyclists, of course!).<br><br>In the absence of evidence to the contrary, I accept your assertion that there is not enough room for both a bike lane and MUP in this segment. So if the MUP is installed, it is clear that the remaining travel lane width on the roadway will not be sufficient for a bicycle and a vehicle to share side-by-side. Since California has no mandatory sidepath law, cyclists retain the legal right to use the main roadway, and some of them will for the reasons cited above. But this invites dangerous harassment from ignorant motorists who think cyclists are required to use the MUP. In order to minimize the damage from this condition, this segment should prominently display "[Bike symbol] May Use Full Lane" signs (MUTCD R4-11), and paint Sharrows in the middle of the lane. This is by no means a solution to the problem, it is merely making the best of a bad situation.<br><br>Second, if the street space described above that is currently used for a bike lane can be so easily eliminated for what is perceived to be the greater good, then what is preventing the street space on other segments of this corridor, which is currently dedicated to car parking for the vast majority of the time, from being redirected to full time bike lanes in order to provide safe accommodation for cyclists? It appears that needed bike space is expendable, but car space that is merely a convenience cannot be questioned.<br><br>Is anyone on the project team a utility cyclist? You might want to consider adding one or more such people, so you won't continue to make decisions that are based strictly on the motorist perspective. Unless that is what you really want to do. | ● | ● | | | Sharrows and signage will be analyzed in the revised concept plans. | | | |
| 60 | First off I've lived in Cupertino since 1963 and have seen a lot of change around town. As a kid we road our bikes to schools and everywhere.<br><br>Now a days it seems like every kid is driven to school, I'm not sure when that started but all the cars around the schools have in my mind created a dangerous situation not to mention the traffic jams associated with all those cars.<br><br>We need to make driving cars hard and riding bikes easy.<br><br>I truly believe protected bike lanes on Homestead road would promote more bike riders. I believe parents are afraid to let their kids ride bikes because of the traffic. Everyday I see cars in bike lanes waiting to make right turns forcing the bikes into the path of traffic. | | ● | | | Protected bike lanes will be analyzed in the revised concept plans. | | | |

| Number | Homestead Road Safe Routes to School<br>Public Comments as of 4/3/2019 | Project Team Response | | | | | Number of Dots at Community Meeting #2 (if applicable) | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Referred to Partner Agency | Will be Considered in Study | Out of Study Scope | Comment Noted (No Action) | Additional Remarks | Green (Support) | Yellow (Uncertain / Need More Info) | Red (Do Not Support) |
| 61 | I want to thank the Homestead Corridor Safe Routes Study project team for the opportunity the community had to hear about your proposed plans and provide feedback at the community meeting on Monday evening. Thank you. And, thank you for the multi-agency collaborative work you are doing for this project. I understand the feedback window is open for the next couple of weeks and I hope you will continue to receive valuable feedback from the community.<br><br>I did want to take the time today to add one more thing to the top-level list of feedback I previously shared. Here's the addition:<br><br>- School Zone speed limits on the Homestead Road corridor should be consistently implemented across jurisdictions according to the speed laws of the vehicle code and the ability to establish lower school zone speed limits (15mph, 25mph in 500 ft and 1000 ft radius of schools). In other words, implement the 15mph & 25mph school speed zones near the schools on the Homestead Road Corridor consistently throughout the corridor. Today, it appears there is inconsistent implementation. For example, near Cupertino Middle School (CMS):<br><br>• The 15mph school speed zone has not yet been implemented on Bernardo Ave - although I understand Sunnyvale has plans to implement the 15mph zone on Bernardo Ave. (When will the implementation be done?).<br><br>• The 25mph school speed zone is posted on the west side of Homestead Road near Barrancha Dr./Acacia Way. However, a 35mph speed limit is posted on the west side of Homestead Road near Bernardo Ave, and I did not note an end of 25mph school speed zone sign on the west side (did I miss the sign?). For the east side of Homestead Road near CMS, I do not see any 25mph school speed zone posted (did I miss a sign?).<br><br>The Homestead Road corridor project should identify the full segments on both sides of Homestead Road (by CMS and Homestead High School (HHS)) that qualify for the 15mph/25mph school speed zones and implement it in the near term.<br><br>CA Legislative Information Division 11. RULES OF THE ROAD Chapter 7. Speed Laws - https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=VEH&sectionNum=22358.4<br><br>City of Sunnyvale Legislative Public Meetings - Adopt a Resolution to Establish 15 MPH Speed Zones at 35 Locations Adjacent to 16 Public Schools in Sunnyvale - https://sunnyvaleca.legistar.com/LegislationDetail.aspx?ID=3710676&GUID=623BBB14-1E75-46C1-8EFD-14B928FEAF40&FullText=1<br><br>Mercury News - Sunnyvale to Drop Speed Limit Near Schools - https://www.mercurynews.com/2018/11/09/sunnyvale-to-drop-speed-limit-near-schools/ | ● | | | | | | | |
| 62 | On Homestead Rd. at the Chevron station, can the unprotected left turn be restricted between 7:30-9 am? Please add signs to alert drivers to watch for cyclists. | ● | | | | | | | |
| | What are the instruction and safety measures for cyclist heading from the multi-use-path towards Vineyard? | | ● | | | Additional considerations will be analyzed in revised concept plans. | | | |
| | Please coordinate signal timing at Homestead & Bernardo and the conflicts between cyclists/vehicles at Homestead/Bernardo gas station ingress/egress and intersection of Homestead/Bernardo. | ● | | | ● | | | | |
| | A traffic light at Fallen Leaf and Homestead, active only at specific rush hour times, would be a great safety improvement. That intersection is currently dangerous for drivers and pedestrians. | | ● | | ● | | | | |
| 63 | A quick note to say how very encouraged I am by the project plans thus far. | | | | ● | | | | |
| | The proposed signalized intersection at Homestead and Fallen Leaf will be welcome for all of us in the Fallen Leaf neighborhood trying to get children to school or just walk or bike across Homestead safely. The question is whether all of the signalized intersections in close proximity can be interconnected and timed to avoid further exacerbating jams during AM and PM peak periods. | | ● | | | The proposed traffic signal will be coordinated with the existing traffic signals on the corridor. | | | |
| | As you know, during the AM peak, traffic going from Homestead to Foothill backs up often past Belleville. The only way to exit Fallen Leaf to Homestead is if someone lets you in the queue or a pedestrian pushes the signal to cross Homestead creating a traffic break. | | | | ● | | | | |
| | In the afternoon, it can take 3 or more signal cycles to make the turn from Foothill onto Homestead because of the signal by Trader Joe's that does not allow traffic from Foothill to clear the turn onto Homestead. Often, Homestead is backed-up all the way down to the 85 intersection for reasons I don't understand. It is a traffic engineers nightmare. The effect of the AM and PM clog is traffic cutting through the neighborhood to exit onto Foothill by the Lucky Supermarket. | ● | | | ● | | | | |
| | Obtaining funding will yet another challenge. And so it goes. | | | | ● | | | | |
| 64 | I attended the Homestead Road Safe Routes to School Community Meeting on Monday, February 25. I want to convey additional safety issues at the corner of Sweet Oak St and Homestead Rd that I brought to the City of Los Altos attention back in December 2018 in the following post to the online system. I have also included the reply from Aruna Bodduna referring me to the study. I spoke to Mayor Lynette Lee Eng at the meeting about this as well. | ● | | | ● | | | | |
| | The No U-turn sign at this corner is very frequently disregarded causing danger to people and property as indicated in my email below. My suggestion is to install a raised island that extends farther toward Sweet Oak with a larger No U-Turn sign. I also suggest that whichever public entity is responsible for patrolling this part of the roadway do so more frequently to reduce the illegal U-Turns. | ● | | | ● | | | | |
| | There have been at least two accidents involving cars and bikes at this intersection as well. | | | | ● | | | | |
| | I am also concerned about the traffic backup from Foothill Expressway to Mary Avenue each evening due to lack of coordination in timing of the traffic lights down Homestead during peak commute hours. | ● | | | ● | | | | |
| 65 | Thank you for considering many of the comments that the Homestead HS team sent on the first round of suggestions and adding many more safety measures to the suggested improvements plan. I had a few question, suggestions, and comments that you may want to consider in the design phase for both the VERBS and the corridor projects. Please see below and let me know if any of the points require further clarifications. | | | | ● | | | | |
| | • Sidewalk bulb-out on Mary Ave. should include a designated solution for cyclists to enter the bike lane around campus when heading from Mary Ave. to Campus, and a clear way to get to northbound bike lanes on Mary when leaving campus. The current design puts the cyclist on the curb that is congested with pedestrians. | | ● | | | Additional ramps will be considered in revised concept plans. | | | |
| | • The bike lane on Homestead at the corner of Mary and at the entrance to the Student parking lot should be buffered (with physical barrier) all the way to the intersection as it is at Graham MS in Mountain View. This solution provides a clear and safe bike lane. | | ● | | | Protected bike lanes will be analyzed in the revised concept plans. | | | |
| | • The sidewalk along the students parking lot is converted to a multi-use path, Where would that path end? Students should not be encouraged to bike against traffic towards the horseshoe. (it is cut between the boards so not clear) | | ● | | | The shared-use path would be between the middle of Homestead High School driveway and Kennewick Drive. | | | |
| | • At the corner of Bernardo and Homestead; Students biking westbound - how should cyclist enter the multi-use-path? Through the curb with the pedestrians? | | ● | | | Wider/additional ramps will be considered in the revised concept plans. | | | |
| | • A portion of the bike lane between Kennewick and Stelling seem to be too narrow to comply with the requirements. Could you please check and consider accordingly? | | ● | | | Widening the bike lane will be considered in the revised concept plans. | | | |
| | • Canceling the bike lane eastbound from Bernardo and converting it to two ways multi-use path will create a heavily traveled path with both ways traffic. Cyclists might decide to share the road with cars when the path is congested. Appropriate signs and sharrows should be present to alert drivers to this option. This is not a good solution for students. | | | | ● | | | | |
| | • On Homestead Rd. at the Chevron station - can the unprotected left turn be restricted between 7:30-9 am? Additionally, can signs be added to alert drivers to watch for cyclists be added? | ● | | | | | | | |
| | • What are the instruction and safety measures for cyclist heading from the multi-use-path towards Vineyard? | | ● | | | Additional considerations will be analyzed in revised concept plans. | | | |
| | • What are the instructions and safety measures for cyclists heading from Grant Rd. to Homestead Rd. eastbound? | | ● | | | Additional considerations will be analyzed in revised concept plans. | | | |
| | • General question; where should trash cans be positioned on trash collection day so it does not block the bike lane? Same question along the multi-use-path? | ● | | | | | | | |
| 66 | I took a look at the document being circulated about the changes to Homestead Road for the Safe Routes to School. I also saw a document about changes to bus routes. I would like to see an increase in public buses servicing Homestead High School as part of the solution to traffic congestion and unsafe driving. My daughter takes the bus, but says it is very crowded on the bus. It would help to have buses come by more frequently to make taking public transit more palatable to students. Also, it was very difficult for me to find information about bus routes, bus fares, etc. on the school website. It would be helpful if that information was included on the school website and also a push was made on campus, during parent orientation, to encourage public transit. | ● | | | | | | | |
| 67 | I am submitting feedback on the draft #2 plans presented during the community meeting at Homestead High School on 2/25/19. Please see attached pdf.<br><br>Thank you to the county engineering team / staff and the consultants for working in such tight schedules. In hopes of helping the project team, I have gathered parent input and added details in the attached document.<br><br>And, please understand that we are very appreciative of the project team and if more parents were able to attend, more green dots would've been added during the 2nd community meeting.<br><br>If any of our feedback is unclear or if you have any questions, the other SRTS parent leads and I are available to meet and discuss further. Just let us know. | | | | ● | | | | |

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| | GENERAL FEEDBACK TO TASK FORCE ON THE ENTIRE PROJECT | | | | | | | | |
| | We like the protected bike lanes in the plans throughout Homestead Road. | | | | ● | | | | |
| | We like the green bike paint used throughout the Homestead Road Corridor. | | | | ● | | | | |
| | We like the piano key crosswalks throughout the Homestead Corridor. | | | | ● | | | | |
| | Can we expect the shared-use path in your proposed plans, to be similar to the current multiuser path on Homestead? (Are these interchangeable terms, or are you proposing something different?) | | | | ● | The proposed shared-use path is wider than the existing facility. Construction material will be determine in the design stage of the project. | | | |
| | Trash cans on trash collection day are often left in the middle of the bike lane causing a safety hazard throughout Homestead Road. Question where should the trash/recycle bins be placed on collection day, and where placed after collection by the waste management company? Where do the receptacles go with respect to the multiuse path? Can instructions be published, encouraged and enforced so the receptacles are not a safety hazard to cyclists/pedestrians? | ● | | | | | | | |
| | The timing of all the traffic signals along Homestead Road need to be coordinated (especially the signals on Homestead Road from Foothill Expressway to Bernardo). | ● | | | | | | | |
| | What is the timeline for the implementation of the Homestead Corridor plans? At the first community meeting in November 2018, Supervisor Simitian mentioned approximately 2.5 years to realization of project. | | ● | | | The timeline for implementation will depend on when grant funding can be secured. | | | |
| | PRIORITY FEEEDBACK IN LOS ALTOS | | | | | | | | |
| | We are concerned about the proposed bike left turn in the median on Grant at the Homestead intersection. How will student cyclists safely reach this median through the busy traffic, and how will they make a safe left turn onto the pathway? Also, we'd like to see a crossing guard stationed at the crosswalk across Grant at Homestead. | | ● | | | Additional considerations will be analyzed in revised concept plans. | | | |
| | How can children returning from school get safely from the pathway, over to the expressway and across to Vineyard? Please provide detailed plans for this. | | ● | | | Additional considerations will be analyzed in revised concept plans. | | | |
| | We are concerned that the bike sharrows on the roadway on Homestead between El Sereno and Grant imply to students that they should bike in the roadway. This is not very safe for students. Is there a way to flow and direct the students onto the multiuse path in this location? Could a sign be placed on Homestead before the El Sereno intersection directing [student] cyclists to use the multiuse pathway? (And, in addition to the sharrows, is a sign alerting drivers that cyclists on on the roadway needed?) | | ● | | | Additional signage will be analyzed in revised concept plans. | | | |
| | What is the proposed width of the paved portion of the multiuser path between El Sereno and Grant? Will it be wide enough to accommodate the volume of 2-way bike and ped traffic expected on this pathway during school route hours? | | ● | | | The proposed width is 12', the industry standard for enhanced shared-use paths. | | | |
| | The intersection of NB Foothill at Homestead was not addressed in the Homestead Corridor Safe Routes project. The Measure B project being planned for 280/Foothill with a Homestead auxiliary lane impacts the safety on the school route and safe routes to school needs to be a priority component of that project. | | | | ● | | | | |
| | The traffic light at Homestead and Fallen Leaf is a great improvement. The timing of the signal needs to be coordinated along with the timing of all the signals on Homestead Road from Foothill Expressway to Bernardo. A crossing guard is also needed at Fallen Leaf and Homestead. | ● | ● | | | | | | |
| | ADDITIONAL FEEDBACK IN LOS ALTOS | | | | | | | | |
| | Can a sign be added in the middle of the El Sereno crosswalk that says yield/stop for pedestrians in crosswalk? | ● | | | | | | | |
| | On Homestead at the Chevron station can the unprotected left turn be restricted so it is not allowed 7:30-9 am? | ● | | | | | | | |
| | (In addition to the painted stop and stop bars on the asphalt that are part of the project plans,) can signs be added alerting drivers to watch for cyclists at the Chevron/TJ's/Starbucks/Peet's shopping complex ingress/egress driveways? | ● | | | | | | | |
| | Can signs be added near the intersection of Homestead Road and the Chevron station and El Sereno alerting drivers to watch for cyclists? (including to alert traffic turning left from Homestead onto El Sereno.) | ● | | | | | | | |
| | Can a sign be added on El Sereno before the Homestead intersection alerting drivers of 2-way bicycle traffic on the multi-use pathway on Homestead Road? Please add signs to alert drivers coming from El Sereno to the 2-way cyclist traffic. | ● | | | | | | | |
| | Can the free right hand turn from Homestead Road onto NB Foothill be changed to a standard/squared-off (not free) right turn? | ● | | | | | | | |
| | Can a green bike lane painted (and signs be added?) to warn drivers taking the free right hand turn from Homestead onto NB Foothill to be careful for pedestrians/cyclists? This is a conflict area between vehicles making free-right turns and students who are trying to cross the expressway to reach Vineyard. | | ● | | | Green conflict zone striping in included in the concept plans at the northbound right turn lane. Additional signage considerations will be anlayzed in the revised concept plans. | | | |
| 67 | Can the green bike lane that is proposed on Homestead in front of the gas station be started earlier so that it runs all the way around the curve on Homestead, along and in front of the gas station? The curve is also a conflict spot for cyclists who cross over to Homestead from the Vineyard side of the expry, as they have to deal with traffic that is entering Homestead (especially the traffic that has just entered Homestead from NB expressway that takes the curve tightly and often drives in the bike lane today). | | ● | | | Green bike lane striping will be added around the curb in the revised concept plans. | | | |
| | Can you explain the plans for the intersection of the right turn from Vineyard onto SB Foothill? (Including with respect to the crosswalk across the current free right hand turn.) We don't fully understand the plans presented at the community meeting. | | | | ● | | | | |
| | Will all ramps at the intersection of Homestead and Foothill, and Vineyard and Foothill be made ADA compliant? In the diagrams from the second community meeting, it appears non-ADA compliant ramps are not marked for change/upgrade. | | ● | | | Additional considerations will be analyzed in revised concept plans. | | | |
| | PRIORITY FEEDBACK IN SUNNYVALE AND CUPERTINO | | | | | | | | |
| | We like the extension of the multi-user pathway from where it currently ends to Belleville. What is the proposed width of the paved area of this pathway extension? Will it be wide enough to accommodate the high volume of two-way bike and pedestrian traffic expected on this portion of the pathway during school route hours? (Making it the same width as the existing paved pathway, will not be wide enough in this area. It needs to be wider.) | | ● | | | The proposed width is 14' which is wider than the existing 8' shared-use path. | | | |
| | We are concerned that the proposed multi-user path on Homestead between Belleville and Bernardo is too narrow. What is the proposed width of the paved area? Given the close proximity to Cupertino Middle School, and the nearness of West Valley Elementary School, this is a heavily traveled area with students headed in both directions (two-way bike & ped traffic) based on what school they attend. Also given the proximity to the schools, there is a heavy mix of both cyclists and pedestrians at every age level and ability (including parents returning from walking/cycling children to school) that need to use the multi-user pathway at the same time. We are also concerned that high school students and adult cyclists who pass through here during elementary and middle school route hours, often at high speed, will be significantly impacted by the absence of the bike lane. We are concerned that these cyclists, including high school students, will decide to ride within the roadway (without a bike lane) when the path is congested and that this will be dangerous. (At minimum, could drivers be alerted, with signage, to watch for cyclists?) Is there a way to flow and direct the student cyclists onto the multi-user path especially between Bernardo and Belleville where the proposed plans eliminate the bike lane? For this location, with respect to cyclist/pedestrian safety we prefer the plans presented at the second task force meeting, that provide a wider pathway, and an on-road bike lane. To achieve this, it was proposed that the merge on westbound Homestead take place before 85 (not after Belleville where it takes place today). While we understand Sunnyvale may be concerned about such change causing vehicle back-up on Homestead, we request that a study be done to determine the actual impacts expected. | | ● | | | Widening the existing shared-use path will be analyzed in revised concept plans.<br><br>Additional signage will be analzyed in the revised concept plans.<br><br>Wider ramps included in the concept plans. Additonal bike ramps will be analzyed in the revised concept plans.<br><br>The shared-use path is the preferred option since removal of vehicular lanes to provide a multimodal facility on the north side of Homestead Road is not feasible per City of Sunnyvale. | | | |
| | Consistent 25mph/15mph school zone speed limits should be implemented on Homestead Road and on Bernardo Ave near Cupertino Middle School (CMS). Today on Homestead Road near CMS the 25mph school speed zone is inconsistently implemented across jurisdictions and the zone appears to only exist for a short duration on one side of the road (the south/west side from near Acacia Way to Bernardo Ave. for east bound traffic). The normal speed on Homestead is posted as 35mph. Also, the 15mph zone for Bernardo has not yet been implemented. (When will that be implemented?) | ● | | | | | | | |
| | What is the suggested route to Cupertino Middle School for students after they have crossed 85? Some of our more specific questions are: | | | | | | | | |
| | Will the access path continue to run between the gas station and 85? | | | | ● | Yes. The access path is owned by the City of Cupertino and they do not have plans to close it. | | | |
| | Is there enough space on the sound wall side of Bernardo to add a shared-user path as the proposed plans indicate? | | | | ● | Yes. The shared-use path will be constructed by repurposing excess width of the existing roadway. | | | |
| | With the proposed RRFB at mid-block on Bernardo (right by the school), will vehicles have enough opportunity to proceed on Bernardo Ave or will the RRFB be frequently activated (given the high volume of students using this crosswalk today), causing vehicle congestion during school start/end hours? Will a crossing guard be deployed in this location to control when the button is pushed to also give vehicles during busy drop-off/pick-up hours an opportunity to drive through? (A crossing guard is needed here today. It is a busy dangerous crossing.) An RRFB is a welcome addition in this dangerous crossing, but it would need to be operated by a crossing guard during school start/end times who can hold students and also give vehicles a chance to drive through the crosswalk. | ● | | | | | | | |
| | If the suggested route is for students to go to the intersection of Homestead/Bernardo (instead of cut behind the gas station), how will you address the cyclist conflict with the ingress/egress from the gas station in both morning and afternoon? The gas station does not have many customers during school route hours (especially in the morning), but parents use it as a drop-off spot and a cut-through to Bernardo Ave (the latter is frequently done in the morning given the intersection of Homestead/Bernardo is so busy and drivers have to wait through multiple green lights to get a chance to turn left onto Bernardo). This is very dangerous for cyclists. | | ● | | | Conflict zone striping is recommended to be provided at the gas station driveways. | | | |

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| 67 | If the suggested route is for students to go to the intersection of Homestead/Bernardo (instead of cut behind the gas station), how will you deal with the conflict between cyclists crossing Bernardo at Homestead in the morning and vehicles turning right from westbound Homestead onto Bernardo? Could the vehicles be given a green right turn signal/arrow so they have a chance to turn (and maybe a no turn on red, so they are not turning when the vehicles from eastbound Homestead have a green signal to turn left onto Bernardo)? | | | | ● | To provide a protected turn phase, a turn lane must be provided. Since one does not exist, the roadway would have to be widened, which is not feasible. | | | |
| | Especially if the suggested route is for students to go to the intersection of Homestead/Bernardo (instead of cut behind the gas station), a crossing guard at this location should be provided. | ● | | | | | | | |
| | How wide are you proposing for the paved portion of the shared-use path on Bernardo Ave (school side)? Note, given the proximity to the school the path will be heavily used by both cyclists and pedestrians and needs to be wide enough. | | ● | | | The proposed width is 14'. | | | |
| | How will cyclists returning from Homestead High School enter the multi-user path? (Will the path be aligned/straight ahead from where the bike lane ends? And do they enter via a curb?) | | ● | | | The bike lane aligns with the shared-use path and a wider ramp is provided in the concept plans. | | | |
| | Homestead High School (HHS) parents park/wait in their vehicles on Homestead Road near the school to pick up their children in the afternoon. Unfortunately, on a daily basis, drivers/vehicles are blocking the eastbound bike lane from way before the HHS staff lot and student lot. This impacts Cupertino Middle School (CMS) student cyclists who return home past HHS. (CMS is dismissed slightly earlier than HHS.) CMS students are not able to use the eastbound bike lane as they approach HHS in the afternoon because the waiting vehicles are blocking it - so they ride on the other side of the road (going the "wrong way"), on the sidewalk. (Could something like buffered/protected bike lanes like the ones used by Graham Middle School in Mountain View, be used on Homestead Road on the HHS side of the road from McKenzie Dr. to the end of HHS property (across from Kennewick Dr.)?) | | ● | | | Protected bike lanes will be analyzed in the revised concept plans. | | | |
| | ADDITIONAL FEEDBACK IN SUNNYVALE AND CUPERTINO | | | | | | | | |
| | How will cyclists returning from Homestead High School enter the multi-user path? (Will the path be aligned/straight ahead from where the bike lane ends? And do they enter via a curb?) | | ● | | | The bike lane aligns with the shared-use path and a wider ramp is provided in the concept plans. | | | |
| | We like the proposed plans to complete the sidewalk on Homestead in the small area that is somewhere between Lucky Oak and Barranca Dr where the sidewalk is missing today. | | | | ● | | | | |
| | We like the no right turn on red sign on Belleville (for turns onto Homestead). Could a crossing guard also be added at the Homestead and Belleville intersection? | ● | | | | | | | |
| | We like the elimination of the free right hand turn from Homestead onto NB 85, as it will provide safety protections to student cyclists. Can you define an approximate timeline for these long-term plans? | | | | ● | Further coordination with Caltrans is necessary to determine the timeline for this long-term project. | | | |
| | For the SB 85 off ramp at Homestead, is the work Caltrans is planning for the near-term ADA project, aligned with the proposed multi-user path for this location? (In other words, do ped/cyclists enter a multi-user pathway the same way they enter a sidewalk?) | | ● | | | The concept plans have recommendations beyond the scope of the Caltrans ADA project. Wider ramps will be provided for the shared-use path. | | | |
| | The work Caltrans is planning for the near-term ADA project, at the NB 85 on-ramp across the free-right turn does not appear to be aligned with the plans for the Homestead Corridor Safe Routes project. Is all the other work Caltrans planning in the near-term ADA project at this location, aligned with the plans for the Homestead Corridor Safe Routes? | | ● | | | The concept plans have recommendations beyond the scope of the Caltrans ADA project. | | | |



# E. Collected Traffic Count Data

Location: Foothill Expy & Homestead Rd
City: Los Altos
Control: Signalized

Project ID: 18-08664-101
Date: 12/11/2018

## Total

| NS/EW Streets: | Foothill Expy | | | | Foothill Expy | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1 | 2 | 1 | 0 | 1 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 1.5 | 0.5 | 1 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 1 | 228 | 36 | 0 | 7 | 53 | 0 | 0 | 3 | 2 | 4 | 0 | 44 | 0 | 54 | 0 | 432 |
| 7:15 AM | 2 | 286 | 33 | 0 | 14 | 68 | 1 | 0 | 3 | 7 | 7 | 0 | 63 | 0 | 64 | 0 | 548 |
| 7:30 AM | 1 | 291 | 54 | 0 | 69 | 114 | 7 | 0 | 3 | 26 | 6 | 0 | 82 | 4 | 98 | 0 | 755 |
| 7:45 AM | 8 | 352 | 41 | 0 | 41 | 144 | 5 | 1 | 4 | 9 | 9 | 0 | 105 | 6 | 90 | 0 | 815 |
| 8:00 AM | 2 | 250 | 66 | 1 | 40 | 135 | 3 | 0 | 6 | 8 | 8 | 0 | 125 | 9 | 140 | 0 | 793 |
| 8:15 AM | 1 | 247 | 73 | 1 | 48 | 152 | 3 | 0 | 2 | 5 | 9 | 0 | 113 | 1 | 126 | 0 | 781 |
| 8:30 AM | 1 | 267 | 71 | 2 | 55 | 183 | 2 | 0 | 4 | 5 | 7 | 0 | 107 | 3 | 96 | 0 | 803 |
| 8:45 AM | 4 | 255 | 94 | 0 | 26 | 115 | 0 | 0 | 1 | 6 | 8 | 0 | 101 | 3 | 112 | 0 | 725 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 20 | 2176 | 468 | 4 | 300 | 964 | 21 | 1 | 26 | 68 | 58 | 0 | 740 | 26 | 780 | 0 | 5652 |
| APPROACH %'s : | 0.75% | 81.56% | 17.54% | 0.15% | 23.33% | 74.96% | 1.63% | 0.08% | 17.11% | 44.74% | 38.16% | 0.00% | 47.87% | 1.68% | 50.45% | 0.00% | |
| PEAK HR : | 07:45 AM - 08:45 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 12 | 1116 | 251 | 4 | 184 | 614 | 13 | 1 | 16 | 27 | 33 | 0 | 450 | 19 | 452 | 0 | 3192 |
| PEAK HR FACTOR : | 0.375 | 0.793 | 0.860 | 0.500 | 0.836 | 0.839 | 0.650 | 0.250 | 0.667 | 0.750 | 0.917 | 0.000 | 0.900 | 0.528 | 0.807 | 0.000 | 0.979 |
| | 0.862 | | | | 0.846 | | | | 0.864 | | | | 0.840 | | | | |

Location: Foothill Expy & Homestead Rd
City: Los Altos
Control: Signalized

Project ID: 18-08664-101
Date: 12/11/2018

# Bikes

| NS/EW Streets: | Foothill Expy | | | | Foothill Expy | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1 | 2 | 1 | 0 | 1 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 1.5 | 0.5 | 1 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| 7:15 AM | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 | 0 | 8 |
| 7:30 AM | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 11 |
| 7:45 AM | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 3 | 0 | 23 |
| 8:00 AM | 0 | 2 | 1 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 10 |
| 8:15 AM | 0 | 3 | 2 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 10 |
| 8:30 AM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 6 |
| 8:45 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 15 | 4 | 0 | 9 | 3 | 0 | 0 | 0 | 24 | 0 | 0 | 3 | 1 | 15 | 0 | 74 |
| APPROACH %'s : | 0.00% | 78.95% | 21.05% | 0.00% | 75.00% | 25.00% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% | 0.00% | 15.79% | 5.26% | 78.95% | 0.00% | |
| PEAK HR : | 07:45 AM - 08:45 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 10 | 4 | 0 | 8 | 2 | 0 | 0 | 0 | 16 | 0 | 0 | 2 | 1 | 6 | 0 | 49 |
| PEAK HR FACTOR : | 0.000 | 0.625 | 0.500 | 0.000 | 0.667 | 0.500 | 0.000 | 0.000 | 0.000 | 0.267 | 0.000 | 0.000 | 0.250 | 0.250 | 0.500 | 0.000 | 0.533 |
| | 0.700 | | | | 0.625 | | | | 0.267 | | | | 0.750 | | | | |

Location: Foothill Expy & Homestead Rd
City: Los Altos

Project ID: 18-08664-101
Date: 12/11/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Foothill Expy | | Foothill Expy | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 8:15 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 8 |
| APPROACH %'s : | 0.00% | 100.00% | 100.00% | 0.00% | | | | | |
| PEAK HR : | 07:45 AM - 08:45 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 4 |
| PEAK HR FACTOR : | 0.250 | | 0.250 | | | | | | 0.500 |
| | | 0.250 | | 0.250 | | | | | |

Location: Grant Rd & Homestead Rd
City: Los Altos
Control: 1-Way Stop(SB)

Project ID: 18-08549-101
Date: 10/24/2018

## Total

| NS/EW Streets: | Grant Rd | | | | Grant Rd | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1.5 | 0.5 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 99 | 17 | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 173 |
| 7:15 AM | 137 | 22 | 0 | 0 | 0 | 12 | 5 | 0 | 0 | 0 | 55 | 0 | 0 | 0 | 0 | 0 | 231 |
| 7:30 AM | 179 | 25 | 0 | 0 | 0 | 13 | 7 | 0 | 0 | 0 | 65 | 0 | 0 | 0 | 0 | 0 | 289 |
| 7:45 AM | 226 | 24 | 0 | 0 | 0 | 16 | 4 | 0 | 0 | 0 | 69 | 0 | 0 | 0 | 0 | 0 | 339 |
| 8:00 AM | 237 | 23 | 0 | 0 | 0 | 17 | 6 | 0 | 0 | 0 | 108 | 0 | 0 | 0 | 0 | 0 | 391 |
| 8:15 AM | 253 | 27 | 0 | 0 | 0 | 12 | 3 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 395 |
| 8:30 AM | 215 | 29 | 0 | 0 | 0 | 26 | 4 | 0 | 0 | 0 | 150 | 0 | 0 | 0 | 0 | 0 | 424 |
| 8:45 AM | 229 | 29 | 0 | 0 | 0 | 14 | 4 | 0 | 0 | 0 | 161 | 0 | 0 | 0 | 0 | 0 | 437 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 1575 | 196 | 0 | 0 | 0 | 115 | 36 | 0 | 0 | 0 | 757 | 0 | 0 | 0 | 0 | 0 | 2679 |
| APPROACH %'s : | 88.93% | 11.07% | 0.00% | 0.00% | 0.00% | 76.16% | 23.84% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% | | | | | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 934 | 108 | 0 | 0 | 0 | 69 | 17 | 0 | 0 | 0 | 519 | 0 | 0 | 0 | 0 | 0 | 1647 |
| PEAK HR FACTOR : | 0.923 | 0.931 | 0.000 | 0.000 | 0.000 | 0.663 | 0.708 | 0.000 | 0.000 | 0.000 | 0.806 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.942 |
| | 0.930 | | | | 0.717 | | | | 0.806 | | | | | | | | |

| PM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.5 | 0.5 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 111 | 29 | 0 | 0 | 0 | 18 | 8 | 0 | 0 | 0 | 94 | 0 | 0 | 0 | 0 | 0 | 260 |
| 2:15 PM | 125 | 29 | 0 | 0 | 0 | 14 | 8 | 0 | 0 | 0 | 76 | 0 | 0 | 0 | 0 | 0 | 252 |
| 2:30 PM | 93 | 51 | 0 | 0 | 0 | 20 | 6 | 0 | 0 | 0 | 96 | 0 | 0 | 0 | 0 | 0 | 266 |
| 2:45 PM | 135 | 16 | 0 | 0 | 0 | 29 | 9 | 0 | 0 | 0 | 123 | 0 | 0 | 0 | 0 | 0 | 312 |
| 3:00 PM | 113 | 26 | 0 | 0 | 0 | 24 | 6 | 0 | 0 | 0 | 136 | 0 | 0 | 0 | 0 | 0 | 305 |
| 3:15 PM | 113 | 27 | 0 | 0 | 0 | 40 | 12 | 0 | 0 | 0 | 175 | 0 | 0 | 0 | 0 | 0 | 367 |
| 3:30 PM | 134 | 36 | 0 | 0 | 0 | 37 | 7 | 0 | 0 | 0 | 145 | 0 | 0 | 0 | 0 | 0 | 359 |
| 3:45 PM | 117 | 30 | 0 | 0 | 0 | 33 | 4 | 0 | 0 | 0 | 160 | 0 | 0 | 0 | 0 | 0 | 344 |
| 4:00 PM | 101 | 25 | 0 | 0 | 0 | 28 | 8 | 0 | 0 | 0 | 178 | 0 | 0 | 0 | 0 | 0 | 340 |
| 4:15 PM | 103 | 28 | 0 | 0 | 0 | 34 | 10 | 0 | 0 | 0 | 173 | 0 | 0 | 0 | 0 | 0 | 348 |
| 4:30 PM | 95 | 31 | 0 | 0 | 0 | 35 | 11 | 0 | 0 | 0 | 193 | 0 | 0 | 0 | 0 | 0 | 365 |
| 4:45 PM | 122 | 22 | 0 | 0 | 0 | 27 | 5 | 0 | 0 | 0 | 210 | 0 | 0 | 0 | 0 | 0 | 386 |
| 5:00 PM | 80 | 21 | 0 | 0 | 0 | 20 | 6 | 0 | 0 | 0 | 206 | 0 | 0 | 0 | 0 | 0 | 333 |
| 5:15 PM | 126 | 28 | 0 | 0 | 0 | 27 | 4 | 0 | 0 | 0 | 187 | 0 | 0 | 0 | 0 | 0 | 372 |
| 5:30 PM | 120 | 31 | 0 | 0 | 0 | 27 | 6 | 0 | 0 | 0 | 171 | 0 | 0 | 0 | 0 | 0 | 355 |
| 5:45 PM | 118 | 28 | 0 | 0 | 0 | 24 | 5 | 0 | 0 | 0 | 193 | 0 | 0 | 0 | 0 | 0 | 368 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 1806 | 458 | 0 | 0 | 0 | 437 | 115 | 0 | 0 | 0 | 2516 | 0 | 0 | 0 | 0 | 0 | 5332 |
| APPROACH %'s : | 79.77% | 20.23% | 0.00% | 0.00% | 0.00% | 79.17% | 20.83% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% | | | | | |
| PEAK HR : | 04:30 PM - 05:30 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 423 | 102 | 0 | 0 | 0 | 109 | 26 | 0 | 0 | 0 | 796 | 0 | 0 | 0 | 0 | 0 | 1456 |
| PEAK HR FACTOR : | 0.839 | 0.823 | 0.000 | 0.000 | 0.000 | 0.779 | 0.591 | 0.000 | 0.000 | 0.000 | 0.948 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.943 |
| | 0.852 | | | | 0.734 | | | | 0.948 | | | | | | | | |

Location: Grant Rd & Homestead Rd
City: Los Altos
Control: 1-Way Stop(SB)

Project ID: 18-08549-101
Date: 10/24/2018

# Bikes

| NS/EW Streets: | Grant Rd | | | | Grant Rd | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1.5 | 0.5 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 7:15 AM | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 |
| 7:30 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| 7:45 AM | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 |
| 8:00 AM | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 9 |
| 8:15 AM | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 8 |
| 8:30 AM | 6 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 37 |
| 8:45 AM | 1 | 3 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 29 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 21 | 7 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 97 |
| APPROACH %'s : | 75.00% | 25.00% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% | | | | | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 13 | 6 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 83 |
| PEAK HR FACTOR : | 0.542 | 0.500 | 0.000 | 0.000 | 0.000 | 0.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.483 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.561 |
| | 0.792 | | | | 0.461 | | | | 0.483 | | | | | | | | |

| NS/EW Streets: | Grant Rd | | | | Grant Rd | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1.5 | 0.5 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 7 |
| 2:15 PM | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 |
| 2:30 PM | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 6 |
| 2:45 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 3:00 PM | 9 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 |
| 3:15 PM | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 6 |
| 3:30 PM | 4 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 18 |
| 3:45 PM | 4 | 9 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 16 |
| 4:00 PM | 2 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 12 |
| 4:15 PM | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 8 |
| 4:30 PM | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 4:45 PM | 3 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 10 |
| 5:00 PM | 2 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 12 |
| 5:15 PM | 5 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 10 |
| 5:30 PM | 5 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 11 |
| 5:45 PM | 5 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 10 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 45 | 80 | 0 | 0 | 0 | 21 | 3 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 180 |
| APPROACH %'s : | 36.00% | 64.00% | 0.00% | 0.00% | 0.00% | 87.50% | 12.50% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% | | | | | |
| PEAK HR : | 04:30 PM - 05:30 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 12 | 11 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 37 |
| PEAK HR FACTOR : | 0.60 | 0.917 | 0.000 | 0.000 | 0.000 | 0.583 | 0.000 | 0.000 | 0.000 | 0.000 | 0.438 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.771 |
| | 0.821 | | | | 0.583 | | | | 0.438 | | | | | | | | |

Location: Grant Rd & Homestead Rd
City: Los Altos

Project ID: 18-08549-101
Date: 10/24/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Grant Rd | | Grant Rd | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 7:30 AM | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 |
| 7:45 AM | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 4 |
| 8:00 AM | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 3 |
| 8:15 AM | 2 | 2 | 0 | 0 | 6 | 3 | 0 | 0 | 13 |
| 8:30 AM | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 4 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 3 | 3 | 0 | 0 | 13 | 11 | 0 | 0 | 30 |
| APPROACH %'s : | 50.00% | 50.00% | | | 54.17% | 45.83% | | | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 2 | 2 | 0 | 0 | 10 | 6 | 0 | 0 | 20 |
| PEAK HR FACTOR : | 0.250 | 0.250 | | | 0.417 | 0.500 | | | 0.385 |
| | 0.250 | | | | 0.444 | | | | |

| **PM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 2:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:00 PM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| 3:15 PM | 0 | 1 | 0 | 0 | 3 | 1 | 0 | 0 | 5 |
| 3:30 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| 3:45 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 4:00 PM | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 5 |
| 4:15 PM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| 4:30 PM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 3 |
| 4:45 PM | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 5 |
| 5:00 PM | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 3 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| 5:45 PM | 0 | 1 | 0 | 0 | 3 | 4 | 0 | 0 | 8 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 0 | 6 | 0 | 0 | 25 | 9 | 0 | 0 | 40 |
| APPROACH %'s : | 0.00% | 100.00% | | | 73.53% | 26.47% | | | |
| PEAK HR : | 04:30 PM - 05:30 PM | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 3 | 0 | 0 | 6 | 2 | 0 | 0 | 11 |
| PEAK HR FACTOR : | | 0.375 | | | 0.750 | 0.500 | | | 0.550 |
| | 0.375 | | | | 0.667 | | | | |

Location: Grant Rd/Homestead Rd & Homestead Rd
City: Los Altos
Control: 1-Way Stop (SB)

Project ID: 18-08664-001
Date: 12/11/2018

## Total

| NS/EW Streets: | Grant Rd/Homestead Rd | | | | Grant Rd/Homestead Rd | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1.5 | 0.5 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 89 | 11 | 0 | 0 | 0 | 9 | 5 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 159 |
| 7:15 AM | 124 | 24 | 0 | 0 | 0 | 12 | 5 | 0 | 0 | 0 | 59 | 0 | 0 | 0 | 0 | 0 | 224 |
| 7:30 AM | 173 | 34 | 0 | 0 | 0 | 29 | 5 | 0 | 0 | 0 | 142 | 0 | 0 | 0 | 0 | 0 | 383 |
| 7:45 AM | 196 | 36 | 0 | 0 | 0 | 21 | 10 | 0 | 0 | 0 | 95 | 0 | 0 | 0 | 0 | 0 | 358 |
| 8:00 AM | 259 | 31 | 0 | 0 | 0 | 19 | 7 | 0 | 0 | 0 | 114 | 0 | 0 | 0 | 0 | 0 | 430 |
| 8:15 AM | 239 | 22 | 0 | 0 | 0 | 12 | 7 | 0 | 0 | 0 | 129 | 0 | 0 | 0 | 0 | 0 | 409 |
| 8:30 AM | 206 | 26 | 0 | 0 | 0 | 19 | 3 | 0 | 0 | 0 | 129 | 0 | 0 | 0 | 0 | 0 | 383 |
| 8:45 AM | 212 | 28 | 0 | 0 | 0 | 19 | 6 | 0 | 0 | 0 | 123 | 0 | 0 | 0 | 0 | 0 | 388 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 1498 | 212 | 0 | 0 | 0 | 140 | 48 | 0 | 0 | 0 | 836 | 0 | 0 | 0 | 0 | 0 | 2734 |
| APPROACH %'s : | 87.60% | 12.40% | 0.00% | 0.00% | 0.00% | 74.47% | 25.53% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% | | | | | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 916 | 107 | 0 | 0 | 0 | 69 | 23 | 0 | 0 | 0 | 495 | 0 | 0 | 0 | 0 | 0 | 1610 |
| PEAK HR FACTOR : | 0.884 | 0.863 | 0.000 | 0.000 | 0.000 | 0.908 | 0.821 | 0.000 | 0.000 | 0.000 | 0.959 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.936 |
| | 0.882 | | | | 0.885 | | | | 0.959 | | | | | | | | |

Location: Grant Rd/Homestead Rd & Homestead Rd
City: Los Altos
Control: 1-Way Stop (SB)

Project ID: 18-08664-001
Date: 12/11/2018

# Bikes

| NS/EW Streets: | Grant Rd/Homestead Rd | | | | Grant Rd/Homestead Rd | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1.5 | 0.5 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 7:15 AM | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 7:30 AM | 1 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 29 |
| 7:45 AM | 4 | 0 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 43 |
| 8:00 AM | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 10 |
| 8:15 AM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 7 |
| 8:30 AM | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 7 |
| 8:45 AM | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 20 | 2 | 0 | 0 | 0 | 53 | 0 | 0 | 1 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 109 |
| APPROACH %'s : | 90.91% | 9.09% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% | 0.00% | 2.94% | 0.00% | 97.06% | 0.00% | | | | | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 8 | 2 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 28 |
| PEAK HR FACTOR : | 0.667 | 0.500 | 0.000 | 0.000 | 0.000 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.600 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.700 |
| | 0.625 | | | | 0.500 | | | | 0.600 | | | | | | | | |

Location: Grant Rd/Homestead Rd & Homestead Rd
City: Los Altos

Project ID: 18-08664-001
Date: 12/11/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Grant Rd/Homestead Rd | | Grant Rd/Homestead Rd | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 |
| 7:45 AM | 2 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 5 |
| 8:00 AM | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 6 |
| 8:15 AM | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 |
| 8:30 AM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| 8:45 AM | 0 | 2 | 0 | 0 | 3 | 0 | 1 | 0 | 6 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 2 | 4 | 0 | 0 | 11 | 8 | 1 | 0 | 26 |
| APPROACH %'s : | 33.33% | 66.67% | | | 57.89% | 42.11% | 100.00% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 4 | 0 | 0 | 8 | 4 | 1 | 0 | 17 |
| PEAK HR FACTOR : | 0.500 | | | | 0.667 | 0.500 | 0.250 | | 0.708 |
| | 0.500 | | | | 0.750 | | 0.250 | | |

Location: Foothill Expy & Homestead Rd
City: Los Altos
Control: Signalized

Project ID: 18-08549-001
Date: 10/24/2018

## Total

| NS/EW Streets: | Foothill Expy | | | | Foothill Expy | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1 | 2 | 1 | 0 | 1 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 1.5 | 0.5 | 1 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 2 | 246 | 34 | 0 | 12 | 69 | 0 | 0 | 2 | 1 | 5 | 0 | 43 | 0 | 59 | 0 | 473 |
| 7:15 AM | 4 | 273 | 38 | 0 | 10 | 59 | 3 | 0 | 3 | 6 | 5 | 0 | 68 | 1 | 69 | 0 | 539 |
| 7:30 AM | 4 | 360 | 41 | 0 | 20 | 111 | 3 | 1 | 1 | 6 | 7 | 0 | 92 | 1 | 94 | 0 | 741 |
| 7:45 AM | 9 | 287 | 40 | 1 | 24 | 146 | 0 | 0 | 2 | 7 | 4 | 0 | 124 | 6 | 97 | 0 | 747 |
| 8:00 AM | 4 | 284 | 66 | 1 | 31 | 134 | 1 | 0 | 4 | 9 | 6 | 0 | 118 | 5 | 114 | 0 | 777 |
| 8:15 AM | 3 | 247 | 58 | 1 | 43 | 112 | 2 | 0 | 5 | 8 | 9 | 0 | 127 | 4 | 131 | 0 | 750 |
| 8:30 AM | 7 | 190 | 54 | 1 | 65 | 157 | 11 | 0 | 1 | 33 | 10 | 0 | 97 | 2 | 112 | 0 | 740 |
| 8:45 AM | 8 | 236 | 78 | 1 | 64 | 139 | 12 | 0 | 1 | 12 | 4 | 0 | 120 | 8 | 112 | 0 | 795 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 41 | 2123 | 409 | 5 | 269 | 927 | 32 | 1 | 19 | 82 | 50 | 0 | 789 | 27 | 788 | 0 | 5562 |
| APPROACH %'s : | 1.59% | 82.35% | 15.87% | 0.19% | 21.89% | 75.43% | 2.60% | 0.08% | 12.58% | 54.30% | 33.11% | 0.00% | 49.19% | 1.68% | 49.13% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 22 | 957 | 256 | 4 | 203 | 542 | 26 | 0 | 11 | 62 | 29 | 0 | 462 | 19 | 469 | 0 | 3062 |
| PEAK HR FACTOR : | 0.688 | 0.842 | 0.821 | 1.000 | 0.781 | 0.863 | 0.542 | 0.000 | 0.550 | 0.470 | 0.725 | 0.000 | 0.909 | 0.594 | 0.895 | 0.000 | 0.963 |
| | 0.873 | | | | 0.827 | | | | 0.580 | | | | 0.906 | | | | |

| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 1 | 0 | 1 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 1.5 | 0.5 | 1 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 5 | 124 | 45 | 0 | 40 | 115 | 1 | 1 | 0 | 4 | 6 | 0 | 75 | 3 | 46 | 0 | 465 |
| 2:15 PM | 3 | 170 | 45 | 0 | 35 | 128 | 2 | 2 | 0 | 2 | 5 | 0 | 77 | 2 | 46 | 0 | 517 |
| 2:30 PM | 8 | 133 | 37 | 1 | 50 | 140 | 2 | 0 | 2 | 1 | 3 | 0 | 67 | 1 | 37 | 0 | 482 |
| 2:45 PM | 5 | 162 | 38 | 0 | 80 | 240 | 1 | 0 | 2 | 4 | 6 | 0 | 91 | 1 | 49 | 0 | 679 |
| 3:00 PM | 2 | 133 | 58 | 0 | 65 | 226 | 3 | 1 | 1 | 3 | 5 | 0 | 77 | 4 | 45 | 0 | 623 |
| 3:15 PM | 5 | 129 | 68 | 0 | 103 | 251 | 5 | 1 | 3 | 4 | 4 | 0 | 81 | 3 | 34 | 0 | 691 |
| 3:30 PM | 2 | 116 | 62 | 0 | 85 | 300 | 2 | 1 | 2 | 4 | 1 | 0 | 80 | 12 | 47 | 0 | 714 |
| 3:45 PM | 8 | 106 | 62 | 0 | 84 | 270 | 6 | 0 | 0 | 10 | 3 | 0 | 70 | 3 | 48 | 0 | 670 |
| 4:00 PM | 4 | 83 | 67 | 0 | 115 | 298 | 4 | 0 | 2 | 5 | 1 | 0 | 67 | 4 | 36 | 0 | 686 |
| 4:15 PM | 2 | 107 | 61 | 2 | 110 | 288 | 2 | 0 | 0 | 8 | 4 | 0 | 84 | 10 | 28 | 0 | 706 |
| 4:30 PM | 4 | 123 | 68 | 1 | 125 | 299 | 3 | 1 | 1 | 5 | 3 | 0 | 67 | 5 | 26 | 0 | 731 |
| 4:45 PM | 4 | 105 | 59 | 0 | 143 | 288 | 1 | 0 | 2 | 8 | 2 | 0 | 86 | 8 | 40 | 0 | 746 |
| 5:00 PM | 1 | 124 | 74 | 0 | 130 | 308 | 3 | 0 | 2 | 7 | 3 | 0 | 71 | 4 | 19 | 0 | 746 |
| 5:15 PM | 8 | 124 | 67 | 0 | 119 | 327 | 3 | 0 | 0 | 6 | 3 | 0 | 99 | 5 | 25 | 0 | 786 |
| 5:30 PM | 4 | 121 | 66 | 0 | 99 | 317 | 2 | 1 | 1 | 8 | 7 | 0 | 75 | 6 | 37 | 0 | 744 |
| 5:45 PM | 3 | 133 | 64 | 1 | 115 | 286 | 4 | 0 | 2 | 5 | 7 | 0 | 78 | 6 | 40 | 0 | 744 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 68 | 1993 | 941 | 5 | 1498 | 4081 | 44 | 8 | 20 | 84 | 63 | 0 | 1245 | 77 | 603 | 0 | 10730 |
| APPROACH %'s : | 2.26% | 66.28% | 31.29% | 0.17% | 26.60% | 72.47% | 0.78% | 0.14% | 11.98% | 50.30% | 37.72% | 0.00% | 64.68% | 4.00% | 31.32% | 0.00% | |
| PEAK HR : | 04:45 PM - 05:45 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 17 | 474 | 266 | 0 | 491 | 1240 | 9 | 1 | 5 | 29 | 15 | 0 | 331 | 23 | 121 | 0 | 3022 |
| PEAK HR FACTOR : | 0.531 | 0.956 | 0.899 | 0.000 | 0.858 | 0.948 | 0.750 | 0.250 | 0.625 | 0.906 | 0.536 | 0.000 | 0.836 | 0.719 | 0.756 | 0.000 | 0.961 |
| | 0.951 | | | | 0.969 | | | | 0.766 | | | | 0.886 | | | | |

Location: Foothill Expy & Homestead Rd
City: Los Altos
Control: Signalized

Project ID: 18-08549-001
Date: 10/24/2018

# Bikes

| NS/EW Streets: | Foothill Expy | | | | Foothill Expy | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1 | 2 | 1 | 0 | 1 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 1.5 | 0.5 | 1 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 |
| 7:15 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 5 |
| 7:30 AM | 0 | 3 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 7:45 AM | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 10 |
| 8:00 AM | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 10 |
| 8:15 AM | 0 | 3 | 1 | 0 | 3 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 4 | 0 | 17 |
| 8:30 AM | 0 | 3 | 2 | 0 | 2 | 1 | 1 | 0 | 0 | 10 | 0 | 0 | 1 | 0 | 2 | 0 | 22 |
| 8:45 AM | 0 | 1 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 2 | 0 | 10 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 20 | 6 | 0 | 12 | 7 | 2 | 0 | 1 | 16 | 0 | 0 | 1 | 1 | 19 | 0 | 85 |
| APPROACH %'s : | 0.00% | 76.92% | 23.08% | 0.00% | 57.14% | 33.33% | 9.52% | 0.00% | 5.88% | 94.12% | 0.00% | 0.00% | 4.76% | 4.76% | 90.48% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 10 | 5 | 0 | 8 | 5 | 2 | 0 | 1 | 15 | 0 | 0 | 1 | 1 | 11 | 0 | 59 |
| PEAK HR FACTOR : | 0.000 | 0.833 | 0.625 | 0.000 | 0.667 | 0.313 | 0.500 | 0.000 | 0.250 | 0.375 | 0.000 | 0.000 | 0.250 | 0.250 | 0.688 | 0.000 | 0.670 |
| | | 0.750 | | | | 0.536 | | | | 0.400 | | | | 0.813 | | | |

| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 1 | 0 | 1 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 1.5 | 0.5 | 1 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 6 |
| 2:15 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 2:30 PM | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 6 |
| 2:45 PM | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 3:00 PM | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 12 |
| 3:15 PM | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 4 |
| 3:30 PM | 0 | 0 | 1 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 11 |
| 3:45 PM | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 6 |
| 4:00 PM | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 6 |
| 4:15 PM | 0 | 3 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 12 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 8 |
| 4:45 PM | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 6 |
| 5:00 PM | 0 | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 9 |
| 5:15 PM | 0 | 1 | 0 | 0 | 1 | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 12 |
| 5:30 PM | 0 | 5 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 15 |
| 5:45 PM | 0 | 1 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 2 | 0 | 0 | 7 | 0 | 1 | 0 | 16 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 19 | 6 | 0 | 13 | 33 | 2 | 0 | 0 | 12 | 0 | 0 | 11 | 19 | 18 | 0 | 133 |
| APPROACH %'s : | 0.00% | 76.00% | 24.00% | 0.00% | 27.08% | 68.75% | 4.17% | 0.00% | 0.00% | 100.00% | 0.00% | 0.00% | 22.92% | 39.58% | 37.50% | 0.00% | |
| PEAK HR : | 04:45 PM - 05:45 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 9 | 0 | 0 | 6 | 11 | 1 | 0 | 0 | 4 | 0 | 0 | 1 | 2 | 8 | 0 | 42 |
| PEAK HR FACTOR : | 0.00 | 0.450 | 0.000 | 0.000 | 0.500 | 0.458 | 0.250 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.250 | 0.500 | 0.667 | 0.000 | 0.700 |
| | | 0.450 | | | | 0.643 | | | | 1.000 | | | | 0.688 | | | |

Location: Foothill Expy & Homestead Rd
City: Los Altos

Project ID: 18-08549-001
Date: 10/24/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Foothill Expy | | Foothill Expy | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 8:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| APPROACH %'s : | 0.00% | 100.00% | 100.00% | 0.00% | | | | | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| PEAK HR FACTOR : | 0.250 | | 0.500 | | | | | | 0.375 |
| | | | 0.500 | | | | | | |

| PM | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 2:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:00 PM | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 3 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 4:30 PM | 0 | 0 | 3 | 5 | 0 | 0 | 0 | 0 | 8 |
| 4:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| 5:00 PM | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 3 |
| 5:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 5:30 PM | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 5:45 PM | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 0 | 2 | 11 | 12 | 0 | 0 | 2 | 1 | 28 |
| APPROACH %'s : | 0.00% | 100.00% | 47.83% | 52.17% | | | 66.67% | 33.33% | |
| PEAK HR : | 04:45 PM - 05:45 PM | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 3 | 4 | 0 | 0 | 1 | 0 | 8 |
| PEAK HR FACTOR : | | | 0.750 | 0.500 | | | 0.250 | | 0.667 |
| | | | 0.583 | | | | 0.250 | | |

Location: Homestead Ct/Fallen Leaf Ln & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08664-002
Date: 12/11/2018

# Total

| NS/EW Streets: | Homestead Ct/Fallen Leaf Ln | | | | Homestead Ct/Fallen Leaf Ln | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1 | 2 | 1 | 0 | 1 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 1.5 | 0.5 | 1 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 5 | 0 | 5 | 0 | 0 | 0 | 6 | 0 | 0 | 41 | 2 | 0 | 0 | 71 | 1 | 0 | 131 |
| 7:15 AM | 8 | 0 | 7 | 0 | 2 | 0 | 9 | 0 | 4 | 59 | 1 | 0 | 7 | 105 | 3 | 0 | 205 |
| 7:30 AM | 12 | 0 | 9 | 0 | 20 | 0 | 14 | 0 | 5 | 149 | 1 | 0 | 3 | 161 | 3 | 0 | 377 |
| 7:45 AM | 1 | 2 | 20 | 0 | 13 | 0 | 13 | 0 | 6 | 109 | 5 | 0 | 3 | 191 | 8 | 0 | 371 |
| 8:00 AM | 7 | 0 | 11 | 0 | 8 | 0 | 11 | 0 | 10 | 114 | 2 | 0 | 5 | 244 | 17 | 0 | 429 |
| 8:15 AM | 6 | 1 | 9 | 0 | 9 | 0 | 13 | 0 | 5 | 136 | 2 | 0 | 2 | 232 | 5 | 0 | 420 |
| 8:30 AM | 7 | 0 | 9 | 0 | 4 | 1 | 9 | 0 | 6 | 131 | 1 | 0 | 0 | 190 | 5 | 0 | 363 |
| 8:45 AM | 6 | 0 | 5 | 0 | 3 | 1 | 5 | 0 | 4 | 125 | 5 | 0 | 0 | 205 | 5 | 0 | 364 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 52 | 3 | 75 | 0 | 59 | 2 | 80 | 0 | 40 | 864 | 19 | 0 | 20 | 1399 | 47 | 0 | 2660 |
| APPROACH %'s : | 40.00% | 2.31% | 57.69% | 0.00% | 41.84% | 1.42% | 56.74% | 0.00% | 4.33% | 93.61% | 2.06% | 0.00% | 1.36% | 95.43% | 3.21% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 26 | 3 | 49 | 0 | 50 | 0 | 51 | 0 | 26 | 508 | 10 | 0 | 13 | 828 | 33 | 0 | 1597 |
| PEAK HR FACTOR : | 0.542 | 0.375 | 0.613 | 0.000 | 0.625 | 0.000 | 0.911 | 0.000 | 0.650 | 0.852 | 0.500 | 0.000 | 0.650 | 0.848 | 0.485 | 0.000 | 0.931 |
| | 0.848 | | | | 0.743 | | | | 0.877 | | | | 0.821 | | | | |

Location: Homestead Ct/Fallen Leaf Ln & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08664-002
Date: 12/11/2018

# Bikes

| NS/EW Streets: | Homestead Ct/Fallen Leaf Ln | | | | Homestead Ct/Fallen Leaf Ln | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1 | 2 | 1 | 0 | 1 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 1.5 | 0.5 | 1 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 |
| 7:15 AM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 8 |
| 7:30 AM | 0 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 1 | 0 | 0 | 27 |
| 7:45 AM | 1 | 0 | 2 | 0 | 7 | 0 | 0 | 0 | 1 | 51 | 1 | 0 | 0 | 4 | 0 | 0 | 67 |
| 8:00 AM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 2 | 1 | 0 | 12 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 0 | 0 | 0 | 2 | 1 | 0 | 11 |
| 8:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 8 |
| 8:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 2 | 0 | 8 | 0 | 13 | 0 | 2 | 0 | 2 | 91 | 1 | 0 | 0 | 19 | 2 | 0 | 140 |
| APPROACH %'s : | 20.00% | 0.00% | 80.00% | 0.00% | 86.67% | 0.00% | 13.33% | 0.00% | 2.13% | 96.81% | 1.06% | 0.00% | 0.00% | 90.48% | 9.52% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 1 | 0 | 7 | 0 | 11 | 0 | 0 | 0 | 2 | 84 | 1 | 0 | 0 | 9 | 2 | 0 | 117 |
| PEAK HR FACTOR : | 0.250 | 0.000 | 0.583 | 0.000 | 0.393 | 0.000 | 0.000 | 0.000 | 0.500 | 0.412 | 0.250 | 0.000 | 0.000 | 0.563 | 0.500 | 0.000 | 0.437 |
| | 0.667 | | | | 0.393 | | | | 0.410 | | | | 0.688 | | | | |

Location: Homestead Ct/Fallen Leaf Ln & Homestead Rd
City: Cupertino

Project ID: 18-08664-002
Date: 12/11/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Homestead Ct/Fallen Leaf Ln | | Homestead Ct/Fallen Leaf Ln | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| 7:15 AM | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 |
| 7:30 AM | 0 | 1 | 2 | 0 | 6 | 4 | 1 | 0 | 14 |
| 7:45 AM | 0 | 0 | 8 | 1 | 13 | 0 | 0 | 0 | 22 |
| 8:00 AM | 1 | 1 | 1 | 15 | 0 | 10 | 0 | 0 | 28 |
| 8:15 AM | 3 | 2 | 4 | 1 | 2 | 3 | 0 | 0 | 15 |
| 8:30 AM | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 4 |
| 8:45 AM | 0 | 2 | 3 | 2 | 2 | 3 | 0 | 0 | 12 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 5 | 7 | 18 | 20 | 23 | 27 | 1 | 0 | 101 |
| APPROACH %'s : | 41.67% | 58.33% | 47.37% | 52.63% | 46.00% | 54.00% | 100.00% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 4 | 4 | 15 | 17 | 21 | 17 | 1 | 0 | 79 |
| PEAK HR FACTOR : | 0.333 | 0.500 | 0.469 | 0.283 | 0.404 | 0.425 | 0.250 | | 0.705 |
| | 0.400 | | 0.500 | | 0.731 | | 0.250 | | |

Location: Homestead Ct/Fallen Leaf Ln & Homestead Rd
City: Los Altos
Control: 2-Way Stop(NB/SB)

Project ID: 18-08549-002
Date: 10/24/2018

## Total

| NS/EW Streets: | Homestead Ct/Fallen Leaf Ln | | | | Homestead Ct/Fallen Leaf Ln | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 5 | 0 | 2 | 0 | 1 | 0 | 7 | 0 | 3 | 40 | 0 | 0 | 2 | 70 | 2 | 0 | 132 |
| 7:15 AM | 10 | 0 | 6 | 0 | 3 | 0 | 4 | 0 | 1 | 48 | 1 | 0 | 2 | 99 | 3 | 0 | 177 |
| 7:30 AM | 11 | 0 | 5 | 0 | 5 | 0 | 10 | 0 | 6 | 62 | 1 | 0 | 3 | 149 | 4 | 0 | 256 |
| 7:45 AM | 3 | 0 | 12 | 0 | 5 | 0 | 10 | 0 | 7 | 73 | 1 | 0 | 6 | 215 | 0 | 0 | 332 |
| 8:00 AM | 6 | 1 | 7 | 0 | 2 | 0 | 9 | 0 | 5 | 118 | 1 | 0 | 4 | 230 | 3 | 0 | 386 |
| 8:15 AM | 10 | 1 | 11 | 0 | 9 | 0 | 15 | 0 | 7 | 111 | 1 | 0 | 2 | 236 | 4 | 0 | 407 |
| 8:30 AM | 10 | 1 | 10 | 0 | 15 | 0 | 11 | 0 | 7 | 145 | 2 | 0 | 3 | 210 | 7 | 0 | 421 |
| 8:45 AM | 4 | 0 | 11 | 0 | 10 | 2 | 11 | 0 | 9 | 157 | 2 | 0 | 2 | 213 | 15 | 0 | 436 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 59 | 3 | 64 | 0 | 50 | 2 | 77 | 0 | 45 | 754 | 9 | 0 | 24 | 1422 | 38 | 0 | 2547 |
| APPROACH %'s : | 46.83% | 2.38% | 50.79% | 0.00% | 38.76% | 1.55% | 59.69% | 0.00% | 5.57% | 93.32% | 1.11% | 0.00% | 1.62% | 95.82% | 2.56% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 30 | 3 | 39 | 0 | 36 | 2 | 46 | 0 | 28 | 531 | 6 | 0 | 11 | 889 | 29 | 0 | 1650 |
| PEAK HR FACTOR : | 0.750 | 0.750 | 0.886 | 0.000 | 0.600 | 0.250 | 0.767 | 0.000 | 0.778 | 0.846 | 0.750 | 0.000 | 0.688 | 0.942 | 0.483 | 0.000 | 0.946 |
| | 0.818 | | | | 0.808 | | | | 0.841 | | | | 0.960 | | | | |

| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 3 | 0 | 6 | 0 | 7 | 0 | 11 | 0 | 5 | 101 | 3 | 0 | 6 | 110 | 6 | 0 | 258 |
| 2:15 PM | 6 | 0 | 6 | 0 | 2 | 0 | 9 | 0 | 2 | 77 | 2 | 0 | 4 | 93 | 9 | 0 | 210 |
| 2:30 PM | 3 | 0 | 5 | 0 | 5 | 0 | 4 | 0 | 6 | 107 | 2 | 0 | 7 | 102 | 2 | 0 | 243 |
| 2:45 PM | 4 | 0 | 5 | 0 | 6 | 0 | 7 | 0 | 6 | 124 | 1 | 0 | 3 | 93 | 6 | 0 | 255 |
| 3:00 PM | 2 | 1 | 4 | 0 | 5 | 0 | 8 | 0 | 11 | 131 | 3 | 0 | 3 | 107 | 8 | 0 | 283 |
| 3:15 PM | 4 | 0 | 3 | 0 | 11 | 0 | 5 | 0 | 5 | 180 | 4 | 0 | 3 | 108 | 9 | 0 | 332 |
| 3:30 PM | 1 | 0 | 5 | 0 | 10 | 0 | 8 | 0 | 7 | 163 | 5 | 0 | 3 | 124 | 18 | 0 | 344 |
| 3:45 PM | 2 | 0 | 5 | 0 | 10 | 0 | 3 | 0 | 3 | 181 | 8 | 0 | 10 | 110 | 14 | 0 | 346 |
| 4:00 PM | 2 | 0 | 6 | 0 | 2 | 0 | 9 | 0 | 11 | 196 | 5 | 0 | 4 | 95 | 8 | 0 | 338 |
| 4:15 PM | 5 | 0 | 3 | 0 | 7 | 0 | 7 | 0 | 4 | 206 | 6 | 0 | 5 | 73 | 7 | 0 | 323 |
| 4:30 PM | 0 | 0 | 2 | 0 | 6 | 0 | 9 | 0 | 10 | 214 | 4 | 0 | 7 | 78 | 12 | 0 | 342 |
| 4:45 PM | 3 | 1 | 3 | 0 | 6 | 1 | 5 | 0 | 10 | 208 | 8 | 0 | 5 | 110 | 10 | 0 | 370 |
| 5:00 PM | 1 | 1 | 4 | 0 | 7 | 0 | 7 | 0 | 5 | 207 | 11 | 0 | 3 | 93 | 10 | 0 | 349 |
| 5:15 PM | 0 | 0 | 2 | 0 | 4 | 0 | 3 | 0 | 8 | 212 | 8 | 0 | 6 | 88 | 7 | 0 | 338 |
| 5:30 PM | 4 | 0 | 5 | 0 | 5 | 0 | 6 | 0 | 5 | 182 | 10 | 0 | 3 | 114 | 12 | 0 | 346 |
| 5:45 PM | 4 | 0 | 2 | 0 | 5 | 0 | 12 | 0 | 6 | 193 | 11 | 0 | 2 | 101 | 5 | 0 | 341 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 44 | 3 | 66 | 0 | 98 | 1 | 113 | 0 | 104 | 2682 | 91 | 0 | 74 | 1599 | 143 | 0 | 5018 |
| APPROACH %'s : | 38.94% | 2.65% | 58.41% | 0.00% | 46.23% | 0.47% | 53.30% | 0.00% | 3.61% | 93.22% | 3.16% | 0.00% | 4.07% | 88.05% | 7.87% | 0.00% | |
| PEAK HR : | 04:45 PM - 05:45 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 8 | 2 | 14 | 0 | 22 | 1 | 21 | 0 | 28 | 809 | 37 | 0 | 17 | 405 | 39 | 0 | 1403 |
| PEAK HR FACTOR : | 0.500 | 0.500 | 0.700 | 0.000 | 0.786 | 0.250 | 0.750 | 0.000 | 0.700 | 0.954 | 0.841 | 0.000 | 0.708 | 0.888 | 0.813 | 0.000 | 0.948 |
| | 0.667 | | | | 0.786 | | | | 0.958 | | | | 0.893 | | | | |

Location: Homestead Ct/Fallen Leaf Ln & Homestead Rd
City: Los Altos
Control: 2-Way Stop(NB/SB)

Project ID: 18-08549-002
Date: 10/24/2018

# Bikes

| NS/EW Streets: | Homestead Ct/Fallen Leaf Ln | | | | Homestead Ct/Fallen Leaf Ln | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 5 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| 7:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| 7:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 8 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 |
| 8:15 AM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 6 | 0 | 0 | 13 |
| 8:30 AM | 0 | 0 | 1 | 0 | 10 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 4 | 5 | 0 | 0 | 44 |
| 8:45 AM | 0 | 0 | 3 | 0 | 16 | 0 | 3 | 0 | 0 | 33 | 0 | 0 | 0 | 6 | 0 | 0 | 61 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 5 | 0 | 30 | 0 | 3 | 0 | 2 | 66 | 0 | 0 | 4 | 33 | 0 | 0 | 143 |
| APPROACH %'s : | 0.00% | 0.00% | 100.00% | 0.00% | 90.91% | 0.00% | 9.09% | 0.00% | 2.94% | 97.06% | 0.00% | 0.00% | 10.81% | 89.19% | 0.00% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 4 | 0 | 28 | 0 | 3 | 0 | 1 | 61 | 0 | 0 | 4 | 23 | 0 | 0 | 124 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.333 | 0.000 | 0.438 | 0.000 | 0.250 | 0.000 | 0.250 | 0.462 | 0.000 | 0.000 | 0.250 | 0.958 | 0.000 | 0.000 | 0.508 |
| | 0.333 | | | | 0.408 | | | | 0.470 | | | | 0.750 | | | | |

| | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PM** | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 5 | 0 | 0 | 9 |
| 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 4 |
| 3:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 5 | 51 | 13 | 0 | 73 |
| 3:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 1 | 0 | 7 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 7 | 0 | 0 | 2 | 13 | 12 | 0 | 35 |
| 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 11 | 2 | 0 | 16 |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 6 | 3 | 0 | 11 |
| 4:15 PM | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 | 2 | 0 | 13 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 6 | 0 | 0 | 7 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 5 | 0 | 0 | 11 |
| 5:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 1 | 3 | 4 | 0 | 14 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 4 | 1 | 0 | 9 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 0 | 5 | 0 | 0 | 12 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 4 | 0 | 0 | 0 | 3 | 1 | 0 | 14 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 2 | 1 | 4 | 3 | 10 | 1 | 4 | 42 | 2 | 0 | 12 | 119 | 40 | 0 | 240 |
| APPROACH %'s : | 0.00% | 0.00% | 66.67% | 33.33% | 22.22% | 16.67% | 55.56% | 5.56% | 8.33% | 87.50% | 4.17% | 0.00% | 7.02% | 69.59% | 23.39% | 0.00% | |
| PEAK HR : | 04:45 PM - 05:45 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 2 | 17 | 0 | 0 | 2 | 17 | 5 | 0 | 46 |
| PEAK HR FACTOR : | 0.00 | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.000 | 0.000 | 0.500 | 0.708 | 0.000 | 0.000 | 0.500 | 0.850 | 0.313 | 0.000 | 0.821 |
| | | | | | 0.375 | | | | 0.679 | | | | 0.750 | | | | |

Location: Homestead Ct/Fallen Leaf Ln & Homestead Rd
City: Los Altos

Project ID: 18-08549-002
Date: 10/24/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Homestead Ct/Fallen Leaf Ln | | Homestead Ct/Fallen Leaf Ln | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 1 | 1 | 2 | 1 | 4 | 0 | 0 | 9 |
| 7:15 AM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| 7:30 AM | 0 | 0 | 1 | 0 | 4 | 2 | 0 | 0 | 7 |
| 7:45 AM | 3 | 0 | 9 | 0 | 11 | 0 | 0 | 0 | 23 |
| 8:00 AM | 0 | 1 | 2 | 4 | 2 | 6 | 0 | 0 | 15 |
| 8:15 AM | 0 | 2 | 2 | 5 | 3 | 5 | 0 | 0 | 17 |
| 8:30 AM | 5 | 2 | 7 | 3 | 7 | 7 | 0 | 0 | 31 |
| 8:45 AM | 1 | 0 | 17 | 6 | 12 | 6 | 0 | 0 | 42 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 9 | 6 | 39 | 20 | 43 | 30 | 0 | 0 | 147 |
| APPROACH %'s : | 60.00% | 40.00% | 66.10% | 33.90% | 58.90% | 41.10% | | | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 6 | 5 | 28 | 18 | 24 | 24 | 0 | 0 | 105 |
| PEAK HR FACTOR : | 0.300 | 0.625 | 0.412 | 0.750 | 0.500 | 0.857 | | | 0.625 |
| | 0.393 | | 0.500 | | 0.667 | | | | |

| **PM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 2:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 2:15 PM | 0 | 0 | 3 | 4 | 0 | 0 | 0 | 0 | 7 |
| 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:45 PM | 2 | 0 | 1 | 6 | 0 | 1 | 0 | 0 | 10 |
| 3:00 PM | 0 | 3 | 1 | 9 | 0 | 1 | 0 | 0 | 14 |
| 3:15 PM | 0 | 3 | 0 | 3 | 0 | 2 | 0 | 0 | 8 |
| 3:30 PM | 0 | 0 | 2 | 3 | 2 | 1 | 0 | 0 | 8 |
| 3:45 PM | 0 | 1 | 3 | 7 | 2 | 0 | 0 | 0 | 13 |
| 4:00 PM | 1 | 0 | 0 | 4 | 0 | 2 | 0 | 0 | 7 |
| 4:15 PM | 0 | 0 | 4 | 3 | 3 | 0 | 0 | 0 | 10 |
| 4:30 PM | 0 | 0 | 3 | 2 | 1 | 0 | 0 | 0 | 6 |
| 4:45 PM | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 0 | 8 |
| 5:00 PM | 0 | 0 | 2 | 4 | 0 | 0 | 0 | 0 | 6 |
| 5:15 PM | 0 | 0 | 5 | 3 | 3 | 1 | 0 | 0 | 12 |
| 5:30 PM | 1 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 5 |
| 5:45 PM | 3 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 9 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 7 | 9 | 25 | 60 | 11 | 12 | 0 | 0 | 124 |
| APPROACH %'s : | 43.75% | 56.25% | 29.41% | 70.59% | 47.83% | 52.17% | | | |
| PEAK HR : | 04:45 PM - 05:45 PM | | | | | | | | TOTAL |
| PEAK HR VOL : | 1 | 0 | 8 | 14 | 3 | 5 | 0 | 0 | 31 |
| PEAK HR FACTOR : | 0.250 | | 0.400 | 0.875 | 0.250 | 0.313 | | | 0.646 |
| | 0.250 | | 0.688 | | 0.500 | | | | |

Location: Barranca Dr/Bellville Way & Homestead Rd
City: Cupertino
Control: 2-Way Stop (NB/SB)

Project ID: 18-08664-003
Date: 12/11/2018

## Total

| NS/EW Streets: | Barranca Dr/Bellville Way | | | | Barranca Dr/Bellville Way | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 3 | 0 | 0 | 0 | 4 | 0 | 7 | 0 | 6 | 35 | 1 | 0 | 0 | 64 | 6 | 0 | 126 |
| 7:15 AM | 4 | 0 | 0 | 0 | 6 | 0 | 6 | 0 | 6 | 59 | 2 | 0 | 1 | 97 | 12 | 0 | 193 |
| 7:30 AM | 6 | 2 | 1 | 0 | 18 | 0 | 17 | 0 | 14 | 156 | 0 | 0 | 0 | 145 | 37 | 0 | 396 |
| 7:45 AM | 7 | 8 | 4 | 0 | 23 | 3 | 21 | 0 | 25 | 138 | 0 | 0 | 1 | 204 | 128 | 0 | 562 |
| 8:00 AM | 6 | 0 | 1 | 0 | 64 | 6 | 32 | 0 | 8 | 125 | 1 | 0 | 0 | 229 | 17 | 0 | 489 |
| 8:15 AM | 3 | 1 | 4 | 0 | 9 | 0 | 12 | 0 | 18 | 132 | 2 | 0 | 1 | 215 | 12 | 0 | 409 |
| 8:30 AM | 5 | 1 | 3 | 0 | 5 | 0 | 14 | 0 | 13 | 140 | 2 | 0 | 4 | 177 | 18 | 0 | 382 |
| 8:45 AM | 3 | 2 | 1 | 0 | 10 | 0 | 6 | 0 | 8 | 129 | 0 | 0 | 0 | 201 | 14 | 0 | 374 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 37 | 14 | 14 | 0 | 139 | 9 | 115 | 0 | 98 | 914 | 8 | 0 | 7 | 1332 | 244 | 0 | 2931 |
| APPROACH %'s : | 56.92% | 21.54% | 21.54% | 0.00% | 52.85% | 3.42% | 43.73% | 0.00% | 9.61% | 89.61% | 0.78% | 0.00% | 0.44% | 84.14% | 15.41% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 22 | 11 | 10 | 0 | 114 | 9 | 82 | 0 | 65 | 551 | 3 | 0 | 2 | 793 | 194 | 0 | 1856 |
| PEAK HR FACTOR : | 0.786 | 0.344 | 0.625 | 0.000 | 0.445 | 0.375 | 0.641 | 0.000 | 0.650 | 0.883 | 0.375 | 0.000 | 0.500 | 0.866 | 0.379 | 0.000 | 0.826 |
| | 0.566 | | | | 0.502 | | | | 0.910 | | | | 0.742 | | | | |

Location: Barranca Dr/Bellville Way & Homestead Rd
City: Cupertino
Control: 2-Way Stop (NB/SB)

Project ID: 18-08664-003
Date: 12/11/2018

# Bikes

| NS/EW Streets: | Barranca Dr/Bellville Way | | | | Barranca Dr/Bellville Way | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 4 | 0 | 0 | 7 |
| 7:30 AM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 20 | 0 | 0 | 0 | 1 | 0 | 0 | 24 |
| 7:45 AM | 0 | 0 | 3 | 0 | 4 | 0 | 0 | 0 | 3 | 65 | 0 | 0 | 0 | 4 | 1 | 0 | 80 |
| 8:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 15 | 0 | 0 | 0 | 2 | 0 | 0 | 20 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 8 |
| 8:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 4 | 0 | 0 | 11 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 1 | 0 | 5 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 3 | 0 | 8 | 0 | 1 | 0 | 5 | 118 | 0 | 0 | 0 | 20 | 2 | 0 | 157 |
| APPROACH %'s : | 0.00% | 0.00% | 100.00% | 0.00% | 88.89% | 0.00% | 11.11% | 0.00% | 4.07% | 95.93% | 0.00% | 0.00% | 0.00% | 90.91% | 9.09% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 3 | 0 | 7 | 0 | 1 | 0 | 5 | 106 | 0 | 0 | 0 | 9 | 1 | 0 | 132 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.250 | 0.000 | 0.438 | 0.000 | 0.250 | 0.000 | 0.417 | 0.408 | 0.000 | 0.000 | 0.000 | 0.563 | 0.250 | 0.000 | 0.413 |
| | 0.250 | | | | 0.500 | | | | 0.408 | | | | 0.500 | | | | |

Location: Barranca Dr/Bellville Way & Homestead Rd
City: Cupertino

Project ID: 18-08664-003
Date: 12/11/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Barranca Dr/Bellville Way | | Barranca Dr/Bellville Way | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 2 | 1 | 4 | 0 | 1 | 3 | 2 | 0 | 13 |
| 7:45 AM | 13 | 4 | 6 | 3 | 3 | 0 | 24 | 2 | 55 |
| 8:00 AM | 7 | 2 | 1 | 3 | 1 | 5 | 0 | 13 | 32 |
| 8:15 AM | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 6 |
| 8:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| 8:45 AM | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 4 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 24 | 7 | 13 | 7 | 5 | 8 | 31 | 17 | 112 |
| APPROACH %'s : | 77.42% | 22.58% | 65.00% | 35.00% | 38.46% | 61.54% | 64.58% | 35.42% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 24 | 7 | 11 | 6 | 5 | 8 | 29 | 16 | 106 |
| PEAK HR FACTOR : | 0.462 | 0.438 | 0.458 | 0.500 | 0.417 | 0.400 | 0.302 | 0.308 | 0.482 |
| | 0.456 | | 0.472 | | 0.542 | | 0.433 | | |

Location: Barranca Dr/Belleville Way & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08549-003
Date: 10/24/2018

## Total

| NS/EW Streets: | Barranca Dr/Belleville Way | | | | Barranca Dr/Belleville Way | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 1 | 0 | 0 | 0 | 4 | 0 | 8 | 0 | 8 | 35 | 0 | 0 | 0 | 62 | 6 | 0 | 124 |
| 7:15 AM | 5 | 1 | 0 | 0 | 3 | 0 | 7 | 0 | 5 | 55 | 0 | 0 | 0 | 95 | 16 | 0 | 187 |
| 7:30 AM | 5 | 1 | 1 | 0 | 15 | 0 | 16 | 0 | 12 | 63 | 1 | 0 | 1 | 149 | 48 | 0 | 312 |
| 7:45 AM | 4 | 10 | 1 | 0 | 44 | 1 | 33 | 0 | 24 | 63 | 2 | 0 | 0 | 181 | 111 | 0 | 474 |
| 8:00 AM | 6 | 1 | 1 | 0 | 53 | 6 | 31 | 0 | 7 | 127 | 2 | 0 | 2 | 217 | 9 | 0 | 462 |
| 8:15 AM | 3 | 0 | 0 | 0 | 10 | 0 | 18 | 0 | 6 | 124 | 0 | 0 | 0 | 199 | 12 | 0 | 372 |
| 8:30 AM | 5 | 1 | 2 | 0 | 21 | 0 | 11 | 0 | 7 | 158 | 1 | 0 | 0 | 203 | 8 | 0 | 417 |
| 8:45 AM | 2 | 0 | 2 | 0 | 17 | 0 | 10 | 0 | 16 | 157 | 1 | 0 | 4 | 227 | 14 | 0 | 450 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 31 | 14 | 7 | 0 | 167 | 7 | 134 | 0 | 85 | 782 | 7 | 0 | 7 | 1333 | 224 | 0 | 2798 |
| APPROACH %'s : | 59.62% | 26.92% | 13.46% | 0.00% | 54.22% | 2.27% | 43.51% | 0.00% | 9.73% | 89.47% | 0.80% | 0.00% | 0.45% | 85.23% | 14.32% | 0.00% | |
| PEAK HR : | 07:45 AM - 08:45 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 18 | 12 | 4 | 0 | 128 | 7 | 93 | 0 | 44 | 472 | 5 | 0 | 2 | 800 | 140 | 0 | 1725 |
| PEAK HR FACTOR : | 0.750 | 0.300 | 0.500 | 0.000 | 0.604 | 0.292 | 0.705 | 0.000 | 0.458 | 0.747 | 0.625 | 0.000 | 0.250 | 0.922 | 0.315 | 0.000 | 0.910 |
| | 0.567 | | | | 0.633 | | | | 0.785 | | | | 0.807 | | | | |

| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 0 | 0 | 3 | 0 | 35 | 1 | 15 | 0 | 18 | 95 | 1 | 0 | 2 | 110 | 25 | 0 | 305 |
| 2:15 PM | 1 | 0 | 0 | 0 | 18 | 2 | 8 | 0 | 7 | 71 | 7 | 0 | 2 | 86 | 14 | 0 | 216 |
| 2:30 PM | 7 | 2 | 0 | 0 | 28 | 1 | 18 | 0 | 7 | 107 | 5 | 0 | 2 | 96 | 19 | 0 | 292 |
| 2:45 PM | 3 | 0 | 1 | 0 | 21 | 1 | 9 | 0 | 10 | 122 | 4 | 0 | 1 | 81 | 7 | 0 | 260 |
| 3:00 PM | 1 | 0 | 2 | 0 | 11 | 1 | 15 | 0 | 11 | 134 | 4 | 0 | 1 | 112 | 10 | 0 | 302 |
| 3:15 PM | 2 | 0 | 0 | 0 | 17 | 0 | 16 | 0 | 17 | 170 | 5 | 0 | 1 | 96 | 13 | 0 | 337 |
| 3:30 PM | 2 | 0 | 1 | 0 | 22 | 0 | 11 | 0 | 14 | 160 | 2 | 0 | 0 | 145 | 25 | 0 | 382 |
| 3:45 PM | 3 | 1 | 2 | 0 | 21 | 0 | 10 | 0 | 9 | 182 | 4 | 0 | 0 | 109 | 7 | 0 | 348 |
| 4:00 PM | 3 | 0 | 3 | 0 | 12 | 0 | 7 | 0 | 18 | 187 | 2 | 0 | 0 | 95 | 4 | 0 | 331 |
| 4:15 PM | 2 | 1 | 0 | 0 | 11 | 1 | 10 | 0 | 6 | 193 | 3 | 0 | 0 | 76 | 15 | 0 | 318 |
| 4:30 PM | 1 | 1 | 0 | 0 | 10 | 0 | 6 | 0 | 15 | 212 | 1 | 0 | 1 | 96 | 11 | 0 | 354 |
| 4:45 PM | 1 | 0 | 1 | 0 | 10 | 0 | 10 | 0 | 14 | 195 | 4 | 0 | 0 | 108 | 10 | 0 | 353 |
| 5:00 PM | 3 | 0 | 2 | 0 | 12 | 0 | 14 | 0 | 13 | 180 | 3 | 0 | 2 | 93 | 18 | 0 | 340 |
| 5:15 PM | 1 | 0 | 1 | 0 | 7 | 0 | 11 | 0 | 15 | 193 | 3 | 0 | 0 | 96 | 18 | 0 | 345 |
| 5:30 PM | 2 | 0 | 1 | 0 | 13 | 0 | 9 | 0 | 11 | 173 | 4 | 0 | 2 | 114 | 19 | 0 | 348 |
| 5:45 PM | 5 | 0 | 2 | 0 | 4 | 1 | 8 | 0 | 10 | 184 | 5 | 0 | 0 | 105 | 14 | 0 | 338 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 37 | 5 | 19 | 0 | 252 | 8 | 177 | 0 | 195 | 2558 | 57 | 0 | 14 | 1618 | 229 | 0 | 5169 |
| APPROACH %'s : | 60.66% | 8.20% | 31.15% | 0.00% | 57.67% | 1.83% | 40.50% | 0.00% | 6.94% | 91.03% | 2.03% | 0.00% | 0.75% | 86.94% | 12.31% | 0.00% | |
| PEAK HR : | 03:15 PM - 04:15 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 10 | 1 | 6 | 0 | 72 | 0 | 44 | 0 | 58 | 699 | 13 | 0 | 1 | 445 | 49 | 0 | 1398 |
| PEAK HR FACTOR : | 0.833 | 0.250 | 0.500 | 0.000 | 0.818 | 0.000 | 0.688 | 0.000 | 0.806 | 0.934 | 0.650 | 0.000 | 0.250 | 0.767 | 0.490 | 0.000 | 0.915 |
| | 0.708 | | | | 0.879 | | | | 0.930 | | | | 0.728 | | | | |

Location: Barranca Dr/Belleville Way & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08549-003
Date: 10/24/2018

# Bikes

| NS/EW Streets: | Barranca Dr/Belleville Way | | | | Barranca Dr/Belleville Way | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| 7:45 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 7 | 1 | 0 | 14 |
| 8:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 6 |
| 8:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 9 | 0 | 0 | 16 |
| 8:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 6 | 0 | 0 | 39 |
| 8:45 AM | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 53 | 0 | 0 | 0 | 6 | 0 | 0 | 65 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 1 | 1 | 0 | 0 | 8 | 0 | 2 | 0 | 2 | 98 | 1 | 0 | 0 | 36 | 1 | 0 | 150 |
| APPROACH %'s : | 50.00% | 50.00% | 0.00% | 0.00% | 80.00% | 0.00% | 20.00% | 0.00% | 1.98% | 97.03% | 0.99% | 0.00% | 0.00% | 97.30% | 2.70% | 0.00% | |
| PEAK HR : | 07:45 AM - 08:45 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 1 | 0 | 0 | 3 | 0 | 2 | 0 | 2 | 40 | 1 | 0 | 0 | 25 | 1 | 0 | 75 |
| PEAK HR FACTOR : | 0.000 | 0.250 | 0.000 | 0.000 | 0.750 | 0.000 | 0.250 | 0.000 | 0.250 | 0.313 | 0.250 | 0.000 | 0.000 | 0.694 | 0.250 | 0.000 | 0.481 |
| | 0.250 | | | | 0.417 | | | | 0.336 | | | | 0.722 | | | | |

| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 3 | 1 | 0 | 8 |
| 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 8 | 1 | 0 | 11 |
| 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 8 | 0 | 70 |
| 3:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 6 | 0 | 0 | 8 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 6 | 0 | 0 | 1 | 28 | 4 | 0 | 41 |
| 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 16 | 5 | 0 | 22 |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 9 | 0 | 0 | 10 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 4 | 0 | 0 | 8 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 6 | 0 | 0 | 10 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 7 | 2 | 0 | 14 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 7 | 0 | 0 | 10 |
| 5:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 4 | 1 | 0 | 11 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 9 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 8 | 36 | 0 | 0 | 1 | 173 | 22 | 0 | 245 |
| APPROACH %'s : | | | | | 40.00% | 0.00% | 60.00% | 0.00% | 18.18% | 81.82% | 0.00% | 0.00% | 0.51% | 88.27% | 11.22% | 0.00% | |
| PEAK HR : | 03:15 PM - 04:15 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 8 | 0 | 0 | 1 | 59 | 9 | 0 | 81 |
| PEAK HR FACTOR : | 0.00 | 0.000 | 0.000 | 0.000 | 0.250 | 0.000 | 0.250 | 0.000 | 0.500 | 0.333 | 0.000 | 0.000 | 0.250 | 0.527 | 0.450 | 0.000 | 0.494 |
| | | | | | 0.500 | | | | 0.357 | | | | 0.523 | | | | |

Location: Barranca Dr/Belleville Way & Homestead Rd
City: Cupertino

Project ID: 18-08549-003
Date: 10/24/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Barranca Dr/Belleville Way | | Barranca Dr/Belleville Way | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 7:15 AM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| 7:30 AM | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 5 |
| 7:45 AM | 0 | 6 | 0 | 7 | 5 | 0 | 31 | 0 | 49 |
| 8:00 AM | 6 | 1 | 3 | 1 | 0 | 0 | 0 | 18 | 29 |
| 8:15 AM | 3 | 2 | 3 | 1 | 0 | 1 | 0 | 0 | 10 |
| 8:30 AM | 4 | 3 | 4 | 0 | 1 | 1 | 0 | 3 | 16 |
| 8:45 AM | 17 | 1 | 6 | 0 | 0 | 0 | 0 | 1 | 25 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 31 | 16 | 17 | 10 | 6 | 2 | 33 | 23 | 138 |
| APPROACH %'s : | 65.96% | 34.04% | 62.96% | 37.04% | 75.00% | 25.00% | 58.93% | 41.07% | |
| PEAK HR : | 07:45 AM - 08:45 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 13 | 12 | 10 | 9 | 6 | 2 | 31 | 21 | 104 |
| PEAK HR FACTOR : | 0.542 | 0.500 | 0.625 | 0.321 | 0.300 | 0.500 | 0.250 | 0.292 | 0.531 |
| | 0.893 | | 0.679 | | 0.400 | | 0.419 | | |

| **PM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 2:00 PM | 0 | 0 | 0 | 2 | 1 | 0 | 2 | 6 | 11 |
| 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 9 |
| 2:30 PM | 1 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 5 |
| 2:45 PM | 4 | 0 | 3 | 1 | 0 | 1 | 0 | 6 | 15 |
| 3:00 PM | 0 | 28 | 0 | 0 | 0 | 1 | 0 | 1 | 30 |
| 3:15 PM | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| 3:30 PM | 0 | 1 | 0 | 9 | 3 | 0 | 1 | 0 | 14 |
| 3:45 PM | 0 | 0 | 2 | 3 | 0 | 0 | 2 | 4 | 11 |
| 4:00 PM | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| 4:15 PM | 1 | 0 | 0 | 3 | 0 | 2 | 3 | 0 | 9 |
| 4:30 PM | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 3 |
| 4:45 PM | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 3 |
| 5:00 PM | 2 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 5 |
| 5:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 5:30 PM | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 4 |
| 5:45 PM | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 6 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 10 | 38 | 10 | 29 | 4 | 5 | 8 | 28 | 132 |
| APPROACH %'s : | 20.83% | 79.17% | 25.64% | 74.36% | 44.44% | 55.56% | 22.22% | 77.78% | |
| PEAK HR : | 03:15 PM - 04:15 PM | | | | | | | | TOTAL |
| PEAK HR VOL : | 1 | 4 | 2 | 14 | 3 | 0 | 3 | 4 | 31 |
| PEAK HR FACTOR : | 0.250 | 0.500 | 0.250 | 0.389 | 0.250 | | 0.375 | 0.250 | 0.554 |
| | 0.625 | | 0.444 | | 0.250 | | 0.292 | | |

Location: SR-85 Off-ramp/Maxine Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08664-004
Date: 12/11/2018

## Total

| NS/EW Streets: | SR-85 Off-ramp/Maxine Ave | | | | SR-85 Off-ramp/Maxine Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 0 | 0 | 1 | 0.5 | 0.5 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 1 | 0 | 2 | 0 | 18 | 0 | 5 | 0 | 0 | 38 | 0 | 0 | 0 | 67 | 0 | 0 | 131 |
| 7:15 AM | 1 | 0 | 3 | 0 | 9 | 0 | 18 | 0 | 0 | 66 | 0 | 0 | 1 | 93 | 0 | 0 | 191 |
| 7:30 AM | 1 | 0 | 8 | 0 | 37 | 0 | 17 | 0 | 0 | 161 | 2 | 0 | 1 | 158 | 0 | 0 | 385 |
| 7:45 AM | 2 | 0 | 12 | 0 | 55 | 0 | 36 | 0 | 0 | 179 | 0 | 0 | 5 | 301 | 0 | 0 | 590 |
| 8:00 AM | 0 | 0 | 2 | 0 | 16 | 0 | 32 | 0 | 0 | 186 | 1 | 0 | 3 | 227 | 0 | 0 | 467 |
| 8:15 AM | 1 | 0 | 6 | 0 | 28 | 2 | 48 | 0 | 0 | 142 | 0 | 0 | 0 | 164 | 0 | 0 | 391 |
| 8:30 AM | 1 | 0 | 6 | 0 | 18 | 1 | 24 | 0 | 0 | 152 | 1 | 0 | 4 | 171 | 0 | 0 | 378 |
| 8:45 AM | 3 | 0 | 9 | 0 | 14 | 3 | 21 | 0 | 0 | 135 | 1 | 0 | 4 | 186 | 0 | 0 | 376 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 10 | 0 | 48 | 0 | 195 | 6 | 201 | 0 | 0 | 1059 | 5 | 0 | 18 | 1367 | 0 | 0 | 2909 |
| APPROACH %'s : | 17.24% | 0.00% | 82.76% | 0.00% | 48.51% | 1.49% | 50.00% | 0.00% | 0.00% | 99.53% | 0.47% | 0.00% | 1.30% | 98.70% | 0.00% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 4 | 0 | 28 | 0 | 136 | 2 | 133 | 0 | 0 | 668 | 3 | 0 | 9 | 850 | 0 | 0 | 1833 |
| PEAK HR FACTOR : | 0.500 | 0.000 | 0.583 | 0.000 | 0.618 | 0.250 | 0.693 | 0.000 | 0.000 | 0.898 | 0.375 | 0.000 | 0.450 | 0.706 | 0.000 | 0.000 | 0.777 |
| | 0.571 | | | | 0.745 | | | | 0.897 | | | | 0.702 | | | | |

Location: SR-85 Off-ramp/Maxine Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08664-004
Date: 12/11/2018

# Bikes

| NS/EW Streets: | SR-85 Off-ramp/Maxine Ave | | | | SR-85 Off-ramp/Maxine Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 0 | 0 | 1 | 0.5 | 0.5 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 4 | 0 | 0 | 7 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 2 | 0 | 0 | 27 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 76 | 0 | 0 | 0 | 5 | 0 | 0 | 81 |
| 8:00 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 1 | 0 | 0 | 22 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 8 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 4 | 0 | 0 | 10 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 6 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 139 | 0 | 0 | 0 | 23 | 0 | 0 | 163 |
| APPROACH %'s : | 0.00% | 0.00% | 100.00% | 0.00% | | | | | 0.00% | 100.00% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 127 | 0 | 0 | 0 | 10 | 0 | 0 | 138 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.418 | 0.000 | 0.000 | 0.000 | 0.500 | 0.000 | 0.000 | 0.426 |
| | 0.250 | | | | | | | | 0.418 | | | | 0.500 | | | | |

Location: SR-85 Off-ramp/Maxine Ave & Homestead Rd
City: Cupertino

Project ID: 18-08664-004
Date: 12/11/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | SR-85 Off-ramp/Maxine Ave | | SR-85 Off-ramp/Maxine Ave | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 3 |
| 7:30 AM | 3 | 2 | 6 | 0 | 0 | 0 | 1 | 0 | 12 |
| 7:45 AM | 23 | 3 | 4 | 4 | 0 | 0 | 5 | 0 | 39 |
| 8:00 AM | 10 | 5 | 2 | 0 | 0 | 0 | 2 | 1 | 20 |
| 8:15 AM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 8:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:45 AM | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 39 | 10 | 15 | 5 | 0 | 0 | 8 | 2 | 79 |
| APPROACH %'s : | 79.59% | 20.41% | 75.00% | 25.00% | | | 80.00% | 20.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 38 | 10 | 12 | 4 | 0 | 0 | 8 | 1 | 73 |
| PEAK HR FACTOR : | 0.413 | 0.500 | 0.500 | 0.250 | | | 0.400 | 0.250 | 0.468 |
| | 0.462 | | 0.500 | | | | 0.450 | | |

Location: SR-85 Off-ramp/Maxine Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08549-004
Date: 10/24/2018

## Total

| NS/EW Streets: | SR-85 Off-ramp/Maxine Ave | | | | SR-85 Off-ramp/Maxine Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 0 | 0 | 1 | 0.5 | 0.5 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 3 | 0 | 8 | 0 | 11 | 0 | 0 | 37 | 0 | 0 | 0 | 56 | 0 | 0 | 115 |
| 7:15 AM | 0 | 0 | 2 | 0 | 9 | 0 | 10 | 0 | 0 | 60 | 0 | 0 | 0 | 102 | 0 | 0 | 183 |
| 7:30 AM | 0 | 0 | 2 | 0 | 20 | 0 | 35 | 0 | 0 | 82 | 0 | 0 | 0 | 171 | 0 | 0 | 310 |
| 7:45 AM | 0 | 0 | 6 | 0 | 24 | 1 | 56 | 0 | 0 | 110 | 1 | 0 | 3 | 227 | 0 | 0 | 428 |
| 8:00 AM | 0 | 0 | 3 | 0 | 20 | 1 | 60 | 0 | 0 | 185 | 1 | 0 | 1 | 170 | 0 | 0 | 441 |
| 8:15 AM | 2 | 0 | 7 | 0 | 28 | 1 | 44 | 0 | 0 | 130 | 1 | 0 | 0 | 163 | 0 | 0 | 376 |
| 8:30 AM | 1 | 0 | 12 | 0 | 33 | 3 | 19 | 0 | 0 | 178 | 1 | 0 | 1 | 193 | 0 | 0 | 441 |
| 8:45 AM | 5 | 0 | 13 | 0 | 45 | 2 | 16 | 0 | 0 | 169 | 3 | 0 | 3 | 222 | 0 | 0 | 478 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 8 | 0 | 48 | 0 | 187 | 8 | 251 | 0 | 0 | 951 | 7 | 0 | 8 | 1304 | 0 | 0 | 2772 |
| APPROACH %'s : | 14.29% | 0.00% | 85.71% | 0.00% | 41.93% | 1.79% | 56.28% | 0.00% | 0.00% | 99.27% | 0.73% | 0.00% | 0.61% | 99.39% | 0.00% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 8 | 0 | 35 | 0 | 126 | 7 | 139 | 0 | 0 | 662 | 6 | 0 | 5 | 748 | 0 | 0 | 1736 |
| PEAK HR FACTOR : | 0.400 | 0.000 | 0.673 | 0.000 | 0.700 | 0.583 | 0.579 | 0.000 | 0.000 | 0.895 | 0.500 | 0.000 | 0.417 | 0.842 | 0.000 | 0.000 | 0.908 |
| | 0.597 | | | | 0.840 | | | | 0.898 | | | | 0.837 | | | | |

| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 0 | 0 | 1 | 0.5 | 0.5 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 0 | 0 | 2 | 0 | 27 | 1 | 24 | 0 | 0 | 125 | 0 | 0 | 2 | 113 | 0 | 0 | 294 |
| 2:15 PM | 1 | 0 | 2 | 0 | 31 | 1 | 14 | 0 | 0 | 95 | 0 | 0 | 2 | 87 | 0 | 0 | 233 |
| 2:30 PM | 1 | 0 | 1 | 0 | 28 | 0 | 20 | 0 | 0 | 130 | 1 | 0 | 1 | 96 | 0 | 0 | 278 |
| 2:45 PM | 1 | 0 | 4 | 0 | 18 | 3 | 9 | 0 | 0 | 142 | 0 | 0 | 3 | 79 | 0 | 0 | 259 |
| 3:00 PM | 0 | 0 | 3 | 0 | 20 | 1 | 13 | 0 | 0 | 140 | 0 | 0 | 1 | 110 | 0 | 0 | 288 |
| 3:15 PM | 0 | 0 | 6 | 0 | 20 | 0 | 19 | 0 | 0 | 190 | 2 | 0 | 1 | 91 | 0 | 0 | 329 |
| 3:30 PM | 1 | 0 | 7 | 0 | 29 | 1 | 14 | 0 | 0 | 183 | 1 | 0 | 8 | 158 | 0 | 0 | 402 |
| 3:45 PM | 0 | 0 | 2 | 0 | 18 | 1 | 13 | 0 | 0 | 203 | 1 | 0 | 2 | 102 | 0 | 0 | 342 |
| 4:00 PM | 0 | 0 | 2 | 0 | 25 | 1 | 22 | 0 | 0 | 195 | 3 | 0 | 3 | 76 | 0 | 0 | 327 |
| 4:15 PM | 0 | 0 | 5 | 0 | 31 | 1 | 18 | 0 | 0 | 210 | 2 | 0 | 6 | 80 | 0 | 0 | 353 |
| 4:30 PM | 0 | 0 | 5 | 0 | 23 | 1 | 13 | 0 | 0 | 216 | 0 | 0 | 0 | 89 | 0 | 0 | 347 |
| 4:45 PM | 1 | 0 | 2 | 0 | 33 | 0 | 24 | 0 | 0 | 201 | 3 | 0 | 6 | 91 | 0 | 0 | 361 |
| 5:00 PM | 3 | 0 | 1 | 0 | 51 | 4 | 24 | 0 | 0 | 195 | 0 | 0 | 2 | 86 | 0 | 0 | 366 |
| 5:15 PM | 1 | 0 | 3 | 0 | 46 | 2 | 19 | 0 | 0 | 201 | 3 | 0 | 8 | 95 | 0 | 0 | 378 |
| 5:30 PM | 1 | 0 | 4 | 0 | 90 | 5 | 26 | 0 | 0 | 192 | 1 | 0 | 7 | 107 | 0 | 0 | 433 |
| 5:45 PM | 0 | 0 | 9 | 0 | 85 | 1 | 20 | 0 | 0 | 185 | 3 | 0 | 8 | 101 | 0 | 0 | 412 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 10 | 0 | 58 | 0 | 575 | 23 | 292 | 0 | 0 | 2803 | 20 | 0 | 60 | 1561 | 0 | 0 | 5402 |
| APPROACH %'s : | 14.71% | 0.00% | 85.29% | 0.00% | 64.61% | 2.58% | 32.81% | 0.00% | 0.00% | 99.29% | 0.71% | 0.00% | 3.70% | 96.30% | 0.00% | 0.00% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 5 | 0 | 17 | 0 | 272 | 12 | 89 | 0 | 0 | 773 | 7 | 0 | 25 | 389 | 0 | 0 | 1589 |
| PEAK HR FACTOR : | 0.417 | 0.000 | 0.472 | 0.000 | 0.756 | 0.600 | 0.856 | 0.000 | 0.000 | 0.961 | 0.583 | 0.000 | 0.781 | 0.909 | 0.000 | 0.000 | 0.917 |
| | 0.611 | | | | 0.771 | | | | 0.956 | | | | 0.908 | | | | |

Location: SR-85 Off-ramp/Maxine Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08549-004
Date: 10/24/2018

# Bikes

| NS/EW Streets: | SR-85 Off-ramp/Maxine Ave | | | | SR-85 Off-ramp/Maxine Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 0 | 0 | 1 | 0.5 | 0.5 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 8 | 0 | 0 | 10 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 4 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 9 | 0 | 0 | 17 |
| 8:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 6 | 0 | 0 | 34 |
| 8:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 64 | 0 | 0 | 0 | 6 | 0 | 0 | 71 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 107 | 0 | 0 | 0 | 38 | 0 | 0 | 147 |
| APPROACH %'s : | 0.00% | 0.00% | 100.00% | 0.00% | | | | | 0.00% | 100.00% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 24 | 0 | 0 | 126 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.391 | 0.000 | 0.000 | 0.000 | 0.667 | 0.000 | 0.000 | 0.444 |
| | 0.500 | | | | | | | | 0.391 | | | | 0.667 | | | | |

| NS/EW Streets: | SR-85 Off-ramp/Maxine Ave | | | | SR-85 Off-ramp/Maxine Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 0 | 0 | 1 | 0.5 | 0.5 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 6 |
| 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 10 | 0 | 0 | 12 |
| 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 65 | 0 | 0 | 66 |
| 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 6 | 0 | 0 | 9 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 2 | 36 | 0 | 0 | 46 |
| 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 18 |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 9 | 0 | 0 | 10 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 6 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 5 | 0 | 0 | 10 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 9 | 0 | 0 | 13 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 8 | 0 | 0 | 12 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 5 | 0 | 0 | 12 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 7 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 41 | 0 | 0 | 3 | 192 | 0 | 0 | 237 |
| APPROACH %'s : | | | | | 0.00% | 0.00% | 100.00% | 0.00% | 0.00% | 100.00% | 0.00% | 0.00% | 1.54% | 98.46% | 0.00% | 0.00% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 27 | 0 | 0 | 44 |
| PEAK HR FACTOR : | 0.00 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.607 | 0.000 | 0.000 | 0.000 | 0.750 | 0.000 | 0.000 | 0.846 |
| | | | | | | | | | 0.607 | | | | 0.750 | | | | |

Location: SR-85 Off-ramp/Maxine Ave & Homestead Rd
City: Cupertino

Project ID: 18-08549-004
Date: 10/24/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | SR-85 Off-ramp/Maxine Ave | | SR-85 Off-ramp/Maxine Ave | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 7:15 AM | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| 7:30 AM | 0 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 6 |
| 7:45 AM | 1 | 6 | 1 | 8 | 0 | 0 | 0 | 0 | 16 |
| 8:00 AM | 7 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 11 |
| 8:15 AM | 0 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 6 |
| 8:30 AM | 6 | 2 | 10 | 0 | 0 | 0 | 0 | 2 | 20 |
| 8:45 AM | 17 | 0 | 4 | 0 | 0 | 0 | 3 | 0 | 24 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 32 | 16 | 22 | 12 | 0 | 0 | 3 | 3 | 88 |
| APPROACH %'s : | 66.67% | 33.33% | 64.71% | 35.29% | | | 50.00% | 50.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 30 | 4 | 20 | 1 | 0 | 0 | 3 | 3 | 61 |
| PEAK HR FACTOR : | 0.441 | 0.500 | 0.500 | 0.250 | | | 0.250 | 0.375 | 0.635 |
| | 0.500 | | 0.525 | | | | 0.500 | | |

| **PM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 2:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| 2:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:30 PM | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 3 |
| 2:45 PM | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 9 |
| 3:00 PM | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 5 | 46 |
| 3:15 PM | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| 3:30 PM | 0 | 3 | 0 | 19 | 0 | 0 | 0 | 0 | 22 |
| 3:45 PM | 0 | 1 | 2 | 5 | 0 | 0 | 0 | 0 | 8 |
| 4:00 PM | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 5 |
| 4:15 PM | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 4 |
| 4:30 PM | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 3 |
| 4:45 PM | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 3 |
| 5:00 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| 5:15 PM | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| 5:30 PM | 1 | 1 | 1 | 3 | 0 | 0 | 1 | 0 | 7 |
| 5:45 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 6 | 62 | 12 | 37 | 0 | 0 | 1 | 6 | 124 |
| APPROACH %'s : | 8.82% | 91.18% | 24.49% | 75.51% | | | 14.29% | 85.71% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | TOTAL |
| PEAK HR VOL : | 1 | 6 | 3 | 3 | 0 | 0 | 1 | 1 | 15 |
| PEAK HR FACTOR : | 0.250 | 0.750 | 0.375 | 0.250 | | | 0.250 | 0.250 | 0.536 |
| | 0.875 | | 0.375 | | | | 0.500 | | |

Location: SR-85 On-ramp/Bernardo Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08664-005
Date: 12/11/2018

# Total

| NS/EW Streets: | SR-85 On-ramp/Bernardo Ave | | | | SR-85 On-ramp/Bernardo Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 39 | 19 | 0 | 19 | 65 | 4 | 0 | 151 |
| 7:15 AM | 0 | 0 | 0 | 0 | 2 | 0 | 9 | 0 | 9 | 36 | 27 | 0 | 31 | 81 | 11 | 0 | 206 |
| 7:30 AM | 0 | 0 | 0 | 0 | 21 | 2 | 17 | 0 | 16 | 143 | 28 | 0 | 28 | 151 | 43 | 0 | 449 |
| 7:45 AM | 0 | 0 | 0 | 0 | 39 | 5 | 43 | 0 | 49 | 170 | 29 | 0 | 36 | 253 | 106 | 0 | 730 |
| 8:00 AM | 0 | 0 | 0 | 0 | 34 | 4 | 23 | 0 | 27 | 137 | 39 | 0 | 44 | 208 | 83 | 0 | 599 |
| 8:15 AM | 0 | 0 | 0 | 0 | 5 | 0 | 15 | 0 | 11 | 111 | 48 | 0 | 25 | 137 | 14 | 0 | 366 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 19 | 116 | 46 | 0 | 31 | 169 | 17 | 0 | 405 |
| 8:45 AM | 0 | 0 | 0 | 0 | 4 | 2 | 8 | 0 | 24 | 102 | 30 | 1 | 24 | 184 | 31 | 0 | 410 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 106 | 13 | 123 | 0 | 158 | 854 | 266 | 1 | 238 | 1248 | 309 | 0 | 3316 |
| APPROACH %'s : | | | | | 43.80% | 5.37% | 50.83% | 0.00% | 12.35% | 66.77% | 20.80% | 0.08% | 13.26% | 69.53% | 17.21% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 99 | 11 | 98 | 0 | 103 | 561 | 144 | 0 | 133 | 749 | 246 | 0 | 2144 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.635 | 0.550 | 0.570 | 0.000 | 0.526 | 0.825 | 0.750 | 0.000 | 0.756 | 0.740 | 0.580 | 0.000 | 0.734 |
| | | | | | 0.598 | | | | 0.815 | | | | 0.714 | | | | |

Location: SR-85 On-ramp/Bernardo Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08664-005
Date: 12/11/2018

# Bikes

| NS/EW Streets: | SR-85 On-ramp/Bernardo Ave | | | | SR-85 On-ramp/Bernardo Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 6 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 3 | 0 | 0 | 22 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 33 | 0 | 0 | 0 | 4 | 3 | 0 | 45 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 3 | 1 | 0 | 0 | 1 | 1 | 0 | 10 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 8 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 1 | 0 | 0 | 4 | 0 | 0 | 12 |
| 8:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 7 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 8 | 73 | 2 | 0 | 0 | 23 | 4 | 0 | 113 |
| APPROACH %'s : | | | | | 66.67% | 0.00% | 33.33% | 0.00% | 9.64% | 87.95% | 2.41% | 0.00% | 0.00% | 85.19% | 14.81% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 8 | 61 | 1 | 0 | 0 | 10 | 4 | 0 | 85 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 | 0.000 | 0.400 | 0.462 | 0.250 | 0.000 | 0.000 | 0.625 | 0.333 | 0.000 | 0.472 |
| | | | | | 0.250 | | | | 0.461 | | | | 0.500 | | | | |

Location: SR-85 On-ramp/Bernardo Ave & Homestead Rd
City: Cupertino

Project ID: 18-08664-005
Date: 12/11/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | SR-85 On-ramp/Bernardo Ave | | SR-85 On-ramp/Bernardo Ave | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 7:30 AM | 0 | 5 | 7 | 5 | 0 | 0 | 0 | 0 | 17 |
| 7:45 AM | 0 | 4 | 9 | 1 | 1 | 0 | 0 | 0 | 15 |
| 8:00 AM | 2 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 7 |
| 8:15 AM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 5 | 11 | 21 | 7 | 1 | 0 | 0 | 0 | 45 |
| APPROACH %'s : | 31.25% | 68.75% | 75.00% | 25.00% | 100.00% | 0.00% | | | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 4 | 11 | 19 | 6 | 1 | 0 | 0 | 0 | 41 |
| PEAK HR FACTOR : | 0.500 | 0.550 | 0.528 | 0.300 | 0.250 | | | | 0.603 |
| | 0.750 | | 0.521 | | 0.250 | | | | |

Location: SR-85 On-ramp/Bernardo Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08549-005
Date: 10/24/2018

## Total

| NS/EW Streets: | SR-85 On-ramp/Bernardo Ave | | | | SR-85 On-ramp/Bernardo Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 2 | 30 | 18 | 0 | 13 | 68 | 3 | 0 | 137 |
| 7:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 0 | 8 | 41 | 19 | 0 | 30 | 99 | 14 | 0 | 217 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 23 | 0 | 13 | 56 | 33 | 0 | 20 | 157 | 17 | 0 | 320 |
| 7:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 20 | 0 | 8 | 95 | 36 | 0 | 26 | 190 | 16 | 0 | 392 |
| 8:00 AM | 0 | 0 | 0 | 0 | 4 | 0 | 6 | 0 | 13 | 145 | 48 | 0 | 30 | 169 | 14 | 0 | 429 |
| 8:15 AM | 0 | 0 | 0 | 0 | 5 | 1 | 15 | 0 | 17 | 96 | 52 | 0 | 32 | 155 | 11 | 0 | 384 |
| 8:30 AM | 0 | 0 | 0 | 0 | 9 | 1 | 9 | 0 | 12 | 181 | 29 | 0 | 26 | 197 | 26 | 0 | 490 |
| 8:45 AM | 0 | 0 | 0 | 0 | 38 | 0 | 13 | 0 | 18 | 180 | 28 | 0 | 35 | 215 | 33 | 0 | 560 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 59 | 4 | 92 | 0 | 91 | 824 | 263 | 0 | 212 | 1250 | 134 | 0 | 2929 |
| APPROACH %'s : | | | | | 38.06% | 2.58% | 59.35% | 0.00% | 7.72% | 69.95% | 22.33% | 0.00% | 13.28% | 78.32% | 8.40% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 56 | 2 | 43 | 0 | 60 | 602 | 157 | 0 | 123 | 736 | 84 | 0 | 1863 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.368 | 0.500 | 0.717 | 0.000 | 0.833 | 0.831 | 0.755 | 0.000 | 0.879 | 0.856 | 0.636 | 0.000 | 0.832 |
| | | | | | | 0.495 | | | | 0.906 | | | | 0.833 | | | |

| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 0 | 0 | 0 | 0 | 5 | 0 | 13 | 0 | 8 | 129 | 22 | 1 | 23 | 86 | 2 | 0 | 289 |
| 2:15 PM | 0 | 0 | 0 | 0 | 4 | 1 | 5 | 0 | 13 | 101 | 15 | 1 | 18 | 88 | 5 | 0 | 251 |
| 2:30 PM | 0 | 0 | 0 | 0 | 3 | 0 | 8 | 0 | 17 | 119 | 18 | 0 | 24 | 88 | 19 | 0 | 296 |
| 2:45 PM | 0 | 0 | 0 | 0 | 21 | 3 | 10 | 0 | 14 | 118 | 24 | 0 | 12 | 74 | 46 | 0 | 322 |
| 3:00 PM | 0 | 0 | 0 | 0 | 39 | 2 | 30 | 0 | 18 | 132 | 20 | 0 | 13 | 79 | 31 | 0 | 364 |
| 3:15 PM | 0 | 0 | 0 | 0 | 19 | 1 | 10 | 0 | 14 | 171 | 31 | 1 | 18 | 77 | 10 | 0 | 352 |
| 3:30 PM | 0 | 0 | 0 | 0 | 11 | 1 | 7 | 0 | 9 | 193 | 15 | 1 | 23 | 158 | 18 | 0 | 436 |
| 3:45 PM | 0 | 0 | 0 | 0 | 9 | 0 | 9 | 0 | 7 | 186 | 23 | 0 | 20 | 94 | 9 | 0 | 357 |
| 4:00 PM | 0 | 0 | 0 | 0 | 11 | 0 | 12 | 0 | 13 | 181 | 25 | 0 | 22 | 71 | 8 | 0 | 343 |
| 4:15 PM | 0 | 0 | 0 | 0 | 12 | 1 | 6 | 0 | 10 | 218 | 19 | 0 | 11 | 84 | 6 | 0 | 367 |
| 4:30 PM | 0 | 0 | 0 | 0 | 17 | 0 | 10 | 0 | 9 | 215 | 17 | 0 | 21 | 75 | 6 | 0 | 370 |
| 4:45 PM | 0 | 0 | 0 | 0 | 15 | 0 | 14 | 0 | 5 | 214 | 15 | 1 | 13 | 81 | 6 | 0 | 364 |
| 5:00 PM | 0 | 0 | 0 | 0 | 14 | 0 | 17 | 0 | 5 | 232 | 18 | 0 | 14 | 77 | 9 | 0 | 386 |
| 5:15 PM | 0 | 0 | 0 | 0 | 16 | 4 | 10 | 0 | 9 | 222 | 13 | 0 | 19 | 89 | 6 | 0 | 388 |
| 5:30 PM | 0 | 0 | 0 | 0 | 11 | 0 | 9 | 0 | 11 | 255 | 13 | 0 | 18 | 102 | 7 | 0 | 426 |
| 5:45 PM | 0 | 0 | 0 | 0 | 14 | 1 | 11 | 0 | 15 | 248 | 14 | 1 | 13 | 95 | 21 | 0 | 433 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 221 | 14 | 181 | 0 | 177 | 2934 | 302 | 6 | 282 | 1418 | 209 | 0 | 5744 |
| APPROACH %'s : | | | | | 53.13% | 3.37% | 43.51% | 0.00% | 5.18% | 85.81% | 8.83% | 0.18% | 14.77% | 74.28% | 10.95% | 0.00% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 55 | 5 | 47 | 0 | 40 | 957 | 58 | 1 | 64 | 363 | 43 | 0 | 1633 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.859 | 0.313 | 0.691 | 0.000 | 0.667 | 0.938 | 0.806 | 0.250 | 0.842 | 0.890 | 0.512 | 0.000 | 0.943 |
| | | | | | | 0.863 | | | | 0.946 | | | | 0.911 | | | |

Location: SR-85 On-ramp/Bernardo Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08549-005
Date: 10/24/2018

# Bikes

| NS/EW Streets: | SR-85 On-ramp/Bernardo Ave | | | | SR-85 On-ramp/Bernardo Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 7 | 1 | 0 | 10 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 5 |
| 8:15 AM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 7 | 0 | 0 | 17 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 4 | 1 | 0 | 31 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 2 | 4 | 0 | 63 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 97 | 1 | 0 | 0 | 28 | 8 | 0 | 137 |
| APPROACH %'s : | | | | | 100.00% | 0.00% | 0.00% | 0.00% | 0.00% | 98.98% | 1.02% | 0.00% | 0.00% | 77.78% | 22.22% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 90 | 1 | 0 | 0 | 15 | 7 | 0 | 116 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 | 0.395 | 0.250 | 0.000 | 0.000 | 0.536 | 0.438 | 0.000 | 0.460 |
| | | | | | 0.250 | | | | 0.399 | | | | 0.786 | | | | |

| NS/EW Streets: | SR-85 On-ramp/Bernardo Ave | | | | SR-85 On-ramp/Bernardo Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 6 |
| 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:45 PM | 0 | 0 | 0 | 0 | 6 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 3:00 PM | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 6 |
| 3:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 7 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 5 | 0 | 0 | 0 | 44 | 3 | 0 | 54 |
| 3:45 PM | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 2 | 0 | 16 |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 1 | 0 | 10 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 6 |
| 4:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 8 |
| 4:45 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 6 | 1 | 0 | 13 |
| 5:00 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 5 | 0 | 0 | 11 |
| 5:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 6 | 2 | 0 | 12 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 5 | 0 | 0 | 10 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 7 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 20 | 0 | 7 | 0 | 2 | 31 | 0 | 0 | 1 | 106 | 10 | 0 | 177 |
| APPROACH %'s : | | | | | 74.07% | 0.00% | 25.93% | 0.00% | 6.06% | 93.94% | 0.00% | 0.00% | 0.85% | 90.60% | 8.55% | 0.00% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 13 | 0 | 0 | 0 | 21 | 2 | 0 | 40 |
| PEAK HR FACTOR : | 0.00 | 0.000 | 0.000 | 0.000 | 0.375 | 0.000 | 0.000 | 0.000 | 0.250 | 0.813 | 0.000 | 0.000 | 0.000 | 0.875 | 0.250 | 0.000 | 0.833 |
| | | | | | 0.375 | | | | 0.700 | | | | 0.719 | | | | |

Location: SR-85 On-ramp/Bernardo Ave & Homestead Rd
City: Cupertino

Project ID: 18-08549-005
Date: 10/24/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | SR-85 On-ramp/Bernardo Ave | | SR-85 On-ramp/Bernardo Ave | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| 7:15 AM | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 7:30 AM | 0 | 6 | 1 | 4 | 0 | 0 | 1 | 0 | 12 |
| 7:45 AM | 1 | 2 | 1 | 4 | 0 | 0 | 0 | 0 | 8 |
| 8:00 AM | 6 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 11 |
| 8:15 AM | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 4 |
| 8:30 AM | 1 | 1 | 12 | 0 | 0 | 0 | 0 | 0 | 14 |
| 8:45 AM | 1 | 3 | 3 | 1 | 0 | 0 | 0 | 0 | 8 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 12 | 16 | 21 | 12 | 0 | 0 | 1 | 0 | 62 |
| APPROACH %'s : | 42.86% | 57.14% | 63.64% | 36.36% | | | 100.00% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 9 | 6 | 19 | 3 | 0 | 0 | 0 | 0 | 37 |
| PEAK HR FACTOR : | 0.375 | 0.500 | 0.396 | 0.750 | | | | | 0.661 |
| | 0.469 | | 0.458 | | | | | | |

| **PM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 2:00 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| 2:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:30 PM | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 5 |
| 2:45 PM | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 2 | 7 |
| 3:00 PM | 3 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 7 |
| 3:15 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| 3:30 PM | 1 | 2 | 0 | 26 | 0 | 0 | 0 | 0 | 29 |
| 3:45 PM | 0 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 6 |
| 4:00 PM | 0 | 0 | 2 | 2 | 0 | 0 | 1 | 0 | 5 |
| 4:15 PM | 0 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 6 |
| 4:30 PM | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 4:45 PM | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 3 |
| 5:00 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 5:15 PM | 2 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 9 |
| 5:30 PM | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 5:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 9 | 13 | 15 | 44 | 2 | 5 | 1 | 2 | 91 |
| APPROACH %'s : | 40.91% | 59.09% | 25.42% | 74.58% | 28.57% | 71.43% | 33.33% | 66.67% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | TOTAL |
| PEAK HR VOL : | 3 | 5 | 3 | 2 | 2 | 0 | 0 | 0 | 15 |
| PEAK HR FACTOR : | 0.375 | 0.417 | 0.375 | 0.250 | 0.250 | | | | 0.417 |
| | 0.500 | | 0.313 | | 0.250 | | | | |

Location: Wright Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08664-006
Date: 12/11/2018

## Total

| NS/EW Streets: | Wright Ave | | | | Wright Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 2 | 0 | 1 | 0 | 2 | 1 | 9 | 0 | 3 | 36 | 2 | 0 | 1 | 81 | 1 | 0 | 139 |
| 7:15 AM | 2 | 1 | 2 | 0 | 3 | 0 | 11 | 0 | 1 | 37 | 1 | 0 | 2 | 116 | 7 | 0 | 183 |
| 7:30 AM | 12 | 1 | 3 | 0 | 15 | 0 | 22 | 0 | 2 | 159 | 1 | 0 | 1 | 203 | 23 | 0 | 442 |
| 7:45 AM | 27 | 0 | 10 | 0 | 72 | 3 | 54 | 0 | 5 | 204 | 5 | 0 | 0 | 311 | 59 | 0 | 750 |
| 8:00 AM | 11 | 2 | 3 | 0 | 57 | 0 | 43 | 0 | 15 | 150 | 9 | 0 | 1 | 253 | 25 | 0 | 569 |
| 8:15 AM | 9 | 1 | 2 | 0 | 11 | 0 | 6 | 0 | 4 | 108 | 2 | 0 | 0 | 163 | 10 | 0 | 316 |
| 8:30 AM | 3 | 3 | 5 | 0 | 17 | 1 | 12 | 0 | 6 | 105 | 4 | 0 | 1 | 208 | 14 | 0 | 379 |
| 8:45 AM | 7 | 1 | 6 | 0 | 9 | 1 | 19 | 0 | 5 | 102 | 0 | 0 | 1 | 221 | 12 | 0 | 384 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 73 | 9 | 32 | 0 | 186 | 6 | 176 | 0 | 41 | 901 | 24 | 0 | 7 | 1556 | 151 | 0 | 3162 |
| APPROACH %'s : | 64.04% | 7.89% | 28.07% | 0.00% | 50.54% | 1.63% | 47.83% | 0.00% | 4.24% | 93.27% | 2.48% | 0.00% | 0.41% | 90.78% | 8.81% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 59 | 4 | 18 | 0 | 155 | 3 | 125 | 0 | 26 | 621 | 17 | 0 | 2 | 930 | 117 | 0 | 2077 |
| PEAK HR FACTOR : | 0.546 | 0.500 | 0.450 | 0.000 | 0.538 | 0.250 | 0.579 | 0.000 | 0.433 | 0.761 | 0.472 | 0.000 | 0.500 | 0.748 | 0.496 | 0.000 | 0.692 |
| | 0.547 | | | | 0.548 | | | | 0.776 | | | | 0.709 | | | | |

Location: Wright Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08664-006
Date: 12/11/2018

# Bikes

| NS/EW Streets: | Wright Ave | | | | Wright Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 3 |
| 7:15 AM | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 1 | 0 | 11 |
| 7:30 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 7 | 0 | 0 | 28 |
| 7:45 AM | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 8 | 1 | 0 | 46 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 3 | 0 | 0 | 9 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 3 | 1 | 0 | 11 |
| 8:45 AM | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 1 | 0 | 0 | 2 | 1 | 0 | 11 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 4 | 3 | 0 | 4 | 0 | 1 | 0 | 0 | 76 | 1 | 0 | 0 | 30 | 4 | 0 | 123 |
| APPROACH %'s : | 0.00% | 57.14% | 42.86% | 0.00% | 80.00% | 0.00% | 20.00% | 0.00% | 0.00% | 98.70% | 1.30% | 0.00% | 0.00% | 88.24% | 11.76% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 62 | 0 | 0 | 0 | 18 | 1 | 0 | 87 |
| PEAK HR FACTOR : | 0.000 | 0.500 | 0.000 | 0.000 | 0.333 | 0.000 | 0.000 | 0.000 | 0.000 | 0.470 | 0.000 | 0.000 | 0.000 | 0.563 | 0.250 | 0.000 | 0.473 |
| | 0.500 | | | | 0.333 | | | | 0.470 | | | | 0.528 | | | | |

Location: Wright Ave & Homestead Rd
City: Cupertino

Project ID: 18-08664-006
Date: 12/11/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Wright Ave | | Wright Ave | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 7:30 AM | 2 | 3 | 5 | 0 | 0 | 3 | 1 | 1 | 15 |
| 7:45 AM | 3 | 5 | 13 | 2 | 2 | 0 | 8 | 4 | 37 |
| 8:00 AM | 4 | 5 | 2 | 0 | 1 | 2 | 2 | 1 | 17 |
| 8:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| 8:30 AM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| 8:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 10 | 13 | 24 | 2 | 4 | 5 | 12 | 7 | 77 |
| APPROACH %'s : | 43.48% | 56.52% | 92.31% | 7.69% | 44.44% | 55.56% | 63.16% | 36.84% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 9 | 13 | 21 | 2 | 3 | 5 | 12 | 6 | 71 |
| PEAK HR FACTOR : | 0.563 | 0.650 | 0.404 | 0.250 | 0.375 | 0.417 | 0.375 | 0.375 | 0.480 |
| | 0.611 | | 0.383 | | 0.667 | | 0.375 | | |

Location: Wright Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08549-006
Date: 10/24/2018

## Total

| NS/EW Streets: | Wright Ave | | | | Wright Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 2 | 0 | 0 | 0 | 2 | 0 | 6 | 0 | 0 | 29 | 0 | 0 | 0 | 81 | 1 | 0 | 121 |
| 7:15 AM | 3 | 2 | 1 | 0 | 4 | 0 | 11 | 0 | 3 | 38 | 2 | 0 | 0 | 119 | 4 | 0 | 187 |
| 7:30 AM | 8 | 2 | 0 | 0 | 2 | 0 | 18 | 0 | 4 | 55 | 0 | 0 | 1 | 167 | 5 | 0 | 262 |
| 7:45 AM | 17 | 0 | 4 | 0 | 5 | 0 | 27 | 0 | 9 | 86 | 3 | 0 | 0 | 191 | 10 | 0 | 352 |
| 8:00 AM | 8 | 3 | 1 | 0 | 3 | 0 | 20 | 0 | 13 | 117 | 12 | 0 | 0 | 189 | 11 | 0 | 377 |
| 8:15 AM | 8 | 2 | 5 | 0 | 6 | 0 | 16 | 0 | 11 | 95 | 1 | 0 | 1 | 173 | 11 | 0 | 329 |
| 8:30 AM | 9 | 1 | 6 | 0 | 26 | 2 | 14 | 0 | 2 | 178 | 4 | 0 | 0 | 220 | 15 | 0 | 477 |
| 8:45 AM | 6 | 3 | 9 | 0 | 51 | 1 | 23 | 0 | 7 | 211 | 5 | 0 | 0 | 261 | 49 | 0 | 626 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 61 | 13 | 26 | 0 | 99 | 3 | 135 | 0 | 49 | 809 | 27 | 0 | 2 | 1401 | 106 | 0 | 2731 |
| APPROACH %'s : | 61.00% | 13.00% | 26.00% | 0.00% | 41.77% | 1.27% | 56.96% | 0.00% | 5.54% | 91.41% | 3.05% | 0.00% | 0.13% | 92.84% | 7.02% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 31 | 9 | 21 | 0 | 86 | 3 | 73 | 0 | 33 | 601 | 22 | 0 | 1 | 843 | 86 | 0 | 1809 |
| PEAK HR FACTOR : | 0.861 | 0.750 | 0.583 | 0.000 | 0.422 | 0.375 | 0.793 | 0.000 | 0.635 | 0.712 | 0.458 | 0.000 | 0.250 | 0.807 | 0.439 | 0.000 | 0.722 |
| | 0.847 | | | | 0.540 | | | | 0.735 | | | | 0.750 | | | | |

| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 4 | 0 | 0 | 0 | 2 | 0 | 9 | 0 | 9 | 111 | 5 | 0 | 2 | 114 | 8 | 0 | 264 |
| 2:15 PM | 5 | 0 | 2 | 0 | 4 | 1 | 11 | 0 | 4 | 96 | 4 | 0 | 4 | 90 | 13 | 0 | 234 |
| 2:30 PM | 8 | 1 | 3 | 0 | 6 | 0 | 10 | 0 | 9 | 111 | 6 | 0 | 2 | 117 | 9 | 0 | 282 |
| 2:45 PM | 1 | 3 | 2 | 0 | 5 | 1 | 11 | 0 | 8 | 109 | 11 | 0 | 0 | 122 | 20 | 0 | 293 |
| 3:00 PM | 2 | 1 | 2 | 0 | 57 | 1 | 11 | 0 | 14 | 152 | 5 | 0 | 1 | 105 | 14 | 0 | 365 |
| 3:15 PM | 2 | 2 | 3 | 0 | 26 | 1 | 12 | 0 | 9 | 174 | 4 | 0 | 0 | 90 | 12 | 0 | 335 |
| 3:30 PM | 14 | 5 | 5 | 0 | 13 | 2 | 13 | 0 | 10 | 191 | 4 | 0 | 1 | 178 | 21 | 0 | 457 |
| 3:45 PM | 1 | 1 | 1 | 0 | 11 | 2 | 8 | 0 | 10 | 178 | 5 | 0 | 1 | 112 | 10 | 0 | 340 |
| 4:00 PM | 3 | 1 | 7 | 0 | 5 | 1 | 7 | 0 | 9 | 191 | 3 | 0 | 2 | 90 | 2 | 0 | 321 |
| 4:15 PM | 3 | 1 | 2 | 0 | 16 | 1 | 5 | 0 | 7 | 202 | 9 | 0 | 0 | 92 | 2 | 0 | 340 |
| 4:30 PM | 0 | 0 | 4 | 0 | 3 | 2 | 7 | 0 | 4 | 222 | 7 | 0 | 2 | 96 | 9 | 0 | 356 |
| 4:45 PM | 1 | 0 | 2 | 0 | 5 | 1 | 7 | 0 | 3 | 219 | 6 | 0 | 2 | 96 | 9 | 0 | 351 |
| 5:00 PM | 2 | 0 | 4 | 0 | 10 | 1 | 5 | 0 | 5 | 237 | 4 | 0 | 2 | 95 | 9 | 0 | 374 |
| 5:15 PM | 1 | 1 | 1 | 0 | 9 | 3 | 8 | 0 | 13 | 210 | 7 | 0 | 5 | 104 | 11 | 0 | 373 |
| 5:30 PM | 1 | 1 | 4 | 0 | 9 | 3 | 12 | 0 | 5 | 255 | 5 | 0 | 0 | 111 | 10 | 0 | 416 |
| 5:45 PM | 2 | 1 | 3 | 0 | 13 | 4 | 13 | 0 | 7 | 251 | 7 | 0 | 5 | 115 | 8 | 0 | 429 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 50 | 18 | 45 | 0 | 194 | 24 | 149 | 0 | 126 | 2909 | 92 | 0 | 29 | 1727 | 167 | 0 | 5530 |
| APPROACH %'s : | 44.25% | 15.93% | 39.82% | 0.00% | 52.86% | 6.54% | 40.60% | 0.00% | 4.03% | 93.03% | 2.94% | 0.00% | 1.51% | 89.81% | 8.68% | 0.00% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 6 | 3 | 12 | 0 | 41 | 11 | 38 | 0 | 30 | 953 | 23 | 0 | 12 | 425 | 38 | 0 | 1592 |
| PEAK HR FACTOR : | 0.750 | 0.750 | 0.750 | 0.000 | 0.788 | 0.688 | 0.731 | 0.000 | 0.577 | 0.934 | 0.821 | 0.000 | 0.600 | 0.924 | 0.864 | 0.000 | 0.928 |
| | 0.875 | | | | 0.750 | | | | 0.949 | | | | 0.928 | | | | |

Location: Wright Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08549-006
Date: 10/24/2018

# Bikes

| NS/EW Streets: | Wright Ave | | | | Wright Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 7 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 5 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| 7:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 8 | 0 | 0 | 11 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 |
| 8:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 7 | 0 | 0 | 13 |
| 8:30 AM | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 27 | 1 | 0 | 0 | 3 | 3 | 0 | 38 |
| 8:45 AM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 62 | 0 | 0 | 0 | 7 | 1 | 0 | 74 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 2 | 2 | 0 | 7 | 0 | 0 | 0 | 1 | 102 | 1 | 0 | 0 | 35 | 5 | 0 | 155 |
| APPROACH %'s : | 0.00% | 50.00% | 50.00% | 0.00% | 100.00% | 0.00% | 0.00% | 0.00% | 0.96% | 98.08% | 0.96% | 0.00% | 0.00% | 87.50% | 12.50% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 2 | 0 | 6 | 0 | 0 | 0 | 1 | 94 | 1 | 0 | 0 | 21 | 4 | 0 | 129 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.500 | 0.000 | 0.500 | 0.000 | 0.000 | 0.000 | 0.250 | 0.379 | 0.250 | 0.000 | 0.000 | 0.750 | 0.333 | 0.000 | 0.436 |
| | 0.500 | | | | 0.500 | | | | 0.381 | | | | 0.781 | | | | |

| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 6 |
| 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 3 |
| 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 3:00 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 1 | 0 | 0 | 15 |
| 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 3 | 0 | 0 | 7 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 47 | 3 | 0 | 53 |
| 3:45 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 9 | 0 | 0 | 15 |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 10 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 3 | 0 | 0 | 7 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 6 | 0 | 0 | 7 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 10 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 4 | 1 | 0 | 13 |
| 5:15 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 9 | 0 | 0 | 19 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 1 | 0 | 0 | 4 | 1 | 0 | 11 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 5 | 1 | 0 | 11 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 1 | 0 | 4 | 2 | 3 | 0 | 1 | 58 | 1 | 0 | 1 | 112 | 6 | 0 | 189 |
| APPROACH %'s : | 0.00% | 0.00% | 100.00% | 0.00% | 44.44% | 22.22% | 33.33% | 0.00% | 1.67% | 96.67% | 1.67% | 0.00% | 0.84% | 94.12% | 5.04% | 0.00% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 22 | 1 | 0 | 0 | 22 | 3 | 0 | 54 |
| PEAK HR FACTOR : | 0.00 | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.500 | 0.000 | 0.000 | 0.688 | 0.250 | 0.000 | 0.000 | 0.611 | 0.750 | 0.000 | 0.711 |
| | | | | | 0.750 | | | | 0.719 | | | | 0.694 | | | | |

Location: Wright Ave & Homestead Rd
City: Cupertino

Project ID: 18-08549-006
Date: 10/24/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Wright Ave | | Wright Ave | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 4 |
| 7:15 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:30 AM | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 5 |
| 7:45 AM | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| 8:00 AM | 4 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 7 |
| 8:15 AM | 2 | 0 | 2 | 2 | 0 | 1 | 1 | 0 | 8 |
| 8:30 AM | 3 | 0 | 12 | 0 | 1 | 3 | 0 | 0 | 19 |
| 8:45 AM | 6 | 10 | 13 | 0 | 0 | 1 | 0 | 3 | 33 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 17 | 18 | 29 | 3 | 1 | 7 | 1 | 4 | 80 |
| APPROACH %'s : | 48.57% | 51.43% | 90.63% | 9.38% | 12.50% | 87.50% | 20.00% | 80.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 15 | 12 | 27 | 2 | 1 | 6 | 1 | 3 | 67 |
| PEAK HR FACTOR : | 0.625 | 0.300 | 0.519 | 0.250 | 0.250 | 0.500 | 0.250 | 0.250 | 0.508 |
| | 0.422 | | 0.558 | | 0.438 | | 0.333 | | |

| **PM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 2:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| 2:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| 2:30 PM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 2:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| 3:00 PM | 24 | 0 | 19 | 1 | 0 | 5 | 0 | 25 | 74 |
| 3:15 PM | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 4 | 9 |
| 3:30 PM | 2 | 6 | 0 | 33 | 9 | 0 | 4 | 0 | 54 |
| 3:45 PM | 1 | 1 | 1 | 2 | 3 | 1 | 1 | 2 | 12 |
| 4:00 PM | 1 | 1 | 1 | 6 | 0 | 1 | 4 | 0 | 14 |
| 4:15 PM | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 4 |
| 4:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 4:45 PM | 1 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 5 |
| 5:00 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 5:15 PM | 0 | 2 | 0 | 2 | 0 | 0 | 1 | 0 | 5 |
| 5:30 PM | 1 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 5 |
| 5:45 PM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 32 | 17 | 30 | 52 | 13 | 8 | 11 | 32 | 195 |
| APPROACH %'s : | 65.31% | 34.69% | 36.59% | 63.41% | 61.90% | 38.10% | 25.58% | 74.42% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | TOTAL |
| PEAK HR VOL : | 1 | 6 | 3 | 3 | 0 | 0 | 1 | 0 | 14 |
| PEAK HR FACTOR : | 0.250 | 0.500 | 0.250 | 0.375 | | | 0.250 | | 0.700 |
| | 0.438 | | 0.500 | | | | 0.250 | | |

Location: Mary Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08664-007
Date: 12/11/2018

## Total

| NS/EW Streets: | Mary Ave | | | | Mary Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1 | 0.5 | 0.5 | 0 | 1.5 | 0.5 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 8 | 1 | 4 | 0 | 2 | 31 | 7 | 0 | 6 | 78 | 9 | 0 | 146 |
| 7:15 AM | 2 | 4 | 1 | 0 | 11 | 6 | 7 | 0 | 2 | 36 | 6 | 0 | 6 | 119 | 31 | 0 | 231 |
| 7:30 AM | 23 | 21 | 11 | 0 | 38 | 26 | 16 | 0 | 6 | 83 | 58 | 0 | 31 | 214 | 18 | 0 | 545 |
| 7:45 AM | 64 | 61 | 14 | 0 | 86 | 50 | 28 | 0 | 14 | 169 | 90 | 0 | 20 | 199 | 47 | 0 | 842 |
| 8:00 AM | 19 | 18 | 6 | 0 | 49 | 7 | 14 | 0 | 22 | 182 | 9 | 0 | 10 | 219 | 60 | 0 | 615 |
| 8:15 AM | 1 | 5 | 1 | 0 | 39 | 2 | 13 | 0 | 17 | 105 | 3 | 0 | 2 | 166 | 57 | 0 | 411 |
| 8:30 AM | 0 | 2 | 1 | 0 | 36 | 3 | 14 | 0 | 25 | 92 | 1 | 0 | 0 | 194 | 64 | 0 | 432 |
| 8:45 AM | 4 | 0 | 2 | 0 | 36 | 2 | 11 | 0 | 23 | 90 | 5 | 0 | 1 | 227 | 76 | 0 | 477 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 113 | 111 | 36 | 0 | 303 | 97 | 107 | 0 | 111 | 788 | 179 | 0 | 76 | 1416 | 362 | 0 | 3699 |
| APPROACH %'s : | 43.46% | 42.69% | 13.85% | 0.00% | 59.76% | 19.13% | 21.10% | 0.00% | 10.30% | 73.10% | 16.60% | 0.00% | 4.10% | 76.38% | 19.53% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 107 | 105 | 32 | 0 | 212 | 85 | 71 | 0 | 59 | 539 | 160 | 0 | 63 | 798 | 182 | 0 | 2413 |
| PEAK HR FACTOR : | 0.418 | 0.430 | 0.571 | 0.000 | 0.616 | 0.425 | 0.634 | 0.000 | 0.670 | 0.740 | 0.444 | 0.000 | 0.508 | 0.911 | 0.758 | 0.000 | 0.716 |
| | 0.439 | | | | 0.561 | | | | 0.694 | | | | 0.902 | | | | |

Location: Mary Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08664-007
Date: 12/11/2018

# Bikes

| NS/EW Streets: | Mary Ave | | | | Mary Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1 | 0.5 | 0.5 | 0 | 1.5 | 0.5 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 3 |
| 7:15 AM | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 1 | 0 | 9 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 0 | 1 | 7 | 0 | 0 | 9 | 0 | 0 | 45 |
| 7:45 AM | 0 | 2 | 0 | 0 | 0 | 76 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 8 | 0 | 0 | 89 |
| 8:00 AM | 1 | 1 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 1 | 0 | 0 | 15 |
| 8:15 AM | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 2 | 0 | 0 | 2 | 3 | 0 | 15 |
| 8:30 AM | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 2 | 0 | 0 | 1 | 0 | 0 | 14 |
| 8:45 AM | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 1 | 1 | 0 | 11 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 9 | 6 | 2 | 0 | 1 | 110 | 1 | 0 | 0 | 22 | 19 | 0 | 0 | 26 | 5 | 0 | 201 |
| APPROACH %'s : | 52.94% | 35.29% | 11.76% | 0.00% | 0.89% | 98.21% | 0.89% | 0.00% | 0.00% | 53.66% | 46.34% | 0.00% | 0.00% | 83.87% | 16.13% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 1 | 4 | 2 | 0 | 1 | 109 | 1 | 0 | 0 | 9 | 14 | 0 | 0 | 20 | 3 | 0 | 164 |
| PEAK HR FACTOR : | 0.250 | 0.500 | 0.250 | 0.000 | 0.250 | 0.359 | 0.250 | 0.000 | 0.000 | 0.563 | 0.500 | 0.000 | 0.000 | 0.556 | 0.250 | 0.000 | 0.461 |
| | 0.583 | | | | 0.365 | | | | 0.719 | | | | 0.639 | | | | |

Location: Mary Ave & Homestead Rd
City: Cupertino

Project ID: 18-08664-007
Date: 12/11/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Mary Ave | | Mary Ave | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 3 |
| 7:15 AM | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 3 | 7 |
| 7:30 AM | 27 | 3 | 17 | 0 | 0 | 33 | 0 | 3 | 83 |
| 7:45 AM | 72 | 7 | 142 | 3 | 3 | 130 | 2 | 91 | 450 |
| 8:00 AM | 1 | 0 | 3 | 0 | 0 | 8 | 0 | 1 | 13 |
| 8:15 AM | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 3 |
| 8:30 AM | 2 | 0 | 2 | 0 | 1 | 2 | 0 | 0 | 7 |
| 8:45 AM | 6 | 1 | 1 | 0 | 1 | 7 | 0 | 0 | 16 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 108 | 11 | 172 | 3 | 7 | 180 | 2 | 99 | 582 |
| APPROACH %'s : | 90.76% | 9.24% | 98.29% | 1.71% | 3.74% | 96.26% | 1.98% | 98.02% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 100 | 10 | 164 | 3 | 4 | 171 | 2 | 95 | 549 |
| PEAK HR FACTOR : | 0.347 | 0.357 | 0.289 | 0.250 | 0.333 | 0.329 | 0.250 | 0.261 | 0.305 |
| | 0.348 | | 0.288 | | 0.329 | | 0.261 | | |

Location: Mary Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08549-007
Date: 10/24/2018

## Total

| NS/EW Streets: | Mary Ave | | | | Mary Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1 | 0.5 | 0.5 | 0 | 1.5 | 0.5 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 3 | 29 | 5 | 0 | 7 | 75 | 13 | 0 | 142 |
| 7:15 AM | 0 | 1 | 1 | 0 | 9 | 0 | 4 | 0 | 5 | 31 | 8 | 0 | 15 | 123 | 12 | 0 | 209 |
| 7:30 AM | 2 | 1 | 1 | 0 | 10 | 5 | 19 | 0 | 6 | 46 | 11 | 0 | 23 | 160 | 24 | 0 | 308 |
| 7:45 AM | 0 | 5 | 1 | 0 | 20 | 4 | 25 | 0 | 15 | 74 | 10 | 0 | 16 | 161 | 33 | 0 | 364 |
| 8:00 AM | 3 | 3 | 1 | 0 | 27 | 3 | 17 | 0 | 20 | 91 | 6 | 0 | 3 | 167 | 29 | 0 | 370 |
| 8:15 AM | 3 | 13 | 2 | 0 | 37 | 10 | 23 | 0 | 20 | 86 | 7 | 0 | 6 | 155 | 42 | 0 | 404 |
| 8:30 AM | 20 | 28 | 8 | 0 | 62 | 35 | 21 | 0 | 24 | 123 | 36 | 0 | 11 | 192 | 66 | 0 | 626 |
| 8:45 AM | 61 | 59 | 29 | 0 | 108 | 49 | 15 | 0 | 15 | 160 | 64 | 0 | 17 | 186 | 56 | 0 | 819 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 89 | 110 | 43 | 0 | 283 | 106 | 124 | 0 | 108 | 640 | 147 | 0 | 98 | 1219 | 275 | 0 | 3242 |
| APPROACH %'s : | 36.78% | 45.45% | 17.77% | 0.00% | 55.17% | 20.66% | 24.17% | 0.00% | 12.07% | 71.51% | 16.42% | 0.00% | 6.16% | 76.57% | 17.27% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 87 | 103 | 40 | 0 | 234 | 97 | 76 | 0 | 79 | 460 | 113 | 0 | 37 | 700 | 193 | 0 | 2219 |
| PEAK HR FACTOR : | 0.357 | 0.436 | 0.345 | 0.000 | 0.542 | 0.495 | 0.826 | 0.000 | 0.823 | 0.719 | 0.441 | 0.000 | 0.544 | 0.911 | 0.731 | 0.000 | 0.677 |
| | 0.386 | | | | 0.592 | | | | 0.682 | | | | 0.864 | | | | |

| PM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 0.5 | 0.5 | 0 | 1.5 | 0.5 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 2 | 0 | 3 | 0 | 35 | 0 | 13 | 0 | 10 | 102 | 1 | 0 | 1 | 109 | 31 | 0 | 307 |
| 2:15 PM | 1 | 2 | 3 | 0 | 32 | 2 | 11 | 0 | 4 | 105 | 2 | 0 | 1 | 105 | 29 | 0 | 297 |
| 2:30 PM | 0 | 2 | 4 | 0 | 38 | 0 | 10 | 0 | 9 | 106 | 2 | 0 | 2 | 122 | 18 | 0 | 313 |
| 2:45 PM | 3 | 0 | 4 | 0 | 34 | 12 | 10 | 0 | 8 | 101 | 7 | 0 | 4 | 125 | 31 | 0 | 339 |
| 3:00 PM | 0 | 1 | 3 | 0 | 48 | 14 | 9 | 0 | 13 | 168 | 12 | 0 | 8 | 101 | 25 | 0 | 402 |
| 3:15 PM | 15 | 10 | 11 | 0 | 64 | 4 | 18 | 0 | 12 | 166 | 8 | 0 | 4 | 87 | 31 | 0 | 430 |
| 3:30 PM | 39 | 31 | 36 | 0 | 84 | 22 | 19 | 0 | 17 | 171 | 23 | 0 | 7 | 125 | 41 | 0 | 615 |
| 3:45 PM | 11 | 11 | 16 | 0 | 49 | 5 | 16 | 0 | 19 | 163 | 7 | 0 | 2 | 95 | 36 | 0 | 430 |
| 4:00 PM | 8 | 7 | 13 | 0 | 57 | 2 | 12 | 0 | 2 | 192 | 5 | 0 | 4 | 85 | 31 | 0 | 418 |
| 4:15 PM | 6 | 3 | 8 | 0 | 65 | 5 | 13 | 0 | 11 | 205 | 5 | 0 | 4 | 86 | 34 | 0 | 445 |
| 4:30 PM | 9 | 7 | 10 | 0 | 60 | 4 | 19 | 0 | 10 | 215 | 7 | 0 | 3 | 85 | 39 | 0 | 468 |
| 4:45 PM | 1 | 3 | 7 | 0 | 83 | 2 | 19 | 0 | 17 | 215 | 0 | 0 | 2 | 87 | 32 | 0 | 468 |
| 5:00 PM | 1 | 4 | 7 | 0 | 94 | 2 | 24 | 0 | 18 | 230 | 0 | 0 | 3 | 101 | 34 | 0 | 518 |
| 5:15 PM | 2 | 1 | 3 | 0 | 126 | 0 | 23 | 0 | 16 | 203 | 1 | 0 | 2 | 103 | 36 | 0 | 516 |
| 5:30 PM | 0 | 1 | 1 | 0 | 111 | 3 | 25 | 0 | 14 | 264 | 0 | 0 | 3 | 106 | 49 | 0 | 577 |
| 5:45 PM | 1 | 2 | 0 | 0 | 94 | 6 | 21 | 0 | 6 | 249 | 4 | 0 | 6 | 114 | 46 | 0 | 549 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 99 | 85 | 129 | 0 | 1074 | 83 | 262 | 0 | 186 | 2855 | 84 | 0 | 56 | 1636 | 543 | 0 | 7092 |
| APPROACH %'s : | 31.63% | 27.16% | 41.21% | 0.00% | 75.69% | 5.85% | 18.46% | 0.00% | 5.95% | 91.36% | 2.69% | 0.00% | 2.51% | 73.20% | 24.30% | 0.00% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 4 | 8 | 11 | 0 | 425 | 11 | 93 | 0 | 54 | 946 | 5 | 0 | 14 | 424 | 165 | 0 | 2160 |
| PEAK HR FACTOR : | 0.500 | 0.500 | 0.393 | 0.000 | 0.843 | 0.458 | 0.930 | 0.000 | 0.750 | 0.896 | 0.313 | 0.000 | 0.583 | 0.930 | 0.842 | 0.000 | 0.936 |
| | 0.479 | | | | 0.888 | | | | 0.904 | | | | 0.908 | | | | |

Location: Mary Ave & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08549-007
Date: 10/24/2018

# Bikes

| NS/EW Streets: | Mary Ave | | | | Mary Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1 | 0.5 | 0.5 | 0 | 1.5 | 0.5 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 8 |
| 7:15 AM | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 8 |
| 7:30 AM | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 7:45 AM | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 6 | 1 | 0 | 14 |
| 8:00 AM | 2 | 2 | 0 | 0 | 1 | 5 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 3 | 0 | 17 |
| 8:15 AM | 3 | 4 | 2 | 0 | 2 | 8 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 0 | 26 |
| 8:30 AM | 0 | 3 | 0 | 0 | 4 | 57 | 0 | 0 | 2 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 85 |
| 8:45 AM | 0 | 1 | 0 | 0 | 1 | 103 | 0 | 0 | 2 | 9 | 42 | 0 | 0 | 2 | 1 | 0 | 161 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 8 | 13 | 3 | 0 | 8 | 176 | 1 | 0 | 7 | 18 | 60 | 0 | 2 | 20 | 8 | 0 | 324 |
| APPROACH %'s : | 33.33% | 54.17% | 12.50% | 0.00% | 4.32% | 95.14% | 0.54% | 0.00% | 8.24% | 21.18% | 70.59% | 0.00% | 6.67% | 66.67% | 26.67% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 5 | 10 | 2 | 0 | 8 | 173 | 1 | 0 | 5 | 12 | 57 | 0 | 0 | 11 | 5 | 0 | 289 |
| PEAK HR FACTOR : | 0.417 | 0.625 | 0.250 | 0.000 | 0.500 | 0.420 | 0.250 | 0.000 | 0.625 | 0.333 | 0.339 | 0.000 | 0.000 | 0.393 | 0.417 | 0.000 | 0.449 |
| | 0.472 | | | | 0.438 | | | | 0.349 | | | | 0.571 | | | | |

| NS/EW Streets: | Mary Ave | | | | Mary Ave | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1 | 0.5 | 0.5 | 0 | 1.5 | 0.5 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 6 |
| 2:15 PM | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 5 |
| 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 2:45 PM | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| 3:00 PM | 1 | 1 | 1 | 0 | 4 | 2 | 2 | 0 | 0 | 12 | 0 | 0 | 1 | 1 | 1 | 0 | 26 |
| 3:15 PM | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 3 | 3 | 0 | 16 |
| 3:30 PM | 59 | 46 | 6 | 0 | 0 | 0 | 2 | 0 | 1 | 2 | 1 | 0 | 0 | 4 | 22 | 0 | 143 |
| 3:45 PM | 7 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 4 | 0 | 0 | 4 | 5 | 0 | 26 |
| 4:00 PM | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 8 |
| 4:15 PM | 3 | 1 | 0 | 0 | 0 | 3 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 3 | 1 | 0 | 15 |
| 4:30 PM | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 13 |
| 4:45 PM | 1 | 0 | 0 | 0 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 | 0 | 15 |
| 5:00 PM | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 2 | 8 | 0 | 18 |
| 5:15 PM | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 6 | 15 | 0 | 32 |
| 5:30 PM | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 4 | 2 | 0 | 11 |
| 5:45 PM | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 10 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 94 | 55 | 9 | 0 | 12 | 13 | 9 | 0 | 4 | 39 | 8 | 0 | 4 | 35 | 68 | 0 | 350 |
| APPROACH %'s : | 59.49% | 34.81% | 5.70% | 0.00% | 35.29% | 38.24% | 26.47% | 0.00% | 7.84% | 76.47% | 15.69% | 0.00% | 3.74% | 32.71% | 63.55% | 0.00% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 3 | 2 | 1 | 0 | 2 | 3 | 2 | 0 | 2 | 15 | 1 | 0 | 1 | 14 | 25 | 0 | 71 |
| PEAK HR FACTOR : | 0.25 | 0.500 | 0.250 | 0.000 | 0.500 | 0.750 | 0.500 | 0.000 | 0.500 | 0.536 | 0.250 | 0.000 | 0.250 | 0.583 | 0.417 | 0.000 | 0.555 |
| | 0.500 | | | | 0.583 | | | | 0.643 | | | | 0.476 | | | | |

Location: Mary Ave & Homestead Rd
City: Cupertino

Project ID: 18-08549-007
Date: 10/24/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Mary Ave | | Mary Ave | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 7:15 AM | 1 | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 6 |
| 7:30 AM | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 1 | 5 |
| 7:45 AM | 2 | 0 | 6 | 0 | 0 | 1 | 0 | 3 | 12 |
| 8:00 AM | 1 | 0 | 6 | 1 | 0 | 1 | 0 | 5 | 14 |
| 8:15 AM | 1 | 0 | 6 | 3 | 1 | 3 | 0 | 1 | 15 |
| 8:30 AM | 13 | 0 | 23 | 0 | 0 | 24 | 0 | 13 | 73 |
| 8:45 AM | 94 | 14 | 103 | 0 | 0 | 160 | 1 | 50 | 422 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 112 | 15 | 146 | 6 | 1 | 192 | 2 | 74 | 548 |
| APPROACH %'s : | 88.19% | 11.81% | 96.05% | 3.95% | 0.52% | 99.48% | 2.63% | 97.37% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 109 | 14 | 138 | 4 | 1 | 188 | 1 | 69 | 524 |
| PEAK HR FACTOR : | 0.290 | 0.250 | 0.335 | 0.333 | 0.250 | 0.294 | 0.250 | 0.345 | 0.310 |
| | 0.285 | | 0.345 | | 0.295 | | 0.343 | | |

| **PM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 2:00 PM | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 4 |
| 2:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 2:30 PM | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 4 |
| 2:45 PM | 0 | 1 | 2 | 1 | 2 | 0 | 0 | 0 | 6 |
| 3:00 PM | 9 | 0 | 10 | 1 | 1 | 1 | 0 | 1 | 23 |
| 3:15 PM | 13 | 56 | 10 | 51 | 258 | 4 | 27 | 0 | 419 |
| 3:30 PM | 2 | 20 | 5 | 49 | 44 | 3 | 22 | 1 | 146 |
| 3:45 PM | 0 | 5 | 2 | 9 | 2 | 2 | 2 | 0 | 22 |
| 4:00 PM | 0 | 2 | 1 | 3 | 5 | 0 | 2 | 0 | 13 |
| 4:15 PM | 1 | 1 | 1 | 5 | 7 | 3 | 1 | 0 | 19 |
| 4:30 PM | 0 | 2 | 1 | 10 | 16 | 2 | 5 | 0 | 36 |
| 4:45 PM | 0 | 2 | 1 | 1 | 4 | 0 | 0 | 0 | 8 |
| 5:00 PM | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 5 |
| 5:15 PM | 1 | 5 | 0 | 4 | 3 | 1 | 0 | 0 | 14 |
| 5:30 PM | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 5 |
| 5:45 PM | 0 | 2 | 1 | 3 | 0 | 0 | 1 | 2 | 9 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 26 | 99 | 34 | 146 | 346 | 17 | 62 | 4 | 734 |
| APPROACH %'s : | 20.80% | 79.20% | 18.89% | 81.11% | 95.32% | 4.68% | 93.94% | 6.06% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | TOTAL |
| PEAK HR VOL : | 1 | 10 | 1 | 11 | 6 | 1 | 1 | 2 | 33 |
| PEAK HR FACTOR : | 0.250 | 0.500 | 0.250 | 0.688 | 0.500 | 0.250 | 0.250 | 0.250 | 0.589 |
| | 0.458 | | 0.750 | | 0.438 | | 0.250 | | |

Location: Kennewick Dr & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08664-008
Date: 12/11/2018

## Total

| NS/EW Streets: | Kennewick Dr | | | | Kennewick Dr | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 32 | 3 | 0 | 5 | 87 | 5 | 0 | 137 |
| 7:15 AM | 0 | 0 | 0 | 0 | 4 | 0 | 8 | 0 | 2 | 46 | 6 | 0 | 7 | 155 | 6 | 0 | 234 |
| 7:30 AM | 0 | 0 | 0 | 0 | 9 | 18 | 15 | 0 | 20 | 86 | 26 | 0 | 13 | 285 | 15 | 0 | 487 |
| 7:45 AM | 0 | 0 | 0 | 0 | 13 | 37 | 15 | 0 | 39 | 210 | 58 | 0 | 24 | 307 | 31 | 0 | 734 |
| 8:00 AM | 0 | 0 | 0 | 0 | 15 | 1 | 10 | 0 | 34 | 234 | 5 | 0 | 10 | 248 | 26 | 0 | 583 |
| 8:15 AM | 0 | 0 | 0 | 0 | 7 | 0 | 7 | 0 | 11 | 149 | 0 | 0 | 2 | 211 | 15 | 0 | 402 |
| 8:30 AM | 0 | 0 | 0 | 0 | 12 | 1 | 11 | 0 | 8 | 119 | 2 | 0 | 2 | 247 | 11 | 0 | 413 |
| 8:45 AM | 0 | 0 | 0 | 0 | 8 | 2 | 8 | 0 | 0 | 118 | 1 | 0 | 6 | 279 | 7 | 0 | 429 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 70 | 59 | 77 | 0 | 114 | 994 | 101 | 0 | 69 | 1819 | 116 | 0 | 3419 |
| APPROACH %'s : | | | | | 33.98% | 28.64% | 37.38% | 0.00% | 9.43% | 82.22% | 8.35% | 0.00% | 3.44% | 90.77% | 5.79% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 44 | 56 | 47 | 0 | 104 | 679 | 89 | 0 | 49 | 1051 | 87 | 0 | 2206 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.733 | 0.378 | 0.783 | 0.000 | 0.667 | 0.725 | 0.384 | 0.000 | 0.510 | 0.856 | 0.702 | 0.000 | 0.751 |
| | | | | | 0.565 | | | | 0.710 | | | | 0.820 | | | | |

Location: Kennewick Dr & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08664-008
Date: 12/11/2018

# Bikes

| NS/EW Streets: | Kennewick Dr | | | | Kennewick Dr | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 4 | 1 | 0 | 8 |
| 7:30 AM | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 6 | 8 | 1 | 0 | 18 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 1 | 5 | 0 | 26 | 9 | 1 | 0 | 50 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 4 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 4 | 0 | 0 | 10 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 8 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 5 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 1 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 22 | 5 | 0 | 33 | 31 | 3 | 0 | 104 |
| APPROACH %'s : | 100.00% | 0.00% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% | 0.00% | 0.00% | 81.48% | 18.52% | 0.00% | 49.25% | 46.27% | 4.48% | 0.00% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 1 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 10 | 5 | 0 | 32 | 23 | 2 | 0 | 82 |
| PEAK HR FACTOR : | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 | 0.281 | 0.000 | 0.000 | 0.000 | 0.417 | 0.250 | 0.000 | 0.308 | 0.639 | 0.500 | 0.000 | 0.410 |
| | 0.250 | | | | 0.281 | | | | 0.625 | | | | 0.396 | | | | |

Location: Kennewick Dr & Homestead Rd
City: Cupertino

Project ID: 18-08664-008
Date: 12/11/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Kennewick Dr | | Kennewick Dr | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 7:15 AM | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 2 | 7 |
| 7:30 AM | 0 | 6 | 3 | 9 | 0 | 24 | 2 | 14 | 58 |
| 7:45 AM | 0 | 3 | 2 | 43 | 0 | 83 | 0 | 68 | 199 |
| 8:00 AM | 0 | 0 | 0 | 4 | 0 | 9 | 0 | 10 | 23 |
| 8:15 AM | 0 | 0 | 0 | 7 | 0 | 3 | 1 | 0 | 11 |
| 8:30 AM | 2 | 0 | 2 | 1 | 1 | 0 | 0 | 2 | 8 |
| 8:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 3 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 2 | 10 | 9 | 66 | 1 | 122 | 3 | 98 | 311 |
| APPROACH %'s : | 16.67% | 83.33% | 12.00% | 88.00% | 0.81% | 99.19% | 2.97% | 97.03% | |
| PEAK HR : | 07:30 AM - 08:30 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 9 | 5 | 63 | 0 | 119 | 3 | 92 | 291 |
| PEAK HR FACTOR : | 0.375 | | 0.417 | 0.366 | 0.358 | | 0.375 | 0.338 | 0.366 |
| | 0.375 | | 0.378 | | 0.358 | | 0.349 | | |

Location: Kennewick Dr & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08549-008
Date: 10/24/2018

## Total

| NS/EW Streets: | Kennewick Dr | | | | Kennewick Dr | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 0 | 3 | 36 | 3 | 0 | 2 | 95 | 5 | 0 | 151 |
| 7:15 AM | 0 | 0 | 0 | 0 | 5 | 0 | 8 | 0 | 1 | 43 | 0 | 0 | 5 | 143 | 6 | 0 | 211 |
| 7:30 AM | 0 | 0 | 0 | 0 | 5 | 0 | 10 | 0 | 1 | 51 | 0 | 0 | 2 | 197 | 5 | 0 | 271 |
| 7:45 AM | 0 | 0 | 0 | 0 | 12 | 0 | 13 | 0 | 12 | 75 | 1 | 0 | 6 | 194 | 12 | 0 | 325 |
| 8:00 AM | 0 | 0 | 0 | 0 | 13 | 0 | 8 | 0 | 11 | 106 | 1 | 0 | 5 | 189 | 8 | 0 | 341 |
| 8:15 AM | 0 | 0 | 0 | 0 | 14 | 3 | 4 | 0 | 11 | 113 | 5 | 0 | 7 | 204 | 18 | 0 | 379 |
| 8:30 AM | 0 | 0 | 0 | 0 | 12 | 18 | 8 | 0 | 27 | 150 | 35 | 0 | 17 | 298 | 19 | 0 | 584 |
| 8:45 AM | 0 | 0 | 0 | 0 | 14 | 29 | 5 | 0 | 43 | 234 | 40 | 0 | 23 | 282 | 30 | 0 | 700 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 77 | 50 | 61 | 0 | 109 | 808 | 85 | 0 | 67 | 1602 | 103 | 0 | 2962 |
| APPROACH %'s : | | | | | 40.96% | 26.60% | 32.45% | 0.00% | 10.88% | 80.64% | 8.48% | 0.00% | 3.78% | 90.41% | 5.81% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 53 | 50 | 25 | 0 | 92 | 603 | 81 | 0 | 52 | 973 | 75 | 0 | 2004 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.946 | 0.431 | 0.781 | 0.000 | 0.535 | 0.644 | 0.506 | 0.000 | 0.565 | 0.816 | 0.625 | 0.000 | 0.716 |
| | | | | | | 0.667 | | | | 0.612 | | | | 0.821 | | | |

| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 0 | 0 | 0 | 0 | 4 | 1 | 7 | 0 | 2 | 141 | 1 | 0 | 3 | 128 | 14 | 0 | 301 |
| 2:15 PM | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 9 | 135 | 3 | 0 | 4 | 122 | 9 | 0 | 292 |
| 2:30 PM | 0 | 0 | 0 | 0 | 8 | 0 | 4 | 0 | 3 | 137 | 1 | 0 | 6 | 137 | 7 | 0 | 303 |
| 2:45 PM | 0 | 0 | 0 | 0 | 9 | 0 | 3 | 0 | 9 | 127 | 1 | 0 | 1 | 156 | 13 | 0 | 319 |
| 3:00 PM | 0 | 0 | 0 | 0 | 13 | 1 | 4 | 0 | 6 | 222 | 2 | 0 | 1 | 141 | 20 | 0 | 410 |
| 3:15 PM | 0 | 0 | 0 | 0 | 12 | 3 | 5 | 0 | 13 | 207 | 5 | 0 | 9 | 120 | 17 | 0 | 391 |
| 3:30 PM | 0 | 0 | 0 | 0 | 16 | 2 | 15 | 0 | 44 | 321 | 11 | 0 | 7 | 128 | 19 | 0 | 563 |
| 3:45 PM | 0 | 0 | 0 | 0 | 11 | 1 | 4 | 0 | 17 | 225 | 7 | 0 | 2 | 111 | 7 | 0 | 385 |
| 4:00 PM | 0 | 0 | 0 | 0 | 7 | 0 | 3 | 0 | 6 | 238 | 3 | 0 | 2 | 116 | 11 | 0 | 386 |
| 4:15 PM | 0 | 0 | 0 | 0 | 11 | 1 | 4 | 0 | 11 | 277 | 4 | 0 | 1 | 120 | 14 | 0 | 443 |
| 4:30 PM | 0 | 0 | 0 | 0 | 11 | 0 | 6 | 0 | 3 | 299 | 2 | 0 | 3 | 118 | 11 | 1 | 454 |
| 4:45 PM | 0 | 0 | 0 | 0 | 12 | 3 | 4 | 0 | 6 | 290 | 14 | 0 | 5 | 105 | 15 | 0 | 454 |
| 5:00 PM | 0 | 0 | 0 | 0 | 7 | 2 | 7 | 0 | 4 | 325 | 5 | 0 | 1 | 120 | 14 | 0 | 485 |
| 5:15 PM | 0 | 0 | 0 | 0 | 11 | 0 | 5 | 0 | 2 | 319 | 13 | 0 | 2 | 126 | 13 | 0 | 491 |
| 5:30 PM | 0 | 0 | 0 | 0 | 13 | 0 | 3 | 0 | 10 | 368 | 10 | 0 | 7 | 141 | 18 | 0 | 570 |
| 5:45 PM | 0 | 0 | 0 | 0 | 13 | 1 | 8 | 0 | 6 | 313 | 8 | 0 | 10 | 156 | 13 | 0 | 528 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 163 | 15 | 87 | 0 | 151 | 3944 | 90 | 0 | 64 | 2045 | 215 | 1 | 6775 |
| APPROACH %'s : | | | | | 61.51% | 5.66% | 32.83% | 0.00% | 3.61% | 94.24% | 2.15% | 0.00% | 2.75% | 87.96% | 9.25% | 0.04% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 44 | 3 | 23 | 0 | 22 | 1325 | 36 | 0 | 20 | 543 | 58 | 0 | 2074 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.846 | 0.375 | 0.719 | 0.000 | 0.550 | 0.900 | 0.692 | 0.000 | 0.500 | 0.870 | 0.806 | 0.000 | 0.910 |
| | | | | | | 0.795 | | | | 0.891 | | | | 0.867 | | | |

Location: Kennewick Dr & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08549-008
Date: 10/24/2018

# Bikes

| NS/EW Streets: | Kennewick Dr | | | | Kennewick Dr | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 6 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 5 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 0 | 0 | 9 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 5 |
| 8:15 AM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 6 | 0 | 0 | 3 | 2 | 1 | 0 | 14 |
| 8:30 AM | 0 | 0 | 0 | 0 | 1 | 9 | 0 | 0 | 0 | 2 | 0 | 0 | 8 | 7 | 0 | 0 | 27 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 12 | 0 | 0 | 24 | 9 | 0 | 0 | 66 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 2 | 31 | 2 | 0 | 0 | 27 | 0 | 0 | 37 | 35 | 1 | 0 | 135 |
| APPROACH %'s : | | | | | 5.71% | 88.57% | 5.71% | 0.00% | 0.00% | 100.00% | 0.00% | 0.00% | 50.68% | 47.95% | 1.37% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 2 | 31 | 0 | 0 | 0 | 21 | 0 | 0 | 35 | 22 | 1 | 0 | 112 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.369 | 0.000 | 0.000 | 0.000 | 0.438 | 0.000 | 0.000 | 0.365 | 0.611 | 0.250 | 0.000 | 0.424 |
| | | | | | | 0.393 | | | | 0.438 | | | | 0.439 | | | |

| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 3 |
| 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 3:00 PM | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 17 | 0 | 0 | 0 | 1 | 0 | 0 | 22 |
| 3:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 1 | 2 | 0 | 0 | 9 |
| 3:30 PM | 1 | 29 | 16 | 0 | 0 | 0 | 0 | 0 | 2 | 10 | 0 | 0 | 0 | 3 | 1 | 0 | 62 |
| 3:45 PM | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 1 | 5 | 0 | 0 | 0 | 2 | 1 | 0 | 13 |
| 4:00 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 5 |
| 4:15 PM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 8 |
| 4:30 PM | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 7 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 6 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 3 | 0 | 0 | 7 |
| 5:15 PM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 6 | 0 | 0 | 17 |
| 5:30 PM | 0 | 2 | 4 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 3 | 1 | 0 | 15 |
| 5:45 PM | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 12 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 2 | 35 | 33 | 0 | 4 | 2 | 2 | 0 | 4 | 64 | 0 | 0 | 1 | 39 | 3 | 0 | 189 |
| APPROACH %'s : | 2.86% | 50.00% | 47.14% | 0.00% | 50.00% | 25.00% | 25.00% | 0.00% | 5.88% | 94.12% | 0.00% | 0.00% | 2.33% | 90.70% | 6.98% | 0.00% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 4 | 8 | 0 | 1 | 1 | 0 | 0 | 1 | 19 | 0 | 0 | 0 | 16 | 1 | 0 | 51 |
| PEAK HR FACTOR : | 0.00 | 0.500 | 0.500 | 0.000 | 0.250 | 0.250 | 0.000 | 0.000 | 0.250 | 0.594 | 0.000 | 0.000 | 0.000 | 0.667 | 0.250 | 0.000 | 0.750 |
| | | 0.500 | | | | 0.500 | | | | 0.625 | | | | 0.708 | | | |

Location: Kennewick Dr & Homestead Rd
City: Cupertino

Project ID: 18-08549-008
Date: 10/24/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Kennewick Dr | | Kennewick Dr | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:15 AM | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 3 |
| 7:30 AM | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 5 |
| 7:45 AM | 0 | 0 | 1 | 6 | 0 | 5 | 0 | 1 | 13 |
| 8:00 AM | 0 | 0 | 4 | 3 | 0 | 5 | 0 | 0 | 12 |
| 8:15 AM | 0 | 0 | 2 | 7 | 0 | 3 | 0 | 2 | 14 |
| 8:30 AM | 1 | 7 | 1 | 5 | 3 | 22 | 0 | 27 | 66 |
| 8:45 AM | 2 | 8 | 1 | 61 | 2 | 84 | 6 | 85 | 249 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 3 | 18 | 13 | 83 | 5 | 119 | 6 | 116 | 363 |
| APPROACH %'s : | 14.29% | 85.71% | 13.54% | 86.46% | 4.03% | 95.97% | 4.92% | 95.08% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 3 | 15 | 8 | 76 | 5 | 114 | 6 | 114 | 341 |
| PEAK HR FACTOR : | 0.375 | 0.469 | 0.500 | 0.311 | 0.417 | 0.339 | 0.250 | 0.335 | 0.342 |
| | 0.450 | | 0.339 | | 0.346 | | 0.330 | | |

| **PM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 2:00 PM | 0 | 0 | 7 | 1 | 8 | 2 | 1 | 0 | 19 |
| 2:15 PM | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 4 |
| 2:30 PM | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 4 |
| 2:45 PM | 1 | 0 | 2 | 1 | 1 | 2 | 0 | 0 | 7 |
| 3:00 PM | 2 | 0 | 7 | 1 | 1 | 0 | 0 | 0 | 11 |
| 3:15 PM | 5 | 2 | 47 | 2 | 6 | 0 | 18 | 13 | 93 |
| 3:30 PM | 6 | 1 | 110 | 7 | 106 | 1 | 82 | 1 | 314 |
| 3:45 PM | 0 | 2 | 6 | 4 | 6 | 2 | 0 | 0 | 20 |
| 4:00 PM | 1 | 0 | 4 | 1 | 4 | 2 | 3 | 0 | 15 |
| 4:15 PM | 0 | 0 | 7 | 1 | 2 | 0 | 2 | 0 | 12 |
| 4:30 PM | 0 | 2 | 10 | 4 | 11 | 0 | 6 | 1 | 34 |
| 4:45 PM | 3 | 1 | 3 | 0 | 2 | 0 | 0 | 0 | 9 |
| 5:00 PM | 2 | 2 | 0 | 0 | 2 | 1 | 3 | 0 | 10 |
| 5:15 PM | 0 | 2 | 0 | 1 | 0 | 0 | 2 | 0 | 5 |
| 5:30 PM | 0 | 0 | 1 | 4 | 2 | 0 | 2 | 1 | 10 |
| 5:45 PM | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 5 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 21 | 14 | 206 | 30 | 152 | 11 | 122 | 16 | 572 |
| APPROACH %'s : | 60.00% | 40.00% | 87.29% | 12.71% | 93.25% | 6.75% | 88.41% | 11.59% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | TOTAL |
| PEAK HR VOL : | 3 | 6 | 2 | 6 | 4 | 1 | 7 | 1 | 30 |
| PEAK HR FACTOR : | 0.375 | 0.750 | 0.500 | 0.375 | 0.500 | 0.250 | 0.583 | 0.250 | 0.750 |
| | 0.563 | | 0.400 | | 0.417 | | 0.667 | | |

Location: Stelling Rd & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08664-009
Date: 12/13/2018

## Total

| NS/EW Streets: | Stelling Rd | | | | Stelling Rd | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 2 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 15 | 14 | 11 | 0 | 21 | 24 | 22 | 0 | 19 | 48 | 21 | 0 | 15 | 46 | 19 | 0 | 275 |
| 7:15 AM | 21 | 22 | 10 | 0 | 39 | 35 | 28 | 0 | 27 | 58 | 25 | 0 | 21 | 74 | 35 | 0 | 395 |
| 7:30 AM | 15 | 22 | 46 | 0 | 52 | 68 | 42 | 0 | 28 | 107 | 33 | 0 | 26 | 165 | 56 | 0 | 660 |
| 7:45 AM | 54 | 99 | 50 | 0 | 47 | 47 | 74 | 0 | 33 | 138 | 28 | 0 | 53 | 262 | 67 | 0 | 952 |
| 8:00 AM | 58 | 101 | 81 | 0 | 54 | 65 | 27 | 0 | 32 | 172 | 35 | 0 | 50 | 180 | 34 | 0 | 889 |
| 8:15 AM | 72 | 130 | 74 | 0 | 31 | 63 | 11 | 0 | 22 | 114 | 46 | 0 | 56 | 166 | 39 | 0 | 824 |
| 8:30 AM | 101 | 154 | 70 | 0 | 28 | 53 | 16 | 0 | 19 | 89 | 41 | 0 | 59 | 177 | 41 | 0 | 848 |
| 8:45 AM | 90 | 159 | 63 | 0 | 38 | 79 | 16 | 0 | 16 | 82 | 52 | 0 | 60 | 224 | 41 | 0 | 920 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 426 | 701 | 405 | 0 | 310 | 434 | 236 | 0 | 196 | 808 | 281 | 0 | 340 | 1294 | 332 | 0 | 5763 |
| APPROACH %'s : | 27.81% | 45.76% | 26.44% | 0.00% | 31.63% | 44.29% | 24.08% | 0.00% | 15.25% | 62.88% | 21.87% | 0.00% | 17.29% | 65.82% | 16.89% | 0.00% | |
| PEAK HR : | 07:45 AM - 08:45 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 285 | 484 | 275 | 0 | 160 | 228 | 128 | 0 | 106 | 513 | 150 | 0 | 218 | 785 | 181 | 0 | 3513 |
| PEAK HR FACTOR : | 0.705 | 0.786 | 0.849 | 0.000 | 0.741 | 0.877 | 0.432 | 0.000 | 0.803 | 0.746 | 0.815 | 0.000 | 0.924 | 0.749 | 0.675 | 0.000 | 0.923 |
| | 0.803 | | | | 0.768 | | | | 0.804 | | | | 0.775 | | | | |

Location: Stelling Rd & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08664-009
Date: 12/13/2018

# Bikes

| NS/EW Streets: | Stelling Rd | | | | Stelling Rd | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 2 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 5 |
| 7:15 AM | 0 | 2 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 5 | 0 | 0 | 2 | 1 | 0 | 0 | 14 |
| 7:30 AM | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 2 | 0 | 0 | 11 |
| 7:45 AM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 5 |
| 8:00 AM | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 7 |
| 8:15 AM | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 1 | 0 | 2 | 2 | 0 | 0 | 13 |
| 8:30 AM | 1 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 11 |
| 8:45 AM | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 3 | 0 | 0 | 12 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 3 | 8 | 4 | 0 | 3 | 9 | 0 | 0 | 1 | 26 | 3 | 0 | 8 | 13 | 0 | 0 | 78 |
| APPROACH %'s : | 20.00% | 53.33% | 26.67% | 0.00% | 25.00% | 75.00% | 0.00% | 0.00% | 3.33% | 86.67% | 10.00% | 0.00% | 38.10% | 61.90% | 0.00% | 0.00% | |
| PEAK HR : | 07:45 AM - 08:45 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 1 | 4 | 2 | 0 | 2 | 6 | 0 | 0 | 0 | 11 | 1 | 0 | 4 | 5 | 0 | 0 | 36 |
| PEAK HR FACTOR : | 0.250 | 0.500 | 0.500 | 0.000 | 0.500 | 0.375 | 0.000 | 0.000 | 0.000 | 0.688 | 0.250 | 0.000 | 0.500 | 0.625 | 0.000 | 0.000 | 0.692 |
| | 0.583 | | | | 0.500 | | | | 0.600 | | | | 0.563 | | | | |

Location: Stelling Rd & Homestead Rd
City: Cupertino

Project ID: 18-08664-009
Date: 12/13/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Stelling Rd | | Stelling Rd | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 2 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 6 |
| 7:15 AM | 3 | 0 | 7 | 0 | 1 | 0 | 3 | 0 | 14 |
| 7:30 AM | 14 | 1 | 13 | 0 | 10 | 0 | 20 | 6 | 64 |
| 7:45 AM | 0 | 11 | 1 | 33 | 1 | 15 | 1 | 7 | 69 |
| 8:00 AM | 0 | 4 | 4 | 4 | 1 | 4 | 2 | 2 | 21 |
| 8:15 AM | 0 | 4 | 1 | 4 | 0 | 3 | 0 | 3 | 15 |
| 8:30 AM | 2 | 3 | 2 | 1 | 3 | 5 | 1 | 1 | 18 |
| 8:45 AM | 0 | 0 | 2 | 2 | 1 | 2 | 1 | 0 | 8 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 21 | 24 | 30 | 44 | 19 | 29 | 29 | 19 | 215 |
| APPROACH %'s : | 46.67% | 53.33% | 40.54% | 59.46% | 39.58% | 60.42% | 60.42% | 39.58% | |
| PEAK HR : | 07:45 AM - 08:45 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 2 | 22 | 8 | 42 | 5 | 27 | 4 | 13 | 123 |
| PEAK HR FACTOR : | 0.250 | 0.500 | 0.500 | 0.318 | 0.417 | 0.450 | 0.500 | 0.464 | 0.446 |
| | 0.545 | | 0.368 | | 0.500 | | 0.531 | | |

Location: Stelling Rd & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08549-009
Date: 10/24/2018

## Total

| NS/EW Streets: | Stelling Rd | | | | Stelling Rd | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 25 | 30 | 24 | 0 | 10 | 21 | 7 | 0 | 3 | 26 | 14 | 0 | 23 | 73 | 20 | 0 | 276 |
| 7:15 AM | 34 | 34 | 21 | 0 | 24 | 31 | 6 | 0 | 5 | 29 | 12 | 0 | 39 | 118 | 23 | 0 | 376 |
| 7:30 AM | 54 | 55 | 47 | 0 | 31 | 23 | 13 | 0 | 13 | 52 | 15 | 0 | 48 | 137 | 49 | 0 | 537 |
| 7:45 AM | 62 | 90 | 56 | 0 | 30 | 43 | 21 | 0 | 24 | 71 | 24 | 0 | 55 | 152 | 64 | 0 | 692 |
| 8:00 AM | 57 | 86 | 66 | 0 | 46 | 98 | 26 | 0 | 14 | 68 | 43 | 0 | 68 | 152 | 31 | 0 | 755 |
| 8:15 AM | 73 | 98 | 64 | 0 | 34 | 76 | 21 | 0 | 11 | 98 | 41 | 0 | 75 | 179 | 39 | 0 | 809 |
| 8:30 AM | 85 | 134 | 84 | 0 | 33 | 38 | 38 | 0 | 23 | 128 | 42 | 0 | 49 | 209 | 33 | 0 | 896 |
| 8:45 AM | 84 | 149 | 70 | 0 | 34 | 54 | 54 | 0 | 35 | 138 | 46 | 0 | 65 | 195 | 50 | 0 | 974 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 474 | 676 | 432 | 0 | 242 | 384 | 186 | 0 | 128 | 610 | 237 | 0 | 422 | 1215 | 309 | 0 | 5315 |
| APPROACH %'s : | 29.96% | 42.73% | 27.31% | 0.00% | 29.80% | 47.29% | 22.91% | 0.00% | 13.13% | 62.56% | 24.31% | 0.00% | 21.69% | 62.44% | 15.88% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 299 | 467 | 284 | 0 | 147 | 266 | 139 | 0 | 83 | 432 | 172 | 0 | 257 | 735 | 153 | 0 | 3434 |
| PEAK HR FACTOR : | 0.879 | 0.784 | 0.845 | 0.000 | 0.799 | 0.679 | 0.644 | 0.000 | 0.593 | 0.783 | 0.935 | 0.000 | 0.857 | 0.879 | 0.765 | 0.000 | 0.881 |
| | 0.866 | | | | 0.812 | | | | 0.784 | | | | 0.923 | | | | |

| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 47 | 50 | 49 | 0 | 42 | 65 | 23 | 0 | 11 | 110 | 34 | 0 | 36 | 91 | 41 | 0 | 599 |
| 2:15 PM | 36 | 50 | 44 | 0 | 45 | 46 | 14 | 0 | 17 | 87 | 43 | 0 | 42 | 96 | 46 | 0 | 566 |
| 2:30 PM | 44 | 54 | 48 | 0 | 55 | 46 | 12 | 0 | 9 | 89 | 41 | 0 | 30 | 98 | 34 | 0 | 560 |
| 2:45 PM | 44 | 48 | 55 | 0 | 40 | 70 | 16 | 0 | 9 | 88 | 47 | 0 | 42 | 128 | 51 | 0 | 638 |
| 3:00 PM | 44 | 52 | 63 | 0 | 50 | 58 | 20 | 0 | 14 | 150 | 63 | 0 | 43 | 111 | 43 | 0 | 711 |
| 3:15 PM | 47 | 64 | 49 | 0 | 51 | 84 | 21 | 0 | 10 | 135 | 62 | 0 | 54 | 96 | 38 | 0 | 711 |
| 3:30 PM | 53 | 60 | 53 | 0 | 46 | 76 | 17 | 0 | 40 | 204 | 71 | 0 | 42 | 115 | 34 | 0 | 811 |
| 3:45 PM | 43 | 62 | 57 | 0 | 29 | 108 | 13 | 0 | 25 | 175 | 58 | 0 | 55 | 76 | 38 | 0 | 739 |
| 4:00 PM | 28 | 79 | 62 | 0 | 53 | 93 | 15 | 0 | 25 | 161 | 63 | 0 | 40 | 87 | 35 | 0 | 741 |
| 4:15 PM | 50 | 57 | 53 | 0 | 54 | 88 | 12 | 0 | 19 | 212 | 65 | 0 | 40 | 107 | 32 | 0 | 789 |
| 4:30 PM | 35 | 56 | 59 | 0 | 60 | 80 | 13 | 0 | 13 | 224 | 72 | 0 | 43 | 98 | 39 | 0 | 792 |
| 4:45 PM | 40 | 53 | 70 | 0 | 53 | 85 | 14 | 0 | 23 | 208 | 92 | 0 | 48 | 99 | 41 | 0 | 826 |
| 5:00 PM | 53 | 75 | 66 | 0 | 45 | 127 | 18 | 0 | 16 | 210 | 94 | 0 | 52 | 87 | 41 | 0 | 884 |
| 5:15 PM | 52 | 68 | 71 | 0 | 62 | 146 | 14 | 0 | 20 | 205 | 87 | 0 | 53 | 111 | 48 | 0 | 937 |
| 5:30 PM | 61 | 96 | 64 | 0 | 59 | 134 | 14 | 0 | 21 | 230 | 99 | 0 | 55 | 115 | 46 | 0 | 994 |
| 5:45 PM | 51 | 75 | 58 | 0 | 46 | 128 | 12 | 0 | 17 | 200 | 127 | 0 | 59 | 110 | 41 | 0 | 924 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 728 | 999 | 921 | 0 | 790 | 1434 | 248 | 0 | 289 | 2688 | 1118 | 0 | 734 | 1625 | 648 | 0 | 12222 |
| APPROACH %'s : | 27.49% | 37.73% | 34.78% | 0.00% | 31.96% | 58.01% | 10.03% | 0.00% | 7.06% | 65.64% | 27.30% | 0.00% | 24.41% | 54.04% | 21.55% | 0.00% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 217 | 314 | 259 | 0 | 212 | 535 | 58 | 0 | 74 | 845 | 407 | 0 | 219 | 423 | 176 | 0 | 3739 |
| PEAK HR FACTOR : | 0.889 | 0.818 | 0.912 | 0.000 | 0.855 | 0.916 | 0.806 | 0.000 | 0.881 | 0.918 | 0.801 | 0.000 | 0.928 | 0.920 | 0.917 | 0.000 | 0.940 |
| | 0.894 | | | | 0.907 | | | | 0.947 | | | | 0.947 | | | | |

Location: Stelling Rd & Homestead Rd
City: Cupertino
Control: Signalized

Project ID: 18-08549-009
Date: 10/24/2018

# Bikes

| NS/EW Streets: | Stelling Rd | | | | Stelling Rd | | | | Homestead Rd | | | | Homestead Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 7:00 AM | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 6 |
| 7:15 AM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 5 |
| 7:30 AM | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 2 | 0 | 11 |
| 7:45 AM | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 1 | 7 | 0 | 0 | 16 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 4 | 0 | 0 | 11 |
| 8:15 AM | 0 | 1 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 4 | 4 | 0 | 1 | 4 | 0 | 0 | 19 |
| 8:30 AM | 3 | 2 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 2 | 12 | 0 | 0 | 25 |
| 8:45 AM | 0 | 0 | 1 | 0 | 0 | 3 | 3 | 0 | 1 | 4 | 2 | 0 | 3 | 16 | 1 | 0 | 34 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 7 | 7 | 7 | 0 | 1 | 13 | 4 | 0 | 3 | 16 | 8 | 0 | 9 | 49 | 3 | 0 | 127 |
| APPROACH %'s : | 33.33% | 33.33% | 33.33% | 0.00% | 5.56% | 72.22% | 22.22% | 0.00% | 11.11% | 59.26% | 29.63% | 0.00% | 14.75% | 80.33% | 4.92% | 0.00% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 3 | 3 | 5 | 0 | 0 | 11 | 4 | 0 | 2 | 10 | 6 | 0 | 8 | 36 | 1 | 0 | 89 |
| PEAK HR FACTOR : | 0.250 | 0.375 | 0.625 | 0.000 | 0.000 | 0.688 | 0.333 | 0.000 | 0.500 | 0.625 | 0.375 | 0.000 | 0.667 | 0.563 | 0.250 | 0.000 | 0.654 |
| | 0.393 | | | | 0.625 | | | | 0.563 | | | | 0.563 | | | | |

| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 2:00 PM | 1 | 1 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 8 |
| 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 2:30 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 2:45 PM | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 |
| 3:00 PM | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 15 |
| 3:15 PM | 1 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 3:30 PM | 0 | 2 | 2 | 0 | 1 | 0 | 2 | 0 | 5 | 17 | 1 | 0 | 1 | 0 | 0 | 0 | 31 |
| 3:45 PM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 10 |
| 4:00 PM | 1 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 0 | 1 | 4 | 1 | 0 | 22 |
| 4:15 PM | 1 | 3 | 0 | 0 | 1 | 2 | 0 | 0 | 3 | 1 | 1 | 0 | 0 | 3 | 1 | 0 | 16 |
| 4:30 PM | 2 | 1 | 4 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 0 | 13 |
| 4:45 PM | 1 | 4 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 14 |
| 5:00 PM | 0 | 1 | 1 | 0 | 0 | 4 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 3 | 2 | 0 | 16 |
| 5:15 PM | 3 | 3 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 9 | 1 | 0 | 0 | 4 | 0 | 0 | 24 |
| 5:30 PM | 1 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 15 |
| 5:45 PM | 0 | 5 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 5 | 0 | 0 | 18 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 14 | 34 | 11 | 0 | 6 | 22 | 5 | 0 | 17 | 64 | 6 | 0 | 6 | 31 | 7 | 0 | 223 |
| APPROACH %'s : | 23.73% | 57.63% | 18.64% | 0.00% | 18.18% | 66.67% | 15.15% | 0.00% | 19.54% | 73.56% | 6.90% | 0.00% | 13.64% | 70.45% | 15.91% | 0.00% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 4 | 13 | 1 | 0 | 1 | 12 | 2 | 0 | 2 | 18 | 1 | 0 | 1 | 14 | 4 | 0 | 73 |
| PEAK HR FACTOR : | 0.33 | 0.650 | 0.250 | 0.000 | 0.250 | 0.750 | 0.500 | 0.000 | 0.250 | 0.500 | 0.250 | 0.000 | 0.250 | 0.700 | 0.500 | 0.000 | 0.760 |
| | 0.750 | | | | 0.750 | | | | 0.525 | | | | 0.792 | | | | |

Location: Stelling Rd & Homestead Rd
City: Cupertino

Project ID: 18-08549-009
Date: 10/24/2018

# Pedestrians (Crosswalks)

| NS/EW Streets: | Stelling Rd | | Stelling Rd | | Homestead Rd | | Homestead Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **AM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 7:00 AM | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 5 |
| 7:15 AM | 0 | 0 | 0 | 1 | 0 | 3 | 1 | 2 | 7 |
| 7:30 AM | 0 | 4 | 2 | 4 | 3 | 2 | 1 | 1 | 17 |
| 7:45 AM | 2 | 6 | 1 | 2 | 0 | 3 | 0 | 2 | 16 |
| 8:00 AM | 0 | 8 | 2 | 1 | 0 | 0 | 0 | 6 | 17 |
| 8:15 AM | 1 | 0 | 3 | 8 | 2 | 4 | 1 | 2 | 21 |
| 8:30 AM | 0 | 26 | 0 | 41 | 0 | 27 | 0 | 5 | 99 |
| 8:45 AM | 2 | 19 | 4 | 56 | 0 | 32 | 0 | 7 | 120 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 5 | 64 | 13 | 113 | 6 | 72 | 3 | 26 | 302 |
| APPROACH %'s : | 7.25% | 92.75% | 10.32% | 89.68% | 7.69% | 92.31% | 10.34% | 89.66% | |
| PEAK HR : | 08:00 AM - 09:00 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 3 | 53 | 9 | 106 | 2 | 63 | 1 | 20 | 257 |
| PEAK HR FACTOR : | 0.375 | 0.510 | 0.563 | 0.473 | 0.250 | 0.492 | 0.250 | 0.714 | 0.535 |
| | 0.538 | | 0.479 | | 0.508 | | 0.750 | | |

| **PM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 2:00 PM | 3 | 1 | 2 | 1 | 4 | 1 | 3 | 1 | 16 |
| 2:15 PM | 2 | 0 | 8 | 0 | 0 | 2 | 3 | 1 | 16 |
| 2:30 PM | 3 | 3 | 2 | 0 | 5 | 3 | 0 | 1 | 17 |
| 2:45 PM | 3 | 2 | 4 | 12 | 4 | 4 | 2 | 1 | 32 |
| 3:00 PM | 0 | 6 | 0 | 6 | 10 | 0 | 1 | 3 | 26 |
| 3:15 PM | 13 | 5 | 3 | 0 | 3 | 2 | 3 | 0 | 29 |
| 3:30 PM | 52 | 0 | 75 | 1 | 22 | 1 | 38 | 2 | 191 |
| 3:45 PM | 10 | 1 | 19 | 2 | 12 | 4 | 5 | 3 | 56 |
| 4:00 PM | 8 | 0 | 7 | 1 | 8 | 8 | 3 | 1 | 36 |
| 4:15 PM | 8 | 2 | 9 | 2 | 5 | 7 | 8 | 1 | 42 |
| 4:30 PM | 10 | 3 | 4 | 0 | 2 | 3 | 3 | 1 | 26 |
| 4:45 PM | 0 | 3 | 4 | 1 | 6 | 3 | 2 | 2 | 21 |
| 5:00 PM | 4 | 4 | 3 | 3 | 4 | 4 | 2 | 1 | 25 |
| 5:15 PM | 3 | 2 | 1 | 6 | 3 | 9 | 5 | 1 | 30 |
| 5:30 PM | 2 | 5 | 5 | 2 | 4 | 4 | 2 | 6 | 30 |
| 5:45 PM | 3 | 0 | 7 | 4 | 5 | 4 | 1 | 11 | 35 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| TOTAL VOLUMES : | 124 | 37 | 153 | 41 | 97 | 59 | 81 | 36 | 628 |
| APPROACH %'s : | 77.02% | 22.98% | 78.87% | 21.13% | 62.18% | 37.82% | 69.23% | 30.77% | |
| PEAK HR : | 05:00 PM - 06:00 PM | | | | | | | | TOTAL |
| PEAK HR VOL : | 12 | 11 | 16 | 15 | 16 | 21 | 10 | 19 | 120 |
| PEAK HR FACTOR : | 0.750 | 0.550 | 0.571 | 0.625 | 0.800 | 0.583 | 0.500 | 0.432 | 0.857 |
| | 0.719 | | 0.705 | | 0.771 | | 0.604 | | |

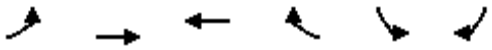


# F. Synchro Worksheets

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 48 | 32 | 425 | 20 | 454 | 14 | 1140 | 234 | 198 | 545 | 18 |
| Future Volume (vph) | 15 | 48 | 32 | 425 | 20 | 454 | 14 | 1140 | 234 | 198 | 545 | 18 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Lane Util. Factor | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | | 1.00 | 0.93 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | | 1840 | 1466 | 1681 | 1693 | 1558 | 1770 | 3539 | 1536 | 1770 | 3539 | 1550 |
| Flt Permitted | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | | 1840 | 1466 | 1681 | 1693 | 1558 | 1770 | 3539 | 1536 | 1770 | 3539 | 1550 |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 16 | 50 | 33 | 443 | 21 | 473 | 15 | 1188 | 244 | 206 | 568 | 19 |
| RTOR Reduction (vph) | 0 | 0 | 30 | 0 | 0 | 375 | 0 | 0 | 117 | 0 | 0 | 9 |
| Lane Group Flow (vph) | 0 | 66 | 3 | 230 | 234 | 98 | 15 | 1188 | 127 | 206 | 568 | 10 |
| Confl. Peds. (#/hr) | 2 | | 3 | 3 | | 2 | | | | | | |
| Confl. Bikes (#/hr) | | | 23 | | | 1 | | | 11 | | | 2 |
| Turn Type | Split | NA | Perm | Split | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 4 | 4 | | 3 | 3 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 3 | | | 2 | | | 6 |
| Actuated Green, G (s) | | 13.2 | 13.2 | 31.0 | 31.0 | 31.0 | 3.3 | 62.8 | 62.8 | 22.0 | 81.7 | 81.7 |
| Effective Green, g (s) | | 13.2 | 13.2 | 31.0 | 31.0 | 31.0 | 3.3 | 62.8 | 62.8 | 22.0 | 81.7 | 81.7 |
| Actuated g/C Ratio | | 0.09 | 0.09 | 0.21 | 0.21 | 0.21 | 0.02 | 0.42 | 0.42 | 0.15 | 0.54 | 0.54 |
| Clearance Time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Vehicle Extension (s) | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 |
| Lane Grp Cap (vph) | | 161 | 129 | 347 | 349 | 321 | 38 | 1481 | 643 | 259 | 1927 | 844 |
| v/s Ratio Prot | | c0.04 | | 0.14 | c0.14 | | 0.01 | c0.34 | | c0.12 | 0.16 | |
| v/s Ratio Perm | | | 0.00 | | | 0.06 | | | 0.08 | | | 0.01 |
| v/c Ratio | | 0.41 | 0.02 | 0.66 | 0.67 | 0.30 | 0.39 | 0.80 | 0.20 | 0.80 | 0.29 | 0.01 |
| Uniform Delay, d1 | | 64.7 | 62.5 | 54.7 | 54.8 | 50.4 | 72.4 | 38.2 | 27.6 | 61.8 | 18.5 | 15.7 |
| 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 | | 2.3 | 0.1 | 5.2 | 5.4 | 0.7 | 6.6 | 4.7 | 0.7 | 15.4 | 0.1 | 0.0 |
| Delay (s) | | 67.0 | 62.6 | 59.9 | 60.2 | 51.1 | 79.0 | 42.8 | 28.3 | 77.2 | 18.6 | 15.7 |
| Level of Service | | E | E | E | E | D | E | D | C | E | B | B |
| Approach Delay (s) | | 65.6 | | | 55.5 | | | 40.8 | | | 33.8 | |
| Approach LOS | | E | | | E | | | D | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 44.1 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.73 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 21.0 |
| Intersection Capacity Utilization | 82.5% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

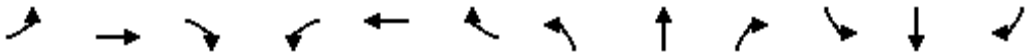
c Critical Lane Group



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 0 | 480 | 867 | 123 | 81 | 29 |
| Future Volume (Veh/h) | 0 | 480 | 867 | 123 | 81 | 29 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 522 | 942 | 134 | 88 | 32 |
| Pedestrians | | 1 | | | 4 | |
| Lane Width (ft) | | 12.0 | | | 12.0 | |
| Walking Speed (ft/s) | | 4.0 | | | 4.0 | |
| Percent Blockage | | 0 | | | 0 | |
| Right turn flare (veh) | | | | | | 7 |
| Median type | | Raised | None | | | |
| Median storage veh) | | 2 | | | | |
| Upstream signal (ft) | | 171 | | | | |
| pX, platoon unblocked | | | | | 0.98 | |
| vC, conflicting volume | 1080 | | | | 1468 | 947 |
| vC1, stage 1 conf vol | | | | | 946 | |
| vC2, stage 2 conf vol | | | | | 522 | |
| vCu, unblocked vol | 1080 | | | | 1467 | 947 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | 5.4 | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 100 | | | | 73 | 90 |
| cM capacity (veh/h) | 644 | | | | 332 | 315 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 522 | 942 | 134 | 120 |
| Volume Left | 0 | 0 | 0 | 88 |
| Volume Right | 0 | 0 | 134 | 32 |
| cSH | 1700 | 1700 | 1700 | 453 |
| Volume to Capacity | 0.31 | 0.55 | 0.08 | 0.27 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 26 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 19.2 |
| Lane LOS | | | | C |
| Approach Delay (s) | 0.0 | 0.0 | | 19.2 |
| Approach LOS | | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.3 | | |
| Intersection Capacity Utilization | 57.1% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 26 | 508 | 10 | 13 | 828 | 33 | 26 | 3 | 49 | 50 | 0 | 51 |
| Future Volume (Veh/h) | 26 | 508 | 10 | 13 | 828 | 33 | 26 | 3 | 49 | 50 | 0 | 51 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Hourly flow rate (vph) | 28 | 546 | 11 | 14 | 890 | 35 | 28 | 3 | 53 | 54 | 0 | 55 |
| Pedestrians | | 1 | | | 38 | | | 32 | | | 8 | |
| Lane Width (ft) | | 12.0 | | | 12.0 | | | 12.0 | | | 12.0 | |
| Walking Speed (ft/s) | | 4.0 | | | 4.0 | | | 4.0 | | | 4.0 | |
| Percent Blockage | | 0 | | | 3 | | | 3 | | | 1 | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | 1198 | | | 1012 | | | | | | | |
| pX, platoon unblocked | 0.72 | | | | | | 0.72 | 0.72 | | 0.72 | 0.72 | 0.72 |
| vC, conflicting volume | 933 | | | 589 | | | 1614 | 1600 | 622 | 1638 | 1588 | 916 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 718 | | | 589 | | | 1657 | 1639 | 622 | 1690 | 1622 | 695 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| 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 | | | 99 | | | 34 | 95 | 88 | 0 | 100 | 83 |
| cM capacity (veh/h) | 636 | | | 960 | | | 42 | 66 | 459 | 41 | 68 | 318 |

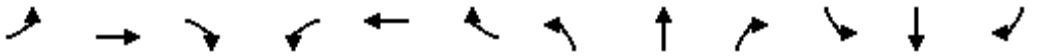
| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 28 | 557 | 14 | 925 | 84 | 109 |
| Volume Left | 28 | 0 | 14 | 0 | 28 | 54 |
| Volume Right | 0 | 11 | 0 | 35 | 53 | 55 |
| cSH | 636 | 1700 | 960 | 1700 | 102 | 73 |
| Volume to Capacity | 0.04 | 0.33 | 0.01 | 0.54 | 0.82 | 1.49 |
| Queue Length 95th (ft) | 3 | 0 | 1 | 0 | 115 | 225 |
| Control Delay (s) | 10.9 | 0.0 | 8.8 | 0.0 | 120.9 | 376.8 |
| Lane LOS | B | | A | | F | F |
| Approach Delay (s) | 0.5 | | 0.1 | | 120.9 | 376.8 |
| Approach LOS | | | | | F | F |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 30.1 | | | |
| Intersection Capacity Utilization | 63.9% | ICU Level of Service | | B |
| Analysis Period (min) | 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 65 | 551 | 3 | 2 | 793 | 194 | 22 | 11 | 10 | 114 | 9 | 82 |
| Future Volume (vph) | 65 | 551 | 3 | 2 | 793 | 194 | 22 | 11 | 10 | 114 | 9 | 82 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.6 | | | 5.6 | 5.6 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.98 | | | 0.99 | | | 1.00 | 0.92 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 0.97 | | | 0.97 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.97 | | | 0.97 | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | | | 0.96 | 1.00 |
| Satd. Flow (prot) | 1770 | 1860 | | 1770 | 3354 | | | 1694 | | | 1733 | 1463 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.81 | | | 0.74 | 1.00 |
| Satd. Flow (perm) | 1770 | 1860 | | 1770 | 3354 | | | 1402 | | | 1349 | 1463 |
| Peak-hour factor, PHF | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Adj. Flow (vph) | 78 | 664 | 4 | 2 | 955 | 234 | 27 | 13 | 12 | 137 | 11 | 99 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 9 | 0 | 0 | 0 | 60 |
| Lane Group Flow (vph) | 78 | 668 | 0 | 2 | 1176 | 0 | 0 | 43 | 0 | 0 | 148 | 39 |
| Confl. Peds. (#/hr) | 31 | | 17 | 17 | | 31 | 45 | | 13 | 13 | | 45 |
| Confl. Bikes (#/hr) | | | 106 | | | 9 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 |
| Actuated Green, G (s) | 8.3 | 88.0 | | 1.4 | 81.1 | | | 23.9 | | | 23.9 | 23.9 |
| Effective Green, g (s) | 8.3 | 88.6 | | 1.4 | 81.7 | | | 23.9 | | | 23.9 | 23.9 |
| Actuated g/C Ratio | 0.06 | 0.68 | | 0.01 | 0.63 | | | 0.18 | | | 0.18 | 0.18 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | 5.6 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 113 | 1267 | | 19 | 2107 | | | 257 | | | 248 | 268 |
| v/s Ratio Prot | c0.04 | 0.36 | | 0.00 | c0.35 | | | | | | | |
| v/s Ratio Perm | | | | | | | | 0.03 | | | c0.11 | 0.03 |
| v/c Ratio | 0.69 | 0.53 | | 0.11 | 0.56 | | | 0.17 | | | 0.60 | 0.15 |
| Uniform Delay, d1 | 59.6 | 10.3 | | 63.7 | 13.8 | | | 44.7 | | | 48.6 | 44.5 |
| Progression Factor | 1.00 | 1.00 | | 1.41 | 0.23 | | | 1.00 | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 13.6 | 1.6 | | 0.8 | 1.0 | | | 0.2 | | | 3.2 | 0.2 |
| Delay (s) | 73.2 | 11.9 | | 90.9 | 4.1 | | | 44.9 | | | 51.8 | 44.7 |
| Level of Service | E | B | | F | A | | | D | | | D | D |
| Approach Delay (s) | | 18.3 | | | 4.3 | | | 44.9 | | | 49.0 | |
| Approach LOS | | B | | | A | | | D | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 14.8 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.58 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 73.7% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

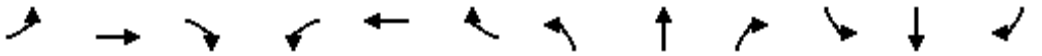
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 668 | 3 | 9 | 850 | 0 | 4 | 0 | 28 | 136 | 2 | 133 |
| Future Volume (vph) | 0 | 668 | 3 | 9 | 850 | 0 | 4 | 0 | 28 | 136 | 2 | 133 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | 6.0 | 6.0 | |
| Lane Util. Factor | | 1.00 | | 1.00 | 0.95 | | | 1.00 | | 1.00 | 1.00 | |
| Frpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 0.98 | |
| Flpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 1.00 | |
| Frt | | 1.00 | | 1.00 | 1.00 | | | 0.88 | | 1.00 | 0.85 | |
| Flt Protected | | 1.00 | | 0.95 | 1.00 | | | 0.99 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | | 1860 | | 1770 | 3539 | | | 1632 | | 1770 | 1549 | |
| Flt Permitted | | 1.00 | | 0.95 | 1.00 | | | 0.99 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | | 1860 | | 1770 | 3539 | | | 1632 | | 1770 | 1549 | |
| Peak-hour factor, PHF | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Adj. Flow (vph) | 0 | 856 | 4 | 12 | 1090 | 0 | 5 | 0 | 36 | 174 | 3 | 171 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 0 | 149 | 0 |
| Lane Group Flow (vph) | 0 | 860 | 0 | 12 | 1090 | 0 | 0 | 1 | 0 | 174 | 25 | 0 |
| Confl. Peds. (#/hr) | 48 | | 16 | 16 | | 48 | 9 | | | | | 9 |
| Confl. Bikes (#/hr) | | | 127 | | | 10 | | | | | | |
| Turn Type | | NA | | Prot | NA | | Split | NA | | Split | NA | |
| Protected Phases | | 2 | | 1 | 6 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | | 83.6 | | 3.0 | 91.6 | | | 4.4 | | 18.0 | 18.0 | |
| Effective Green, g (s) | | 83.6 | | 2.0 | 91.6 | | | 3.4 | | 17.0 | 17.0 | |
| Actuated g/C Ratio | | 0.64 | | 0.02 | 0.70 | | | 0.03 | | 0.13 | 0.13 | |
| Clearance Time (s) | | 6.0 | | 5.0 | 6.0 | | | 5.0 | | 5.0 | 5.0 | |
| Vehicle Extension (s) | | 5.0 | | 3.0 | 5.0 | | | 3.0 | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | | 1196 | | 27 | 2493 | | | 42 | | 231 | 202 | |
| v/s Ratio Prot | | c0.46 | | 0.01 | c0.31 | | | c0.00 | | c0.10 | 0.02 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | | 0.72 | | 0.44 | 0.44 | | | 0.03 | | 0.75 | 0.13 | |
| Uniform Delay, d1 | | 15.4 | | 63.4 | 8.2 | | | 61.7 | | 54.5 | 49.9 | |
| Progression Factor | | 0.87 | | 1.49 | 0.12 | | | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | | 3.4 | | 9.3 | 0.5 | | | 0.2 | | 13.0 | 0.3 | |
| Delay (s) | | 16.7 | | 103.6 | 1.5 | | | 61.9 | | 67.5 | 50.2 | |
| Level of Service | | B | | F | A | | | E | | E | D | |
| Approach Delay (s) | | 16.7 | | | 2.6 | | | 61.9 | | | 58.8 | |
| Approach LOS | | B | | | A | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 17.1 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.71 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 24.0 |
| Intersection Capacity Utilization | 61.5% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

c Critical Lane Group



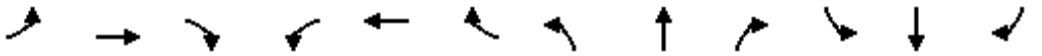
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 103 | 561 | 0 | 133 | 749 | 246 | 0 | 0 | 0 | 99 | 11 | 98 |
| Future Volume (vph) | 103 | 561 | 0 | 133 | 749 | 246 | 0 | 0 | 0 | 99 | 11 | 98 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.98 | | | | | | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | | | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.96 | | | | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.96 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | | 1770 | 3350 | | | | | | 1782 | 1583 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.96 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | | 1770 | 3350 | | | | | | 1782 | 1583 |
| Peak-hour factor, PHF | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 |
| Adj. Flow (vph) | 141 | 768 | 0 | 182 | 1026 | 337 | 0 | 0 | 0 | 136 | 15 | 134 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 106 |
| Lane Group Flow (vph) | 141 | 768 | 0 | 182 | 1346 | 0 | 0 | 0 | 0 | 0 | 151 | 28 |
| Confl. Peds. (#/hr) | 15 | | 25 | 25 | | 15 | | | 1 | 1 | | |
| Confl. Bikes (#/hr) | | | 61 | | | 10 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | | | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | | | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | 4 |
| Actuated Green, G (s) | 13.9 | 80.8 | | 18.2 | 85.1 | | | | | | 14.2 | 14.2 |
| Effective Green, g (s) | 13.9 | 81.4 | | 18.2 | 85.7 | | | | | | 14.4 | 14.4 |
| Actuated g/C Ratio | 0.11 | 0.63 | | 0.14 | 0.66 | | | | | | 0.11 | 0.11 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.7 | 5.7 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 189 | 1166 | | 247 | 2208 | | | | | | 197 | 175 |
| v/s Ratio Prot | 0.08 | c0.41 | | c0.10 | 0.40 | | | | | | c0.08 | |
| v/s Ratio Perm | | | | | | | | | | | | 0.02 |
| v/c Ratio | 0.75 | 0.66 | | 0.74 | 0.61 | | | | | | 0.77 | 0.16 |
| Uniform Delay, d1 | 56.3 | 15.5 | | 53.6 | 12.6 | | | | | | 56.2 | 52.3 |
| Progression Factor | 0.87 | 0.60 | | 0.94 | 1.50 | | | | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 11.1 | 1.0 | | 7.1 | 0.9 | | | | | | 15.6 | 0.3 |
| Delay (s) | 60.3 | 10.3 | | 57.2 | 19.9 | | | | | | 71.7 | 52.6 |
| Level of Service | E | B | | E | B | | | | | | E | D |
| Approach Delay (s) | | 18.1 | | | 24.3 | | | 0.0 | | | 62.8 | |
| Approach LOS | | B | | | C | | | A | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 26.2 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.68 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.0 |
| Intersection Capacity Utilization | 63.0% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 26 | 621 | 17 | 2 | 930 | 117 | 59 | 4 | 18 | 155 | 3 | 125 |
| Future Volume (vph) | 26 | 621 | 17 | 2 | 930 | 117 | 59 | 4 | 18 | 155 | 3 | 125 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2100 | 2100 | 1900 | 2100 | 2100 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.7 | 5.7 | | 5.7 | 5.7 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | | 1.00 | 0.97 | | 1.00 | 0.96 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 0.99 | 1.00 | | 0.99 | 1.00 |
| Frt | 1.00 | 0.80 | | 1.00 | 0.98 | | | 1.00 | 0.85 | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.96 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 2811 | | 1770 | 3439 | | | 1938 | 1705 | | 1942 | 1684 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.39 | 1.00 | | 0.66 | 1.00 |
| Satd. Flow (perm) | 1770 | 2811 | | 1770 | 3439 | | | 500 | 1705 | | 1351 | 1684 |
| Peak-hour factor, PHF | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 |
| Adj. Flow (vph) | 38 | 900 | 25 | 3 | 1348 | 170 | 86 | 6 | 26 | 225 | 4 | 181 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 21 | 0 | 0 | 114 |
| Lane Group Flow (vph) | 38 | 924 | 0 | 3 | 1511 | 0 | 0 | 92 | 5 | 0 | 229 | 67 |
| Confl. Peds. (#/hr) | 22 | | 23 | 23 | | 22 | 18 | | 8 | 8 | | 18 |
| Confl. Bikes (#/hr) | | | 62 | | | 18 | | | 2 | | | |
| Bus Blockages (#/hr) | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | 8 | 4 | | 4 |
| Actuated Green, G (s) | 6.7 | 84.4 | | 1.6 | 79.3 | | | 27.2 | 27.2 | | 27.2 | 27.2 |
| Effective Green, g (s) | 6.7 | 85.0 | | 1.6 | 79.9 | | | 27.2 | 27.2 | | 27.2 | 27.2 |
| Actuated g/C Ratio | 0.05 | 0.65 | | 0.01 | 0.61 | | | 0.21 | 0.21 | | 0.21 | 0.21 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.7 | 5.7 | | 5.7 | 5.7 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | 2.5 | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 91 | 1837 | | 21 | 2113 | | | 104 | 356 | | 282 | 352 |
| v/s Ratio Prot | c0.02 | c0.33 | | 0.00 | c0.44 | | | | | | | |
| v/s Ratio Perm | | | | | | | | c0.18 | 0.00 | | 0.17 | 0.04 |
| v/c Ratio | 0.42 | 0.50 | | 0.14 | 0.72 | | | 0.88 | 0.02 | | 0.81 | 0.19 |
| Uniform Delay, d1 | 59.8 | 11.6 | | 63.5 | 17.2 | | | 49.9 | 40.8 | | 49.0 | 42.3 |
| Progression Factor | 1.05 | 0.90 | | 0.95 | 1.18 | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.9 | 0.8 | | 0.4 | 0.8 | | | 52.9 | 0.0 | | 15.8 | 0.2 |
| Delay (s) | 64.0 | 11.2 | | 60.6 | 21.0 | | | 102.7 | 40.8 | | 64.7 | 42.5 |
| Level of Service | E | B | | E | C | | | F | D | | E | D |
| Approach Delay (s) | | 13.3 | | | 21.1 | | | 89.1 | | | 54.9 | |
| Approach LOS | | B | | | C | | | F | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 25.9 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.74 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.2 |
| Intersection Capacity Utilization | 68.3% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

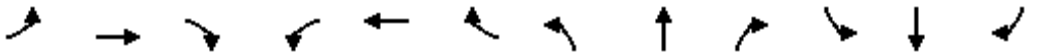


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 59 | 539 | 160 | 63 | 798 | 182 | 107 | 105 | 32 | 212 | 85 | 71 |
| Future Volume (vph) | 59 | 539 | 160 | 63 | 798 | 182 | 107 | 105 | 32 | 212 | 85 | 71 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.5 | 5.5 | | 5.5 | 5.5 | | 5.6 | 5.6 | | 5.5 | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 1.00 | 1.00 | | 0.95 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 0.92 | | 1.00 | 0.95 | | 1.00 | 0.94 | | 1.00 | 1.00 | 0.76 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.97 | | 1.00 | 0.97 | | 1.00 | 0.97 | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.98 | 1.00 |
| Satd. Flow (prot) | 1770 | 3147 | | 1770 | 3259 | | 1770 | 1685 | | 1681 | 1728 | 1203 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.98 | 1.00 |
| Satd. Flow (perm) | 1770 | 3147 | | 1770 | 3259 | | 1770 | 1685 | | 1681 | 1728 | 1203 |
| Peak-hour factor, PHF | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| Adj. Flow (vph) | 82 | 749 | 222 | 88 | 1108 | 253 | 149 | 146 | 44 | 294 | 118 | 99 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 82 | 971 | 0 | 88 | 1361 | 0 | 149 | 190 | 0 | 185 | 227 | 99 |
| Confl. Peds. (#/hr) | 110 | | 167 | 167 | | 110 | 97 | | 175 | 175 | | 97 |
| Confl. Bikes (#/hr) | | | 9 | | | 20 | | | 4 | | | 109 |
| Bus Blockages (#/hr) | 0 | 2 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Split | NA | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | 4 |
| Actuated Green, G (s) | 11.6 | 44.0 | | 12.5 | 44.9 | | 25.4 | 25.4 | | 24.8 | 24.8 | 24.8 |
| Effective Green, g (s) | 11.6 | 44.6 | | 12.5 | 45.5 | | 25.4 | 25.4 | | 25.4 | 25.4 | 25.4 |
| Actuated g/C Ratio | 0.09 | 0.34 | | 0.10 | 0.35 | | 0.20 | 0.20 | | 0.20 | 0.20 | 0.20 |
| Clearance Time (s) | 5.5 | 6.1 | | 5.5 | 6.1 | | 5.6 | 5.6 | | 6.1 | 6.1 | 6.1 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 1.0 | | 2.5 | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 157 | 1079 | | 170 | 1140 | | 345 | 329 | | 328 | 337 | 235 |
| v/s Ratio Prot | 0.05 | 0.31 | | c0.05 | c0.42 | | 0.08 | c0.11 | | 0.11 | c0.13 | |
| v/s Ratio Perm | | | | | | | | | | | | 0.08 |
| v/c Ratio | 0.52 | 0.90 | | 0.52 | 1.19 | | 0.43 | 0.58 | | 0.56 | 0.67 | 0.42 |
| Uniform Delay, d1 | 56.6 | 40.6 | | 55.9 | 42.2 | | 46.0 | 47.4 | | 47.3 | 48.5 | 45.9 |
| Progression Factor | 1.25 | 0.73 | | 1.40 | 0.75 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 1.3 | 10.6 | | 0.7 | 93.1 | | 0.3 | 1.5 | | 1.8 | 4.8 | 0.9 |
| Delay (s) | 72.1 | 40.2 | | 78.7 | 124.9 | | 46.3 | 49.0 | | 49.1 | 53.2 | 46.7 |
| Level of Service | E | D | | E | F | | D | D | | D | D | D |
| Approach Delay (s) | | 42.7 | | | 122.1 | | | 47.8 | | | 50.5 | |
| Approach LOS | | D | | | F | | | D | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 78.7 | HCM 2000 Level of Service | E |
| HCM 2000 Volume to Capacity ratio | 0.86 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 22.1 |
| Intersection Capacity Utilization | 102.0% | ICU Level of Service | G |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 104 | 679 | 89 | 49 | 1051 | 87 | 0 | 0 | 0 | 44 | 56 | 47 |
| Future Volume (vph) | 104 | 679 | 89 | 49 | 1051 | 87 | 0 | 0 | 0 | 44 | 56 | 47 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.6 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.96 | | 1.00 | 1.00 | | | | | | 0.95 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | | | | 0.94 | |
| Frt | 1.00 | 0.98 | | 1.00 | 0.99 | | | | | | 0.96 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.99 | |
| Satd. Flow (prot) | 1770 | 3316 | | 1770 | 3454 | | | | | | 1571 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.99 | |
| Satd. Flow (perm) | 1770 | 3316 | | 1770 | 3454 | | | | | | 1571 | |
| Peak-hour factor, PHF | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| Adj. Flow (vph) | 139 | 905 | 119 | 65 | 1401 | 116 | 0 | 0 | 0 | 59 | 75 | 63 |
| RTOR Reduction (vph) | 0 | 7 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 13 | 0 |
| Lane Group Flow (vph) | 139 | 1017 | 0 | 65 | 1512 | 0 | 0 | 0 | 0 | 0 | 184 | 0 |
| Confl. Peds. (#/hr) | 9 | | 68 | 68 | | 9 | 95 | | 119 | 119 | | 95 |
| Confl. Bikes (#/hr) | | | 10 | | | 23 | | | | | | 9 |
| Bus Blockages (#/hr) | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | | | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | | | | 4 | |
| Permitted Phases | | | | | | | | | | 4 | | |
| Actuated Green, G (s) | 12.9 | 81.0 | | 7.0 | 75.1 | | | | | | 25.3 | |
| Effective Green, g (s) | 12.9 | 81.6 | | 7.0 | 75.7 | | | | | | 25.3 | |
| Actuated g/C Ratio | 0.10 | 0.63 | | 0.05 | 0.58 | | | | | | 0.19 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.6 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 | |
| Lane Grp Cap (vph) | 175 | 2081 | | 95 | 2011 | | | | | | 305 | |
| v/s Ratio Prot | c0.08 | 0.31 | | 0.04 | c0.44 | | | | | | | |
| v/s Ratio Perm | | | | | | | | | | | 0.12 | |
| v/c Ratio | 0.79 | 0.49 | | 0.68 | 0.75 | | | | | | 0.60 | |
| Uniform Delay, d1 | 57.3 | 13.0 | | 60.4 | 20.2 | | | | | | 47.8 | |
| Progression Factor | 0.95 | 1.46 | | 1.34 | 0.52 | | | | | | 1.00 | |
| Incremental Delay, d2 | 14.4 | 0.6 | | 12.1 | 2.1 | | | | | | 2.8 | |
| Delay (s) | 69.0 | 19.5 | | 93.0 | 12.7 | | | | | | 50.6 | |
| Level of Service | E | B | | F | B | | | | | | D | |
| Approach Delay (s) | | 25.4 | | | 16.0 | | | 0.0 | | | 50.6 | |
| Approach LOS | | C | | | B | | | A | | | D | |

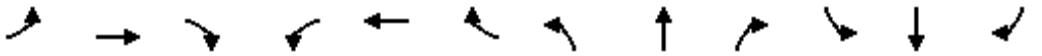
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 22.0 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.72 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 72.6% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 115 | 531 | 142 | 185 | 773 | 196 | 199 | 352 | 251 | 184 | 243 | 154 |
| Future Volume (vph) | 115 | 531 | 142 | 185 | 773 | 196 | 199 | 352 | 251 | 184 | 243 | 154 |
| Ideal Flow (vphpl) | 1900 | 2100 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | 5.0 | 5.1 | | 5.0 | 5.1 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 0.97 | 0.95 | | 1.00 | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.98 | | 1.00 | 0.99 | | 1.00 | 0.98 | | 1.00 | 0.98 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frt | 1.00 | 0.97 | | 1.00 | 0.97 | | 1.00 | 0.94 | | 1.00 | 0.94 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 3716 | | 1770 | 3387 | | 3433 | 3242 | | 1770 | 3255 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | 1770 | 3716 | | 1770 | 3387 | | 3433 | 3242 | | 1770 | 3255 | |
| Peak-hour factor, PHF | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Adj. Flow (vph) | 132 | 610 | 163 | 213 | 889 | 225 | 229 | 405 | 289 | 211 | 279 | 177 |
| RTOR Reduction (vph) | 0 | 17 | 0 | 0 | 16 | 0 | 0 | 103 | 0 | 0 | 80 | 0 |
| Lane Group Flow (vph) | 132 | 756 | 0 | 213 | 1098 | 0 | 229 | 591 | 0 | 211 | 376 | 0 |
| Confl. Peds. (#/hr) | 34 | | 60 | 60 | | 34 | 41 | | 34 | 34 | | 41 |
| Confl. Bikes (#/hr) | | | 11 | | | 5 | | | 4 | | | 6 |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | 11.8 | 43.4 | | 18.6 | 50.2 | | 11.7 | 30.2 | | 16.0 | 34.5 | |
| Effective Green, g (s) | 11.8 | 44.0 | | 18.6 | 50.8 | | 11.7 | 30.8 | | 16.0 | 35.1 | |
| Actuated g/C Ratio | 0.09 | 0.34 | | 0.14 | 0.39 | | 0.09 | 0.24 | | 0.12 | 0.27 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | 5.0 | 5.7 | | 5.0 | 5.7 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | |
| Lane Grp Cap (vph) | 160 | 1257 | | 253 | 1323 | | 308 | 768 | | 217 | 878 | |
| v/s Ratio Prot | 0.07 | 0.20 | | c0.12 | c0.32 | | 0.07 | c0.18 | | c0.12 | c0.12 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | 0.82 | 0.60 | | 0.84 | 0.83 | | 0.74 | 0.77 | | 0.97 | 0.43 | |
| Uniform Delay, d1 | 58.1 | 35.7 | | 54.3 | 35.7 | | 57.7 | 46.3 | | 56.8 | 39.2 | |
| Progression Factor | 0.97 | 1.55 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 24.2 | 1.9 | | 20.9 | 6.1 | | 8.2 | 4.5 | | 52.7 | 0.2 | |
| Delay (s) | 80.4 | 57.1 | | 75.1 | 41.8 | | 65.9 | 50.8 | | 109.5 | 39.4 | |
| Level of Service | F | E | | E | D | | E | D | | F | D | |
| Approach Delay (s) | | 60.5 | | | 47.2 | | | 54.5 | | | 61.6 | |
| Approach LOS | | E | | | D | | | D | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 54.6 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.84 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 20.6 |
| Intersection Capacity Utilization | 91.4% | ICU Level of Service | F |
| Analysis Period (min) | 15 | | |

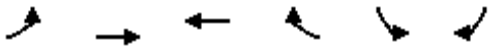
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 6 | 21 | 13 | 308 | 22 | 174 | 17 | 484 | 250 | 340 | 1047 | 16 |
| Future Volume (vph) | 6 | 21 | 13 | 308 | 22 | 174 | 17 | 484 | 250 | 340 | 1047 | 16 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Lane Util. Factor | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | | 1.00 | 0.98 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | | 1843 | 1551 | 1681 | 1696 | 1535 | 1770 | 3539 | 1548 | 1770 | 3539 | 1546 |
| Flt Permitted | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | | 1843 | 1551 | 1681 | 1696 | 1535 | 1770 | 3539 | 1548 | 1770 | 3539 | 1546 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 6 | 22 | 14 | 328 | 23 | 185 | 18 | 515 | 266 | 362 | 1114 | 17 |
| RTOR Reduction (vph) | 0 | 0 | 13 | 0 | 0 | 154 | 0 | 0 | 173 | 0 | 0 | 7 |
| Lane Group Flow (vph) | 0 | 28 | 1 | 174 | 177 | 31 | 18 | 515 | 93 | 362 | 1114 | 10 |
| Confl. Peds. (#/hr) | 2 | | 2 | 2 | | 2 | | | | | | |
| Confl. Bikes (#/hr) | | | 2 | | | 12 | | | 2 | | | 5 |
| Turn Type | Split | NA | Perm | Split | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 4 | 4 | | 3 | 3 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 3 | | | 2 | | | 6 |
| Actuated Green, G (s) | | 8.4 | 8.4 | 19.9 | 19.9 | 19.9 | 3.3 | 42.1 | 42.1 | 28.6 | 67.6 | 67.6 |
| Effective Green, g (s) | | 8.4 | 8.4 | 19.9 | 19.9 | 19.9 | 3.3 | 42.1 | 42.1 | 28.6 | 67.6 | 67.6 |
| Actuated g/C Ratio | | 0.07 | 0.07 | 0.17 | 0.17 | 0.17 | 0.03 | 0.35 | 0.35 | 0.24 | 0.56 | 0.56 |
| Clearance Time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Vehicle Extension (s) | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 |
| Lane Grp Cap (vph) | | 129 | 108 | 278 | 281 | 254 | 48 | 1241 | 543 | 421 | 1993 | 870 |
| v/s Ratio Prot | | c0.02 | | 0.10 | c0.10 | | 0.01 | 0.15 | | c0.20 | c0.31 | |
| v/s Ratio Perm | | | 0.00 | | | 0.02 | | | 0.06 | | | 0.01 |
| v/c Ratio | | 0.22 | 0.01 | 0.63 | 0.63 | 0.12 | 0.38 | 0.41 | 0.17 | 0.86 | 0.56 | 0.01 |
| Uniform Delay, d1 | | 52.7 | 51.9 | 46.6 | 46.6 | 42.6 | 57.3 | 29.6 | 26.9 | 43.8 | 16.7 | 11.5 |
| 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 | | 1.2 | 0.0 | 4.9 | 5.0 | 0.3 | 4.9 | 1.0 | 0.7 | 15.9 | 0.4 | 0.0 |
| Delay (s) | | 53.9 | 52.0 | 51.5 | 51.6 | 42.9 | 62.2 | 30.6 | 27.6 | 59.7 | 17.1 | 11.5 |
| Level of Service | | D | D | D | D | D | E | C | C | E | B | B |
| Approach Delay (s) | | 53.2 | | | 48.6 | | | 30.3 | | | 27.4 | |
| Approach LOS | | D | | | D | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 32.5 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.64 | | |
| Actuated Cycle Length (s) | 120.0 | Sum of lost time (s) | 21.0 |
| Intersection Capacity Utilization | 65.0% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

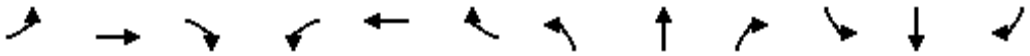
c Critical Lane Group



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 0 | 616 | 474 | 119 | 134 | 29 |
| Future Volume (Veh/h) | 0 | 616 | 474 | 119 | 134 | 29 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Hourly flow rate (vph) | 0 | 655 | 504 | 127 | 143 | 31 |
| Pedestrians | | 1 | | | 4 | |
| Lane Width (ft) | | 12.0 | | | 12.0 | |
| Walking Speed (ft/s) | | 4.0 | | | 4.0 | |
| Percent Blockage | | 0 | | | 0 | |
| Right turn flare (veh) | | | | | | 7 |
| Median type | | Raised | None | | | |
| Median storage veh) | | 2 | | | | |
| Upstream signal (ft) | | 171 | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 635 | | | | 1163 | 509 |
| vC1, stage 1 conf vol | | | | | 508 | |
| vC2, stage 2 conf vol | | | | | 655 | |
| vCu, unblocked vol | 635 | | | | 1163 | 509 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | 5.4 | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 100 | | | | 67 | 94 |
| cM capacity (veh/h) | 945 | | | | 429 | 562 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 655 | 504 | 127 | 174 |
| Volume Left | 0 | 0 | 0 | 143 |
| Volume Right | 0 | 0 | 127 | 31 |
| cSH | 1700 | 1700 | 1700 | 522 |
| Volume to Capacity | 0.39 | 0.30 | 0.07 | 0.33 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 36 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 16.5 |
| Lane LOS | | | | C |
| Approach Delay (s) | 0.0 | 0.0 | | 16.5 |
| Approach LOS | | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 2.0 | | |
| Intersection Capacity Utilization | 46.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 26 | 655 | 20 | 19 | 449 | 49 | 9 | 1 | 17 | 36 | 0 | 24 |
| Future Volume (Veh/h) | 26 | 655 | 20 | 19 | 449 | 49 | 9 | 1 | 17 | 36 | 0 | 24 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Hourly flow rate (vph) | 28 | 697 | 21 | 20 | 478 | 52 | 10 | 1 | 18 | 38 | 0 | 26 |
| Pedestrians | | | | | 8 | | | 28 | | | 7 | |
| Lane Width (ft) | | | | | 12.0 | | | 12.0 | | | 12.0 | |
| Walking Speed (ft/s) | | | | | 4.0 | | | 4.0 | | | 4.0 | |
| Percent Blockage | | | | | 1 | | | 2 | | | 1 | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | 1198 | | | 1012 | | | | | | | |
| pX, platoon unblocked | 0.89 | | | | | | 0.89 | 0.89 | | 0.89 | 0.89 | 0.89 |
| vC, conflicting volume | 537 | | | 746 | | | 1336 | 1368 | 744 | 1330 | 1353 | 511 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 422 | | | 746 | | | 1316 | 1353 | 744 | 1310 | 1335 | 393 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| 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 | | | 91 | 99 | 96 | 65 | 100 | 96 |
| cM capacity (veh/h) | 1010 | | | 842 | | | 106 | 123 | 402 | 107 | 126 | 582 |

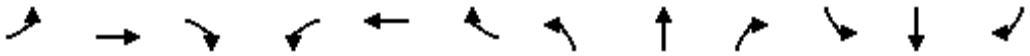
| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 28 | 718 | 20 | 530 | 29 | 64 |
| Volume Left | 28 | 0 | 20 | 0 | 10 | 38 |
| Volume Right | 0 | 21 | 0 | 52 | 18 | 26 |
| cSH | 1010 | 1700 | 842 | 1700 | 197 | 160 |
| Volume to Capacity | 0.03 | 0.42 | 0.02 | 0.31 | 0.15 | 0.40 |
| Queue Length 95th (ft) | 2 | 0 | 2 | 0 | 13 | 44 |
| Control Delay (s) | 8.7 | 0.0 | 9.4 | 0.0 | 26.5 | 41.7 |
| Lane LOS | A | | A | | D | E |
| Approach Delay (s) | 0.3 | | 0.3 | | 26.5 | 41.7 |
| Approach LOS | | | | | D | E |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 2.8 | | | |
| Intersection Capacity Utilization | 48.5% | ICU Level of Service | | A |
| Analysis Period (min) | 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 51 | 646 | 15 | 2 | 462 | 55 | 8 | 1 | 5 | 71 | 1 | 52 |
| Future Volume (vph) | 51 | 646 | 15 | 2 | 462 | 55 | 8 | 1 | 5 | 71 | 1 | 52 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.6 | | | 5.6 | 5.6 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.98 | | | 0.99 | | | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 0.99 | | | 0.99 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.98 | | | 0.95 | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 1853 | | 1770 | 3419 | | | 1691 | | | 1759 | 1546 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.87 | | | 0.72 | 1.00 |
| Satd. Flow (perm) | 1770 | 1853 | | 1770 | 3419 | | | 1515 | | | 1324 | 1546 |
| Peak-hour factor, PHF | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 57 | 718 | 17 | 2 | 513 | 61 | 9 | 1 | 6 | 79 | 1 | 58 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 5 | 0 | 0 | 0 | 48 |
| Lane Group Flow (vph) | 57 | 735 | 0 | 2 | 568 | 0 | 0 | 11 | 0 | 0 | 80 | 10 |
| Confl. Peds. (#/hr) | 31 | | 15 | 15 | | 31 | 8 | | 4 | 4 | | 8 |
| Confl. Bikes (#/hr) | | | 7 | | | 112 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 |
| Actuated Green, G (s) | 7.3 | 88.9 | | 1.4 | 83.0 | | | 23.0 | | | 23.0 | 23.0 |
| Effective Green, g (s) | 7.3 | 89.5 | | 1.4 | 83.6 | | | 23.0 | | | 23.0 | 23.0 |
| Actuated g/C Ratio | 0.06 | 0.69 | | 0.01 | 0.64 | | | 0.18 | | | 0.18 | 0.18 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | 5.6 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 99 | 1275 | | 19 | 2198 | | | 268 | | | 234 | 273 |
| v/s Ratio Prot | c0.03 | c0.40 | | 0.00 | 0.17 | | | | | | | |
| v/s Ratio Perm | | | | | | | | 0.01 | | | c0.06 | 0.01 |
| v/c Ratio | 0.58 | 0.58 | | 0.11 | 0.26 | | | 0.04 | | | 0.34 | 0.04 |
| Uniform Delay, d1 | 59.8 | 10.5 | | 63.7 | 9.9 | | | 44.4 | | | 46.9 | 44.3 |
| Progression Factor | 1.00 | 1.00 | | 1.33 | 0.49 | | | 1.00 | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 5.0 | 1.9 | | 0.9 | 0.3 | | | 0.0 | | | 0.6 | 0.0 |
| Delay (s) | 64.8 | 12.4 | | 85.3 | 5.1 | | | 44.4 | | | 47.5 | 44.4 |
| Level of Service | E | B | | F | A | | | D | | | D | D |
| Approach Delay (s) | | 16.1 | | | 5.4 | | | 44.4 | | | 46.2 | |
| Approach LOS | | B | | | A | | | D | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 15.1 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.54 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 61.6% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

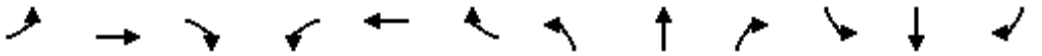
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 716 | 4 | 12 | 461 | 0 | 1 | 0 | 18 | 87 | 3 | 59 |
| Future Volume (vph) | 0 | 716 | 4 | 12 | 461 | 0 | 1 | 0 | 18 | 87 | 3 | 59 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | 6.0 | 6.0 | |
| Lane Util. Factor | | 1.00 | | 1.00 | 0.95 | | | 1.00 | | 1.00 | 1.00 | |
| Frpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 0.98 | |
| Flpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 1.00 | |
| Frt | | 1.00 | | 1.00 | 1.00 | | | 0.87 | | 1.00 | 0.86 | |
| Flt Protected | | 1.00 | | 0.95 | 1.00 | | | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | | 1860 | | 1770 | 3539 | | | 1619 | | 1770 | 1569 | |
| Flt Permitted | | 1.00 | | 0.95 | 1.00 | | | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | | 1860 | | 1770 | 3539 | | | 1619 | | 1770 | 1569 | |
| Peak-hour factor, PHF | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Adj. Flow (vph) | 0 | 842 | 5 | 14 | 542 | 0 | 1 | 0 | 21 | 102 | 4 | 69 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 63 | 0 |
| Lane Group Flow (vph) | 0 | 847 | 0 | 14 | 542 | 0 | 0 | 0 | 0 | 102 | 10 | 0 |
| Confl. Peds. (#/hr) | 47 | | 27 | 27 | | 47 | 5 | | | | | 5 |
| Confl. Bikes (#/hr) | | | 11 | | | 125 | | | | | | |
| Turn Type | | NA | | Prot | NA | | Split | NA | | Split | NA | |
| Protected Phases | | 2 | | 1 | 6 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | | 89.8 | | 3.1 | 97.9 | | | 3.3 | | 12.8 | 12.8 | |
| Effective Green, g (s) | | 89.8 | | 2.1 | 97.9 | | | 2.3 | | 11.8 | 11.8 | |
| Actuated g/C Ratio | | 0.69 | | 0.02 | 0.75 | | | 0.02 | | 0.09 | 0.09 | |
| Clearance Time (s) | | 6.0 | | 5.0 | 6.0 | | | 5.0 | | 5.0 | 5.0 | |
| Vehicle Extension (s) | | 5.0 | | 3.0 | 5.0 | | | 3.0 | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | | 1284 | | 28 | 2665 | | | 28 | | 160 | 142 | |
| v/s Ratio Prot | | c0.46 | | 0.01 | c0.15 | | | c0.00 | | c0.06 | 0.01 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | | 0.66 | | 0.50 | 0.20 | | | 0.01 | | 0.64 | 0.07 | |
| Uniform Delay, d1 | | 11.4 | | 63.4 | 4.7 | | | 62.7 | | 57.0 | 54.1 | |
| Progression Factor | | 0.85 | | 1.19 | 0.59 | | | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | | 2.4 | | 13.3 | 0.2 | | | 0.2 | | 8.1 | 0.2 | |
| Delay (s) | | 12.1 | | 88.8 | 2.9 | | | 62.9 | | 65.1 | 54.3 | |
| Level of Service | | B | | F | A | | | E | | E | D | |
| Approach Delay (s) | | 12.1 | | | 5.1 | | | 62.9 | | | 60.6 | |
| Approach LOS | | B | | | A | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 15.6 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.64 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 24.0 |
| Intersection Capacity Utilization | 61.0% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

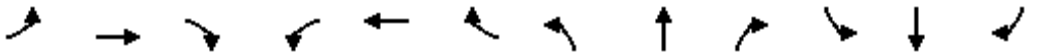
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 50 | 682 | 0 | 74 | 408 | 68 | 0 | 0 | 0 | 78 | 4 | 56 |
| Future Volume (vph) | 50 | 682 | 0 | 74 | 408 | 68 | 0 | 0 | 0 | 78 | 4 | 56 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | | | | | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | | | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.98 | | | | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | | 1770 | 3429 | | | | | | 1779 | 1583 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.95 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | | 1770 | 3429 | | | | | | 1779 | 1583 |
| Peak-hour factor, PHF | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Adj. Flow (vph) | 57 | 784 | 0 | 85 | 469 | 78 | 0 | 0 | 0 | 90 | 5 | 64 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 59 |
| Lane Group Flow (vph) | 57 | 784 | 0 | 85 | 542 | 0 | 0 | 0 | 0 | 0 | 95 | 5 |
| Confl. Peds. (#/hr) | 7 | | 32 | 32 | | 7 | | | 5 | 5 | | |
| Confl. Bikes (#/hr) | | | 7 | | | 59 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | | | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | | | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | 4 |
| Actuated Green, G (s) | 7.6 | 92.2 | | 10.3 | 94.9 | | | | | | 10.7 | 10.7 |
| Effective Green, g (s) | 7.6 | 92.8 | | 10.3 | 95.5 | | | | | | 10.9 | 10.9 |
| Actuated g/C Ratio | 0.06 | 0.71 | | 0.08 | 0.73 | | | | | | 0.08 | 0.08 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.7 | 5.7 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 103 | 1329 | | 140 | 2518 | | | | | | 149 | 132 |
| v/s Ratio Prot | 0.03 | c0.42 | | c0.05 | 0.16 | | | | | | c0.05 | |
| v/s Ratio Perm | | | | | | | | | | | | 0.00 |
| v/c Ratio | 0.55 | 0.59 | | 0.61 | 0.22 | | | | | | 0.64 | 0.04 |
| Uniform Delay, d1 | 59.5 | 9.2 | | 57.9 | 5.4 | | | | | | 57.6 | 54.7 |
| Progression Factor | 0.80 | 0.36 | | 1.54 | 0.32 | | | | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 3.0 | 0.5 | | 4.9 | 0.2 | | | | | | 7.6 | 0.1 |
| Delay (s) | 50.6 | 3.8 | | 94.2 | 2.0 | | | | | | 65.2 | 54.8 |
| Level of Service | D | A | | F | A | | | | | | E | D |
| Approach Delay (s) | | 6.9 | | | 14.4 | | | 0.0 | | | 61.0 | |
| Approach LOS | | A | | | B | | | A | | | E | |

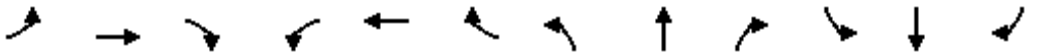
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 15.1 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.60 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.0 |
| Intersection Capacity Utilization | 67.1% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group



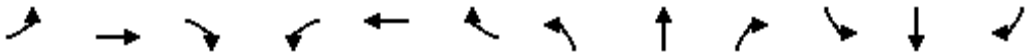
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 43 | 695 | 18 | 3 | 485 | 57 | 19 | 9 | 11 | 107 | 6 | 44 |
| Future Volume (vph) | 43 | 695 | 18 | 3 | 485 | 57 | 19 | 9 | 11 | 107 | 6 | 44 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2100 | 2100 | 1900 | 2100 | 2100 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.7 | 5.7 | | 5.7 | 5.7 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 0.99 | | 1.00 | 0.98 | | | 1.00 | 0.96 | | 1.00 | 0.94 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 0.97 | 1.00 | | 0.98 | 1.00 |
| Frt | 1.00 | 0.80 | | 1.00 | 0.98 | | | 1.00 | 0.85 | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 2806 | | 1770 | 3421 | | | 1937 | 1683 | | 1918 | 1640 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.72 | 1.00 | | 0.71 | 1.00 |
| Satd. Flow (perm) | 1770 | 2806 | | 1770 | 3421 | | | 500 | 1683 | | 1430 | 1640 |
| Peak-hour factor, PHF | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Adj. Flow (vph) | 52 | 848 | 22 | 4 | 591 | 70 | 23 | 11 | 13 | 130 | 7 | 54 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 11 | 0 | 0 | 47 |
| Lane Group Flow (vph) | 52 | 869 | 0 | 4 | 656 | 0 | 0 | 34 | 2 | 0 | 137 | 7 |
| Confl. Peds. (#/hr) | 36 | | 59 | 59 | | 36 | 36 | | 18 | 18 | | 36 |
| Confl. Bikes (#/hr) | | | 24 | | | 60 | | | | | | |
| Bus Blockages (#/hr) | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | 8 | 4 | | 4 |
| Actuated Green, G (s) | 7.1 | 93.8 | | 1.6 | 88.3 | | | 17.8 | 17.8 | | 17.8 | 17.8 |
| Effective Green, g (s) | 7.1 | 94.4 | | 1.6 | 88.9 | | | 17.8 | 17.8 | | 17.8 | 17.8 |
| Actuated g/C Ratio | 0.05 | 0.73 | | 0.01 | 0.68 | | | 0.14 | 0.14 | | 0.14 | 0.14 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.7 | 5.7 | | 5.7 | 5.7 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | 2.5 | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 96 | 2037 | | 21 | 2339 | | | 68 | 230 | | 195 | 224 |
| v/s Ratio Prot | c0.03 | c0.31 | | 0.00 | 0.19 | | | | | | | |
| v/s Ratio Perm | | | | | | | | 0.07 | 0.00 | | c0.10 | 0.00 |
| v/c Ratio | 0.54 | 0.43 | | 0.19 | 0.28 | | | 0.50 | 0.01 | | 0.70 | 0.03 |
| Uniform Delay, d1 | 59.9 | 7.1 | | 63.6 | 8.0 | | | 52.0 | 48.5 | | 53.6 | 48.6 |
| Progression Factor | 0.90 | 1.15 | | 1.61 | 0.43 | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Incremental Delay, d2 | 2.9 | 0.6 | | 1.4 | 0.3 | | | 4.2 | 0.0 | | 10.1 | 0.0 |
| Delay (s) | 56.7 | 8.7 | | 104.0 | 3.7 | | | 56.1 | 48.5 | | 63.7 | 48.7 |
| Level of Service | E | A | | F | A | | | E | D | | E | D |
| Approach Delay (s) | | 11.4 | | | 4.3 | | | 54.0 | | | 59.5 | |
| Approach LOS | | B | | | A | | | D | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 15.0 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.49 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.2 |
| Intersection Capacity Utilization | 64.7% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



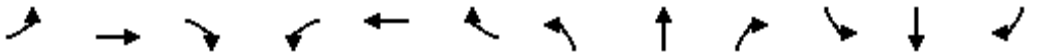
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 61 | 668 | 50 | 21 | 408 | 133 | 65 | 53 | 66 | 245 | 45 | 62 |
| Future Volume (vph) | 61 | 668 | 50 | 21 | 408 | 133 | 65 | 53 | 66 | 245 | 45 | 62 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.5 | 5.5 | | 5.5 | 5.5 | | 5.6 | 5.6 | | 5.5 | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 1.00 | 1.00 | | 0.95 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 0.98 | | 1.00 | 0.94 | | 1.00 | 0.80 | | 1.00 | 1.00 | 0.91 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.99 | | 1.00 | 0.96 | | 1.00 | 0.92 | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.97 | 1.00 |
| Satd. Flow (prot) | 1770 | 3414 | | 1770 | 3193 | | 1770 | 1363 | | 1681 | 1712 | 1445 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.97 | 1.00 |
| Satd. Flow (perm) | 1770 | 3414 | | 1770 | 3193 | | 1770 | 1363 | | 1681 | 1712 | 1445 |
| Peak-hour factor, PHF | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 |
| Adj. Flow (vph) | 80 | 879 | 66 | 28 | 537 | 175 | 86 | 70 | 87 | 322 | 59 | 82 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 80 | 945 | 0 | 28 | 712 | 0 | 86 | 157 | 0 | 203 | 178 | 82 |
| Confl. Peds. (#/hr) | 105 | | 137 | 137 | | 105 | 53 | | 315 | 315 | | 53 |
| Confl. Bikes (#/hr) | | | 50 | | | 12 | | | 49 | | | 3 |
| Bus Blockages (#/hr) | 0 | 2 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Split | NA | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | 4 |
| Actuated Green, G (s) | 9.3 | 49.5 | | 7.2 | 47.4 | | 25.4 | 25.4 | | 24.6 | 24.6 | 24.6 |
| Effective Green, g (s) | 9.3 | 50.1 | | 7.2 | 48.0 | | 25.4 | 25.4 | | 25.2 | 25.2 | 25.2 |
| Actuated g/C Ratio | 0.07 | 0.39 | | 0.06 | 0.37 | | 0.20 | 0.20 | | 0.19 | 0.19 | 0.19 |
| Clearance Time (s) | 5.5 | 6.1 | | 5.5 | 6.1 | | 5.6 | 5.6 | | 6.1 | 6.1 | 6.1 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 1.0 | | 2.5 | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 126 | 1315 | | 98 | 1178 | | 345 | 266 | | 325 | 331 | 280 |
| v/s Ratio Prot | c0.05 | c0.28 | | 0.02 | 0.22 | | 0.05 | c0.12 | | c0.12 | 0.10 | |
| v/s Ratio Perm | | | | | | | | | | | | 0.06 |
| v/c Ratio | 0.63 | 0.72 | | 0.29 | 0.60 | | 0.25 | 0.59 | | 0.62 | 0.54 | 0.29 |
| Uniform Delay, d1 | 58.7 | 34.0 | | 58.9 | 33.3 | | 44.2 | 47.6 | | 48.1 | 47.2 | 44.8 |
| Progression Factor | 0.97 | 1.04 | | 1.37 | 0.95 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 7.0 | 3.2 | | 0.6 | 2.2 | | 0.1 | 2.3 | | 3.2 | 1.3 | 0.4 |
| Delay (s) | 63.7 | 38.4 | | 81.4 | 33.7 | | 44.4 | 49.9 | | 51.3 | 48.5 | 45.2 |
| Level of Service | E | D | | F | C | | D | D | | D | D | D |
| Approach Delay (s) | | 40.4 | | | 35.5 | | | 47.9 | | | 49.1 | |
| Approach LOS | | D | | | D | | | D | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 41.3 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.67 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 22.1 |
| Intersection Capacity Utilization | 84.7% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 25 | 975 | 80 | 19 | 500 | 63 | 0 | 0 | 0 | 52 | 7 | 28 |
| Future Volume (vph) | 25 | 975 | 80 | 19 | 500 | 63 | 0 | 0 | 0 | 52 | 7 | 28 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.6 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.96 | | 1.00 | 0.97 | | | | | | 0.94 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | | | | 0.89 | |
| Frt | 1.00 | 0.99 | | 1.00 | 0.98 | | | | | | 0.96 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.97 | |
| Satd. Flow (prot) | 1770 | 3315 | | 1770 | 3358 | | | | | | 1441 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.97 | |
| Satd. Flow (perm) | 1770 | 3315 | | 1770 | 3358 | | | | | | 1441 | |
| Peak-hour factor, PHF | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Adj. Flow (vph) | 32 | 1250 | 103 | 24 | 641 | 81 | 0 | 0 | 0 | 67 | 9 | 36 |
| RTOR Reduction (vph) | 0 | 4 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 13 | 0 |
| Lane Group Flow (vph) | 32 | 1349 | 0 | 24 | 716 | 0 | 0 | 0 | 0 | 0 | 99 | 0 |
| Confl. Peds. (#/hr) | 69 | | 184 | 184 | | 69 | 114 | | 122 | 122 | | 114 |
| Confl. Bikes (#/hr) | | | 37 | | | 8 | | | 29 | | | 1 |
| Bus Blockages (#/hr) | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | | | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | | | | 4 | |
| Permitted Phases | | | | | | | | | | 4 | | |
| Actuated Green, G (s) | 4.9 | 84.0 | | 4.3 | 83.4 | | | | | | 25.0 | |
| Effective Green, g (s) | 4.9 | 84.6 | | 4.3 | 84.0 | | | | | | 25.0 | |
| Actuated g/C Ratio | 0.04 | 0.65 | | 0.03 | 0.65 | | | | | | 0.19 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.6 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 | |
| Lane Grp Cap (vph) | 66 | 2157 | | 58 | 2169 | | | | | | 277 | |
| v/s Ratio Prot | c0.02 | c0.41 | | 0.01 | 0.21 | | | | | | | |
| v/s Ratio Perm | | | | | | | | | | | 0.07 | |
| v/c Ratio | 0.48 | 0.63 | | 0.41 | 0.33 | | | | | | 0.36 | |
| Uniform Delay, d1 | 61.3 | 13.4 | | 61.6 | 10.3 | | | | | | 45.5 | |
| Progression Factor | 0.97 | 1.01 | | 1.46 | 0.31 | | | | | | 1.00 | |
| Incremental Delay, d2 | 1.7 | 1.1 | | 1.6 | 0.4 | | | | | | 0.6 | |
| Delay (s) | 61.2 | 14.6 | | 91.6 | 3.6 | | | | | | 46.1 | |
| Level of Service | E | B | | F | A | | | | | | D | |
| Approach Delay (s) | | 15.7 | | | 6.4 | | | 0.0 | | | 46.1 | |
| Approach LOS | | B | | | A | | | A | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 14.1 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.56 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 60.0% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 89 | 664 | 254 | 194 | 398 | 153 | 187 | 238 | 222 | 170 | 326 | 71 |
| Future Volume (vph) | 89 | 664 | 254 | 194 | 398 | 153 | 187 | 238 | 222 | 170 | 326 | 71 |
| Ideal Flow (vphpl) | 1900 | 2100 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | 5.0 | 5.1 | | 5.0 | 5.1 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 0.97 | 0.95 | | 1.00 | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.96 | | 1.00 | 0.96 | | 1.00 | 0.96 | | 1.00 | 0.99 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frt | 1.00 | 0.96 | | 1.00 | 0.96 | | 1.00 | 0.93 | | 1.00 | 0.97 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 3588 | | 1770 | 3259 | | 3433 | 3161 | | 1770 | 3401 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | 1770 | 3588 | | 1770 | 3259 | | 3433 | 3161 | | 1770 | 3401 | |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 97 | 722 | 276 | 211 | 433 | 166 | 203 | 259 | 241 | 185 | 354 | 77 |
| RTOR Reduction (vph) | 0 | 28 | 0 | 0 | 29 | 0 | 0 | 138 | 0 | 0 | 15 | 0 |
| Lane Group Flow (vph) | 97 | 970 | 0 | 211 | 570 | 0 | 203 | 362 | 0 | 185 | 416 | 0 |
| Confl. Peds. (#/hr) | 87 | | 106 | 106 | | 87 | 55 | | 54 | 54 | | 55 |
| Confl. Bikes (#/hr) | | | 35 | | | 3 | | | 3 | | | 1 |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | 11.1 | 44.5 | | 18.5 | 51.9 | | 11.3 | 29.4 | | 15.8 | 33.9 | |
| Effective Green, g (s) | 11.1 | 45.1 | | 18.5 | 52.5 | | 11.3 | 30.0 | | 15.8 | 34.5 | |
| Actuated g/C Ratio | 0.09 | 0.35 | | 0.14 | 0.40 | | 0.09 | 0.23 | | 0.12 | 0.27 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | 5.0 | 5.7 | | 5.0 | 5.7 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | |
| Lane Grp Cap (vph) | 151 | 1244 | | 251 | 1316 | | 298 | 729 | | 215 | 902 | |
| v/s Ratio Prot | 0.05 | c0.27 | | c0.12 | 0.17 | | 0.06 | 0.11 | | c0.10 | c0.12 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | 0.64 | 0.78 | | 0.84 | 0.43 | | 0.68 | 0.50 | | 0.86 | 0.46 | |
| Uniform Delay, d1 | 57.5 | 38.0 | | 54.3 | 28.0 | | 57.6 | 43.4 | | 56.0 | 40.0 | |
| Progression Factor | 0.90 | 1.38 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 5.5 | 4.0 | | 20.9 | 1.0 | | 5.0 | 0.4 | | 27.0 | 0.3 | |
| Delay (s) | 57.1 | 56.3 | | 75.2 | 29.0 | | 62.6 | 43.8 | | 83.0 | 40.2 | |
| Level of Service | E | E | | E | C | | E | D | | F | D | |
| Approach Delay (s) | | 56.4 | | | 41.1 | | | 49.3 | | | 53.1 | |
| Approach LOS | | E | | | D | | | D | | | D | |

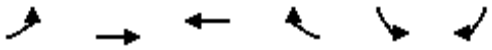
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 50.4 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.72 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 20.6 |
| Intersection Capacity Utilization | 92.6% | ICU Level of Service | F |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 5 | 26 | 20 | 232 | 21 | 121 | 17 | 502 | 271 | 463 | 1238 | 12 |
| Future Volume (vph) | 5 | 26 | 20 | 232 | 21 | 121 | 17 | 502 | 271 | 463 | 1238 | 12 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Lane Util. Factor | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | | 1.00 | 0.96 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.97 |
| Flpb, ped/bikes | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | | 1848 | 1527 | 1681 | 1699 | 1559 | 1770 | 3539 | 1535 | 1770 | 3539 | 1535 |
| Flt Permitted | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | | 1848 | 1527 | 1681 | 1699 | 1559 | 1770 | 3539 | 1535 | 1770 | 3539 | 1535 |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 5 | 27 | 21 | 242 | 22 | 126 | 18 | 523 | 282 | 482 | 1290 | 12 |
| RTOR Reduction (vph) | 0 | 0 | 19 | 0 | 0 | 109 | 0 | 0 | 192 | 0 | 0 | 5 |
| Lane Group Flow (vph) | 0 | 32 | 2 | 131 | 133 | 17 | 18 | 523 | 90 | 482 | 1290 | 8 |
| Confl. Peds. (#/hr) | | | 8 | 8 | | | | | | | | 1 |
| Confl. Bikes (#/hr) | | | 5 | | | 2 | | | 9 | | | 12 |
| Turn Type | Split | NA | Perm | Split | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 4 | 4 | | 3 | 3 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 3 | | | 2 | | | 6 |
| Actuated Green, G (s) | | 10.3 | 10.3 | 17.1 | 17.1 | 17.1 | 3.4 | 41.6 | 41.6 | 40.0 | 78.4 | 78.4 |
| Effective Green, g (s) | | 10.3 | 10.3 | 17.1 | 17.1 | 17.1 | 3.4 | 41.6 | 41.6 | 40.0 | 78.4 | 78.4 |
| Actuated g/C Ratio | | 0.08 | 0.08 | 0.13 | 0.13 | 0.13 | 0.03 | 0.32 | 0.32 | 0.31 | 0.60 | 0.60 |
| Clearance Time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Vehicle Extension (s) | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 |
| Lane Grp Cap (vph) | | 146 | 120 | 221 | 223 | 205 | 46 | 1132 | 491 | 544 | 2134 | 925 |
| v/s Ratio Prot | | c0.02 | | 0.08 | c0.08 | | 0.01 | 0.15 | | c0.27 | c0.36 | |
| v/s Ratio Perm | | | 0.00 | | | 0.01 | | | 0.06 | | | 0.01 |
| v/c Ratio | | 0.22 | 0.01 | 0.59 | 0.60 | 0.08 | 0.39 | 0.46 | 0.18 | 0.89 | 0.60 | 0.01 |
| Uniform Delay, d1 | | 56.1 | 55.2 | 53.2 | 53.2 | 49.6 | 62.3 | 35.3 | 31.9 | 42.8 | 16.1 | 10.3 |
| 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 | | 1.0 | 0.1 | 4.9 | 4.9 | 0.2 | 5.4 | 0.4 | 0.2 | 15.9 | 1.3 | 0.0 |
| Delay (s) | | 57.1 | 55.2 | 58.1 | 58.1 | 49.8 | 67.7 | 35.7 | 32.2 | 58.7 | 17.4 | 10.3 |
| Level of Service | | E | E | E | E | D | E | D | C | E | B | B |
| Approach Delay (s) | | 56.4 | | | 55.4 | | | 35.2 | | | 28.5 | |
| Approach LOS | | E | | | E | | | D | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 34.2 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.68 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 21.0 |
| Intersection Capacity Utilization | 67.5% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

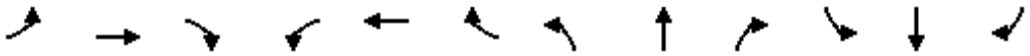
c Critical Lane Group



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 0 | 757 | 444 | 108 | 98 | 21 |
| Future Volume (Veh/h) | 0 | 757 | 444 | 108 | 98 | 21 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Hourly flow rate (vph) | 0 | 805 | 472 | 115 | 104 | 22 |
| Pedestrians | | | | | 3 | |
| Lane Width (ft) | | | | | 12.0 | |
| Walking Speed (ft/s) | | | | | 4.0 | |
| Percent Blockage | | | | | 0 | |
| Right turn flare (veh) | | | | | | 7 |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | 171 | | | | |
| pX, platoon unblocked | | | | | 0.99 | |
| vC, conflicting volume | 590 | | | | 1280 | 475 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 590 | | | | 1279 | 475 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 100 | | | | 43 | 96 |
| cM capacity (veh/h) | 983 | | | | 182 | 588 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 805 | 472 | 115 | 126 |
| Volume Left | 0 | 0 | 0 | 104 |
| Volume Right | 0 | 0 | 115 | 22 |
| cSH | 1700 | 1700 | 1700 | 220 |
| Volume to Capacity | 0.47 | 0.28 | 0.07 | 0.57 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 79 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 41.9 |
| Lane LOS | | | | E |
| Approach Delay (s) | 0.0 | 0.0 | | 41.9 |
| Approach LOS | | | | E |

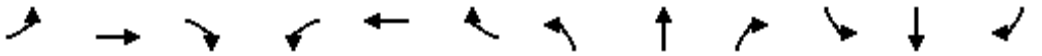
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 3.5 | | |
| Intersection Capacity Utilization | 51.9% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 24 | 794 | 40 | 14 | 396 | 34 | 9 | 1 | 13 | 21 | 0 | 28 |
| Future Volume (Veh/h) | 24 | 794 | 40 | 14 | 396 | 34 | 9 | 1 | 13 | 21 | 0 | 28 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Hourly flow rate (vph) | 24 | 810 | 41 | 14 | 404 | 35 | 9 | 1 | 13 | 21 | 0 | 29 |
| Pedestrians | | | | | 4 | | | 22 | | | 6 | |
| Lane Width (ft) | | | | | 12.0 | | | 12.0 | | | 12.0 | |
| Walking Speed (ft/s) | | | | | 4.0 | | | 4.0 | | | 4.0 | |
| Percent Blockage | | | | | 0 | | | 2 | | | 1 | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | 1198 | | | 1012 | | | | | | | |
| pX, platoon unblocked | 0.93 | | | | | | 0.93 | 0.93 | | 0.93 | 0.93 | 0.93 |
| vC, conflicting volume | 445 | | | 873 | | | 1362 | 1374 | 856 | 1331 | 1376 | 428 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 367 | | | 873 | | | 1351 | 1364 | 856 | 1319 | 1367 | 348 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| 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 | | | 92 | 99 | 96 | 81 | 100 | 95 |
| cM capacity (veh/h) | 1104 | | | 759 | | | 106 | 129 | 350 | 113 | 128 | 644 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 24 | 851 | 14 | 439 | 23 | 50 |
| Volume Left | 24 | 0 | 14 | 0 | 9 | 21 |
| Volume Right | 0 | 41 | 0 | 35 | 13 | 29 |
| cSH | 1104 | 1700 | 759 | 1700 | 177 | 217 |
| Volume to Capacity | 0.02 | 0.50 | 0.02 | 0.26 | 0.13 | 0.23 |
| Queue Length 95th (ft) | 2 | 0 | 1 | 0 | 11 | 22 |
| Control Delay (s) | 8.3 | 0.0 | 9.8 | 0.0 | 28.4 | 26.6 |
| Lane LOS | A | | A | | D | D |
| Approach Delay (s) | 0.2 | | 0.3 | | 28.4 | 26.6 |
| Approach LOS | | | | | D | D |

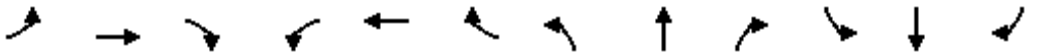
| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 1.7 | | | |
| Intersection Capacity Utilization | 55.6% | ICU Level of Service | | B |
| Analysis Period (min) | 15 | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 49 | 730 | 15 | 4 | 408 | 69 | 11 | 0 | 6 | 36 | 1 | 42 |
| Future Volume (vph) | 49 | 730 | 15 | 4 | 408 | 69 | 11 | 0 | 6 | 36 | 1 | 42 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.6 | | | 5.6 | 5.6 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | | 1.00 | | | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.98 | | | 0.95 | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 1855 | | 1770 | 3435 | | | 1715 | | | 1776 | 1559 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.85 | | | 0.74 | 1.00 |
| Satd. Flow (perm) | 1770 | 1855 | | 1770 | 3435 | | | 1512 | | | 1374 | 1559 |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 50 | 745 | 15 | 4 | 416 | 70 | 11 | 0 | 6 | 37 | 1 | 43 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 15 | 0 | 0 | 0 | 37 |
| Lane Group Flow (vph) | 50 | 760 | 0 | 4 | 479 | 0 | 0 | 2 | 0 | 0 | 38 | 6 |
| Confl. Peds. (#/hr) | 7 | | 7 | 7 | | 7 | 2 | | | | | 2 |
| Confl. Bikes (#/hr) | | | 15 | | | 23 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 |
| Actuated Green, G (s) | 7.3 | 110.3 | | 1.4 | 104.4 | | | 21.6 | | | 21.6 | 21.6 |
| Effective Green, g (s) | 7.3 | 110.9 | | 1.4 | 105.0 | | | 21.6 | | | 21.6 | 21.6 |
| Actuated g/C Ratio | 0.05 | 0.74 | | 0.01 | 0.70 | | | 0.14 | | | 0.14 | 0.14 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | 5.6 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 86 | 1371 | | 16 | 2404 | | | 217 | | | 197 | 224 |
| v/s Ratio Prot | c0.03 | c0.41 | | 0.00 | 0.14 | | | | | | | |
| v/s Ratio Perm | | | | | | | | 0.00 | | | c0.03 | 0.00 |
| v/c Ratio | 0.58 | 0.55 | | 0.25 | 0.20 | | | 0.01 | | | 0.19 | 0.03 |
| Uniform Delay, d1 | 69.9 | 8.6 | | 73.8 | 7.8 | | | 55.0 | | | 56.5 | 55.2 |
| Progression Factor | 1.00 | 1.00 | | 1.27 | 1.17 | | | 1.00 | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 6.3 | 1.6 | | 2.9 | 0.2 | | | 0.0 | | | 0.3 | 0.0 |
| Delay (s) | 76.2 | 10.3 | | 96.8 | 9.4 | | | 55.1 | | | 56.9 | 55.2 |
| Level of Service | E | B | | F | A | | | E | | | E | E |
| Approach Delay (s) | | 14.3 | | | 10.1 | | | 55.1 | | | 56.0 | |
| Approach LOS | | B | | | B | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 15.8 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.51 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 57.6% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 773 | 7 | 25 | 389 | 0 | 5 | 0 | 17 | 272 | 12 | 89 |
| Future Volume (vph) | 0 | 773 | 7 | 25 | 389 | 0 | 5 | 0 | 17 | 272 | 12 | 89 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | 6.0 | 6.0 | |
| Lane Util. Factor | | 1.00 | | 1.00 | 0.95 | | | 1.00 | | 1.00 | 1.00 | |
| Frpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 0.99 | |
| Flpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 1.00 | |
| Frt | | 1.00 | | 1.00 | 1.00 | | | 0.89 | | 1.00 | 0.87 | |
| Flt Protected | | 1.00 | | 0.95 | 1.00 | | | 0.99 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | | 1859 | | 1770 | 3539 | | | 1648 | | 1770 | 1594 | |
| Flt Permitted | | 1.00 | | 0.95 | 1.00 | | | 0.99 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | | 1859 | | 1770 | 3539 | | | 1648 | | 1770 | 1594 | |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 840 | 8 | 27 | 423 | 0 | 5 | 0 | 18 | 296 | 13 | 97 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 78 | 0 |
| Lane Group Flow (vph) | 0 | 848 | 0 | 27 | 423 | 0 | 0 | 0 | 0 | 296 | 32 | 0 |
| Confl. Peds. (#/hr) | 7 | | 6 | 6 | | 7 | 2 | | | | | 2 |
| Confl. Bikes (#/hr) | | | 17 | | | 27 | | | | | | |
| Turn Type | | NA | | Prot | NA | | Split | NA | | Split | NA | |
| Protected Phases | | 2 | | 1 | 6 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | | 90.9 | | 5.1 | 101.0 | | | 3.3 | | 29.7 | 29.7 | |
| Effective Green, g (s) | | 90.9 | | 4.1 | 101.0 | | | 2.3 | | 28.7 | 28.7 | |
| Actuated g/C Ratio | | 0.61 | | 0.03 | 0.67 | | | 0.02 | | 0.19 | 0.19 | |
| Clearance Time (s) | | 6.0 | | 5.0 | 6.0 | | | 5.0 | | 5.0 | 5.0 | |
| Vehicle Extension (s) | | 5.0 | | 3.0 | 5.0 | | | 3.0 | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | | 1126 | | 48 | 2382 | | | 25 | | 338 | 304 | |
| v/s Ratio Prot | | c0.46 | | c0.02 | 0.12 | | | c0.00 | | c0.17 | 0.02 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | | 0.75 | | 0.56 | 0.18 | | | 0.01 | | 0.88 | 0.10 | |
| Uniform Delay, d1 | | 21.4 | | 72.1 | 9.1 | | | 72.7 | | 58.9 | 50.0 | |
| Progression Factor | | 0.74 | | 1.00 | 0.75 | | | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | | 4.2 | | 14.2 | 0.2 | | | 0.2 | | 21.5 | 0.2 | |
| Delay (s) | | 20.1 | | 86.1 | 7.0 | | | 73.0 | | 80.4 | 50.2 | |
| Level of Service | | C | | F | A | | | E | | F | D | |
| Approach Delay (s) | | 20.1 | | | 11.7 | | | 73.0 | | | 72.2 | |
| Approach LOS | | C | | | B | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 30.9 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.76 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 24.0 |
| Intersection Capacity Utilization | 72.8% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

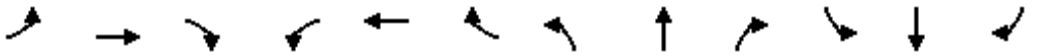
| Movement | EBU | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 1 | 40 | 957 | 0 | 64 | 363 | 43 | 0 | 0 | 0 | 55 | 5 |
| Future Volume (vph) | 1 | 40 | 957 | 0 | 64 | 363 | 43 | 0 | 0 | 0 | 55 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.5 |
| Lane Util. Factor | | 1.00 | 1.00 | | 1.00 | 0.95 | | | | | | 1.00 |
| Frpb, ped/bikes | | 1.00 | 1.00 | | 1.00 | 0.99 | | | | | | 1.00 |
| Flpb, ped/bikes | | 0.99 | 1.00 | | 1.00 | 1.00 | | | | | | 1.00 |
| Frt | | 1.00 | 1.00 | | 1.00 | 0.98 | | | | | | 1.00 |
| Flt Protected | | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.96 |
| Satd. Flow (prot) | | 1743 | 1863 | | 1770 | 3460 | | | | | | 1781 |
| Flt Permitted | | 0.50 | 1.00 | | 0.95 | 1.00 | | | | | | 0.96 |
| Satd. Flow (perm) | | 919 | 1863 | | 1770 | 3460 | | | | | | 1781 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 1 | 43 | 1018 | 0 | 68 | 386 | 46 | 0 | 0 | 0 | 59 | 5 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 44 | 1018 | 0 | 68 | 425 | 0 | 0 | 0 | 0 | 0 | 64 |
| Confl. Peds. (#/hr) | | 8 | | 5 | 5 | | 8 | | | | 2 | |
| Confl. Bikes (#/hr) | | | | 13 | | | 21 | | | | | |
| Turn Type | custom | Prot | NA | | Prot | NA | | | | | Split | NA |
| Protected Phases | | 1 | 6 | | 5 | 2 | | | | | 4 | 4 |
| Permitted Phases | 1 | | | | | | | | | | | |
| Actuated Green, G (s) | | 48.2 | 115.3 | | 8.4 | 75.5 | | | | | | 9.5 |
| Effective Green, g (s) | | 48.2 | 115.9 | | 8.4 | 76.1 | | | | | | 9.7 |
| Actuated g/C Ratio | | 0.32 | 0.77 | | 0.06 | 0.51 | | | | | | 0.06 |
| Clearance Time (s) | | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.7 |
| Vehicle Extension (s) | | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 |
| Lane Grp Cap (vph) | | 295 | 1439 | | 99 | 1755 | | | | | | 115 |
| v/s Ratio Prot | | | c0.55 | | c0.04 | 0.12 | | | | | | c0.04 |
| v/s Ratio Perm | | 0.05 | | | | | | | | | | |
| v/c Ratio | | 0.15 | 0.71 | | 0.69 | 0.24 | | | | | | 0.56 |
| Uniform Delay, d1 | | 36.3 | 8.5 | | 69.5 | 20.8 | | | | | | 68.1 |
| Progression Factor | | 0.83 | 0.59 | | 1.31 | 0.77 | | | | | | 1.00 |
| Incremental Delay, d2 | | 0.1 | 2.1 | | 14.5 | 0.1 | | | | | | 4.6 |
| Delay (s) | | 30.1 | 7.2 | | 105.6 | 15.9 | | | | | | 72.7 |
| Level of Service | | C | A | | F | B | | | | | | E |
| Approach Delay (s) | | | 8.2 | | | 28.1 | | | 0.0 | | | 69.7 |
| Approach LOS | | | A | | | C | | | A | | | E |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 18.3 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.69 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 16.0 |
| Intersection Capacity Utilization | 69.0% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

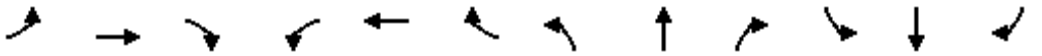
| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 47 |
| Future Volume (vph) | 47 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | 5.5 |
| Lane Util. Factor | 1.00 |
| Frpb, ped/bikes | 1.00 |
| Flpb, ped/bikes | 1.00 |
| Frt | 0.85 |
| Flt Protected | 1.00 |
| Satd. Flow (prot) | 1583 |
| Flt Permitted | 1.00 |
| Satd. Flow (perm) | 1583 |
| Peak-hour factor, PHF | 0.94 |
| Adj. Flow (vph) | 50 |
| RTOR Reduction (vph) | 47 |
| Lane Group Flow (vph) | 3 |
| Confl. Peds. (#/hr) | |
| Confl. Bikes (#/hr) | |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 4 |
| Actuated Green, G (s) | 9.5 |
| Effective Green, g (s) | 9.7 |
| Actuated g/C Ratio | 0.06 |
| Clearance Time (s) | 5.7 |
| Vehicle Extension (s) | 2.5 |
| Lane Grp Cap (vph) | 102 |
| v/s Ratio Prot | |
| v/s Ratio Perm | 0.00 |
| v/c Ratio | 0.03 |
| Uniform Delay, d1 | 65.7 |
| Progression Factor | 1.00 |
| Incremental Delay, d2 | 0.1 |
| Delay (s) | 65.8 |
| Level of Service | E |
| Approach Delay (s) | |
| Approach LOS | |

| Intersection Summary |
|---|



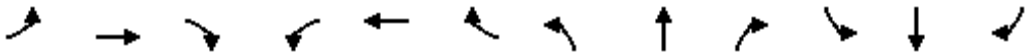
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 30 | 953 | 23 | 12 | 425 | 38 | 6 | 3 | 12 | 41 | 11 | 38 |
| Future Volume (vph) | 30 | 953 | 23 | 12 | 425 | 38 | 6 | 3 | 12 | 41 | 11 | 38 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2100 | 2100 | 1900 | 2100 | 2100 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.7 | 5.7 | | 5.7 | 5.7 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | 1.00 | | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Frt | 1.00 | 0.80 | | 1.00 | 0.99 | | | 1.00 | 0.85 | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | 1.00 | | 0.96 | 1.00 |
| Satd. Flow (prot) | 1770 | 2817 | | 1770 | 3479 | | | 1990 | 1750 | | 1981 | 1716 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.81 | 1.00 | | 0.77 | 1.00 |
| Satd. Flow (perm) | 1770 | 2817 | | 1770 | 3479 | | | 500 | 1750 | | 1577 | 1716 |
| Peak-hour factor, PHF | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Adj. Flow (vph) | 32 | 1025 | 25 | 13 | 457 | 41 | 6 | 3 | 13 | 44 | 12 | 41 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 12 | 0 | 0 | 38 |
| Lane Group Flow (vph) | 32 | 1049 | 0 | 13 | 495 | 0 | 0 | 9 | 1 | 0 | 56 | 3 |
| Confl. Peds. (#/hr) | 7 | | 6 | 6 | | 7 | 1 | | | | | 1 |
| Confl. Bikes (#/hr) | | | 22 | | | 22 | | | | | | 2 |
| Bus Blockages (#/hr) | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | 8 | 4 | | 4 |
| Actuated Green, G (s) | 5.0 | 118.6 | | 3.2 | 116.8 | | | 11.4 | 11.4 | | 11.4 | 11.4 |
| Effective Green, g (s) | 5.0 | 119.2 | | 3.2 | 117.4 | | | 11.4 | 11.4 | | 11.4 | 11.4 |
| Actuated g/C Ratio | 0.03 | 0.79 | | 0.02 | 0.78 | | | 0.08 | 0.08 | | 0.08 | 0.08 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.7 | 5.7 | | 5.7 | 5.7 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | 2.5 | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 59 | 2238 | | 37 | 2722 | | | 38 | 133 | | 119 | 130 |
| v/s Ratio Prot | c0.02 | c0.37 | | 0.01 | 0.14 | | | | | | | |
| v/s Ratio Perm | | | | | | | | 0.02 | 0.00 | | c0.04 | 0.00 |
| v/c Ratio | 0.54 | 0.47 | | 0.35 | 0.18 | | | 0.24 | 0.01 | | 0.47 | 0.02 |
| Uniform Delay, d1 | 71.4 | 5.0 | | 72.4 | 4.1 | | | 65.2 | 64.1 | | 66.4 | 64.2 |
| Progression Factor | 1.09 | 1.72 | | 0.85 | 1.10 | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Incremental Delay, d2 | 4.0 | 0.5 | | 1.9 | 0.1 | | | 2.3 | 0.0 | | 2.1 | 0.1 |
| Delay (s) | 81.5 | 9.2 | | 63.4 | 4.7 | | | 67.5 | 64.1 | | 68.5 | 64.2 |
| Level of Service | F | A | | E | A | | | E | E | | E | E |
| Approach Delay (s) | | 11.3 | | | 6.2 | | | 65.5 | | | 66.7 | |
| Approach LOS | | B | | | A | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 13.6 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.48 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 16.2 |
| Intersection Capacity Utilization | 54.2% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 54 | 946 | 5 | 14 | 424 | 165 | 4 | 8 | 11 | 425 | 11 | 93 |
| Future Volume (vph) | 54 | 946 | 5 | 14 | 424 | 165 | 4 | 8 | 11 | 425 | 11 | 93 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.5 | 5.5 | | 5.5 | 5.5 | | 5.6 | 5.6 | | 5.5 | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 1.00 | 1.00 | | 0.95 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.98 | | 1.00 | 0.98 | | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.96 | | 1.00 | 0.91 | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.96 | 1.00 |
| Satd. Flow (prot) | 1770 | 3521 | | 1770 | 3310 | | 1770 | 1677 | | 1681 | 1691 | 1552 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.96 | 1.00 |
| Satd. Flow (perm) | 1770 | 3521 | | 1770 | 3310 | | 1770 | 1677 | | 1681 | 1691 | 1552 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 57 | 1006 | 5 | 15 | 451 | 176 | 4 | 9 | 12 | 452 | 12 | 99 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 57 | 1011 | 0 | 15 | 627 | 0 | 4 | 21 | 0 | 285 | 179 | 99 |
| Confl. Peds. (#/hr) | 11 | | 12 | 12 | | 11 | 3 | | 7 | 7 | | 3 |
| Confl. Bikes (#/hr) | | | 15 | | | 14 | | | 2 | | | 3 |
| Bus Blockages (#/hr) | 0 | 2 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Split | NA | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | 4 |
| Actuated Green, G (s) | 9.0 | 64.8 | | 4.8 | 60.6 | | 26.0 | 26.0 | | 31.1 | 31.1 | 31.1 |
| Effective Green, g (s) | 9.0 | 65.4 | | 4.8 | 61.2 | | 26.0 | 26.0 | | 31.7 | 31.7 | 31.7 |
| Actuated g/C Ratio | 0.06 | 0.44 | | 0.03 | 0.41 | | 0.17 | 0.17 | | 0.21 | 0.21 | 0.21 |
| Clearance Time (s) | 5.5 | 6.1 | | 5.5 | 6.1 | | 5.6 | 5.6 | | 6.1 | 6.1 | 6.1 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 1.0 | | 2.5 | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 106 | 1535 | | 56 | 1350 | | 306 | 290 | | 355 | 357 | 327 |
| v/s Ratio Prot | c0.03 | c0.29 | | 0.01 | 0.19 | | 0.00 | c0.01 | | c0.17 | 0.11 | |
| v/s Ratio Perm | | | | | | | | | | | | 0.06 |
| v/c Ratio | 0.54 | 0.66 | | 0.27 | 0.46 | | 0.01 | 0.07 | | 0.80 | 0.50 | 0.30 |
| Uniform Delay, d1 | 68.5 | 33.5 | | 70.9 | 32.4 | | 51.4 | 51.9 | | 56.2 | 52.2 | 49.8 |
| Progression Factor | 1.13 | 0.64 | | 1.69 | 0.34 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 2.4 | 2.0 | | 0.9 | 1.1 | | 0.0 | 0.0 | | 12.0 | 0.8 | 0.4 |
| Delay (s) | 79.8 | 23.3 | | 120.8 | 12.1 | | 51.4 | 51.9 | | 68.2 | 53.0 | 50.2 |
| Level of Service | E | C | | F | B | | D | D | | E | D | D |
| Approach Delay (s) | | 26.3 | | | 14.7 | | | 51.9 | | | 60.2 | |
| Approach LOS | | C | | | B | | | D | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 31.7 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.58 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 22.1 |
| Intersection Capacity Utilization | 72.1% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 22 | 1325 | 36 | 20 | 543 | 58 | 0 | 0 | 0 | 44 | 3 | 23 |
| Future Volume (vph) | 22 | 1325 | 36 | 20 | 543 | 58 | 0 | 0 | 0 | 44 | 3 | 23 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.6 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | | | | | 0.99 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | | | | 0.99 | |
| Frt | 1.00 | 1.00 | | 1.00 | 0.99 | | | | | | 0.96 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.97 | |
| Satd. Flow (prot) | 1770 | 3490 | | 1770 | 3439 | | | | | | 1700 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.97 | |
| Satd. Flow (perm) | 1770 | 3490 | | 1770 | 3439 | | | | | | 1700 | |
| Peak-hour factor, PHF | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Adj. Flow (vph) | 24 | 1456 | 40 | 22 | 597 | 64 | 0 | 0 | 0 | 48 | 3 | 25 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 12 | 0 |
| Lane Group Flow (vph) | 24 | 1495 | 0 | 22 | 657 | 0 | 0 | 0 | 0 | 0 | 64 | 0 |
| Confl. Peds. (#/hr) | 9 | | 8 | 8 | | 9 | 8 | | 5 | 5 | | 8 |
| Confl. Bikes (#/hr) | | | 19 | | | 16 | | | 4 | | | 1 |
| Bus Blockages (#/hr) | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | | | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | | | | 4 | |
| Permitted Phases | | | | | | | | | | 4 | | |
| Actuated Green, G (s) | 4.8 | 104.0 | | 4.3 | 103.5 | | | | | | 25.0 | |
| Effective Green, g (s) | 4.8 | 104.6 | | 4.3 | 104.1 | | | | | | 25.0 | |
| Actuated g/C Ratio | 0.03 | 0.70 | | 0.03 | 0.69 | | | | | | 0.17 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.6 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 | |
| Lane Grp Cap (vph) | 56 | 2433 | | 50 | 2386 | | | | | | 283 | |
| v/s Ratio Prot | c0.01 | c0.43 | | 0.01 | 0.19 | | | | | | | |
| v/s Ratio Perm | | | | | | | | | | | 0.04 | |
| v/c Ratio | 0.43 | 0.61 | | 0.44 | 0.28 | | | | | | 0.23 | |
| Uniform Delay, d1 | 71.3 | 12.0 | | 71.7 | 8.7 | | | | | | 54.1 | |
| Progression Factor | 1.09 | 0.52 | | 0.90 | 1.53 | | | | | | 1.00 | |
| Incremental Delay, d2 | 1.5 | 0.9 | | 1.9 | 0.2 | | | | | | 0.3 | |
| Delay (s) | 79.4 | 7.2 | | 66.7 | 13.5 | | | | | | 54.4 | |
| Level of Service | E | A | | E | B | | | | | | D | |
| Approach Delay (s) | | 8.3 | | | 15.2 | | | 0.0 | | | 54.4 | |
| Approach LOS | | A | | | B | | | A | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 11.9 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.54 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 60.3% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 74 | 845 | 407 | 219 | 423 | 176 | 217 | 314 | 259 | 212 | 535 | 58 |
| Future Volume (vph) | 74 | 845 | 407 | 219 | 423 | 176 | 217 | 314 | 259 | 212 | 535 | 58 |
| Ideal Flow (vphpl) | 1900 | 2100 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | 5.0 | 5.1 | | 5.0 | 5.1 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 0.97 | 0.95 | | 1.00 | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.98 | | 1.00 | 0.98 | | 1.00 | 0.97 | | 1.00 | 0.99 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frt | 1.00 | 0.95 | | 1.00 | 0.96 | | 1.00 | 0.93 | | 1.00 | 0.99 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 3643 | | 1770 | 3326 | | 3433 | 3188 | | 1770 | 3467 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | 1770 | 3643 | | 1770 | 3326 | | 3433 | 3188 | | 1770 | 3467 | |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 79 | 899 | 433 | 233 | 450 | 187 | 231 | 334 | 276 | 226 | 569 | 62 |
| RTOR Reduction (vph) | 0 | 37 | 0 | 0 | 28 | 0 | 0 | 103 | 0 | 0 | 6 | 0 |
| Lane Group Flow (vph) | 79 | 1295 | 0 | 233 | 609 | 0 | 231 | 507 | 0 | 226 | 625 | 0 |
| Confl. Peds. (#/hr) | 23 | | 31 | 31 | | 23 | 29 | | 37 | 37 | | 29 |
| Confl. Bikes (#/hr) | | | 18 | | | 14 | | | 13 | | | 12 |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | 11.4 | 56.5 | | 21.2 | 66.3 | | 12.7 | 30.2 | | 20.3 | 37.8 | |
| Effective Green, g (s) | 11.4 | 57.1 | | 21.2 | 66.9 | | 12.7 | 30.8 | | 20.3 | 38.4 | |
| Actuated g/C Ratio | 0.08 | 0.38 | | 0.14 | 0.45 | | 0.08 | 0.21 | | 0.14 | 0.26 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | 5.0 | 5.7 | | 5.0 | 5.7 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | |
| Lane Grp Cap (vph) | 134 | 1386 | | 250 | 1483 | | 290 | 654 | | 239 | 887 | |
| v/s Ratio Prot | 0.04 | c0.36 | | c0.13 | 0.18 | | 0.07 | c0.16 | | c0.13 | 0.18 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | 0.59 | 0.93 | | 0.93 | 0.41 | | 0.80 | 0.77 | | 0.95 | 0.70 | |
| Uniform Delay, d1 | 67.0 | 44.6 | | 63.7 | 28.2 | | 67.4 | 56.3 | | 64.3 | 50.7 | |
| Progression Factor | 1.05 | 1.01 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 3.4 | 10.9 | | 38.3 | 0.8 | | 13.2 | 5.5 | | 42.6 | 2.4 | |
| Delay (s) | 73.6 | 56.0 | | 102.0 | 29.0 | | 80.6 | 61.8 | | 106.9 | 53.0 | |
| Level of Service | E | E | | F | C | | F | E | | F | D | |
| Approach Delay (s) | | 57.0 | | | 48.6 | | | 67.0 | | | 67.2 | |
| Approach LOS | | E | | | D | | | E | | | E | |

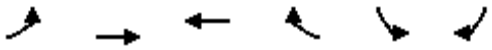
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 59.5 | HCM 2000 Level of Service | E |
| HCM 2000 Volume to Capacity ratio | 0.90 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 20.6 |
| Intersection Capacity Utilization | 100.5% | ICU Level of Service | G |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 16 | 52 | 34 | 458 | 22 | 489 | 15 | 1228 | 252 | 213 | 587 | 19 |
| Future Volume (vph) | 16 | 52 | 34 | 458 | 22 | 489 | 15 | 1228 | 252 | 213 | 587 | 19 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Lane Util. Factor | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | | 1.00 | 0.93 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | | 1841 | 1472 | 1681 | 1693 | 1558 | 1770 | 3539 | 1533 | 1770 | 3539 | 1549 |
| Flt Permitted | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | | 1841 | 1472 | 1681 | 1693 | 1558 | 1770 | 3539 | 1533 | 1770 | 3539 | 1549 |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 17 | 54 | 35 | 477 | 23 | 509 | 16 | 1279 | 262 | 222 | 611 | 20 |
| RTOR Reduction (vph) | 0 | 0 | 31 | 0 | 0 | 398 | 0 | 0 | 125 | 0 | 0 | 10 |
| Lane Group Flow (vph) | 0 | 71 | 4 | 248 | 252 | 111 | 16 | 1279 | 138 | 222 | 611 | 10 |
| Confl. Peds. (#/hr) | 2 | | 3 | 3 | | 2 | | | | | | |
| Confl. Bikes (#/hr) | | | 25 | | | 1 | | | 12 | | | 2 |
| Turn Type | Split | NA | Perm | Split | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 4 | 4 | | 3 | 3 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 3 | | | 2 | | | 6 |
| Actuated Green, G (s) | | 15.3 | 15.3 | 32.8 | 32.8 | 32.8 | 3.4 | 56.9 | 56.9 | 24.0 | 77.7 | 77.7 |
| Effective Green, g (s) | | 15.3 | 15.3 | 32.8 | 32.8 | 32.8 | 3.4 | 56.9 | 56.9 | 24.0 | 77.7 | 77.7 |
| Actuated g/C Ratio | | 0.10 | 0.10 | 0.22 | 0.22 | 0.22 | 0.02 | 0.38 | 0.38 | 0.16 | 0.52 | 0.52 |
| Clearance Time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Vehicle Extension (s) | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 |
| Lane Grp Cap (vph) | | 187 | 150 | 367 | 370 | 340 | 40 | 1342 | 581 | 283 | 1833 | 802 |
| v/s Ratio Prot | | c0.04 | | 0.15 | c0.15 | | 0.01 | c0.36 | | c0.13 | 0.17 | |
| v/s Ratio Perm | | | 0.00 | | | 0.07 | | | 0.09 | | | 0.01 |
| v/c Ratio | | 0.38 | 0.02 | 0.68 | 0.68 | 0.33 | 0.40 | 0.95 | 0.24 | 0.78 | 0.33 | 0.01 |
| Uniform Delay, d1 | | 62.9 | 60.6 | 53.7 | 53.8 | 49.3 | 72.3 | 45.3 | 31.7 | 60.5 | 21.1 | 17.5 |
| 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 | | 1.8 | 0.1 | 5.3 | 5.5 | 0.8 | 6.4 | 15.6 | 1.0 | 13.3 | 0.1 | 0.0 |
| Delay (s) | | 64.7 | 60.7 | 59.0 | 59.3 | 50.1 | 78.7 | 60.9 | 32.7 | 73.8 | 21.2 | 17.6 |
| Level of Service | | E | E | E | E | D | E | E | C | E | C | B |
| Approach Delay (s) | | 63.4 | | | 54.6 | | | 56.3 | | | 34.8 | |
| Approach LOS | | E | | | D | | | E | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 50.8 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.78 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 21.0 |
| Intersection Capacity Utilization | 87.1% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

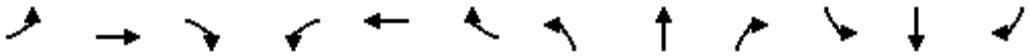
c Critical Lane Group



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↑ | ↱ | ↰ | ↱ |
| Traffic Volume (veh/h) | 0 | 517 | 934 | 133 | 87 | 31 |
| Future Volume (Veh/h) | 0 | 517 | 934 | 133 | 87 | 31 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 562 | 1015 | 145 | 95 | 34 |
| Pedestrians | | 1 | | | 4 | |
| Lane Width (ft) | | 12.0 | | | 12.0 | |
| Walking Speed (ft/s) | | 4.0 | | | 4.0 | |
| Percent Blockage | | 0 | | | 0 | |
| Right turn flare (veh) | | | | | | 7 |
| Median type | | Raised | None | | | |
| Median storage veh) | | 2 | | | | |
| Upstream signal (ft) | | 171 | | | | |
| pX, platoon unblocked | | | | | 0.97 | |
| vC, conflicting volume | 1164 | | | | 1581 | 1020 |
| vC1, stage 1 conf vol | | | | | 1019 | |
| vC2, stage 2 conf vol | | | | | 562 | |
| vCu, unblocked vol | 1164 | | | | 1583 | 1020 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | 5.4 | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 100 | | | | 69 | 88 |
| cM capacity (veh/h) | 598 | | | | 306 | 286 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 562 | 1015 | 145 | 129 |
| Volume Left | 0 | 0 | 0 | 95 |
| Volume Right | 0 | 0 | 145 | 34 |
| cSH | 1700 | 1700 | 1700 | 415 |
| Volume to Capacity | 0.33 | 0.60 | 0.09 | 0.31 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 33 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 21.3 |
| Lane LOS | | | | C |
| Approach Delay (s) | 0.0 | 0.0 | | 21.3 |
| Approach LOS | | | | C |

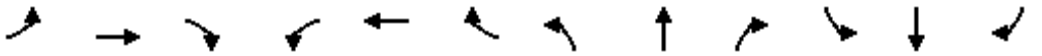
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.5 | | |
| Intersection Capacity Utilization | 60.9% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 28 | 547 | 11 | 14 | 892 | 36 | 28 | 3 | 53 | 54 | 0 | 55 |
| Future Volume (Veh/h) | 28 | 547 | 11 | 14 | 892 | 36 | 28 | 3 | 53 | 54 | 0 | 55 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Hourly flow rate (vph) | 30 | 588 | 12 | 15 | 959 | 39 | 30 | 3 | 57 | 58 | 0 | 59 |
| Pedestrians | | 1 | | | 41 | | | 34 | | | 9 | |
| Lane Width (ft) | | 12.0 | | | 12.0 | | | 12.0 | | | 12.0 | |
| Walking Speed (ft/s) | | 4.0 | | | 4.0 | | | 4.0 | | | 4.0 | |
| Percent Blockage | | 0 | | | 3 | | | 3 | | | 1 | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | 1198 | | | 1012 | | | | | | | |
| pX, platoon unblocked | 0.67 | | | | | | 0.67 | 0.67 | | 0.67 | 0.67 | 0.67 |
| vC, conflicting volume | 1007 | | | 634 | | | 1737 | 1725 | 669 | 1765 | 1712 | 988 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 762 | | | 634 | | | 1855 | 1837 | 669 | 1897 | 1816 | 735 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| 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 % | 95 | | | 98 | | | 0 | 93 | 87 | 0 | 100 | 79 |
| cM capacity (veh/h) | 564 | | | 922 | | | 27 | 45 | 429 | 26 | 47 | 278 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 30 | 600 | 15 | 998 | 90 | 117 |
| Volume Left | 30 | 0 | 15 | 0 | 30 | 58 |
| Volume Right | 0 | 12 | 0 | 39 | 57 | 59 |
| cSH | 564 | 1700 | 922 | 1700 | 68 | 47 |
| Volume to Capacity | 0.05 | 0.35 | 0.02 | 0.59 | 1.32 | 2.47 |
| Queue Length 95th (ft) | 4 | 0 | 1 | 0 | 184 | 307 |
| Control Delay (s) | 11.7 | 0.0 | 9.0 | 0.0 | 322.7 | 850.4 |
| Lane LOS | B | | A | | F | F |
| Approach Delay (s) | 0.6 | | 0.1 | | 322.7 | 850.4 |
| Approach LOS | | | | | F | F |

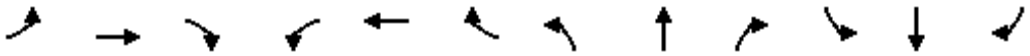
| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 69.7 | | | |
| Intersection Capacity Utilization | 67.7% | ICU Level of Service | C | |
| Analysis Period (min) | 15 | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 70 | 594 | 3 | 2 | 854 | 209 | 24 | 12 | 11 | 123 | 10 | 88 |
| Future Volume (vph) | 70 | 594 | 3 | 2 | 854 | 209 | 24 | 12 | 11 | 123 | 10 | 88 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.6 | | | 5.6 | 5.6 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.98 | | | 0.99 | | | 1.00 | 0.92 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 0.97 | | | 0.97 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.97 | | | 0.97 | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | | | 0.96 | 1.00 |
| Satd. Flow (prot) | 1770 | 1860 | | 1770 | 3350 | | | 1692 | | | 1730 | 1457 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.79 | | | 0.74 | 1.00 |
| Satd. Flow (perm) | 1770 | 1860 | | 1770 | 3350 | | | 1374 | | | 1333 | 1457 |
| Peak-hour factor, PHF | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Adj. Flow (vph) | 84 | 716 | 4 | 2 | 1029 | 252 | 29 | 14 | 13 | 148 | 12 | 106 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 9 | 0 | 0 | 0 | 58 |
| Lane Group Flow (vph) | 84 | 720 | 0 | 2 | 1267 | 0 | 0 | 47 | 0 | 0 | 160 | 48 |
| Confl. Peds. (#/hr) | 33 | | 18 | 18 | | 33 | 48 | | 14 | 14 | | 48 |
| Confl. Bikes (#/hr) | | | 114 | | | 10 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 |
| Actuated Green, G (s) | 10.2 | 87.5 | | 1.4 | 78.7 | | | 24.4 | | | 24.4 | 24.4 |
| Effective Green, g (s) | 10.2 | 88.1 | | 1.4 | 79.3 | | | 24.4 | | | 24.4 | 24.4 |
| Actuated g/C Ratio | 0.08 | 0.68 | | 0.01 | 0.61 | | | 0.19 | | | 0.19 | 0.19 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | 5.6 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 138 | 1260 | | 19 | 2043 | | | 257 | | | 250 | 273 |
| v/s Ratio Prot | c0.05 | 0.39 | | 0.00 | c0.38 | | | | | | | |
| v/s Ratio Perm | | | | | | | | 0.03 | | | c0.12 | 0.03 |
| v/c Ratio | 0.61 | 0.57 | | 0.11 | 0.62 | | | 0.18 | | | 0.64 | 0.17 |
| Uniform Delay, d1 | 58.0 | 11.0 | | 63.7 | 15.9 | | | 44.4 | | | 48.7 | 44.3 |
| Progression Factor | 1.00 | 1.00 | | 1.38 | 0.24 | | | 1.00 | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 5.1 | 1.9 | | 0.8 | 1.3 | | | 0.3 | | | 4.9 | 0.2 |
| Delay (s) | 63.1 | 12.9 | | 88.7 | 5.1 | | | 44.7 | | | 53.6 | 44.6 |
| Level of Service | E | B | | F | A | | | D | | | D | D |
| Approach Delay (s) | | 18.1 | | | 5.2 | | | 44.7 | | | 50.0 | |
| Approach LOS | | B | | | A | | | D | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 15.4 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.62 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 76.7% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

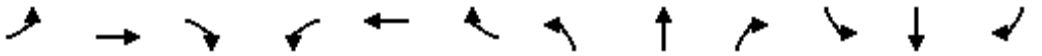
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 720 | 3 | 10 | 916 | 0 | 4 | 0 | 30 | 147 | 2 | 143 |
| Future Volume (vph) | 0 | 720 | 3 | 10 | 916 | 0 | 4 | 0 | 30 | 147 | 2 | 143 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | 6.0 | 6.0 | |
| Lane Util. Factor | | 1.00 | | 1.00 | 0.95 | | | 1.00 | | 1.00 | 1.00 | |
| Frpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 0.97 | |
| Flpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 1.00 | |
| Frt | | 1.00 | | 1.00 | 1.00 | | | 0.88 | | 1.00 | 0.85 | |
| Flt Protected | | 1.00 | | 0.95 | 1.00 | | | 0.99 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | | 1860 | | 1770 | 3539 | | | 1631 | | 1770 | 1546 | |
| Flt Permitted | | 1.00 | | 0.95 | 1.00 | | | 0.99 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | | 1860 | | 1770 | 3539 | | | 1631 | | 1770 | 1546 | |
| Peak-hour factor, PHF | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Adj. Flow (vph) | 0 | 923 | 4 | 13 | 1174 | 0 | 5 | 0 | 38 | 188 | 3 | 183 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 | 0 | 0 | 151 | 0 |
| Lane Group Flow (vph) | 0 | 927 | 0 | 13 | 1174 | 0 | 0 | 1 | 0 | 188 | 35 | 0 |
| Confl. Peds. (#/hr) | 52 | | 17 | 17 | | 52 | 10 | | | | | 10 |
| Confl. Bikes (#/hr) | | | 137 | | | 11 | | | | | | |
| Turn Type | | NA | | Prot | NA | | Split | NA | | Split | NA | |
| Protected Phases | | 2 | | 1 | 6 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | | 82.6 | | 3.0 | 90.6 | | | 4.4 | | 19.0 | 19.0 | |
| Effective Green, g (s) | | 82.6 | | 2.0 | 90.6 | | | 3.4 | | 18.0 | 18.0 | |
| Actuated g/C Ratio | | 0.64 | | 0.02 | 0.70 | | | 0.03 | | 0.14 | 0.14 | |
| Clearance Time (s) | | 6.0 | | 5.0 | 6.0 | | | 5.0 | | 5.0 | 5.0 | |
| Vehicle Extension (s) | | 5.0 | | 3.0 | 5.0 | | | 3.0 | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | | 1181 | | 27 | 2466 | | | 42 | | 245 | 214 | |
| v/s Ratio Prot | | c0.50 | | 0.01 | c0.33 | | | c0.00 | | c0.11 | 0.02 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | | 0.78 | | 0.48 | 0.48 | | | 0.03 | | 0.77 | 0.16 | |
| Uniform Delay, d1 | | 17.2 | | 63.5 | 8.9 | | | 61.7 | | 54.0 | 49.4 | |
| Progression Factor | | 0.86 | | 1.41 | 0.16 | | | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | | 4.6 | | 10.7 | 0.5 | | | 0.3 | | 13.4 | 0.4 | |
| Delay (s) | | 19.4 | | 100.3 | 2.0 | | | 61.9 | | 67.4 | 49.7 | |
| Level of Service | | B | | F | A | | | E | | E | D | |
| Approach Delay (s) | | 19.4 | | | 3.1 | | | 61.9 | | | 58.6 | |
| Approach LOS | | B | | | A | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 18.3 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.77 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 24.0 |
| Intersection Capacity Utilization | 64.8% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

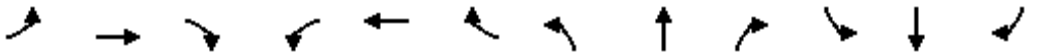
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 111 | 604 | 0 | 143 | 807 | 265 | 0 | 0 | 0 | 107 | 12 | 106 |
| Future Volume (vph) | 111 | 604 | 0 | 143 | 807 | 265 | 0 | 0 | 0 | 107 | 12 | 106 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.98 | | | | | | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | | | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.96 | | | | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.96 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | | 1770 | 3347 | | | | | | 1782 | 1583 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.96 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | | 1770 | 3347 | | | | | | 1782 | 1583 |
| Peak-hour factor, PHF | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 |
| Adj. Flow (vph) | 152 | 827 | 0 | 196 | 1105 | 363 | 0 | 0 | 0 | 147 | 16 | 145 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 105 |
| Lane Group Flow (vph) | 152 | 827 | 0 | 196 | 1451 | 0 | 0 | 0 | 0 | 0 | 163 | 40 |
| Confl. Peds. (#/hr) | 16 | | 27 | 27 | | 16 | | | 1 | 1 | | |
| Confl. Bikes (#/hr) | | | 66 | | | 11 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | | | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | | | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | 4 |
| Actuated Green, G (s) | 14.4 | 78.0 | | 20.1 | 83.7 | | | | | | 15.1 | 15.1 |
| Effective Green, g (s) | 14.4 | 78.6 | | 20.1 | 84.3 | | | | | | 15.3 | 15.3 |
| Actuated g/C Ratio | 0.11 | 0.60 | | 0.15 | 0.65 | | | | | | 0.12 | 0.12 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.7 | 5.7 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 196 | 1126 | | 273 | 2170 | | | | | | 209 | 186 |
| v/s Ratio Prot | 0.09 | c0.44 | | 0.11 | c0.43 | | | | | | c0.09 | |
| v/s Ratio Perm | | | | | | | | | | | | 0.03 |
| v/c Ratio | 0.78 | 0.73 | | 0.72 | 0.67 | | | | | | 0.78 | 0.22 |
| Uniform Delay, d1 | 56.2 | 18.3 | | 52.3 | 14.2 | | | | | | 55.7 | 51.9 |
| Progression Factor | 0.87 | 0.65 | | 0.87 | 1.49 | | | | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 13.5 | 2.0 | | 4.9 | 1.1 | | | | | | 16.1 | 0.4 |
| Delay (s) | 62.2 | 13.9 | | 50.4 | 22.3 | | | | | | 71.8 | 52.3 |
| Level of Service | E | B | | D | C | | | | | | E | D |
| Approach Delay (s) | | 21.4 | | | 25.6 | | | 0.0 | | | 62.6 | |
| Approach LOS | | C | | | C | | | A | | | E | |

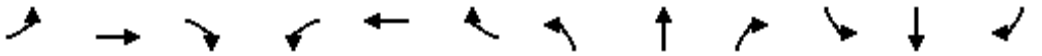
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 28.1 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.74 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.0 |
| Intersection Capacity Utilization | 66.3% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group



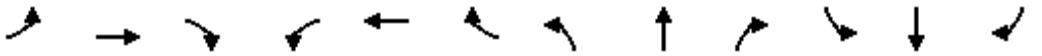
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 28 | 669 | 18 | 2 | 1002 | 126 | 64 | 4 | 19 | 167 | 3 | 135 |
| Future Volume (vph) | 28 | 669 | 18 | 2 | 1002 | 126 | 64 | 4 | 19 | 167 | 3 | 135 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2100 | 2100 | 1900 | 2100 | 2100 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.7 | 5.7 | | 5.7 | 5.7 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | | 1.00 | 0.97 | | 1.00 | 0.96 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 0.99 | 1.00 | | 0.99 | 1.00 |
| Frt | 1.00 | 0.80 | | 1.00 | 0.98 | | | 1.00 | 0.85 | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.96 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 2811 | | 1770 | 3437 | | | 1937 | 1702 | | 1940 | 1682 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.36 | 1.00 | | 0.65 | 1.00 |
| Satd. Flow (perm) | 1770 | 2811 | | 1770 | 3437 | | | 500 | 1702 | | 1329 | 1682 |
| Peak-hour factor, PHF | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 |
| Adj. Flow (vph) | 41 | 970 | 26 | 3 | 1452 | 183 | 93 | 6 | 28 | 242 | 4 | 196 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 22 | 0 | 0 | 114 |
| Lane Group Flow (vph) | 41 | 995 | 0 | 3 | 1628 | 0 | 0 | 99 | 6 | 0 | 246 | 82 |
| Confl. Peds. (#/hr) | 24 | | 25 | 25 | | 24 | 19 | | 9 | 9 | | 19 |
| Confl. Bikes (#/hr) | | | 67 | | | 19 | | | 2 | | | |
| Bus Blockages (#/hr) | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | 8 | 4 | | 4 |
| Actuated Green, G (s) | 6.7 | 83.4 | | 1.6 | 78.3 | | | 28.2 | 28.2 | | 28.2 | 28.2 |
| Effective Green, g (s) | 6.7 | 84.0 | | 1.6 | 78.9 | | | 28.2 | 28.2 | | 28.2 | 28.2 |
| Actuated g/C Ratio | 0.05 | 0.65 | | 0.01 | 0.61 | | | 0.22 | 0.22 | | 0.22 | 0.22 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.7 | 5.7 | | 5.7 | 5.7 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | 2.5 | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 91 | 1816 | | 21 | 2085 | | | 108 | 369 | | 288 | 364 |
| v/s Ratio Prot | c0.02 | c0.35 | | 0.00 | c0.47 | | | | | | | |
| v/s Ratio Perm | | | | | | | | c0.20 | 0.00 | | 0.19 | 0.05 |
| v/c Ratio | 0.45 | 0.55 | | 0.14 | 0.78 | | | 0.92 | 0.02 | | 0.85 | 0.23 |
| Uniform Delay, d1 | 59.9 | 12.6 | | 63.5 | 19.1 | | | 49.8 | 40.0 | | 48.9 | 41.9 |
| Progression Factor | 1.12 | 0.73 | | 0.94 | 1.25 | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Incremental Delay, d2 | 1.0 | 0.9 | | 0.1 | 0.3 | | | 60.2 | 0.0 | | 20.8 | 0.2 |
| Delay (s) | 68.1 | 10.1 | | 60.1 | 24.1 | | | 110.0 | 40.0 | | 69.8 | 42.1 |
| Level of Service | E | B | | E | C | | | F | D | | E | D |
| Approach Delay (s) | | 12.4 | | | 24.1 | | | 94.5 | | | 57.5 | |
| Approach LOS | | B | | | C | | | F | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 27.7 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.80 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.2 |
| Intersection Capacity Utilization | 71.5% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



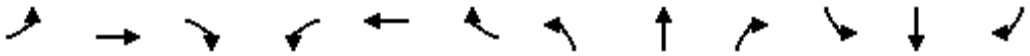
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 64 | 581 | 172 | 68 | 860 | 196 | 115 | 113 | 34 | 228 | 92 | 76 |
| Future Volume (vph) | 64 | 581 | 172 | 68 | 860 | 196 | 115 | 113 | 34 | 228 | 92 | 76 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.5 | 5.5 | | 5.5 | 5.5 | | 5.6 | 5.6 | | 5.5 | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 1.00 | 1.00 | | 0.95 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 0.92 | | 1.00 | 0.95 | | 1.00 | 0.93 | | 1.00 | 1.00 | 0.75 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.97 | | 1.00 | 0.97 | | 1.00 | 0.97 | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.98 | 1.00 |
| Satd. Flow (prot) | 1770 | 3128 | | 1770 | 3248 | | 1770 | 1677 | | 1681 | 1728 | 1183 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.98 | 1.00 |
| Satd. Flow (perm) | 1770 | 3128 | | 1770 | 3248 | | 1770 | 1677 | | 1681 | 1728 | 1183 |
| Peak-hour factor, PHF | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| Adj. Flow (vph) | 89 | 807 | 239 | 94 | 1194 | 272 | 160 | 157 | 47 | 317 | 128 | 106 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 89 | 1046 | 0 | 94 | 1466 | 0 | 160 | 204 | 0 | 200 | 245 | 106 |
| Confl. Peds. (#/hr) | 119 | | 180 | 180 | | 119 | 104 | | 189 | 189 | | 104 |
| Confl. Bikes (#/hr) | | | 10 | | | 22 | | | 4 | | | 117 |
| Bus Blockages (#/hr) | 0 | 2 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Split | NA | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | 4 |
| Actuated Green, G (s) | 11.5 | 43.6 | | 12.4 | 44.5 | | 25.4 | 25.4 | | 25.3 | 25.3 | 25.3 |
| Effective Green, g (s) | 11.5 | 44.2 | | 12.4 | 45.1 | | 25.4 | 25.4 | | 25.9 | 25.9 | 25.9 |
| Actuated g/C Ratio | 0.09 | 0.34 | | 0.10 | 0.35 | | 0.20 | 0.20 | | 0.20 | 0.20 | 0.20 |
| Clearance Time (s) | 5.5 | 6.1 | | 5.5 | 6.1 | | 5.6 | 5.6 | | 6.1 | 6.1 | 6.1 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 1.0 | | 2.5 | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 156 | 1063 | | 168 | 1126 | | 345 | 327 | | 334 | 344 | 235 |
| v/s Ratio Prot | 0.05 | 0.33 | | c0.05 | c0.45 | | 0.09 | c0.12 | | 0.12 | c0.14 | |
| v/s Ratio Perm | | | | | | | | | | | | 0.09 |
| v/c Ratio | 0.57 | 0.98 | | 0.56 | 1.30 | | 0.46 | 0.62 | | 0.60 | 0.71 | 0.45 |
| Uniform Delay, d1 | 56.9 | 42.5 | | 56.2 | 42.5 | | 46.3 | 47.9 | | 47.3 | 48.6 | 45.8 |
| Progression Factor | 1.25 | 0.75 | | 1.37 | 0.80 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 2.6 | 21.7 | | 1.3 | 139.6 | | 0.4 | 2.7 | | 2.4 | 6.4 | 1.0 |
| Delay (s) | 73.5 | 53.5 | | 78.0 | 173.4 | | 46.6 | 50.6 | | 49.7 | 54.9 | 46.8 |
| Level of Service | E | D | | E | F | | D | D | | D | D | D |
| Approach Delay (s) | | 55.1 | | | 167.7 | | | 48.8 | | | 51.5 | |
| Approach LOS | | E | | | F | | | D | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 102.6 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 0.93 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 22.1 |
| Intersection Capacity Utilization | 103.3% | ICU Level of Service | G |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 112 | 731 | 96 | 53 | 1132 | 94 | 0 | 0 | 0 | 47 | 60 | 51 |
| Future Volume (vph) | 112 | 731 | 96 | 53 | 1132 | 94 | 0 | 0 | 0 | 47 | 60 | 51 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.6 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.96 | | 1.00 | 0.99 | | | | | | 0.94 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | | | | 0.94 | |
| Frt | 1.00 | 0.98 | | 1.00 | 0.99 | | | | | | 0.96 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.99 | |
| Satd. Flow (prot) | 1770 | 3307 | | 1770 | 3453 | | | | | | 1557 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.99 | |
| Satd. Flow (perm) | 1770 | 3307 | | 1770 | 3453 | | | | | | 1557 | |
| Peak-hour factor, PHF | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| Adj. Flow (vph) | 149 | 975 | 128 | 71 | 1509 | 125 | 0 | 0 | 0 | 63 | 80 | 68 |
| RTOR Reduction (vph) | 0 | 7 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 14 | 0 |
| Lane Group Flow (vph) | 149 | 1096 | 0 | 71 | 1629 | 0 | 0 | 0 | 0 | 0 | 197 | 0 |
| Confl. Peds. (#/hr) | 10 | | 73 | 73 | | 10 | 102 | | 128 | 128 | | 102 |
| Confl. Bikes (#/hr) | | | 11 | | | 25 | | | | | | 10 |
| Bus Blockages (#/hr) | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | | | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | | | | 4 | |
| Permitted Phases | | | | | | | | | | 4 | | |
| Actuated Green, G (s) | 13.5 | 80.8 | | 7.2 | 74.5 | | | | | | 25.3 | |
| Effective Green, g (s) | 13.5 | 81.4 | | 7.2 | 75.1 | | | | | | 25.3 | |
| Actuated g/C Ratio | 0.10 | 0.63 | | 0.06 | 0.58 | | | | | | 0.19 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.6 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 | |
| Lane Grp Cap (vph) | 183 | 2070 | | 98 | 1994 | | | | | | 303 | |
| v/s Ratio Prot | c0.08 | 0.33 | | 0.04 | c0.47 | | | | | | | |
| v/s Ratio Perm | | | | | | | | | | | 0.13 | |
| v/c Ratio | 0.81 | 0.53 | | 0.72 | 0.82 | | | | | | 0.65 | |
| Uniform Delay, d1 | 57.0 | 13.6 | | 60.4 | 22.0 | | | | | | 48.3 | |
| Progression Factor | 0.95 | 1.48 | | 1.33 | 0.55 | | | | | | 1.00 | |
| Incremental Delay, d2 | 14.2 | 0.6 | | 15.2 | 2.9 | | | | | | 4.4 | |
| Delay (s) | 68.5 | 20.6 | | 95.9 | 14.9 | | | | | | 52.7 | |
| Level of Service | E | C | | F | B | | | | | | D | |
| Approach Delay (s) | | 26.3 | | | 18.2 | | | 0.0 | | | 52.7 | |
| Approach LOS | | C | | | B | | | A | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 23.7 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.78 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 75.2% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 124 | 572 | 153 | 199 | 833 | 211 | 214 | 379 | 270 | 198 | 262 | 166 |
| Future Volume (vph) | 124 | 572 | 153 | 199 | 833 | 211 | 214 | 379 | 270 | 198 | 262 | 166 |
| Ideal Flow (vphpl) | 1900 | 2100 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | 5.0 | 5.1 | | 5.0 | 5.1 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 0.97 | 0.95 | | 1.00 | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.98 | | 1.00 | 0.99 | | 1.00 | 0.98 | | 1.00 | 0.98 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frt | 1.00 | 0.97 | | 1.00 | 0.97 | | 1.00 | 0.94 | | 1.00 | 0.94 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 3710 | | 1770 | 3384 | | 3433 | 3238 | | 1770 | 3251 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | 1770 | 3710 | | 1770 | 3384 | | 3433 | 3238 | | 1770 | 3251 | |
| Peak-hour factor, PHF | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Adj. Flow (vph) | 143 | 657 | 176 | 229 | 957 | 243 | 246 | 436 | 310 | 228 | 301 | 191 |
| RTOR Reduction (vph) | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 102 | 0 | 0 | 80 | 0 |
| Lane Group Flow (vph) | 143 | 816 | 0 | 229 | 1183 | 0 | 246 | 644 | 0 | 228 | 412 | 0 |
| Confl. Peds. (#/hr) | 37 | | 65 | 65 | | 37 | 44 | | 37 | 37 | | 44 |
| Confl. Bikes (#/hr) | | | 12 | | | 5 | | | 4 | | | 6 |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | 12.0 | 42.0 | | 19.4 | 49.4 | | 12.0 | 30.8 | | 16.0 | 34.8 | |
| Effective Green, g (s) | 12.0 | 42.6 | | 19.4 | 50.0 | | 12.0 | 31.4 | | 16.0 | 35.4 | |
| Actuated g/C Ratio | 0.09 | 0.33 | | 0.15 | 0.38 | | 0.09 | 0.24 | | 0.12 | 0.27 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | 5.0 | 5.7 | | 5.0 | 5.7 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | |
| Lane Grp Cap (vph) | 163 | 1215 | | 264 | 1301 | | 316 | 782 | | 217 | 885 | |
| v/s Ratio Prot | 0.08 | 0.22 | | c0.13 | c0.35 | | 0.07 | c0.20 | | c0.13 | c0.13 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | 0.88 | 0.67 | | 0.87 | 0.91 | | 0.78 | 0.82 | | 1.05 | 0.47 | |
| Uniform Delay, d1 | 58.3 | 37.7 | | 54.0 | 37.9 | | 57.7 | 46.7 | | 57.0 | 39.4 | |
| Progression Factor | 0.95 | 1.51 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 32.6 | 2.5 | | 23.8 | 11.0 | | 10.5 | 6.9 | | 75.1 | 0.3 | |
| Delay (s) | 88.1 | 59.5 | | 77.9 | 48.8 | | 68.2 | 53.5 | | 132.1 | 39.7 | |
| Level of Service | F | E | | E | D | | E | D | | F | D | |
| Approach Delay (s) | | 63.7 | | | 53.5 | | | 57.2 | | | 68.9 | |
| Approach LOS | | E | | | D | | | E | | | E | |

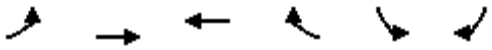
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 59.5 | HCM 2000 Level of Service | E |
| HCM 2000 Volume to Capacity ratio | 0.91 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 20.6 |
| Intersection Capacity Utilization | 93.9% | ICU Level of Service | F |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 6 | 23 | 14 | 332 | 24 | 187 | 18 | 521 | 269 | 366 | 1128 | 17 |
| Future Volume (vph) | 6 | 23 | 14 | 332 | 24 | 187 | 18 | 521 | 269 | 366 | 1128 | 17 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Lane Util. Factor | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | | 1.00 | 0.98 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | | 1844 | 1551 | 1681 | 1697 | 1534 | 1770 | 3539 | 1548 | 1770 | 3539 | 1546 |
| Flt Permitted | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | | 1844 | 1551 | 1681 | 1697 | 1534 | 1770 | 3539 | 1548 | 1770 | 3539 | 1546 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 6 | 24 | 15 | 353 | 26 | 199 | 19 | 554 | 286 | 389 | 1200 | 18 |
| RTOR Reduction (vph) | 0 | 0 | 14 | 0 | 0 | 165 | 0 | 0 | 192 | 0 | 0 | 8 |
| Lane Group Flow (vph) | 0 | 30 | 1 | 191 | 188 | 34 | 19 | 554 | 94 | 389 | 1200 | 10 |
| Confl. Peds. (#/hr) | 2 | | 2 | 2 | | 2 | | | | | | |
| Confl. Bikes (#/hr) | | | 2 | | | 13 | | | 2 | | | 5 |
| Turn Type | Split | NA | Perm | Split | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 4 | 4 | | 3 | 3 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 3 | | | 2 | | | 6 |
| Actuated Green, G (s) | | 8.4 | 8.4 | 20.7 | 20.7 | 20.7 | 3.4 | 39.6 | 39.6 | 30.3 | 66.7 | 66.7 |
| Effective Green, g (s) | | 8.4 | 8.4 | 20.7 | 20.7 | 20.7 | 3.4 | 39.6 | 39.6 | 30.3 | 66.7 | 66.7 |
| Actuated g/C Ratio | | 0.07 | 0.07 | 0.17 | 0.17 | 0.17 | 0.03 | 0.33 | 0.33 | 0.25 | 0.56 | 0.56 |
| Clearance Time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Vehicle Extension (s) | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 |
| Lane Grp Cap (vph) | | 129 | 108 | 289 | 292 | 264 | 50 | 1167 | 510 | 446 | 1967 | 859 |
| v/s Ratio Prot | | c0.02 | | c0.11 | 0.11 | | 0.01 | 0.16 | | c0.22 | c0.34 | |
| v/s Ratio Perm | | | 0.00 | | | 0.02 | | | 0.06 | | | 0.01 |
| v/c Ratio | | 0.23 | 0.01 | 0.66 | 0.64 | 0.13 | 0.38 | 0.47 | 0.19 | 0.87 | 0.61 | 0.01 |
| Uniform Delay, d1 | | 52.8 | 51.9 | 46.4 | 46.2 | 42.0 | 57.3 | 31.9 | 28.7 | 43.0 | 17.9 | 11.9 |
| 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 | | 1.3 | 0.0 | 6.1 | 5.3 | 0.3 | 4.8 | 1.4 | 0.8 | 16.9 | 0.6 | 0.0 |
| Delay (s) | | 54.0 | 52.0 | 52.5 | 51.6 | 42.3 | 62.0 | 33.3 | 29.5 | 59.9 | 18.6 | 11.9 |
| Level of Service | | D | D | D | D | D | E | C | C | E | B | B |
| Approach Delay (s) | | 53.3 | | | 48.7 | | | 32.7 | | | 28.5 | |
| Approach LOS | | D | | | D | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 33.8 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.68 | | |
| Actuated Cycle Length (s) | 120.0 | Sum of lost time (s) | 21.0 |
| Intersection Capacity Utilization | 67.9% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

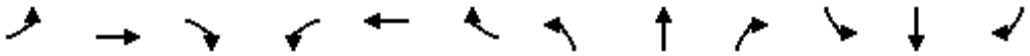
c Critical Lane Group



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↑ | ↱ | ↰ | ↱ |
| Traffic Volume (veh/h) | 0 | 664 | 511 | 128 | 144 | 31 |
| Future Volume (Veh/h) | 0 | 664 | 511 | 128 | 144 | 31 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Hourly flow rate (vph) | 0 | 706 | 544 | 136 | 153 | 33 |
| Pedestrians | | 1 | | | 4 | |
| Lane Width (ft) | | 12.0 | | | 12.0 | |
| Walking Speed (ft/s) | | 4.0 | | | 4.0 | |
| Percent Blockage | | 0 | | | 0 | |
| Right turn flare (veh) | | | | | | 7 |
| Median type | | Raised | None | | | |
| Median storage veh) | | 2 | | | | |
| Upstream signal (ft) | | 171 | | | | |
| pX, platoon unblocked | | | | | 1.00 | |
| vC, conflicting volume | 684 | | | | 1254 | 549 |
| vC1, stage 1 conf vol | | | | | 548 | |
| vC2, stage 2 conf vol | | | | | 706 | |
| vCu, unblocked vol | 684 | | | | 1254 | 549 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | 5.4 | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 100 | | | | 62 | 94 |
| cM capacity (veh/h) | 906 | | | | 404 | 533 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 706 | 544 | 136 | 186 |
| Volume Left | 0 | 0 | 0 | 153 |
| Volume Right | 0 | 0 | 136 | 33 |
| cSH | 1700 | 1700 | 1700 | 491 |
| Volume to Capacity | 0.42 | 0.32 | 0.08 | 0.38 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 44 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 18.0 |
| Lane LOS | | | | C |
| Approach Delay (s) | 0.0 | 0.0 | | 18.0 |
| Approach LOS | | | | C |

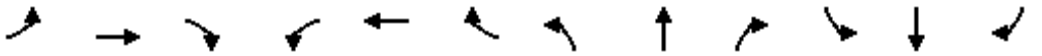
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 2.1 | | |
| Intersection Capacity Utilization | 49.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 28 | 706 | 22 | 20 | 484 | 53 | 10 | 1 | 18 | 39 | 0 | 26 |
| Future Volume (Veh/h) | 28 | 706 | 22 | 20 | 484 | 53 | 10 | 1 | 18 | 39 | 0 | 26 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Hourly flow rate (vph) | 30 | 751 | 23 | 21 | 515 | 56 | 11 | 1 | 19 | 41 | 0 | 28 |
| Pedestrians | | | | | 9 | | | 30 | | | 8 | |
| Lane Width (ft) | | | | | 12.0 | | | 12.0 | | | 12.0 | |
| Walking Speed (ft/s) | | | | | 4.0 | | | 4.0 | | | 4.0 | |
| Percent Blockage | | | | | 1 | | | 3 | | | 1 | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | 1198 | | | 1012 | | | | | | | |
| pX, platoon unblocked | 0.88 | | | | | | 0.88 | 0.88 | | 0.88 | 0.88 | 0.88 |
| vC, conflicting volume | 579 | | | 804 | | | 1438 | 1474 | 802 | 1432 | 1457 | 551 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 455 | | | 804 | | | 1429 | 1470 | 802 | 1423 | 1451 | 424 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| 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 | 99 | 95 | 53 | 100 | 95 |
| cM capacity (veh/h) | 968 | | | 800 | | | 86 | 103 | 372 | 87 | 105 | 552 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 30 | 774 | 21 | 571 | 31 | 69 |
| Volume Left | 30 | 0 | 21 | 0 | 11 | 41 |
| Volume Right | 0 | 23 | 0 | 56 | 19 | 28 |
| cSH | 968 | 1700 | 800 | 1700 | 164 | 132 |
| Volume to Capacity | 0.03 | 0.46 | 0.03 | 0.34 | 0.19 | 0.52 |
| Queue Length 95th (ft) | 2 | 0 | 2 | 0 | 17 | 62 |
| Control Delay (s) | 8.8 | 0.0 | 9.6 | 0.0 | 32.0 | 58.9 |
| Lane LOS | A | | A | | D | F |
| Approach Delay (s) | 0.3 | | 0.3 | | 32.0 | 58.9 |
| Approach LOS | | | | | D | F |

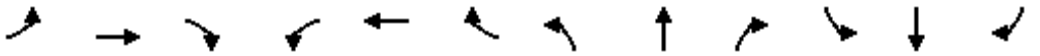
| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 3.7 | | | |
| Intersection Capacity Utilization | 51.7% | ICU Level of Service | | A |
| Analysis Period (min) | 15 | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 55 | 696 | 16 | 2 | 498 | 59 | 9 | 1 | 5 | 76 | 1 | 56 |
| Future Volume (vph) | 55 | 696 | 16 | 2 | 498 | 59 | 9 | 1 | 5 | 76 | 1 | 56 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.6 | | | 5.6 | 5.6 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.98 | | | 0.99 | | | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 0.99 | | | 0.99 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.98 | | | 0.95 | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 1853 | | 1770 | 3415 | | | 1694 | | | 1759 | 1544 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.86 | | | 0.72 | 1.00 |
| Satd. Flow (perm) | 1770 | 1853 | | 1770 | 3415 | | | 1501 | | | 1322 | 1544 |
| Peak-hour factor, PHF | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 61 | 773 | 18 | 2 | 553 | 66 | 10 | 1 | 6 | 84 | 1 | 62 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 5 | 0 | 0 | 0 | 51 |
| Lane Group Flow (vph) | 61 | 791 | 0 | 2 | 613 | 0 | 0 | 12 | 0 | 0 | 85 | 11 |
| Confl. Peds. (#/hr) | 33 | | 16 | 16 | | 33 | 9 | | 4 | 4 | | 9 |
| Confl. Bikes (#/hr) | | | 8 | | | 121 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 |
| Actuated Green, G (s) | 7.5 | 88.9 | | 1.4 | 82.8 | | | 23.0 | | | 23.0 | 23.0 |
| Effective Green, g (s) | 7.5 | 89.5 | | 1.4 | 83.4 | | | 23.0 | | | 23.0 | 23.0 |
| Actuated g/C Ratio | 0.06 | 0.69 | | 0.01 | 0.64 | | | 0.18 | | | 0.18 | 0.18 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | 5.6 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 102 | 1275 | | 19 | 2190 | | | 265 | | | 233 | 273 |
| v/s Ratio Prot | c0.03 | c0.43 | | 0.00 | 0.18 | | | | | | | |
| v/s Ratio Perm | | | | | | | | 0.01 | | | c0.06 | 0.01 |
| v/c Ratio | 0.60 | 0.62 | | 0.11 | 0.28 | | | 0.05 | | | 0.36 | 0.04 |
| Uniform Delay, d1 | 59.8 | 11.0 | | 63.7 | 10.2 | | | 44.4 | | | 47.1 | 44.3 |
| Progression Factor | 1.00 | 1.00 | | 1.32 | 0.46 | | | 1.00 | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 6.1 | 2.3 | | 0.9 | 0.3 | | | 0.1 | | | 0.7 | 0.0 |
| Delay (s) | 65.9 | 13.3 | | 84.7 | 5.0 | | | 44.4 | | | 47.8 | 44.4 |
| Level of Service | E | B | | F | A | | | D | | | D | D |
| Approach Delay (s) | | 17.1 | | | 5.3 | | | 44.4 | | | 46.4 | |
| Approach LOS | | B | | | A | | | D | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 15.5 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.58 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 65.5% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

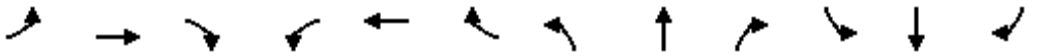
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 771 | 4 | 13 | 497 | 0 | 1 | 0 | 19 | 94 | 3 | 64 |
| Future Volume (vph) | 0 | 771 | 4 | 13 | 497 | 0 | 1 | 0 | 19 | 94 | 3 | 64 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | 6.0 | 6.0 | |
| Lane Util. Factor | | 1.00 | | 1.00 | 0.95 | | | 1.00 | | 1.00 | 1.00 | |
| Frpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 0.98 | |
| Flpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 1.00 | |
| Frt | | 1.00 | | 1.00 | 1.00 | | | 0.87 | | 1.00 | 0.86 | |
| Flt Protected | | 1.00 | | 0.95 | 1.00 | | | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | | 1860 | | 1770 | 3539 | | | 1619 | | 1770 | 1568 | |
| Flt Permitted | | 1.00 | | 0.95 | 1.00 | | | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | | 1860 | | 1770 | 3539 | | | 1619 | | 1770 | 1568 | |
| Peak-hour factor, PHF | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Adj. Flow (vph) | 0 | 907 | 5 | 15 | 585 | 0 | 1 | 0 | 22 | 111 | 4 | 75 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 68 | 0 |
| Lane Group Flow (vph) | 0 | 912 | 0 | 15 | 585 | 0 | 0 | 0 | 0 | 111 | 11 | 0 |
| Confl. Peds. (#/hr) | 51 | | 29 | 29 | | 51 | 5 | | | | | 5 |
| Confl. Bikes (#/hr) | | | 12 | | | 135 | | | | | | |
| Turn Type | | NA | | Prot | NA | | Split | NA | | Split | NA | |
| Protected Phases | | 2 | | 1 | 6 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | | 89.1 | | 3.1 | 97.2 | | | 3.3 | | 13.5 | 13.5 | |
| Effective Green, g (s) | | 89.1 | | 2.1 | 97.2 | | | 2.3 | | 12.5 | 12.5 | |
| Actuated g/C Ratio | | 0.69 | | 0.02 | 0.75 | | | 0.02 | | 0.10 | 0.10 | |
| Clearance Time (s) | | 6.0 | | 5.0 | 6.0 | | | 5.0 | | 5.0 | 5.0 | |
| Vehicle Extension (s) | | 5.0 | | 3.0 | 5.0 | | | 3.0 | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | | 1274 | | 28 | 2646 | | | 28 | | 170 | 150 | |
| v/s Ratio Prot | | c0.49 | | 0.01 | c0.17 | | | c0.00 | | c0.06 | 0.01 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | | 0.72 | | 0.54 | 0.22 | | | 0.01 | | 0.65 | 0.07 | |
| Uniform Delay, d1 | | 12.6 | | 63.5 | 5.0 | | | 62.7 | | 56.7 | 53.5 | |
| Progression Factor | | 0.84 | | 1.25 | 0.55 | | | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | | 3.0 | | 18.2 | 0.2 | | | 0.2 | | 8.7 | 0.2 | |
| Delay (s) | | 13.7 | | 97.3 | 2.9 | | | 62.9 | | 65.3 | 53.7 | |
| Level of Service | | B | | F | A | | | E | | E | D | |
| Approach Delay (s) | | 13.7 | | | 5.3 | | | 62.9 | | | 60.5 | |
| Approach LOS | | B | | | A | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 16.6 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.69 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 24.0 |
| Intersection Capacity Utilization | 64.2% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

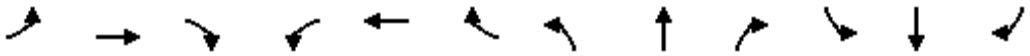
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 54 | 735 | 0 | 80 | 440 | 73 | 0 | 0 | 0 | 84 | 4 | 60 |
| Future Volume (vph) | 54 | 735 | 0 | 80 | 440 | 73 | 0 | 0 | 0 | 84 | 4 | 60 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | | | | | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | | | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.98 | | | | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | | 1770 | 3427 | | | | | | 1778 | 1583 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.95 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | | 1770 | 3427 | | | | | | 1778 | 1583 |
| Peak-hour factor, PHF | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Adj. Flow (vph) | 62 | 845 | 0 | 92 | 506 | 84 | 0 | 0 | 0 | 97 | 5 | 69 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 63 |
| Lane Group Flow (vph) | 62 | 845 | 0 | 92 | 584 | 0 | 0 | 0 | 0 | 0 | 102 | 6 |
| Confl. Peds. (#/hr) | 8 | | 34 | 34 | | 8 | | | 5 | 5 | | |
| Confl. Bikes (#/hr) | | | 8 | | | 64 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | | | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | | | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | 4 |
| Actuated Green, G (s) | 8.5 | 91.4 | | 10.7 | 93.6 | | | | | | 11.1 | 11.1 |
| Effective Green, g (s) | 8.5 | 92.0 | | 10.7 | 94.2 | | | | | | 11.3 | 11.3 |
| Actuated g/C Ratio | 0.07 | 0.71 | | 0.08 | 0.72 | | | | | | 0.09 | 0.09 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.7 | 5.7 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 115 | 1318 | | 145 | 2483 | | | | | | 154 | 137 |
| v/s Ratio Prot | 0.04 | c0.45 | | c0.05 | 0.17 | | | | | | c0.06 | |
| v/s Ratio Perm | | | | | | | | | | | | 0.00 |
| v/c Ratio | 0.54 | 0.64 | | 0.63 | 0.24 | | | | | | 0.66 | 0.04 |
| Uniform Delay, d1 | 58.9 | 10.2 | | 57.8 | 5.9 | | | | | | 57.5 | 54.4 |
| Progression Factor | 0.81 | 0.38 | | 1.58 | 0.33 | | | | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 2.0 | 0.8 | | 6.3 | 0.2 | | | | | | 9.2 | 0.1 |
| Delay (s) | 49.5 | 4.7 | | 97.3 | 2.2 | | | | | | 66.8 | 54.5 |
| Level of Service | D | A | | F | A | | | | | | E | D |
| Approach Delay (s) | | 7.8 | | | 15.0 | | | 0.0 | | | 61.8 | |
| Approach LOS | | A | | | B | | | A | | | E | |

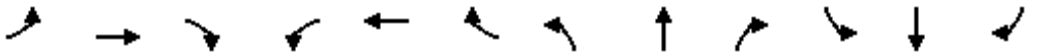
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 15.8 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.64 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.0 |
| Intersection Capacity Utilization | 70.2% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group



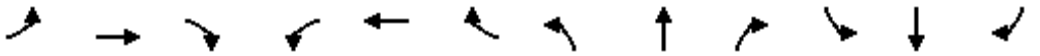
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 46 | 749 | 19 | 3 | 522 | 61 | 20 | 10 | 12 | 115 | 6 | 47 |
| Future Volume (vph) | 46 | 749 | 19 | 3 | 522 | 61 | 20 | 10 | 12 | 115 | 6 | 47 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2100 | 2100 | 1900 | 2100 | 2100 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.7 | 5.7 | | 5.7 | 5.7 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 0.99 | | 1.00 | 0.98 | | | 1.00 | 0.96 | | 1.00 | 0.93 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 0.97 | 1.00 | | 0.97 | 1.00 |
| Frt | 1.00 | 0.80 | | 1.00 | 0.98 | | | 1.00 | 0.85 | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 2805 | | 1770 | 3418 | | | 1936 | 1680 | | 1914 | 1632 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.70 | 1.00 | | 0.71 | 1.00 |
| Satd. Flow (perm) | 1770 | 2805 | | 1770 | 3418 | | | 500 | 1680 | | 1424 | 1632 |
| Peak-hour factor, PHF | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Adj. Flow (vph) | 56 | 913 | 23 | 4 | 637 | 74 | 24 | 12 | 15 | 140 | 7 | 57 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 13 | 0 | 0 | 49 |
| Lane Group Flow (vph) | 56 | 935 | 0 | 4 | 706 | 0 | 0 | 36 | 2 | 0 | 147 | 8 |
| Confl. Peds. (#/hr) | 39 | | 64 | 64 | | 39 | 39 | | 19 | 19 | | 39 |
| Confl. Bikes (#/hr) | | | 26 | | | 65 | | | | | | |
| Bus Blockages (#/hr) | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | 8 | 4 | | 4 |
| Actuated Green, G (s) | 7.3 | 93.1 | | 1.6 | 87.4 | | | 18.5 | 18.5 | | 18.5 | 18.5 |
| Effective Green, g (s) | 7.3 | 93.7 | | 1.6 | 88.0 | | | 18.5 | 18.5 | | 18.5 | 18.5 |
| Actuated g/C Ratio | 0.06 | 0.72 | | 0.01 | 0.68 | | | 0.14 | 0.14 | | 0.14 | 0.14 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.7 | 5.7 | | 5.7 | 5.7 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | 2.5 | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 99 | 2021 | | 21 | 2313 | | | 71 | 239 | | 202 | 232 |
| v/s Ratio Prot | c0.03 | c0.33 | | 0.00 | 0.21 | | | | | | | |
| v/s Ratio Perm | | | | | | | | 0.07 | 0.00 | | c0.10 | 0.00 |
| v/c Ratio | 0.57 | 0.46 | | 0.19 | 0.31 | | | 0.51 | 0.01 | | 0.73 | 0.03 |
| Uniform Delay, d1 | 59.8 | 7.6 | | 63.6 | 8.6 | | | 51.5 | 47.9 | | 53.3 | 48.1 |
| Progression Factor | 0.90 | 1.12 | | 1.52 | 0.32 | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Incremental Delay, d2 | 3.6 | 0.6 | | 1.3 | 0.3 | | | 4.1 | 0.0 | | 11.6 | 0.0 |
| Delay (s) | 57.6 | 9.2 | | 97.9 | 3.0 | | | 55.6 | 47.9 | | 64.9 | 48.1 |
| Level of Service | E | A | | F | A | | | E | D | | E | D |
| Approach Delay (s) | | 11.9 | | | 3.5 | | | 53.4 | | | 60.2 | |
| Approach LOS | | B | | | A | | | D | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 14.9 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.52 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.2 |
| Intersection Capacity Utilization | 67.0% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



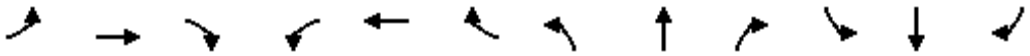
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 66 | 720 | 54 | 23 | 440 | 143 | 70 | 57 | 71 | 264 | 48 | 67 |
| Future Volume (vph) | 66 | 720 | 54 | 23 | 440 | 143 | 70 | 57 | 71 | 264 | 48 | 67 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.5 | 5.5 | | 5.5 | 5.5 | | 5.6 | 5.6 | | 5.5 | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 1.00 | 1.00 | | 0.95 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 0.98 | | 1.00 | 0.94 | | 1.00 | 0.79 | | 1.00 | 1.00 | 0.91 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.99 | | 1.00 | 0.96 | | 1.00 | 0.92 | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.97 | 1.00 |
| Satd. Flow (prot) | 1770 | 3409 | | 1770 | 3181 | | 1770 | 1356 | | 1681 | 1712 | 1436 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.97 | 1.00 |
| Satd. Flow (perm) | 1770 | 3409 | | 1770 | 3181 | | 1770 | 1356 | | 1681 | 1712 | 1436 |
| Peak-hour factor, PHF | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 |
| Adj. Flow (vph) | 87 | 947 | 71 | 30 | 579 | 188 | 92 | 75 | 93 | 347 | 63 | 88 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 87 | 1018 | 0 | 30 | 767 | 0 | 92 | 168 | 0 | 219 | 191 | 88 |
| Confl. Peds. (#/hr) | 113 | | 148 | 148 | | 113 | 57 | | 339 | 339 | | 57 |
| Confl. Bikes (#/hr) | | | 54 | | | 13 | | | 53 | | | 3 |
| Bus Blockages (#/hr) | 0 | 2 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Split | NA | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | 4 |
| Actuated Green, G (s) | 11.8 | 49.4 | | 7.2 | 44.8 | | 25.4 | 25.4 | | 24.7 | 24.7 | 24.7 |
| Effective Green, g (s) | 11.8 | 50.0 | | 7.2 | 45.4 | | 25.4 | 25.4 | | 25.3 | 25.3 | 25.3 |
| Actuated g/C Ratio | 0.09 | 0.38 | | 0.06 | 0.35 | | 0.20 | 0.20 | | 0.19 | 0.19 | 0.19 |
| Clearance Time (s) | 5.5 | 6.1 | | 5.5 | 6.1 | | 5.6 | 5.6 | | 6.1 | 6.1 | 6.1 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 1.0 | | 2.5 | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 160 | 1311 | | 98 | 1110 | | 345 | 264 | | 327 | 333 | 279 |
| v/s Ratio Prot | c0.05 | c0.30 | | 0.02 | 0.24 | | 0.05 | c0.12 | | c0.13 | 0.11 | |
| v/s Ratio Perm | | | | | | | | | | | | 0.06 |
| v/c Ratio | 0.54 | 0.78 | | 0.31 | 0.69 | | 0.27 | 0.64 | | 0.67 | 0.57 | 0.32 |
| Uniform Delay, d1 | 56.5 | 35.1 | | 59.0 | 36.3 | | 44.4 | 48.1 | | 48.5 | 47.5 | 44.9 |
| Progression Factor | 0.95 | 1.04 | | 1.36 | 0.93 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 1.9 | 4.2 | | 0.6 | 3.4 | | 0.2 | 3.7 | | 4.6 | 2.0 | 0.5 |
| Delay (s) | 55.8 | 40.7 | | 80.8 | 37.1 | | 44.5 | 51.7 | | 53.1 | 49.4 | 45.4 |
| Level of Service | E | D | | F | D | | D | D | | D | D | D |
| Approach Delay (s) | | 41.9 | | | 38.7 | | | 49.2 | | | 50.3 | |
| Approach LOS | | D | | | D | | | D | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 43.2 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.72 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 22.1 |
| Intersection Capacity Utilization | 100.5% | ICU Level of Service | G |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 27 | 1050 | 86 | 20 | 539 | 68 | 0 | 0 | 0 | 56 | 8 | 30 |
| Future Volume (vph) | 27 | 1050 | 86 | 20 | 539 | 68 | 0 | 0 | 0 | 56 | 8 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.6 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.95 | | 1.00 | 0.97 | | | | | | 0.94 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | | | | 0.88 | |
| Frt | 1.00 | 0.99 | | 1.00 | 0.98 | | | | | | 0.96 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.97 | |
| Satd. Flow (prot) | 1770 | 3313 | | 1770 | 3352 | | | | | | 1422 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.97 | |
| Satd. Flow (perm) | 1770 | 3313 | | 1770 | 3352 | | | | | | 1422 | |
| Peak-hour factor, PHF | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Adj. Flow (vph) | 35 | 1346 | 110 | 26 | 691 | 87 | 0 | 0 | 0 | 72 | 10 | 38 |
| RTOR Reduction (vph) | 0 | 4 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 13 | 0 |
| Lane Group Flow (vph) | 35 | 1452 | 0 | 26 | 772 | 0 | 0 | 0 | 0 | 0 | 107 | 0 |
| Confl. Peds. (#/hr) | 74 | | 198 | 198 | | 74 | 123 | | 131 | 131 | | 123 |
| Confl. Bikes (#/hr) | | | 40 | | | 9 | | | 31 | | | 1 |
| Bus Blockages (#/hr) | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | | | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | | | | 4 | |
| Permitted Phases | | | | | | | | | | 4 | | |
| Actuated Green, G (s) | 5.0 | 83.9 | | 4.4 | 83.3 | | | | | | 25.0 | |
| Effective Green, g (s) | 5.0 | 84.5 | | 4.4 | 83.9 | | | | | | 25.0 | |
| Actuated g/C Ratio | 0.04 | 0.65 | | 0.03 | 0.65 | | | | | | 0.19 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.6 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 | |
| Lane Grp Cap (vph) | 68 | 2153 | | 59 | 2163 | | | | | | 273 | |
| v/s Ratio Prot | c0.02 | c0.44 | | 0.01 | 0.23 | | | | | | | |
| v/s Ratio Perm | | | | | | | | | | | 0.08 | |
| v/c Ratio | 0.51 | 0.67 | | 0.44 | 0.36 | | | | | | 0.39 | |
| Uniform Delay, d1 | 61.3 | 14.2 | | 61.6 | 10.6 | | | | | | 45.9 | |
| Progression Factor | 0.97 | 1.06 | | 1.45 | 0.31 | | | | | | 1.00 | |
| Incremental Delay, d2 | 2.1 | 1.3 | | 1.7 | 0.4 | | | | | | 0.7 | |
| Delay (s) | 61.4 | 16.3 | | 91.2 | 3.7 | | | | | | 46.5 | |
| Level of Service | E | B | | F | A | | | | | | D | |
| Approach Delay (s) | | 17.4 | | | 6.5 | | | 0.0 | | | 46.5 | |
| Approach LOS | | B | | | A | | | A | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 15.2 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.61 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 62.3% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 96 | 715 | 274 | 209 | 429 | 165 | 201 | 256 | 239 | 183 | 351 | 76 |
| Future Volume (vph) | 96 | 715 | 274 | 209 | 429 | 165 | 201 | 256 | 239 | 183 | 351 | 76 |
| Ideal Flow (vphpl) | 1900 | 2100 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | 5.0 | 5.1 | | 5.0 | 5.1 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 0.97 | 0.95 | | 1.00 | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.95 | | 1.00 | 0.96 | | 1.00 | 0.96 | | 1.00 | 0.99 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frt | 1.00 | 0.96 | | 1.00 | 0.96 | | 1.00 | 0.93 | | 1.00 | 0.97 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 3575 | | 1770 | 3249 | | 3433 | 3153 | | 1770 | 3398 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | 1770 | 3575 | | 1770 | 3249 | | 3433 | 3153 | | 1770 | 3398 | |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 104 | 777 | 298 | 227 | 466 | 179 | 218 | 278 | 260 | 199 | 382 | 83 |
| RTOR Reduction (vph) | 0 | 28 | 0 | 0 | 29 | 0 | 0 | 138 | 0 | 0 | 15 | 0 |
| Lane Group Flow (vph) | 104 | 1047 | 0 | 227 | 616 | 0 | 218 | 400 | 0 | 199 | 450 | 0 |
| Confl. Peds. (#/hr) | 94 | | 114 | 114 | | 94 | 59 | | 58 | 58 | | 59 |
| Confl. Bikes (#/hr) | | | 38 | | | 3 | | | 3 | | | 1 |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | 11.2 | 43.4 | | 19.6 | 51.8 | | 11.5 | 29.4 | | 15.8 | 33.7 | |
| Effective Green, g (s) | 11.2 | 44.0 | | 19.6 | 52.4 | | 11.5 | 30.0 | | 15.8 | 34.3 | |
| Actuated g/C Ratio | 0.09 | 0.34 | | 0.15 | 0.40 | | 0.09 | 0.23 | | 0.12 | 0.26 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | 5.0 | 5.7 | | 5.0 | 5.7 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | |
| Lane Grp Cap (vph) | 152 | 1210 | | 266 | 1309 | | 303 | 727 | | 215 | 896 | |
| v/s Ratio Prot | 0.06 | c0.29 | | c0.13 | 0.19 | | 0.06 | c0.13 | | c0.11 | c0.13 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | 0.68 | 0.86 | | 0.85 | 0.47 | | 0.72 | 0.55 | | 0.93 | 0.50 | |
| Uniform Delay, d1 | 57.7 | 40.2 | | 53.8 | 28.6 | | 57.7 | 44.1 | | 56.5 | 40.6 | |
| Progression Factor | 0.88 | 1.37 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 7.5 | 6.5 | | 21.6 | 1.2 | | 6.7 | 0.7 | | 40.4 | 0.3 | |
| Delay (s) | 58.0 | 61.5 | | 75.4 | 29.8 | | 64.3 | 44.8 | | 96.9 | 40.9 | |
| Level of Service | E | E | | E | C | | E | D | | F | D | |
| Approach Delay (s) | | 61.2 | | | 41.7 | | | 50.4 | | | 57.7 | |
| Approach LOS | | E | | | D | | | D | | | E | |

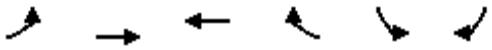
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 53.3 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.78 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 20.6 |
| Intersection Capacity Utilization | 94.8% | ICU Level of Service | F |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 5 | 28 | 22 | 250 | 23 | 130 | 18 | 541 | 292 | 499 | 1334 | 13 |
| Future Volume (vph) | 5 | 28 | 22 | 250 | 23 | 130 | 18 | 541 | 292 | 499 | 1334 | 13 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Lane Util. Factor | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | | 1.00 | 0.96 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.97 |
| Flpb, ped/bikes | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | | 1849 | 1525 | 1681 | 1699 | 1559 | 1770 | 3539 | 1530 | 1770 | 3539 | 1534 |
| Flt Permitted | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | | 1849 | 1525 | 1681 | 1699 | 1559 | 1770 | 3539 | 1530 | 1770 | 3539 | 1534 |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 5 | 29 | 23 | 260 | 24 | 135 | 19 | 564 | 304 | 520 | 1390 | 14 |
| RTOR Reduction (vph) | 0 | 0 | 21 | 0 | 0 | 116 | 0 | 0 | 220 | 0 | 0 | 6 |
| Lane Group Flow (vph) | 0 | 34 | 2 | 140 | 144 | 19 | 19 | 564 | 84 | 520 | 1390 | 8 |
| Confl. Peds. (#/hr) | | | 9 | 9 | | | | | | | | 1 |
| Confl. Bikes (#/hr) | | | 5 | | | 2 | | | 10 | | | 13 |
| Turn Type | Split | NA | Perm | Split | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 4 | 4 | | 3 | 3 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 3 | | | 2 | | | 6 |
| Actuated Green, G (s) | | 10.3 | 10.3 | 17.9 | 17.9 | 17.9 | 3.4 | 35.9 | 35.9 | 44.9 | 77.6 | 77.6 |
| Effective Green, g (s) | | 10.3 | 10.3 | 17.9 | 17.9 | 17.9 | 3.4 | 35.9 | 35.9 | 44.9 | 77.6 | 77.6 |
| Actuated g/C Ratio | | 0.08 | 0.08 | 0.14 | 0.14 | 0.14 | 0.03 | 0.28 | 0.28 | 0.35 | 0.60 | 0.60 |
| Clearance Time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Vehicle Extension (s) | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 |
| Lane Grp Cap (vph) | | 146 | 120 | 231 | 233 | 214 | 46 | 977 | 422 | 611 | 2112 | 915 |
| v/s Ratio Prot | | c0.02 | | 0.08 | c0.08 | | 0.01 | 0.16 | | c0.29 | c0.39 | |
| v/s Ratio Perm | | | 0.00 | | | 0.01 | | | 0.05 | | | 0.01 |
| v/c Ratio | | 0.23 | 0.02 | 0.61 | 0.62 | 0.09 | 0.41 | 0.58 | 0.20 | 0.85 | 0.66 | 0.01 |
| Uniform Delay, d1 | | 56.1 | 55.2 | 52.7 | 52.8 | 48.9 | 62.3 | 40.5 | 36.0 | 39.4 | 17.4 | 10.6 |
| 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 | | 1.1 | 0.1 | 5.1 | 5.5 | 0.2 | 5.9 | 1.0 | 0.3 | 11.0 | 1.6 | 0.0 |
| Delay (s) | | 57.3 | 55.2 | 57.9 | 58.3 | 49.2 | 68.2 | 41.5 | 36.4 | 50.4 | 19.0 | 10.6 |
| Level of Service | | E | E | E | E | D | E | D | D | D | B | B |
| Approach Delay (s) | | 56.4 | | | 55.2 | | | 40.3 | | | 27.4 | |
| Approach LOS | | E | | | E | | | D | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 35.0 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.71 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 21.0 |
| Intersection Capacity Utilization | 71.2% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

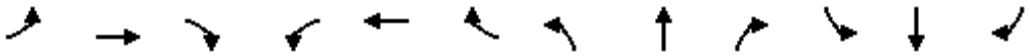
c Critical Lane Group



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↑ | ↱ | ↰ | ↱ |
| Traffic Volume (veh/h) | 0 | 816 | 478 | 116 | 106 | 23 |
| Future Volume (Veh/h) | 0 | 816 | 478 | 116 | 106 | 23 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Hourly flow rate (vph) | 0 | 868 | 509 | 123 | 113 | 24 |
| Pedestrians | | | | | 3 | |
| Lane Width (ft) | | | | | 12.0 | |
| Walking Speed (ft/s) | | | | | 4.0 | |
| Percent Blockage | | | | | 0 | |
| Right turn flare (veh) | | | | | | 7 |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | 171 | | | | |
| pX, platoon unblocked | | | | | 0.99 | |
| vC, conflicting volume | 635 | | | | 1380 | 512 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 635 | | | | 1379 | 512 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 100 | | | | 28 | 96 |
| cM capacity (veh/h) | 946 | | | | 158 | 561 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 868 | 509 | 123 | 137 |
| Volume Left | 0 | 0 | 0 | 113 |
| Volume Right | 0 | 0 | 123 | 24 |
| cSH | 1700 | 1700 | 1700 | 191 |
| Volume to Capacity | 0.51 | 0.30 | 0.07 | 0.72 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 114 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 60.6 |
| Lane LOS | | | | F |
| Approach Delay (s) | 0.0 | 0.0 | | 60.6 |
| Approach LOS | | | | F |

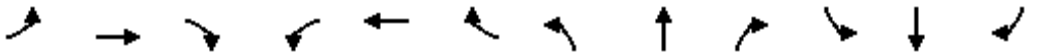
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 5.1 | | |
| Intersection Capacity Utilization | 55.5% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 26 | 855 | 43 | 15 | 427 | 37 | 10 | 1 | 14 | 23 | 0 | 30 |
| Future Volume (Veh/h) | 26 | 855 | 43 | 15 | 427 | 37 | 10 | 1 | 14 | 23 | 0 | 30 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Hourly flow rate (vph) | 27 | 872 | 44 | 15 | 436 | 38 | 10 | 1 | 14 | 23 | 0 | 31 |
| Pedestrians | | | | | 4 | | | 24 | | | 6 | |
| Lane Width (ft) | | | | | 12.0 | | | 12.0 | | | 12.0 | |
| Walking Speed (ft/s) | | | | | 4.0 | | | 4.0 | | | 4.0 | |
| Percent Blockage | | | | | 0 | | | 2 | | | 1 | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | 1198 | | | 1012 | | | | | | | |
| pX, platoon unblocked | 0.92 | | | | | | 0.92 | 0.92 | | 0.92 | 0.92 | 0.92 |
| vC, conflicting volume | 480 | | | 940 | | | 1469 | 1482 | 922 | 1436 | 1485 | 461 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 394 | | | 940 | | | 1466 | 1480 | 922 | 1430 | 1484 | 374 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| 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 | | | 88 | 99 | 96 | 75 | 100 | 95 |
| cM capacity (veh/h) | 1069 | | | 715 | | | 86 | 108 | 320 | 92 | 107 | 617 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 27 | 916 | 15 | 474 | 25 | 54 |
| Volume Left | 27 | 0 | 15 | 0 | 10 | 23 |
| Volume Right | 0 | 44 | 0 | 38 | 14 | 31 |
| cSH | 1069 | 1700 | 715 | 1700 | 148 | 180 |
| Volume to Capacity | 0.03 | 0.54 | 0.02 | 0.28 | 0.17 | 0.30 |
| Queue Length 95th (ft) | 2 | 0 | 2 | 0 | 15 | 30 |
| Control Delay (s) | 8.5 | 0.0 | 10.1 | 0.0 | 34.3 | 33.2 |
| Lane LOS | A | | B | | D | D |
| Approach Delay (s) | 0.2 | | 0.3 | | 34.3 | 33.2 |
| Approach LOS | | | | | D | D |

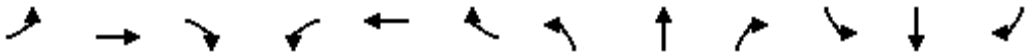
| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 2.0 | | | |
| Intersection Capacity Utilization | 59.0% | ICU Level of Service | | B |
| Analysis Period (min) | 15 | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 53 | 786 | 16 | 4 | 440 | 74 | 12 | 0 | 6 | 39 | 1 | 45 |
| Future Volume (vph) | 53 | 786 | 16 | 4 | 440 | 74 | 12 | 0 | 6 | 39 | 1 | 45 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.6 | | | 5.6 | 5.6 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | | 1.00 | | | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.98 | | | 0.95 | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 1855 | | 1770 | 3432 | | | 1718 | | | 1776 | 1559 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.85 | | | 0.73 | 1.00 |
| Satd. Flow (perm) | 1770 | 1855 | | 1770 | 3432 | | | 1501 | | | 1362 | 1559 |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 54 | 802 | 16 | 4 | 449 | 76 | 12 | 0 | 6 | 40 | 1 | 46 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 15 | 0 | 0 | 0 | 39 |
| Lane Group Flow (vph) | 54 | 818 | 0 | 4 | 518 | 0 | 0 | 3 | 0 | 0 | 41 | 7 |
| Confl. Peds. (#/hr) | 8 | | 8 | 8 | | 8 | 2 | | | | | 2 |
| Confl. Bikes (#/hr) | | | 16 | | | 25 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 |
| Actuated Green, G (s) | 7.5 | 110.3 | | 1.4 | 104.2 | | | 21.6 | | | 21.6 | 21.6 |
| Effective Green, g (s) | 7.5 | 110.9 | | 1.4 | 104.8 | | | 21.6 | | | 21.6 | 21.6 |
| Actuated g/C Ratio | 0.05 | 0.74 | | 0.01 | 0.70 | | | 0.14 | | | 0.14 | 0.14 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | 5.6 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 88 | 1371 | | 16 | 2397 | | | 216 | | | 196 | 224 |
| v/s Ratio Prot | c0.03 | c0.44 | | 0.00 | 0.15 | | | | | | | |
| v/s Ratio Perm | | | | | | | | 0.00 | | | c0.03 | 0.00 |
| v/c Ratio | 0.61 | 0.60 | | 0.25 | 0.22 | | | 0.01 | | | 0.21 | 0.03 |
| Uniform Delay, d1 | 69.8 | 9.1 | | 73.8 | 8.0 | | | 55.1 | | | 56.7 | 55.2 |
| Progression Factor | 1.00 | 1.00 | | 1.41 | 1.17 | | | 1.00 | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 8.6 | 1.9 | | 2.9 | 0.2 | | | 0.0 | | | 0.4 | 0.0 |
| Delay (s) | 78.4 | 11.0 | | 106.8 | 9.6 | | | 55.1 | | | 57.1 | 55.2 |
| Level of Service | E | B | | F | A | | | E | | | E | E |
| Approach Delay (s) | | 15.2 | | | 10.3 | | | 55.1 | | | 56.1 | |
| Approach LOS | | B | | | B | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 16.3 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.55 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 61.0% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

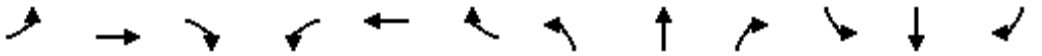
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 833 | 8 | 27 | 419 | 0 | 5 | 0 | 18 | 293 | 13 | 96 |
| Future Volume (vph) | 0 | 833 | 8 | 27 | 419 | 0 | 5 | 0 | 18 | 293 | 13 | 96 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | 6.0 | 6.0 | |
| Lane Util. Factor | | 1.00 | | 1.00 | 0.95 | | | 1.00 | | 1.00 | 1.00 | |
| Frpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 0.99 | |
| Flpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 1.00 | |
| Frt | | 1.00 | | 1.00 | 1.00 | | | 0.89 | | 1.00 | 0.87 | |
| Flt Protected | | 1.00 | | 0.95 | 1.00 | | | 0.99 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | | 1859 | | 1770 | 3539 | | | 1645 | | 1770 | 1595 | |
| Flt Permitted | | 1.00 | | 0.95 | 1.00 | | | 0.99 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | | 1859 | | 1770 | 3539 | | | 1645 | | 1770 | 1595 | |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 905 | 9 | 29 | 455 | 0 | 5 | 0 | 20 | 318 | 14 | 104 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | 83 | 0 |
| Lane Group Flow (vph) | 0 | 914 | 0 | 29 | 455 | 0 | 0 | 0 | 0 | 318 | 35 | 0 |
| Confl. Peds. (#/hr) | 8 | | 6 | 6 | | 8 | 2 | | | | | 2 |
| Confl. Bikes (#/hr) | | | 18 | | | 29 | | | | | | |
| Turn Type | | NA | | Prot | NA | | Split | NA | | Split | NA | |
| Protected Phases | | 2 | | 1 | 6 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | | 89.5 | | 5.2 | 99.7 | | | 3.3 | | 31.0 | 31.0 | |
| Effective Green, g (s) | | 89.5 | | 4.2 | 99.7 | | | 2.3 | | 30.0 | 30.0 | |
| Actuated g/C Ratio | | 0.60 | | 0.03 | 0.66 | | | 0.02 | | 0.20 | 0.20 | |
| Clearance Time (s) | | 6.0 | | 5.0 | 6.0 | | | 5.0 | | 5.0 | 5.0 | |
| Vehicle Extension (s) | | 5.0 | | 3.0 | 5.0 | | | 3.0 | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | | 1109 | | 49 | 2352 | | | 25 | | 354 | 319 | |
| v/s Ratio Prot | | c0.49 | | c0.02 | 0.13 | | | c0.00 | | c0.18 | 0.02 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | | 0.82 | | 0.59 | 0.19 | | | 0.02 | | 0.90 | 0.11 | |
| Uniform Delay, d1 | | 24.0 | | 72.1 | 9.7 | | | 72.7 | | 58.5 | 49.1 | |
| Progression Factor | | 0.74 | | 0.95 | 0.75 | | | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | | 6.2 | | 17.6 | 0.2 | | | 0.2 | | 24.2 | 0.2 | |
| Delay (s) | | 23.9 | | 86.3 | 7.5 | | | 73.0 | | 82.7 | 49.2 | |
| Level of Service | | C | | F | A | | | E | | F | D | |
| Approach Delay (s) | | 23.9 | | | 12.2 | | | 73.0 | | | 73.7 | |
| Approach LOS | | C | | | B | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 33.2 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.82 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 24.0 |
| Intersection Capacity Utilization | 77.2% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

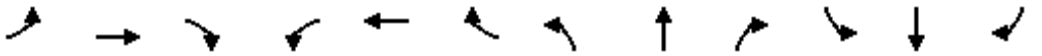
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 43 | 1031 | 0 | 69 | 391 | 46 | 0 | 0 | 0 | 59 | 5 | 51 |
| Future Volume (vph) | 43 | 1031 | 0 | 69 | 391 | 46 | 0 | 0 | 0 | 59 | 5 | 51 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | | | | | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | | | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.98 | | | | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.96 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | | 1770 | 3459 | | | | | | 1780 | 1583 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.96 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | | 1770 | 3459 | | | | | | 1780 | 1583 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 46 | 1097 | 0 | 73 | 416 | 49 | 0 | 0 | 0 | 63 | 5 | 54 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| Lane Group Flow (vph) | 46 | 1097 | 0 | 73 | 458 | 0 | 0 | 0 | 0 | 0 | 68 | 4 |
| Confl. Peds. (#/hr) | 9 | | 5 | 5 | | 9 | | | | 2 | | |
| Confl. Bikes (#/hr) | | | 14 | | | 23 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | | | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | | | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | 4 |
| Actuated Green, G (s) | 48.2 | 113.1 | | 10.3 | 75.2 | | | | | | 9.8 | 9.8 |
| Effective Green, g (s) | 48.2 | 113.7 | | 10.3 | 75.8 | | | | | | 10.0 | 10.0 |
| Actuated g/C Ratio | 0.32 | 0.76 | | 0.07 | 0.51 | | | | | | 0.07 | 0.07 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.7 | 5.7 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 568 | 1412 | | 121 | 1747 | | | | | | 118 | 105 |
| v/s Ratio Prot | 0.03 | c0.59 | | c0.04 | 0.13 | | | | | | c0.04 | |
| v/s Ratio Perm | | | | | | | | | | | | 0.00 |
| v/c Ratio | 0.08 | 0.78 | | 0.60 | 0.26 | | | | | | 0.58 | 0.03 |
| Uniform Delay, d1 | 35.5 | 10.7 | | 67.9 | 21.2 | | | | | | 67.9 | 65.5 |
| Progression Factor | 0.84 | 0.62 | | 1.30 | 0.80 | | | | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.0 | 2.6 | | 5.7 | 0.1 | | | | | | 5.5 | 0.1 |
| Delay (s) | 29.9 | 9.2 | | 93.7 | 17.0 | | | | | | 73.4 | 65.6 |
| Level of Service | C | A | | F | B | | | | | | E | E |
| Approach Delay (s) | | 10.0 | | | 27.4 | | | 0.0 | | | 70.0 | |
| Approach LOS | | B | | | C | | | A | | | E | |

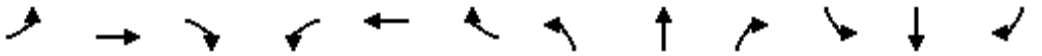
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 19.3 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.75 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 16.0 |
| Intersection Capacity Utilization | 73.2% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

c Critical Lane Group



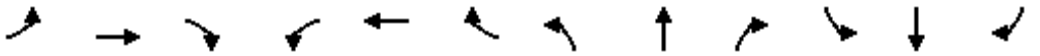
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 32 | 1027 | 25 | 13 | 458 | 41 | 6 | 3 | 13 | 44 | 12 | 41 |
| Future Volume (vph) | 32 | 1027 | 25 | 13 | 458 | 41 | 6 | 3 | 13 | 44 | 12 | 41 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2100 | 2100 | 1900 | 2100 | 2100 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.7 | 5.7 | | 5.7 | 5.7 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | | 1.00 | 1.00 | | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Frt | 1.00 | 0.80 | | 1.00 | 0.99 | | | 1.00 | 0.85 | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | 1.00 | | 0.96 | 1.00 |
| Satd. Flow (prot) | 1770 | 2817 | | 1770 | 3478 | | | 1990 | 1750 | | 1981 | 1716 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.81 | 1.00 | | 0.77 | 1.00 |
| Satd. Flow (perm) | 1770 | 2817 | | 1770 | 3478 | | | 500 | 1750 | | 1579 | 1716 |
| Peak-hour factor, PHF | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Adj. Flow (vph) | 34 | 1104 | 27 | 14 | 492 | 44 | 6 | 3 | 14 | 47 | 13 | 44 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 13 | 0 | 0 | 41 |
| Lane Group Flow (vph) | 34 | 1130 | 0 | 14 | 533 | 0 | 0 | 9 | 1 | 0 | 60 | 3 |
| Confl. Peds. (#/hr) | 8 | | 6 | 6 | | 8 | 1 | | | | | 1 |
| Confl. Bikes (#/hr) | | | 24 | | | 24 | | | | | | 2 |
| Bus Blockages (#/hr) | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | 8 | 4 | | 4 |
| Actuated Green, G (s) | 6.7 | 118.3 | | 3.2 | 114.8 | | | 11.7 | 11.7 | | 11.7 | 11.7 |
| Effective Green, g (s) | 6.7 | 118.9 | | 3.2 | 115.4 | | | 11.7 | 11.7 | | 11.7 | 11.7 |
| Actuated g/C Ratio | 0.04 | 0.79 | | 0.02 | 0.77 | | | 0.08 | 0.08 | | 0.08 | 0.08 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.7 | 5.7 | | 5.7 | 5.7 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | 2.5 | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 79 | 2232 | | 37 | 2675 | | | 39 | 136 | | 123 | 133 |
| v/s Ratio Prot | c0.02 | c0.40 | | 0.01 | 0.15 | | | | | | | |
| v/s Ratio Perm | | | | | | | | 0.02 | 0.00 | | c0.04 | 0.00 |
| v/c Ratio | 0.43 | 0.51 | | 0.38 | 0.20 | | | 0.23 | 0.01 | | 0.49 | 0.03 |
| Uniform Delay, d1 | 69.8 | 5.4 | | 72.4 | 4.7 | | | 64.9 | 63.8 | | 66.3 | 63.9 |
| Progression Factor | 1.08 | 1.76 | | 0.81 | 1.14 | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.9 | 0.5 | | 2.1 | 0.2 | | | 2.2 | 0.0 | | 2.2 | 0.1 |
| Delay (s) | 76.3 | 10.0 | | 61.1 | 5.5 | | | 67.1 | 63.8 | | 68.5 | 63.9 |
| Level of Service | E | B | | E | A | | | E | E | | E | E |
| Approach Delay (s) | | 11.9 | | | 7.0 | | | 65.1 | | | 66.6 | |
| Approach LOS | | B | | | A | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 14.2 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.51 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 16.2 |
| Intersection Capacity Utilization | 56.3% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



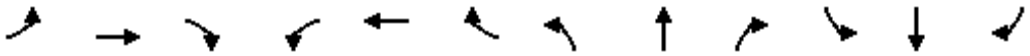
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 58 | 1019 | 5 | 15 | 457 | 178 | 4 | 9 | 12 | 458 | 12 | 100 |
| Future Volume (vph) | 58 | 1019 | 5 | 15 | 457 | 178 | 4 | 9 | 12 | 458 | 12 | 100 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.5 | 5.5 | | 5.5 | 5.5 | | 5.6 | 5.6 | | 5.5 | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 1.00 | 1.00 | | 0.95 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.98 | | 1.00 | 0.98 | | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.96 | | 1.00 | 0.92 | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.96 | 1.00 |
| Satd. Flow (prot) | 1770 | 3522 | | 1770 | 3308 | | 1770 | 1678 | | 1681 | 1691 | 1552 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.96 | 1.00 |
| Satd. Flow (perm) | 1770 | 3522 | | 1770 | 3308 | | 1770 | 1678 | | 1681 | 1691 | 1552 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 62 | 1084 | 5 | 16 | 486 | 189 | 4 | 10 | 13 | 487 | 13 | 106 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 62 | 1089 | 0 | 16 | 675 | 0 | 4 | 23 | 0 | 307 | 193 | 106 |
| Confl. Peds. (#/hr) | 12 | | 13 | 13 | | 12 | 3 | | 8 | 8 | | 3 |
| Confl. Bikes (#/hr) | | | 16 | | | 15 | | | 2 | | | 3 |
| Bus Blockages (#/hr) | 0 | 2 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Split | NA | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | 4 |
| Actuated Green, G (s) | 8.9 | 65.1 | | 4.8 | 61.0 | | 26.0 | 26.0 | | 30.8 | 30.8 | 30.8 |
| Effective Green, g (s) | 8.9 | 65.7 | | 4.8 | 61.6 | | 26.0 | 26.0 | | 31.4 | 31.4 | 31.4 |
| Actuated g/C Ratio | 0.06 | 0.44 | | 0.03 | 0.41 | | 0.17 | 0.17 | | 0.21 | 0.21 | 0.21 |
| Clearance Time (s) | 5.5 | 6.1 | | 5.5 | 6.1 | | 5.6 | 5.6 | | 6.1 | 6.1 | 6.1 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 1.0 | | 2.5 | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 105 | 1542 | | 56 | 1358 | | 306 | 290 | | 351 | 353 | 324 |
| v/s Ratio Prot | c0.04 | c0.31 | | 0.01 | 0.20 | | 0.00 | c0.01 | | c0.18 | 0.11 | |
| v/s Ratio Perm | | | | | | | | | | | | 0.07 |
| v/c Ratio | 0.59 | 0.71 | | 0.29 | 0.50 | | 0.01 | 0.08 | | 0.87 | 0.55 | 0.33 |
| Uniform Delay, d1 | 68.8 | 34.3 | | 70.9 | 32.7 | | 51.4 | 52.0 | | 57.4 | 52.9 | 50.3 |
| Progression Factor | 1.13 | 0.61 | | 1.68 | 0.32 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 5.2 | 2.5 | | 1.0 | 1.3 | | 0.0 | 0.0 | | 20.6 | 1.4 | 0.4 |
| Delay (s) | 82.9 | 23.3 | | 119.9 | 11.9 | | 51.4 | 52.0 | | 78.0 | 54.3 | 50.8 |
| Level of Service | F | C | | F | B | | D | D | | E | D | D |
| Approach Delay (s) | | 26.6 | | | 14.4 | | | 51.9 | | | 65.7 | |
| Approach LOS | | C | | | B | | | D | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 33.0 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.63 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 22.1 |
| Intersection Capacity Utilization | 72.9% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 24 | 1427 | 39 | 22 | 585 | 62 | 0 | 0 | 0 | 47 | 3 | 25 |
| Future Volume (vph) | 24 | 1427 | 39 | 22 | 585 | 62 | 0 | 0 | 0 | 47 | 3 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.6 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | | | | | 0.99 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | | | | 0.99 | |
| Frt | 1.00 | 1.00 | | 1.00 | 0.99 | | | | | | 0.96 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.97 | |
| Satd. Flow (prot) | 1770 | 3490 | | 1770 | 3439 | | | | | | 1699 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.97 | |
| Satd. Flow (perm) | 1770 | 3490 | | 1770 | 3439 | | | | | | 1699 | |
| Peak-hour factor, PHF | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Adj. Flow (vph) | 26 | 1568 | 43 | 24 | 643 | 68 | 0 | 0 | 0 | 52 | 3 | 27 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 12 | 0 |
| Lane Group Flow (vph) | 26 | 1610 | 0 | 24 | 707 | 0 | 0 | 0 | 0 | 0 | 70 | 0 |
| Confl. Peds. (#/hr) | 10 | | 9 | 9 | | 10 | 9 | | 5 | 5 | | 9 |
| Confl. Bikes (#/hr) | | | 20 | | | 17 | | | 4 | | | 1 |
| Bus Blockages (#/hr) | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | | | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | | | | 4 | |
| Permitted Phases | | | | | | | | | | 4 | | |
| Actuated Green, G (s) | 4.9 | 103.9 | | 4.4 | 103.4 | | | | | | 25.0 | |
| Effective Green, g (s) | 4.9 | 104.5 | | 4.4 | 104.0 | | | | | | 25.0 | |
| Actuated g/C Ratio | 0.03 | 0.70 | | 0.03 | 0.69 | | | | | | 0.17 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.6 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 | |
| Lane Grp Cap (vph) | 57 | 2431 | | 51 | 2384 | | | | | | 283 | |
| v/s Ratio Prot | c0.01 | c0.46 | | 0.01 | 0.21 | | | | | | | |
| v/s Ratio Perm | | | | | | | | | | | 0.04 | |
| v/c Ratio | 0.46 | 0.66 | | 0.47 | 0.30 | | | | | | 0.25 | |
| Uniform Delay, d1 | 71.2 | 12.8 | | 71.7 | 8.9 | | | | | | 54.3 | |
| Progression Factor | 1.07 | 0.64 | | 0.89 | 1.60 | | | | | | 1.00 | |
| Incremental Delay, d2 | 1.6 | 1.1 | | 2.0 | 0.3 | | | | | | 0.3 | |
| Delay (s) | 77.8 | 9.2 | | 65.8 | 14.5 | | | | | | 54.7 | |
| Level of Service | E | A | | E | B | | | | | | D | |
| Approach Delay (s) | | 10.3 | | | 16.2 | | | 0.0 | | | 54.7 | |
| Approach LOS | | B | | | B | | | A | | | D | |

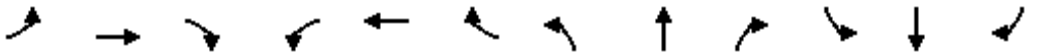
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 13.6 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.58 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 63.7% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 80 | 910 | 438 | 236 | 456 | 190 | 234 | 338 | 279 | 228 | 576 | 62 |
| Future Volume (vph) | 80 | 910 | 438 | 236 | 456 | 190 | 234 | 338 | 279 | 228 | 576 | 62 |
| Ideal Flow (vphpl) | 1900 | 2100 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | 5.0 | 5.1 | | 5.0 | 5.1 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 0.97 | 0.95 | | 1.00 | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.98 | | 1.00 | 0.98 | | 1.00 | 0.96 | | 1.00 | 0.99 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frt | 1.00 | 0.95 | | 1.00 | 0.96 | | 1.00 | 0.93 | | 1.00 | 0.99 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 3639 | | 1770 | 3322 | | 3433 | 3181 | | 1770 | 3467 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | 1770 | 3639 | | 1770 | 3322 | | 3433 | 3181 | | 1770 | 3467 | |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 85 | 968 | 466 | 251 | 485 | 202 | 249 | 360 | 297 | 243 | 613 | 66 |
| RTOR Reduction (vph) | 0 | 38 | 0 | 0 | 28 | 0 | 0 | 101 | 0 | 0 | 5 | 0 |
| Lane Group Flow (vph) | 85 | 1396 | 0 | 251 | 659 | 0 | 249 | 556 | 0 | 243 | 674 | 0 |
| Confl. Peds. (#/hr) | 25 | | 33 | 33 | | 25 | 31 | | 40 | 40 | | 31 |
| Confl. Bikes (#/hr) | | | 19 | | | 15 | | | 14 | | | 13 |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | 11.6 | 54.4 | | 22.2 | 65.0 | | 13.0 | 30.6 | | 21.0 | 38.6 | |
| Effective Green, g (s) | 11.6 | 55.0 | | 22.2 | 65.6 | | 13.0 | 31.2 | | 21.0 | 39.2 | |
| Actuated g/C Ratio | 0.08 | 0.37 | | 0.15 | 0.44 | | 0.09 | 0.21 | | 0.14 | 0.26 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | 5.0 | 5.7 | | 5.0 | 5.7 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | |
| Lane Grp Cap (vph) | 136 | 1334 | | 261 | 1452 | | 297 | 661 | | 247 | 906 | |
| v/s Ratio Prot | 0.05 | c0.38 | | c0.14 | 0.20 | | 0.07 | c0.17 | | c0.14 | 0.19 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | 0.62 | 1.05 | | 0.96 | 0.45 | | 0.84 | 0.84 | | 0.98 | 0.74 | |
| Uniform Delay, d1 | 67.1 | 47.5 | | 63.5 | 29.6 | | 67.5 | 57.0 | | 64.3 | 50.8 | |
| Progression Factor | 1.01 | 1.03 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 4.9 | 34.9 | | 44.7 | 1.0 | | 17.6 | 9.3 | | 52.2 | 3.2 | |
| Delay (s) | 72.7 | 83.7 | | 108.2 | 30.6 | | 85.0 | 66.3 | | 116.6 | 54.0 | |
| Level of Service | E | F | | F | C | | F | E | | F | D | |
| Approach Delay (s) | | 83.1 | | | 51.4 | | | 71.5 | | | 70.5 | |
| Approach LOS | | F | | | D | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 71.0 | HCM 2000 Level of Service | E |
| HCM 2000 Volume to Capacity ratio | 0.97 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 20.6 |
| Intersection Capacity Utilization | 104.7% | ICU Level of Service | G |
| Analysis Period (min) | 15 | | |

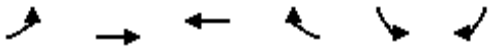
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 16 | 52 | 34 | 458 | 22 | 489 | 15 | 1228 | 252 | 213 | 587 | 19 |
| Future Volume (vph) | 16 | 52 | 34 | 458 | 22 | 489 | 15 | 1228 | 252 | 213 | 587 | 19 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Lane Util. Factor | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | | 1.00 | 0.93 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | | 1841 | 1472 | 1681 | 1693 | 1558 | 1770 | 3539 | 1533 | 1770 | 3539 | 1549 |
| Flt Permitted | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | | 1841 | 1472 | 1681 | 1693 | 1558 | 1770 | 3539 | 1533 | 1770 | 3539 | 1549 |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 17 | 54 | 35 | 477 | 23 | 509 | 16 | 1279 | 262 | 222 | 611 | 20 |
| RTOR Reduction (vph) | 0 | 0 | 31 | 0 | 0 | 398 | 0 | 0 | 125 | 0 | 0 | 10 |
| Lane Group Flow (vph) | 0 | 71 | 4 | 248 | 252 | 111 | 16 | 1279 | 138 | 222 | 611 | 10 |
| Confl. Peds. (#/hr) | 2 | | 3 | 3 | | 2 | | | | | | |
| Confl. Bikes (#/hr) | | | 25 | | | 1 | | | 12 | | | 2 |
| Turn Type | Split | NA | Perm | Split | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 4 | 4 | | 3 | 3 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 3 | | | 2 | | | 6 |
| Actuated Green, G (s) | | 15.3 | 15.3 | 32.8 | 32.8 | 32.8 | 3.4 | 56.9 | 56.9 | 24.0 | 77.7 | 77.7 |
| Effective Green, g (s) | | 15.3 | 15.3 | 32.8 | 32.8 | 32.8 | 3.4 | 56.9 | 56.9 | 24.0 | 77.7 | 77.7 |
| Actuated g/C Ratio | | 0.10 | 0.10 | 0.22 | 0.22 | 0.22 | 0.02 | 0.38 | 0.38 | 0.16 | 0.52 | 0.52 |
| Clearance Time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Vehicle Extension (s) | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 |
| Lane Grp Cap (vph) | | 187 | 150 | 367 | 370 | 340 | 40 | 1342 | 581 | 283 | 1833 | 802 |
| v/s Ratio Prot | | c0.04 | | 0.15 | c0.15 | | 0.01 | c0.36 | | c0.13 | 0.17 | |
| v/s Ratio Perm | | | 0.00 | | | 0.07 | | | 0.09 | | | 0.01 |
| v/c Ratio | | 0.38 | 0.02 | 0.68 | 0.68 | 0.33 | 0.40 | 0.95 | 0.24 | 0.78 | 0.33 | 0.01 |
| Uniform Delay, d1 | | 62.9 | 60.6 | 53.7 | 53.8 | 49.3 | 72.3 | 45.3 | 31.7 | 60.5 | 21.1 | 17.5 |
| 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 | | 1.8 | 0.1 | 5.3 | 5.5 | 0.8 | 6.4 | 15.6 | 1.0 | 13.3 | 0.1 | 0.0 |
| Delay (s) | | 64.7 | 60.7 | 59.0 | 59.3 | 50.1 | 78.7 | 60.9 | 32.7 | 73.8 | 21.2 | 17.6 |
| Level of Service | | E | E | E | E | D | E | E | C | E | C | B |
| Approach Delay (s) | | 63.4 | | | 54.6 | | | 56.3 | | | 34.8 | |
| Approach LOS | | E | | | D | | | E | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 50.8 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.78 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 21.0 |
| Intersection Capacity Utilization | 87.1% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

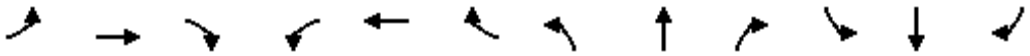
c Critical Lane Group



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↑ | ↱ | ↰ | ↱ |
| Traffic Volume (veh/h) | 0 | 517 | 934 | 133 | 87 | 31 |
| Future Volume (Veh/h) | 0 | 517 | 934 | 133 | 87 | 31 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 562 | 1015 | 145 | 95 | 34 |
| Pedestrians | | 1 | | | 4 | |
| Lane Width (ft) | | 12.0 | | | 12.0 | |
| Walking Speed (ft/s) | | 4.0 | | | 4.0 | |
| Percent Blockage | | 0 | | | 0 | |
| Right turn flare (veh) | | | | | | 7 |
| Median type | | Raised | None | | | |
| Median storage veh) | | 2 | | | | |
| Upstream signal (ft) | | 171 | 1027 | | | |
| pX, platoon unblocked | 0.56 | | | | 0.57 | 0.56 |
| vC, conflicting volume | 1164 | | | | 1581 | 1020 |
| vC1, stage 1 conf vol | | | | | 1019 | |
| vC2, stage 2 conf vol | | | | | 562 | |
| vCu, unblocked vol | 900 | | | | 1538 | 642 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | 5.4 | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 100 | | | | 63 | 87 |
| cM capacity (veh/h) | 421 | | | | 260 | 264 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 562 | 1015 | 145 | 129 |
| Volume Left | 0 | 0 | 0 | 95 |
| Volume Right | 0 | 0 | 145 | 34 |
| cSH | 1700 | 1700 | 1700 | 353 |
| Volume to Capacity | 0.33 | 0.60 | 0.09 | 0.37 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 41 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 25.0 |
| Lane LOS | | | | D |
| Approach Delay (s) | 0.0 | 0.0 | | 25.0 |
| Approach LOS | | | | D |

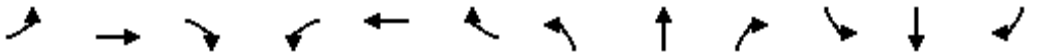
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.7 | | |
| Intersection Capacity Utilization | 60.9% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 28 | 547 | 11 | 14 | 892 | 36 | 28 | 3 | 53 | 54 | 0 | 55 |
| Future Volume (vph) | 28 | 547 | 11 | 14 | 892 | 36 | 28 | 3 | 53 | 54 | 0 | 55 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 0.82 | | | 0.99 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | | | 0.92 | |
| Frt | 1.00 | 1.00 | | 1.00 | 0.99 | | | 0.91 | | | 0.93 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.98 | | | 0.98 | |
| Satd. Flow (prot) | 1770 | 1854 | | 1770 | 1849 | | | 1373 | | | 1538 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.79 | | | 0.72 | |
| Satd. Flow (perm) | 1770 | 1854 | | 1770 | 1849 | | | 1096 | | | 1137 | |
| Peak-hour factor, PHF | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Adj. Flow (vph) | 30 | 588 | 12 | 15 | 959 | 39 | 30 | 3 | 57 | 58 | 0 | 59 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 51 | 0 | 0 | 108 | 0 |
| Lane Group Flow (vph) | 30 | 600 | 0 | 15 | 997 | 0 | 0 | 39 | 0 | 0 | 9 | 0 |
| Confl. Peds. (#/hr) | 9 | | 34 | 34 | | 9 | 1 | | 41 | 41 | | 1 |
| Confl. Bikes (#/hr) | | | 90 | | | 10 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | |
| Actuated Green, G (s) | 4.9 | 86.1 | | 2.8 | 84.0 | | | 9.9 | | | 9.9 | |
| Effective Green, g (s) | 4.9 | 86.1 | | 2.8 | 84.0 | | | 9.9 | | | 9.9 | |
| Actuated g/C Ratio | 0.04 | 0.66 | | 0.02 | 0.65 | | | 0.08 | | | 0.08 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | | | 2.5 | |
| Lane Grp Cap (vph) | 66 | 1227 | | 38 | 1194 | | | 83 | | | 86 | |
| v/s Ratio Prot | c0.02 | 0.32 | | 0.01 | c0.54 | | | | | | | |
| v/s Ratio Perm | | | | | | | | c0.04 | | | 0.01 | |
| v/c Ratio | 0.45 | 0.49 | | 0.39 | 0.84 | | | 0.47 | | | 0.10 | |
| Uniform Delay, d1 | 61.2 | 11.0 | | 62.8 | 17.7 | | | 57.5 | | | 55.9 | |
| Progression Factor | 1.00 | 1.00 | | 1.07 | 0.69 | | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 1.8 | 1.4 | | 2.0 | 5.8 | | | 3.1 | | | 0.4 | |
| Delay (s) | 63.0 | 12.4 | | 69.1 | 18.0 | | | 60.6 | | | 56.3 | |
| Level of Service | E | B | | E | B | | | E | | | E | |
| Approach Delay (s) | | 14.8 | | | 18.8 | | | 60.6 | | | 56.3 | |
| Approach LOS | | B | | | B | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 21.8 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.72 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 22.8 |
| Intersection Capacity Utilization | 69.0% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

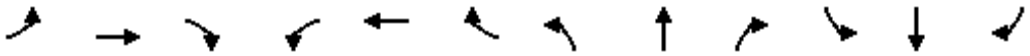
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 70 | 594 | 3 | 2 | 854 | 209 | 24 | 12 | 11 | 123 | 10 | 88 |
| Future Volume (vph) | 70 | 594 | 3 | 2 | 854 | 209 | 24 | 12 | 11 | 123 | 10 | 88 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.6 | | | 5.6 | 5.6 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.98 | | | 0.99 | | | 1.00 | 0.92 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 0.97 | | | 0.97 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.97 | | | 0.97 | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | | | 0.96 | 1.00 |
| Satd. Flow (prot) | 1770 | 1860 | | 1770 | 3350 | | | 1692 | | | 1730 | 1457 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.79 | | | 0.74 | 1.00 |
| Satd. Flow (perm) | 1770 | 1860 | | 1770 | 3350 | | | 1371 | | | 1334 | 1457 |
| Peak-hour factor, PHF | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Adj. Flow (vph) | 84 | 716 | 4 | 2 | 1029 | 252 | 29 | 14 | 13 | 148 | 12 | 106 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 9 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 84 | 720 | 0 | 2 | 1267 | 0 | 0 | 47 | 0 | 0 | 160 | 106 |
| Confl. Peds. (#/hr) | 33 | | 18 | 18 | | 33 | 48 | | 14 | 14 | | 48 |
| Confl. Bikes (#/hr) | | | 114 | | | 10 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 |
| Actuated Green, G (s) | 10.0 | 87.6 | | 1.4 | 79.0 | | | 24.3 | | | 24.3 | 24.3 |
| Effective Green, g (s) | 10.0 | 88.2 | | 1.4 | 79.6 | | | 24.3 | | | 24.3 | 24.3 |
| Actuated g/C Ratio | 0.08 | 0.68 | | 0.01 | 0.61 | | | 0.19 | | | 0.19 | 0.19 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | 5.6 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 136 | 1261 | | 19 | 2051 | | | 256 | | | 249 | 272 |
| v/s Ratio Prot | c0.05 | 0.39 | | 0.00 | c0.38 | | | | | | | |
| v/s Ratio Perm | | | | | | | | 0.03 | | | c0.12 | 0.07 |
| v/c Ratio | 0.62 | 0.57 | | 0.11 | 0.62 | | | 0.18 | | | 0.64 | 0.39 |
| Uniform Delay, d1 | 58.1 | 11.0 | | 63.7 | 15.7 | | | 44.5 | | | 48.8 | 46.3 |
| Progression Factor | 1.06 | 0.63 | | 1.36 | 0.28 | | | 1.00 | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 5.4 | 1.8 | | 0.8 | 1.2 | | | 0.3 | | | 4.9 | 0.7 |
| Delay (s) | 66.8 | 8.6 | | 87.6 | 5.6 | | | 44.8 | | | 53.8 | 47.0 |
| Level of Service | E | A | | F | A | | | D | | | D | D |
| Approach Delay (s) | | 14.7 | | | 5.7 | | | 44.8 | | | 51.1 | |
| Approach LOS | | B | | | A | | | D | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 14.6 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.62 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 76.7% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

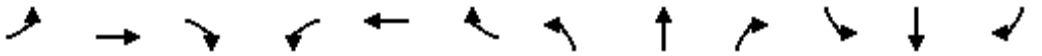
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 720 | 3 | 10 | 916 | 0 | 4 | 0 | 30 | 147 | 2 | 143 |
| Future Volume (vph) | 0 | 720 | 3 | 10 | 916 | 0 | 4 | 0 | 30 | 147 | 2 | 143 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | 6.0 | 6.0 | |
| Lane Util. Factor | | 1.00 | | 1.00 | 0.95 | | | 1.00 | | 1.00 | 1.00 | |
| Frpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 0.97 | |
| Flpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 1.00 | |
| Frt | | 1.00 | | 1.00 | 1.00 | | | 0.88 | | 1.00 | 0.85 | |
| Flt Protected | | 1.00 | | 0.95 | 1.00 | | | 0.99 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | | 1860 | | 1770 | 3539 | | | 1631 | | 1770 | 1546 | |
| Flt Permitted | | 1.00 | | 0.95 | 1.00 | | | 0.99 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | | 1860 | | 1770 | 3539 | | | 1631 | | 1770 | 1546 | |
| Peak-hour factor, PHF | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Adj. Flow (vph) | 0 | 923 | 4 | 13 | 1174 | 0 | 5 | 0 | 38 | 188 | 3 | 183 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 927 | 0 | 13 | 1174 | 0 | 0 | 1 | 0 | 188 | 186 | 0 |
| Confl. Peds. (#/hr) | 52 | | 17 | 17 | | 52 | 10 | | | | | 10 |
| Confl. Bikes (#/hr) | | | 137 | | | 11 | | | | | | |
| Turn Type | | NA | | Prot | NA | | Split | NA | | Split | NA | |
| Protected Phases | | 2 | | 1 | 6 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | | 81.0 | | 3.0 | 89.0 | | | 4.4 | | 20.6 | 20.6 | |
| Effective Green, g (s) | | 81.0 | | 2.0 | 89.0 | | | 3.4 | | 19.6 | 19.6 | |
| Actuated g/C Ratio | | 0.62 | | 0.02 | 0.68 | | | 0.03 | | 0.15 | 0.15 | |
| Clearance Time (s) | | 6.0 | | 5.0 | 6.0 | | | 5.0 | | 5.0 | 5.0 | |
| Vehicle Extension (s) | | 5.0 | | 3.0 | 5.0 | | | 3.0 | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | | 1158 | | 27 | 2422 | | | 42 | | 266 | 233 | |
| v/s Ratio Prot | | c0.50 | | 0.01 | c0.33 | | | c0.00 | | 0.11 | c0.12 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | | 0.80 | | 0.48 | 0.48 | | | 0.03 | | 0.71 | 0.80 | |
| Uniform Delay, d1 | | 18.4 | | 63.5 | 9.7 | | | 61.7 | | 52.5 | 53.3 | |
| Progression Factor | | 0.76 | | 1.21 | 0.27 | | | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | | 5.1 | | 10.2 | 0.5 | | | 0.3 | | 8.3 | 17.1 | |
| Delay (s) | | 19.1 | | 87.0 | 3.1 | | | 61.9 | | 60.8 | 70.4 | |
| Level of Service | | B | | F | A | | | E | | E | E | |
| Approach Delay (s) | | 19.1 | | | 4.1 | | | 61.9 | | | 65.6 | |
| Approach LOS | | B | | | A | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 19.6 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.78 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 24.0 |
| Intersection Capacity Utilization | 64.8% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

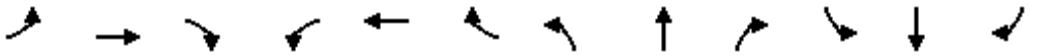
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 111 | 604 | 144 | 143 | 807 | 265 | 0 | 0 | 0 | 107 | 12 | 106 |
| Future Volume (vph) | 111 | 604 | 144 | 143 | 807 | 265 | 0 | 0 | 0 | 107 | 12 | 106 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | 6.1 | 5.0 | 5.5 | | | | | | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | | | | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | 0.92 | 1.00 | 0.98 | | | | | | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 0.96 | | | | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | | | | | | 0.96 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | 1452 | 1770 | 3347 | | | | | | 1782 | 1583 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | | | | | | 0.96 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | 1452 | 1770 | 3347 | | | | | | 1782 | 1583 |
| Peak-hour factor, PHF | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 |
| Adj. Flow (vph) | 152 | 827 | 197 | 196 | 1105 | 363 | 0 | 0 | 0 | 147 | 16 | 145 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 105 |
| Lane Group Flow (vph) | 152 | 827 | 197 | 196 | 1449 | 0 | 0 | 0 | 0 | 0 | 163 | 40 |
| Confl. Peds. (#/hr) | 16 | | 27 | 27 | | 16 | | | 1 | 1 | | |
| Confl. Bikes (#/hr) | | | 66 | | | 11 | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | | | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | | | | 4 | 4 | |
| Permitted Phases | | | 6 | | | | | | | | | 4 |
| Actuated Green, G (s) | 13.3 | 79.9 | 79.9 | 18.2 | 84.8 | | | | | | 15.1 | 15.1 |
| Effective Green, g (s) | 13.3 | 80.5 | 79.9 | 18.2 | 85.4 | | | | | | 15.3 | 15.3 |
| Actuated g/C Ratio | 0.10 | 0.62 | 0.61 | 0.14 | 0.66 | | | | | | 0.12 | 0.12 |
| Clearance Time (s) | 5.0 | 6.1 | 6.1 | 5.0 | 6.1 | | | | | | 5.7 | 5.7 |
| Vehicle Extension (s) | 1.0 | 2.5 | 2.5 | 1.0 | 2.5 | | | | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 181 | 1153 | 892 | 247 | 2198 | | | | | | 209 | 186 |
| v/s Ratio Prot | c0.09 | c0.44 | | c0.11 | 0.43 | | | | | | c0.09 | |
| v/s Ratio Perm | | | 0.14 | | | | | | | | | 0.03 |
| v/c Ratio | 0.84 | 0.72 | 0.22 | 0.79 | 0.66 | | | | | | 0.78 | 0.22 |
| Uniform Delay, d1 | 57.3 | 17.0 | 11.2 | 54.1 | 13.5 | | | | | | 55.7 | 51.9 |
| Progression Factor | 0.87 | 0.63 | 0.78 | 1.26 | 0.25 | | | | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 20.0 | 1.4 | 0.1 | 10.6 | 1.1 | | | | | | 16.1 | 0.4 |
| Delay (s) | 70.0 | 12.1 | 8.8 | 78.8 | 4.5 | | | | | | 71.8 | 52.3 |
| Level of Service | E | B | A | E | A | | | | | | E | D |
| Approach Delay (s) | | 19.1 | | | 13.2 | | | 0.0 | | | 62.6 | |
| Approach LOS | | B | | | B | | | A | | | E | |

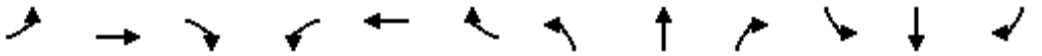
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 20.2 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.74 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.0 |
| Intersection Capacity Utilization | 66.3% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group



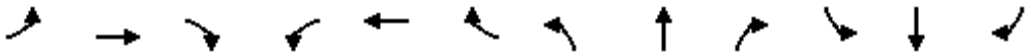
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 28 | 669 | 18 | 2 | 1002 | 126 | 64 | 4 | 19 | 167 | 3 | 135 |
| Future Volume (vph) | 28 | 669 | 18 | 2 | 1002 | 126 | 64 | 4 | 19 | 167 | 3 | 135 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2100 | 2100 | 1900 | 2100 | 2100 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | 4.0 | 5.7 | | 4.0 | 5.7 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | 1.00 | 0.97 | | 1.00 | 0.96 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frt | 1.00 | 0.80 | | 1.00 | 0.98 | | 1.00 | 0.88 | | 1.00 | 0.85 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 2811 | | 1770 | 3436 | | 1770 | 1757 | | 1770 | 1689 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | 1770 | 2811 | | 1770 | 3436 | | 1770 | 500 | | 1770 | 1689 | |
| Peak-hour factor, PHF | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 |
| Adj. Flow (vph) | 41 | 970 | 26 | 3 | 1452 | 183 | 93 | 6 | 28 | 242 | 4 | 196 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 6 | 0 | 0 | 26 | 0 | 0 | 151 | 0 |
| Lane Group Flow (vph) | 41 | 995 | 0 | 3 | 1629 | 0 | 93 | 8 | 0 | 242 | 49 | 0 |
| Confl. Peds. (#/hr) | 24 | | 25 | 25 | | 24 | 19 | | 9 | 9 | | 19 |
| Confl. Bikes (#/hr) | | | 67 | | | 19 | | | 2 | | | |
| Bus Blockages (#/hr) | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | 6.4 | 80.4 | | 1.6 | 75.6 | | 11.2 | 8.0 | | 19.2 | 16.0 | |
| Effective Green, g (s) | 6.4 | 81.0 | | 1.6 | 76.2 | | 11.2 | 8.0 | | 19.2 | 16.0 | |
| Actuated g/C Ratio | 0.05 | 0.62 | | 0.01 | 0.59 | | 0.09 | 0.06 | | 0.15 | 0.12 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | 4.0 | 5.7 | | 4.0 | 5.7 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 3.0 | 2.5 | | 3.0 | 2.5 | |
| Lane Grp Cap (vph) | 87 | 1751 | | 21 | 2014 | | 152 | 108 | | 261 | 207 | |
| v/s Ratio Prot | c0.02 | c0.35 | | 0.00 | c0.47 | | 0.05 | 0.00 | | c0.14 | c0.03 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | 0.47 | 0.57 | | 0.14 | 0.81 | | 0.61 | 0.07 | | 0.93 | 0.24 | |
| Uniform Delay, d1 | 60.2 | 14.3 | | 63.5 | 21.2 | | 57.3 | 57.5 | | 54.7 | 51.5 | |
| Progression Factor | 0.83 | 1.36 | | 1.33 | 0.40 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 1.1 | 1.0 | | 0.1 | 0.3 | | 7.1 | 0.2 | | 36.3 | 0.4 | |
| Delay (s) | 51.2 | 20.4 | | 84.5 | 8.8 | | 64.4 | 57.7 | | 91.0 | 51.9 | |
| Level of Service | D | C | | F | A | | E | E | | F | D | |
| Approach Delay (s) | | 21.7 | | | 9.0 | | | 62.6 | | | 73.3 | |
| Approach LOS | | C | | | A | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 23.9 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.78 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 20.2 |
| Intersection Capacity Utilization | 63.8% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



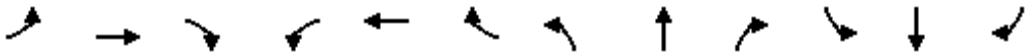
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 64 | 581 | 172 | 68 | 860 | 196 | 115 | 113 | 34 | 228 | 92 | 76 |
| Future Volume (vph) | 64 | 581 | 172 | 68 | 860 | 196 | 115 | 113 | 34 | 228 | 92 | 76 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.5 | 5.5 | | 5.5 | 5.5 | | 5.6 | 5.6 | | 5.5 | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 1.00 | 1.00 | | 0.95 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 0.92 | | 1.00 | 0.95 | | 1.00 | 0.93 | | 1.00 | 1.00 | 0.75 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.97 | | 1.00 | 0.97 | | 1.00 | 0.97 | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.98 | 1.00 |
| Satd. Flow (prot) | 1770 | 3128 | | 1770 | 3248 | | 1770 | 1677 | | 1681 | 1728 | 1181 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.98 | 1.00 |
| Satd. Flow (perm) | 1770 | 3128 | | 1770 | 3248 | | 1770 | 1677 | | 1681 | 1728 | 1181 |
| Peak-hour factor, PHF | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| Adj. Flow (vph) | 89 | 807 | 239 | 94 | 1194 | 272 | 160 | 157 | 47 | 317 | 128 | 106 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 89 | 1046 | 0 | 94 | 1466 | 0 | 160 | 204 | 0 | 200 | 245 | 106 |
| Confl. Peds. (#/hr) | 119 | | 180 | 180 | | 119 | 104 | | 189 | 189 | | 104 |
| Confl. Bikes (#/hr) | | | 10 | | | 22 | | | 4 | | | 117 |
| Bus Blockages (#/hr) | 0 | 2 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Split | NA | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | 4 |
| Actuated Green, G (s) | 11.0 | 43.7 | | 12.0 | 44.7 | | 26.0 | 26.0 | | 25.0 | 25.0 | 25.0 |
| Effective Green, g (s) | 11.0 | 44.3 | | 12.0 | 45.3 | | 26.0 | 26.0 | | 25.6 | 25.6 | 25.6 |
| Actuated g/C Ratio | 0.08 | 0.34 | | 0.09 | 0.35 | | 0.20 | 0.20 | | 0.20 | 0.20 | 0.20 |
| Clearance Time (s) | 5.5 | 6.1 | | 5.5 | 6.1 | | 5.6 | 5.6 | | 6.1 | 6.1 | 6.1 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 1.0 | | 2.5 | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 149 | 1065 | | 163 | 1131 | | 354 | 335 | | 331 | 340 | 232 |
| v/s Ratio Prot | 0.05 | 0.33 | | c0.05 | c0.45 | | 0.09 | c0.12 | | 0.12 | c0.14 | |
| v/s Ratio Perm | | | | | | | | | | | | 0.09 |
| v/c Ratio | 0.60 | 0.98 | | 0.58 | 1.30 | | 0.45 | 0.61 | | 0.60 | 0.72 | 0.46 |
| Uniform Delay, d1 | 57.4 | 42.5 | | 56.6 | 42.4 | | 45.7 | 47.4 | | 47.6 | 48.9 | 46.1 |
| Progression Factor | 0.92 | 0.89 | | 1.12 | 0.50 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 3.4 | 20.9 | | 1.7 | 137.1 | | 0.3 | 2.1 | | 2.6 | 6.9 | 1.0 |
| Delay (s) | 56.3 | 58.7 | | 65.2 | 158.3 | | 46.1 | 49.5 | | 50.2 | 55.7 | 47.1 |
| Level of Service | E | E | | E | F | | D | D | | D | E | D |
| Approach Delay (s) | | 58.5 | | | 152.7 | | | 48.0 | | | 52.1 | |
| Approach LOS | | E | | | F | | | D | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 97.2 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 0.93 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 22.1 |
| Intersection Capacity Utilization | 103.3% | ICU Level of Service | G |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 112 | 731 | 96 | 53 | 1132 | 94 | 0 | 0 | 0 | 47 | 60 | 51 |
| Future Volume (vph) | 112 | 731 | 96 | 53 | 1132 | 94 | 0 | 0 | 0 | 47 | 60 | 51 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.6 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.96 | | 1.00 | 0.99 | | | | | | 0.94 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | | | | 0.94 | |
| Frt | 1.00 | 0.98 | | 1.00 | 0.99 | | | | | | 0.96 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.99 | |
| Satd. Flow (prot) | 1770 | 3307 | | 1770 | 3453 | | | | | | 1557 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.99 | |
| Satd. Flow (perm) | 1770 | 3307 | | 1770 | 3453 | | | | | | 1557 | |
| Peak-hour factor, PHF | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| Adj. Flow (vph) | 149 | 975 | 128 | 71 | 1509 | 125 | 0 | 0 | 0 | 63 | 80 | 68 |
| RTOR Reduction (vph) | 0 | 7 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 13 | 0 |
| Lane Group Flow (vph) | 149 | 1096 | 0 | 71 | 1629 | 0 | 0 | 0 | 0 | 0 | 198 | 0 |
| Confl. Peds. (#/hr) | 10 | | 73 | 73 | | 10 | 102 | | 128 | 128 | | 102 |
| Confl. Bikes (#/hr) | | | 11 | | | 25 | | | | | | 10 |
| Bus Blockages (#/hr) | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | | | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | | | | 4 | |
| Permitted Phases | | | | | | | | | | 4 | | |
| Actuated Green, G (s) | 13.6 | 80.8 | | 7.4 | 74.6 | | | | | | 25.1 | |
| Effective Green, g (s) | 13.6 | 81.4 | | 7.4 | 75.2 | | | | | | 25.1 | |
| Actuated g/C Ratio | 0.10 | 0.63 | | 0.06 | 0.58 | | | | | | 0.19 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.6 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 | |
| Lane Grp Cap (vph) | 185 | 2070 | | 100 | 1997 | | | | | | 300 | |
| v/s Ratio Prot | c0.08 | 0.33 | | 0.04 | c0.47 | | | | | | | |
| v/s Ratio Perm | | | | | | | | | | | 0.13 | |
| v/c Ratio | 0.81 | 0.53 | | 0.71 | 0.82 | | | | | | 0.66 | |
| Uniform Delay, d1 | 56.9 | 13.6 | | 60.2 | 21.9 | | | | | | 48.5 | |
| Progression Factor | 0.83 | 1.14 | | 0.90 | 0.70 | | | | | | 1.00 | |
| Incremental Delay, d2 | 12.8 | 0.6 | | 13.0 | 2.8 | | | | | | 4.8 | |
| Delay (s) | 60.1 | 16.0 | | 67.0 | 18.1 | | | | | | 53.3 | |
| Level of Service | E | B | | E | B | | | | | | D | |
| Approach Delay (s) | | 21.3 | | | 20.1 | | | 0.0 | | | 53.3 | |
| Approach LOS | | C | | | C | | | A | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 22.8 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.78 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 75.2% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 124 | 572 | 153 | 199 | 833 | 211 | 214 | 379 | 270 | 198 | 262 | 166 |
| Future Volume (vph) | 124 | 572 | 153 | 199 | 833 | 211 | 214 | 379 | 270 | 198 | 262 | 166 |
| Ideal Flow (vphpl) | 1900 | 2100 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | 5.0 | 5.1 | | 5.0 | 5.1 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 0.97 | 0.95 | | 1.00 | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.98 | | 1.00 | 0.99 | | 1.00 | 0.98 | | 1.00 | 0.98 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frt | 1.00 | 0.97 | | 1.00 | 0.97 | | 1.00 | 0.94 | | 1.00 | 0.94 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 3710 | | 1770 | 3384 | | 3433 | 3238 | | 1770 | 3251 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | 1770 | 3710 | | 1770 | 3384 | | 3433 | 3238 | | 1770 | 3251 | |
| Peak-hour factor, PHF | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Adj. Flow (vph) | 143 | 657 | 176 | 229 | 957 | 243 | 246 | 436 | 310 | 228 | 301 | 191 |
| RTOR Reduction (vph) | 0 | 18 | 0 | 0 | 17 | 0 | 0 | 101 | 0 | 0 | 79 | 0 |
| Lane Group Flow (vph) | 143 | 815 | 0 | 229 | 1183 | 0 | 246 | 645 | 0 | 228 | 413 | 0 |
| Confl. Peds. (#/hr) | 37 | | 65 | 65 | | 37 | 44 | | 37 | 37 | | 44 |
| Confl. Bikes (#/hr) | | | 12 | | | 5 | | | 4 | | | 6 |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | 11.2 | 41.8 | | 18.9 | 49.5 | | 12.0 | 30.5 | | 17.0 | 35.5 | |
| Effective Green, g (s) | 11.2 | 42.4 | | 18.9 | 50.1 | | 12.0 | 31.1 | | 17.0 | 36.1 | |
| Actuated g/C Ratio | 0.09 | 0.33 | | 0.15 | 0.39 | | 0.09 | 0.24 | | 0.13 | 0.28 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | 5.0 | 5.7 | | 5.0 | 5.7 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | |
| Lane Grp Cap (vph) | 152 | 1210 | | 257 | 1304 | | 316 | 774 | | 231 | 902 | |
| v/s Ratio Prot | 0.08 | 0.22 | | c0.13 | c0.35 | | 0.07 | c0.20 | | c0.13 | c0.13 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | 0.94 | 0.67 | | 0.89 | 0.91 | | 0.78 | 0.83 | | 0.99 | 0.46 | |
| Uniform Delay, d1 | 59.1 | 37.8 | | 54.5 | 37.8 | | 57.7 | 47.0 | | 56.4 | 38.9 | |
| Progression Factor | 1.18 | 0.65 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 50.0 | 2.6 | | 28.9 | 10.8 | | 10.5 | 7.5 | | 54.9 | 0.3 | |
| Delay (s) | 119.4 | 27.1 | | 83.4 | 48.5 | | 68.2 | 54.5 | | 111.3 | 39.1 | |
| Level of Service | F | C | | F | D | | E | D | | F | D | |
| Approach Delay (s) | | 40.7 | | | 54.1 | | | 57.9 | | | 62.0 | |
| Approach LOS | | D | | | D | | | E | | | E | |

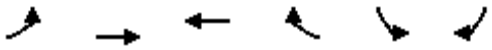
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 53.2 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.90 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 20.6 |
| Intersection Capacity Utilization | 93.9% | ICU Level of Service | F |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 6 | 23 | 14 | 332 | 24 | 187 | 18 | 521 | 269 | 366 | 1128 | 17 |
| Future Volume (vph) | 6 | 23 | 14 | 332 | 24 | 187 | 18 | 521 | 269 | 366 | 1128 | 17 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Lane Util. Factor | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | | 1.00 | 0.98 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | | 1844 | 1551 | 1681 | 1697 | 1534 | 1770 | 3539 | 1548 | 1770 | 3539 | 1546 |
| Flt Permitted | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | | 1844 | 1551 | 1681 | 1697 | 1534 | 1770 | 3539 | 1548 | 1770 | 3539 | 1546 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 6 | 24 | 15 | 353 | 26 | 199 | 19 | 554 | 286 | 389 | 1200 | 18 |
| RTOR Reduction (vph) | 0 | 0 | 14 | 0 | 0 | 165 | 0 | 0 | 192 | 0 | 0 | 8 |
| Lane Group Flow (vph) | 0 | 30 | 1 | 191 | 188 | 34 | 19 | 554 | 94 | 389 | 1200 | 10 |
| Confl. Peds. (#/hr) | 2 | | 2 | 2 | | 2 | | | | | | |
| Confl. Bikes (#/hr) | | | 2 | | | 13 | | | 2 | | | 5 |
| Turn Type | Split | NA | Perm | Split | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 4 | 4 | | 3 | 3 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 3 | | | 2 | | | 6 |
| Actuated Green, G (s) | | 8.4 | 8.4 | 20.7 | 20.7 | 20.7 | 3.4 | 39.6 | 39.6 | 30.3 | 66.7 | 66.7 |
| Effective Green, g (s) | | 8.4 | 8.4 | 20.7 | 20.7 | 20.7 | 3.4 | 39.6 | 39.6 | 30.3 | 66.7 | 66.7 |
| Actuated g/C Ratio | | 0.07 | 0.07 | 0.17 | 0.17 | 0.17 | 0.03 | 0.33 | 0.33 | 0.25 | 0.56 | 0.56 |
| Clearance Time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Vehicle Extension (s) | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 |
| Lane Grp Cap (vph) | | 129 | 108 | 289 | 292 | 264 | 50 | 1167 | 510 | 446 | 1967 | 859 |
| v/s Ratio Prot | | c0.02 | | c0.11 | 0.11 | | 0.01 | 0.16 | | c0.22 | c0.34 | |
| v/s Ratio Perm | | | 0.00 | | | 0.02 | | | 0.06 | | | 0.01 |
| v/c Ratio | | 0.23 | 0.01 | 0.66 | 0.64 | 0.13 | 0.38 | 0.47 | 0.19 | 0.87 | 0.61 | 0.01 |
| Uniform Delay, d1 | | 52.8 | 51.9 | 46.4 | 46.2 | 42.0 | 57.3 | 31.9 | 28.7 | 43.0 | 17.9 | 11.9 |
| 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 | | 1.3 | 0.0 | 6.1 | 5.3 | 0.3 | 4.8 | 1.4 | 0.8 | 16.9 | 0.6 | 0.0 |
| Delay (s) | | 54.0 | 52.0 | 52.5 | 51.6 | 42.3 | 62.0 | 33.3 | 29.5 | 59.9 | 18.6 | 11.9 |
| Level of Service | | D | D | D | D | D | E | C | C | E | B | B |
| Approach Delay (s) | | 53.3 | | | 48.7 | | | 32.7 | | | 28.5 | |
| Approach LOS | | D | | | D | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 33.8 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.68 | | |
| Actuated Cycle Length (s) | 120.0 | Sum of lost time (s) | 21.0 |
| Intersection Capacity Utilization | 67.9% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

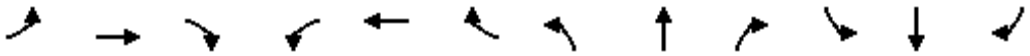
c Critical Lane Group



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 0 | 664 | 511 | 128 | 144 | 31 |
| Future Volume (Veh/h) | 0 | 664 | 511 | 128 | 144 | 31 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Hourly flow rate (vph) | 0 | 706 | 544 | 136 | 153 | 33 |
| Pedestrians | | 1 | | | 4 | |
| Lane Width (ft) | | 12.0 | | | 12.0 | |
| Walking Speed (ft/s) | | 4.0 | | | 4.0 | |
| Percent Blockage | | 0 | | | 0 | |
| Right turn flare (veh) | | | | | | 7 |
| Median type | | Raised | None | | | |
| Median storage veh) | | 2 | | | | |
| Upstream signal (ft) | | 171 | 1027 | | | |
| pX, platoon unblocked | 0.93 | | | | 0.93 | 0.93 |
| vC, conflicting volume | 684 | | | | 1254 | 549 |
| vC1, stage 1 conf vol | | | | | 548 | |
| vC2, stage 2 conf vol | | | | | 706 | |
| vCu, unblocked vol | 622 | | | | 1233 | 477 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | 5.4 | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 100 | | | | 62 | 94 |
| cM capacity (veh/h) | 888 | | | | 402 | 545 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 706 | 544 | 136 | 186 |
| Volume Left | 0 | 0 | 0 | 153 |
| Volume Right | 0 | 0 | 136 | 33 |
| cSH | 1700 | 1700 | 1700 | 488 |
| Volume to Capacity | 0.42 | 0.32 | 0.08 | 0.38 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 44 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 18.1 |
| Lane LOS | | | | C |
| Approach Delay (s) | 0.0 | 0.0 | | 18.1 |
| Approach LOS | | | | C |

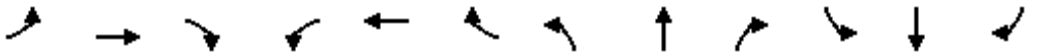
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 2.1 | | |
| Intersection Capacity Utilization | 49.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 28 | 706 | 22 | 20 | 484 | 53 | 10 | 1 | 18 | 39 | 0 | 26 |
| Future Volume (vph) | 28 | 706 | 22 | 20 | 484 | 53 | 10 | 1 | 18 | 39 | 0 | 26 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | | 0.93 | | | 1.00 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | | | 0.95 | |
| Frt | 1.00 | 1.00 | | 1.00 | 0.99 | | | 0.92 | | | 0.95 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.98 | | | 0.97 | |
| Satd. Flow (prot) | 1770 | 1852 | | 1770 | 1823 | | | 1562 | | | 1617 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.87 | | | 0.80 | |
| Satd. Flow (perm) | 1770 | 1852 | | 1770 | 1823 | | | 1384 | | | 1331 | |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 30 | 751 | 23 | 21 | 515 | 56 | 11 | 1 | 19 | 41 | 0 | 28 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 18 | 0 | 0 | 66 | 0 |
| Lane Group Flow (vph) | 30 | 773 | 0 | 21 | 569 | 0 | 0 | 13 | 0 | 0 | 3 | 0 |
| Confl. Peds. (#/hr) | 8 | | 30 | 30 | | 8 | | | 9 | 9 | | |
| Confl. Bikes (#/hr) | | | 10 | | | 84 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | |
| Actuated Green, G (s) | 4.9 | 92.7 | | 4.2 | 92.0 | | | 6.1 | | | 6.1 | |
| Effective Green, g (s) | 4.9 | 92.7 | | 4.2 | 92.0 | | | 6.1 | | | 6.1 | |
| Actuated g/C Ratio | 0.04 | 0.71 | | 0.03 | 0.71 | | | 0.05 | | | 0.05 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | | | 2.5 | |
| Lane Grp Cap (vph) | 66 | 1320 | | 57 | 1290 | | | 64 | | | 62 | |
| v/s Ratio Prot | c0.02 | c0.42 | | 0.01 | 0.31 | | | | | | | |
| v/s Ratio Perm | | | | | | | | c0.01 | | | 0.00 | |
| v/c Ratio | 0.45 | 0.59 | | 0.37 | 0.44 | | | 0.20 | | | 0.05 | |
| Uniform Delay, d1 | 61.2 | 9.2 | | 61.6 | 8.1 | | | 59.6 | | | 59.2 | |
| Progression Factor | 1.00 | 1.00 | | 0.78 | 1.43 | | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 1.8 | 1.9 | | 1.4 | 1.1 | | | 1.1 | | | 0.3 | |
| Delay (s) | 63.0 | 11.1 | | 49.7 | 12.7 | | | 60.7 | | | 59.4 | |
| Level of Service | E | B | | D | B | | | E | | | E | |
| Approach Delay (s) | | 13.0 | | | 14.0 | | | 60.7 | | | 59.4 | |
| Approach LOS | | B | | | B | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 16.5 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.54 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 22.8 |
| Intersection Capacity Utilization | 54.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

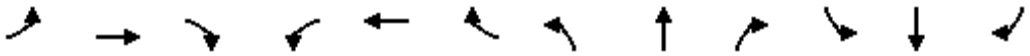
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 55 | 696 | 16 | 2 | 498 | 59 | 9 | 1 | 5 | 76 | 1 | 56 |
| Future Volume (vph) | 55 | 696 | 16 | 2 | 498 | 59 | 9 | 1 | 5 | 76 | 1 | 56 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.6 | | | 5.6 | 5.6 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.98 | | | 0.99 | | | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 0.99 | | | 0.99 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.98 | | | 0.95 | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 1853 | | 1770 | 3415 | | | 1694 | | | 1759 | 1544 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.86 | | | 0.72 | 1.00 |
| Satd. Flow (perm) | 1770 | 1853 | | 1770 | 3415 | | | 1501 | | | 1322 | 1544 |
| Peak-hour factor, PHF | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 61 | 773 | 18 | 2 | 553 | 66 | 10 | 1 | 6 | 84 | 1 | 62 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 6 | 0 | 0 | 5 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 61 | 790 | 0 | 2 | 613 | 0 | 0 | 12 | 0 | 0 | 85 | 62 |
| Confl. Peds. (#/hr) | 33 | | 16 | 16 | | 33 | 9 | | 4 | 4 | | 9 |
| Confl. Bikes (#/hr) | | | 8 | | | 121 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 |
| Actuated Green, G (s) | 7.2 | 88.9 | | 1.4 | 83.1 | | | 23.0 | | | 23.0 | 23.0 |
| Effective Green, g (s) | 7.2 | 89.5 | | 1.4 | 83.7 | | | 23.0 | | | 23.0 | 23.0 |
| Actuated g/C Ratio | 0.06 | 0.69 | | 0.01 | 0.64 | | | 0.18 | | | 0.18 | 0.18 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | 5.6 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 98 | 1275 | | 19 | 2198 | | | 265 | | | 233 | 273 |
| v/s Ratio Prot | c0.03 | c0.43 | | 0.00 | 0.18 | | | | | | | |
| v/s Ratio Perm | | | | | | | | 0.01 | | | c0.06 | 0.04 |
| v/c Ratio | 0.62 | 0.62 | | 0.11 | 0.28 | | | 0.05 | | | 0.36 | 0.23 |
| Uniform Delay, d1 | 60.1 | 11.0 | | 63.7 | 10.0 | | | 44.4 | | | 47.1 | 45.9 |
| Progression Factor | 1.12 | 0.49 | | 1.10 | 0.55 | | | 1.00 | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 7.6 | 2.0 | | 0.9 | 0.3 | | | 0.1 | | | 0.7 | 0.3 |
| Delay (s) | 74.9 | 7.4 | | 70.9 | 5.9 | | | 44.4 | | | 47.8 | 46.2 |
| Level of Service | E | A | | E | A | | | D | | | D | D |
| Approach Delay (s) | | 12.3 | | | 6.1 | | | 44.4 | | | 47.1 | |
| Approach LOS | | B | | | A | | | D | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 13.4 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.58 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 65.5% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

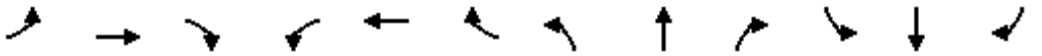
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 771 | 4 | 13 | 497 | 0 | 1 | 0 | 19 | 94 | 3 | 64 |
| Future Volume (vph) | 0 | 771 | 4 | 13 | 497 | 0 | 1 | 0 | 19 | 94 | 3 | 64 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | 6.0 | 6.0 | |
| Lane Util. Factor | | 1.00 | | 1.00 | 0.95 | | | 1.00 | | 1.00 | 1.00 | |
| Frpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 0.98 | |
| Flpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 1.00 | |
| Frt | | 1.00 | | 1.00 | 1.00 | | | 0.87 | | 1.00 | 0.86 | |
| Flt Protected | | 1.00 | | 0.95 | 1.00 | | | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | | 1860 | | 1770 | 3539 | | | 1619 | | 1770 | 1568 | |
| Flt Permitted | | 1.00 | | 0.95 | 1.00 | | | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | | 1860 | | 1770 | 3539 | | | 1619 | | 1770 | 1568 | |
| Peak-hour factor, PHF | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Adj. Flow (vph) | 0 | 907 | 5 | 15 | 585 | 0 | 1 | 0 | 22 | 111 | 4 | 75 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 912 | 0 | 15 | 585 | 0 | 0 | 0 | 0 | 111 | 79 | 0 |
| Confl. Peds. (#/hr) | 51 | | 29 | 29 | | 51 | 5 | | | | | 5 |
| Confl. Bikes (#/hr) | | | 12 | | | 135 | | | | | | |
| Turn Type | | NA | | Prot | NA | | Split | NA | | Split | NA | |
| Protected Phases | | 2 | | 1 | 6 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | | 89.1 | | 3.1 | 97.2 | | | 3.3 | | 13.5 | 13.5 | |
| Effective Green, g (s) | | 89.1 | | 2.1 | 97.2 | | | 2.3 | | 12.5 | 12.5 | |
| Actuated g/C Ratio | | 0.69 | | 0.02 | 0.75 | | | 0.02 | | 0.10 | 0.10 | |
| Clearance Time (s) | | 6.0 | | 5.0 | 6.0 | | | 5.0 | | 5.0 | 5.0 | |
| Vehicle Extension (s) | | 5.0 | | 3.0 | 5.0 | | | 3.0 | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | | 1274 | | 28 | 2646 | | | 28 | | 170 | 150 | |
| v/s Ratio Prot | | c0.49 | | 0.01 | c0.17 | | | c0.00 | | c0.06 | 0.05 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | | 0.72 | | 0.54 | 0.22 | | | 0.01 | | 0.65 | 0.53 | |
| Uniform Delay, d1 | | 12.6 | | 63.5 | 5.0 | | | 62.7 | | 56.7 | 55.9 | |
| Progression Factor | | 0.45 | | 1.17 | 0.38 | | | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | | 3.0 | | 18.1 | 0.2 | | | 0.2 | | 8.7 | 3.3 | |
| Delay (s) | | 8.6 | | 92.5 | 2.1 | | | 62.9 | | 65.3 | 59.2 | |
| Level of Service | | A | | F | A | | | E | | E | E | |
| Approach Delay (s) | | 8.6 | | | 4.3 | | | 62.9 | | | 62.8 | |
| Approach LOS | | A | | | A | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 13.8 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.69 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 24.0 |
| Intersection Capacity Utilization | 64.2% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

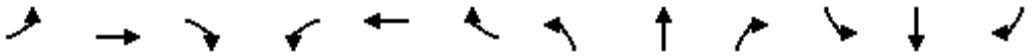
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 54 | 735 | 89 | 80 | 440 | 73 | 0 | 0 | 0 | 84 | 4 | 60 |
| Future Volume (vph) | 54 | 735 | 89 | 80 | 440 | 73 | 0 | 0 | 0 | 84 | 4 | 60 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | 6.1 | 5.0 | 5.5 | | | | | | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | | | | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | 0.92 | 1.00 | 0.99 | | | | | | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 0.98 | | | | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | | | | | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | 1463 | 1770 | 3427 | | | | | | 1778 | 1583 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | | | | | | 0.95 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | 1463 | 1770 | 3427 | | | | | | 1778 | 1583 |
| Peak-hour factor, PHF | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Adj. Flow (vph) | 62 | 845 | 102 | 92 | 506 | 84 | 0 | 0 | 0 | 97 | 5 | 69 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 63 |
| Lane Group Flow (vph) | 62 | 845 | 102 | 92 | 583 | 0 | 0 | 0 | 0 | 0 | 102 | 6 |
| Confl. Peds. (#/hr) | 8 | | 34 | 34 | | 8 | | | 5 | 5 | | |
| Confl. Bikes (#/hr) | | | 8 | | | 64 | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | | | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | | | | 4 | 4 | |
| Permitted Phases | | | 6 | | | | | | | | | 4 |
| Actuated Green, G (s) | 7.5 | 91.3 | 91.3 | 10.8 | 94.6 | | | | | | 11.1 | 11.1 |
| Effective Green, g (s) | 7.5 | 91.9 | 91.3 | 10.8 | 95.2 | | | | | | 11.3 | 11.3 |
| Actuated g/C Ratio | 0.06 | 0.71 | 0.70 | 0.08 | 0.73 | | | | | | 0.09 | 0.09 |
| Clearance Time (s) | 5.0 | 6.1 | 6.1 | 5.0 | 6.1 | | | | | | 5.7 | 5.7 |
| Vehicle Extension (s) | 1.0 | 2.5 | 2.5 | 1.0 | 2.5 | | | | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 102 | 1316 | 1027 | 147 | 2509 | | | | | | 154 | 137 |
| v/s Ratio Prot | 0.04 | c0.45 | | c0.05 | 0.17 | | | | | | c0.06 | |
| v/s Ratio Perm | | | 0.07 | | | | | | | | | 0.00 |
| v/c Ratio | 0.61 | 0.64 | 0.10 | 0.63 | 0.23 | | | | | | 0.66 | 0.04 |
| Uniform Delay, d1 | 59.8 | 10.2 | 6.2 | 57.6 | 5.6 | | | | | | 57.5 | 54.4 |
| Progression Factor | 0.83 | 0.35 | 0.39 | 1.34 | 0.37 | | | | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 5.4 | 0.7 | 0.0 | 5.7 | 0.2 | | | | | | 9.2 | 0.1 |
| Delay (s) | 54.9 | 4.3 | 2.5 | 82.7 | 2.3 | | | | | | 66.8 | 54.5 |
| Level of Service | D | A | A | F | A | | | | | | E | D |
| Approach Delay (s) | | 7.2 | | | 13.2 | | | 0.0 | | | 61.8 | |
| Approach LOS | | A | | | B | | | A | | | E | |

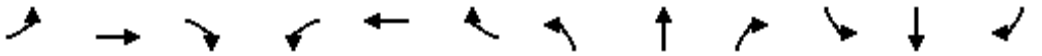
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 14.4 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.64 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.0 |
| Intersection Capacity Utilization | 70.2% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group



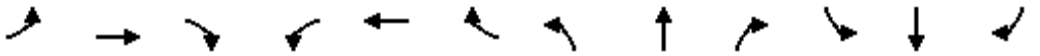
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 46 | 749 | 19 | 3 | 522 | 61 | 20 | 10 | 12 | 115 | 6 | 47 |
| Future Volume (vph) | 46 | 749 | 19 | 3 | 522 | 61 | 20 | 10 | 12 | 115 | 6 | 47 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2100 | 2100 | 1900 | 2100 | 2100 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | 4.0 | 5.7 | | 4.0 | 5.7 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.99 | | 1.00 | 0.98 | | 1.00 | 0.98 | | 1.00 | 0.94 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frt | 1.00 | 0.80 | | 1.00 | 0.98 | | 1.00 | 0.92 | | 1.00 | 0.87 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 2805 | | 1770 | 3417 | | 1770 | 1845 | | 1770 | 1677 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | 1770 | 2805 | | 1770 | 3417 | | 1770 | 500 | | 1770 | 1677 | |
| Peak-hour factor, PHF | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Adj. Flow (vph) | 56 | 913 | 23 | 4 | 637 | 74 | 24 | 12 | 15 | 140 | 7 | 57 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 14 | 0 | 0 | 49 | 0 |
| Lane Group Flow (vph) | 56 | 935 | 0 | 4 | 706 | 0 | 24 | 13 | 0 | 140 | 15 | 0 |
| Confl. Peds. (#/hr) | 39 | | 64 | 64 | | 39 | 39 | | 19 | 19 | | 39 |
| Confl. Bikes (#/hr) | | | 26 | | | 65 | | | | | | |
| Bus Blockages (#/hr) | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | 6.8 | 84.7 | | 1.6 | 79.5 | | 5.0 | 8.0 | | 14.9 | 17.9 | |
| Effective Green, g (s) | 6.8 | 85.3 | | 1.6 | 80.1 | | 5.0 | 8.0 | | 14.9 | 17.9 | |
| Actuated g/C Ratio | 0.05 | 0.66 | | 0.01 | 0.62 | | 0.04 | 0.06 | | 0.11 | 0.14 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | 4.0 | 5.7 | | 4.0 | 5.7 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 3.0 | 2.5 | | 3.0 | 2.5 | |
| Lane Grp Cap (vph) | 92 | 1840 | | 21 | 2105 | | 68 | 113 | | 202 | 230 | |
| v/s Ratio Prot | c0.03 | c0.33 | | 0.00 | 0.21 | | 0.01 | c0.01 | | c0.08 | 0.01 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | 0.61 | 0.51 | | 0.19 | 0.34 | | 0.35 | 0.11 | | 0.69 | 0.06 | |
| Uniform Delay, d1 | 60.3 | 11.5 | | 63.6 | 12.1 | | 60.9 | 57.7 | | 55.4 | 48.8 | |
| Progression Factor | 1.03 | 0.88 | | 1.06 | 0.75 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 6.3 | 0.8 | | 1.3 | 0.4 | | 3.1 | 0.3 | | 9.8 | 0.1 | |
| Delay (s) | 68.2 | 10.9 | | 68.4 | 9.4 | | 64.1 | 58.0 | | 65.2 | 48.9 | |
| Level of Service | E | B | | E | A | | E | E | | E | D | |
| Approach Delay (s) | | 14.2 | | | 9.7 | | | 60.8 | | | 60.1 | |
| Approach LOS | | B | | | A | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 18.5 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.52 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 20.2 |
| Intersection Capacity Utilization | 61.5% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



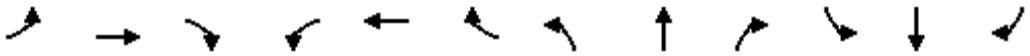
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 66 | 720 | 54 | 23 | 440 | 143 | 70 | 57 | 71 | 264 | 48 | 67 |
| Future Volume (vph) | 66 | 720 | 54 | 23 | 440 | 143 | 70 | 57 | 71 | 264 | 48 | 67 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.5 | 5.5 | | 5.5 | 5.5 | | 5.6 | 5.6 | | 5.5 | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 1.00 | 1.00 | | 0.95 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 0.98 | | 1.00 | 0.94 | | 1.00 | 0.79 | | 1.00 | 1.00 | 0.91 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.99 | | 1.00 | 0.96 | | 1.00 | 0.92 | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.97 | 1.00 |
| Satd. Flow (prot) | 1770 | 3408 | | 1770 | 3181 | | 1770 | 1356 | | 1681 | 1712 | 1436 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.97 | 1.00 |
| Satd. Flow (perm) | 1770 | 3408 | | 1770 | 3181 | | 1770 | 1356 | | 1681 | 1712 | 1436 |
| Peak-hour factor, PHF | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 |
| Adj. Flow (vph) | 87 | 947 | 71 | 30 | 579 | 188 | 92 | 75 | 93 | 347 | 63 | 88 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 87 | 1018 | 0 | 30 | 767 | 0 | 92 | 168 | 0 | 219 | 191 | 88 |
| Confl. Peds. (#/hr) | 113 | | 148 | 148 | | 113 | 57 | | 339 | 339 | | 57 |
| Confl. Bikes (#/hr) | | | 54 | | | 13 | | | 53 | | | 3 |
| Bus Blockages (#/hr) | 0 | 2 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Split | NA | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | 4 |
| Actuated Green, G (s) | 11.0 | 48.8 | | 7.2 | 45.0 | | 26.0 | 26.0 | | 24.7 | 24.7 | 24.7 |
| Effective Green, g (s) | 11.0 | 49.4 | | 7.2 | 45.6 | | 26.0 | 26.0 | | 25.3 | 25.3 | 25.3 |
| Actuated g/C Ratio | 0.08 | 0.38 | | 0.06 | 0.35 | | 0.20 | 0.20 | | 0.19 | 0.19 | 0.19 |
| Clearance Time (s) | 5.5 | 6.1 | | 5.5 | 6.1 | | 5.6 | 5.6 | | 6.1 | 6.1 | 6.1 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 1.0 | | 2.5 | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 149 | 1295 | | 98 | 1115 | | 354 | 271 | | 327 | 333 | 279 |
| v/s Ratio Prot | c0.05 | c0.30 | | 0.02 | 0.24 | | 0.05 | c0.12 | | c0.13 | 0.11 | |
| v/s Ratio Perm | | | | | | | | | | | | 0.06 |
| v/c Ratio | 0.58 | 0.79 | | 0.31 | 0.69 | | 0.26 | 0.62 | | 0.67 | 0.57 | 0.32 |
| Uniform Delay, d1 | 57.3 | 35.6 | | 59.0 | 36.1 | | 43.9 | 47.5 | | 48.5 | 47.5 | 44.9 |
| Progression Factor | 0.96 | 0.86 | | 1.37 | 0.55 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 3.4 | 4.4 | | 0.6 | 3.3 | | 0.1 | 3.0 | | 4.6 | 2.0 | 0.5 |
| Delay (s) | 58.6 | 35.0 | | 81.6 | 23.2 | | 44.0 | 50.4 | | 53.1 | 49.4 | 45.4 |
| Level of Service | E | D | | F | C | | D | D | | D | D | D |
| Approach Delay (s) | | 36.9 | | | 25.4 | | | 48.2 | | | 50.3 | |
| Approach LOS | | D | | | C | | | D | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 37.1 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.72 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 22.1 |
| Intersection Capacity Utilization | 100.5% | ICU Level of Service | G |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 27 | 1050 | 86 | 20 | 539 | 68 | 0 | 0 | 0 | 56 | 8 | 30 |
| Future Volume (vph) | 27 | 1050 | 86 | 20 | 539 | 68 | 0 | 0 | 0 | 56 | 8 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.6 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.95 | | 1.00 | 0.97 | | | | | | 0.94 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | | | | 0.88 | |
| Frt | 1.00 | 0.99 | | 1.00 | 0.98 | | | | | | 0.96 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.97 | |
| Satd. Flow (prot) | 1770 | 3313 | | 1770 | 3352 | | | | | | 1422 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.97 | |
| Satd. Flow (perm) | 1770 | 3313 | | 1770 | 3352 | | | | | | 1422 | |
| Peak-hour factor, PHF | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Adj. Flow (vph) | 35 | 1346 | 110 | 26 | 691 | 87 | 0 | 0 | 0 | 72 | 10 | 38 |
| RTOR Reduction (vph) | 0 | 4 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 13 | 0 |
| Lane Group Flow (vph) | 35 | 1452 | 0 | 26 | 772 | 0 | 0 | 0 | 0 | 0 | 107 | 0 |
| Confl. Peds. (#/hr) | 74 | | 198 | 198 | | 74 | 123 | | 131 | 131 | | 123 |
| Confl. Bikes (#/hr) | | | 40 | | | 9 | | | 31 | | | 1 |
| Bus Blockages (#/hr) | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | | | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | | | | 4 | |
| Permitted Phases | | | | | | | | | | 4 | | |
| Actuated Green, G (s) | 5.0 | 83.9 | | 4.4 | 83.3 | | | | | | 25.0 | |
| Effective Green, g (s) | 5.0 | 84.5 | | 4.4 | 83.9 | | | | | | 25.0 | |
| Actuated g/C Ratio | 0.04 | 0.65 | | 0.03 | 0.65 | | | | | | 0.19 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.6 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 | |
| Lane Grp Cap (vph) | 68 | 2153 | | 59 | 2163 | | | | | | 273 | |
| v/s Ratio Prot | c0.02 | c0.44 | | 0.01 | 0.23 | | | | | | | |
| v/s Ratio Perm | | | | | | | | | | | 0.08 | |
| v/c Ratio | 0.51 | 0.67 | | 0.44 | 0.36 | | | | | | 0.39 | |
| Uniform Delay, d1 | 61.3 | 14.2 | | 61.6 | 10.6 | | | | | | 45.9 | |
| Progression Factor | 1.13 | 0.61 | | 0.94 | 1.85 | | | | | | 1.00 | |
| Incremental Delay, d2 | 2.1 | 1.3 | | 1.7 | 0.4 | | | | | | 0.7 | |
| Delay (s) | 71.1 | 9.9 | | 59.7 | 20.0 | | | | | | 46.5 | |
| Level of Service | E | A | | E | C | | | | | | D | |
| Approach Delay (s) | | 11.4 | | | 21.3 | | | 0.0 | | | 46.5 | |
| Approach LOS | | B | | | C | | | A | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 16.4 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.61 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 62.3% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 96 | 715 | 274 | 209 | 429 | 165 | 201 | 256 | 239 | 183 | 351 | 76 |
| Future Volume (vph) | 96 | 715 | 274 | 209 | 429 | 165 | 201 | 256 | 239 | 183 | 351 | 76 |
| Ideal Flow (vphpl) | 1900 | 2100 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | 5.0 | 5.1 | | 5.0 | 5.1 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 0.97 | 0.95 | | 1.00 | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.95 | | 1.00 | 0.96 | | 1.00 | 0.96 | | 1.00 | 0.99 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frt | 1.00 | 0.96 | | 1.00 | 0.96 | | 1.00 | 0.93 | | 1.00 | 0.97 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 3576 | | 1770 | 3249 | | 3433 | 3153 | | 1770 | 3398 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | 1770 | 3576 | | 1770 | 3249 | | 3433 | 3153 | | 1770 | 3398 | |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 104 | 777 | 298 | 227 | 466 | 179 | 218 | 278 | 260 | 199 | 382 | 83 |
| RTOR Reduction (vph) | 0 | 29 | 0 | 0 | 28 | 0 | 0 | 136 | 0 | 0 | 15 | 0 |
| Lane Group Flow (vph) | 104 | 1046 | 0 | 227 | 617 | 0 | 218 | 402 | 0 | 199 | 450 | 0 |
| Confl. Peds. (#/hr) | 94 | | 114 | 114 | | 94 | 59 | | 58 | 58 | | 59 |
| Confl. Bikes (#/hr) | | | 38 | | | 3 | | | 3 | | | 1 |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | 11.8 | 45.4 | | 17.6 | 51.2 | | 11.2 | 29.4 | | 15.8 | 34.0 | |
| Effective Green, g (s) | 11.8 | 46.0 | | 17.6 | 51.8 | | 11.2 | 30.0 | | 15.8 | 34.6 | |
| Actuated g/C Ratio | 0.09 | 0.35 | | 0.14 | 0.40 | | 0.09 | 0.23 | | 0.12 | 0.27 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | 5.0 | 5.7 | | 5.0 | 5.7 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | |
| Lane Grp Cap (vph) | 160 | 1265 | | 239 | 1294 | | 295 | 727 | | 215 | 904 | |
| v/s Ratio Prot | 0.06 | c0.29 | | c0.13 | 0.19 | | 0.06 | c0.13 | | c0.11 | c0.13 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | 0.65 | 0.83 | | 0.95 | 0.48 | | 0.74 | 0.55 | | 0.93 | 0.50 | |
| Uniform Delay, d1 | 57.1 | 38.4 | | 55.8 | 29.0 | | 58.0 | 44.1 | | 56.5 | 40.4 | |
| Progression Factor | 0.99 | 0.56 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 5.4 | 4.9 | | 43.5 | 1.3 | | 8.1 | 0.7 | | 40.4 | 0.3 | |
| Delay (s) | 62.0 | 26.4 | | 99.2 | 30.3 | | 66.1 | 44.8 | | 96.9 | 40.7 | |
| Level of Service | E | C | | F | C | | E | D | | F | D | |
| Approach Delay (s) | | 29.6 | | | 48.2 | | | 50.9 | | | 57.5 | |
| Approach LOS | | C | | | D | | | D | | | E | |

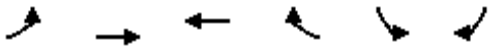
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 44.3 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.78 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 20.6 |
| Intersection Capacity Utilization | 94.8% | ICU Level of Service | F |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 5 | 28 | 22 | 250 | 23 | 130 | 18 | 541 | 292 | 499 | 1334 | 13 |
| Future Volume (vph) | 5 | 28 | 22 | 250 | 23 | 130 | 18 | 541 | 292 | 499 | 1334 | 13 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Lane Util. Factor | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | | 1.00 | 0.96 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.97 |
| Flpb, ped/bikes | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | | 1849 | 1525 | 1681 | 1699 | 1559 | 1770 | 3539 | 1530 | 1770 | 3539 | 1534 |
| Flt Permitted | | 0.99 | 1.00 | 0.95 | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | | 1849 | 1525 | 1681 | 1699 | 1559 | 1770 | 3539 | 1530 | 1770 | 3539 | 1534 |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 5 | 29 | 23 | 260 | 24 | 135 | 19 | 564 | 304 | 520 | 1390 | 14 |
| RTOR Reduction (vph) | 0 | 0 | 21 | 0 | 0 | 116 | 0 | 0 | 220 | 0 | 0 | 6 |
| Lane Group Flow (vph) | 0 | 34 | 2 | 140 | 144 | 19 | 19 | 564 | 84 | 520 | 1390 | 8 |
| Confl. Peds. (#/hr) | | | 9 | 9 | | | | | | | | 1 |
| Confl. Bikes (#/hr) | | | 5 | | | 2 | | | 10 | | | 13 |
| Turn Type | Split | NA | Perm | Split | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 4 | 4 | | 3 | 3 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 3 | | | 2 | | | 6 |
| Actuated Green, G (s) | | 10.3 | 10.3 | 17.9 | 17.9 | 17.9 | 3.4 | 35.9 | 35.9 | 44.9 | 77.6 | 77.6 |
| Effective Green, g (s) | | 10.3 | 10.3 | 17.9 | 17.9 | 17.9 | 3.4 | 35.9 | 35.9 | 44.9 | 77.6 | 77.6 |
| Actuated g/C Ratio | | 0.08 | 0.08 | 0.14 | 0.14 | 0.14 | 0.03 | 0.28 | 0.28 | 0.35 | 0.60 | 0.60 |
| Clearance Time (s) | | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 4.7 | 5.8 | 5.8 | 4.9 | 5.8 | 5.8 |
| Vehicle Extension (s) | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 |
| Lane Grp Cap (vph) | | 146 | 120 | 231 | 233 | 214 | 46 | 977 | 422 | 611 | 2112 | 915 |
| v/s Ratio Prot | | c0.02 | | 0.08 | c0.08 | | 0.01 | 0.16 | | c0.29 | c0.39 | |
| v/s Ratio Perm | | | 0.00 | | | 0.01 | | | 0.05 | | | 0.01 |
| v/c Ratio | | 0.23 | 0.02 | 0.61 | 0.62 | 0.09 | 0.41 | 0.58 | 0.20 | 0.85 | 0.66 | 0.01 |
| Uniform Delay, d1 | | 56.1 | 55.2 | 52.7 | 52.8 | 48.9 | 62.3 | 40.5 | 36.0 | 39.4 | 17.4 | 10.6 |
| 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 | | 1.1 | 0.1 | 5.1 | 5.5 | 0.2 | 5.9 | 1.0 | 0.3 | 11.0 | 1.6 | 0.0 |
| Delay (s) | | 57.3 | 55.2 | 57.9 | 58.3 | 49.2 | 68.2 | 41.5 | 36.4 | 50.4 | 19.0 | 10.6 |
| Level of Service | | E | E | E | E | D | E | D | D | D | B | B |
| Approach Delay (s) | | 56.4 | | | 55.2 | | | 40.3 | | | 27.4 | |
| Approach LOS | | E | | | E | | | D | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 35.0 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.71 | | |
| Actuated Cycle Length (s) | 130.0 | Sum of lost time (s) | 21.0 |
| Intersection Capacity Utilization | 71.2% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

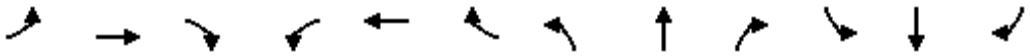
c Critical Lane Group



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↑ | ↱ | ↰ | ↱ |
| Traffic Volume (veh/h) | 0 | 816 | 478 | 116 | 106 | 23 |
| Future Volume (Veh/h) | 0 | 816 | 478 | 116 | 106 | 23 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Hourly flow rate (vph) | 0 | 868 | 509 | 123 | 113 | 24 |
| Pedestrians | | | | | 3 | |
| Lane Width (ft) | | | | | 12.0 | |
| Walking Speed (ft/s) | | | | | 4.0 | |
| Percent Blockage | | | | | 0 | |
| Right turn flare (veh) | | | | | | 7 |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | 171 | 1027 | | | |
| pX, platoon unblocked | 0.94 | | | | 0.94 | 0.94 |
| vC, conflicting volume | 635 | | | | 1380 | 512 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 577 | | | | 1355 | 446 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 100 | | | | 27 | 96 |
| cM capacity (veh/h) | 932 | | | | 155 | 573 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 868 | 509 | 123 | 137 |
| Volume Left | 0 | 0 | 0 | 113 |
| Volume Right | 0 | 0 | 123 | 24 |
| cSH | 1700 | 1700 | 1700 | 188 |
| Volume to Capacity | 0.51 | 0.30 | 0.07 | 0.73 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 117 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 63.1 |
| Lane LOS | | | | F |
| Approach Delay (s) | 0.0 | 0.0 | | 63.1 |
| Approach LOS | | | | F |

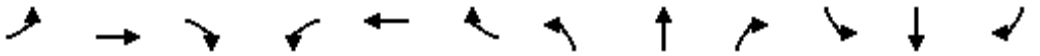
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 5.3 | | |
| Intersection Capacity Utilization | 55.5% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 26 | 855 | 43 | 15 | 427 | 37 | 10 | 1 | 14 | 23 | 0 | 30 |
| Future Volume (vph) | 26 | 855 | 43 | 15 | 427 | 37 | 10 | 1 | 14 | 23 | 0 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 0.98 | | | 1.00 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | | | 0.99 | |
| Frt | 1.00 | 0.99 | | 1.00 | 0.99 | | | 0.92 | | | 0.92 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.98 | | | 0.98 | |
| Satd. Flow (prot) | 1770 | 1845 | | 1770 | 1835 | | | 1652 | | | 1670 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.89 | | | 0.86 | |
| Satd. Flow (perm) | 1770 | 1845 | | 1770 | 1835 | | | 1493 | | | 1473 | |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 27 | 872 | 44 | 15 | 436 | 38 | 10 | 1 | 14 | 23 | 0 | 31 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 12 | 0 | 0 | 48 | 0 |
| Lane Group Flow (vph) | 27 | 915 | 0 | 15 | 472 | 0 | 0 | 13 | 0 | 0 | 6 | 0 |
| Confl. Peds. (#/hr) | 6 | | 24 | 24 | | 6 | | | 4 | 4 | | |
| Confl. Bikes (#/hr) | | | 18 | | | 16 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | |
| Actuated Green, G (s) | 4.9 | 104.0 | | 2.8 | 101.9 | | | 16.2 | | | 16.2 | |
| Effective Green, g (s) | 4.9 | 104.0 | | 2.8 | 101.9 | | | 16.2 | | | 16.2 | |
| Actuated g/C Ratio | 0.03 | 0.69 | | 0.02 | 0.68 | | | 0.11 | | | 0.11 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | | | 2.5 | |
| Lane Grp Cap (vph) | 57 | 1279 | | 33 | 1246 | | | 161 | | | 159 | |
| v/s Ratio Prot | c0.02 | c0.50 | | 0.01 | 0.26 | | | | | | | |
| v/s Ratio Perm | | | | | | | | c0.01 | | | 0.00 | |
| v/c Ratio | 0.47 | 0.72 | | 0.45 | 0.38 | | | 0.08 | | | 0.04 | |
| Uniform Delay, d1 | 71.3 | 14.0 | | 72.8 | 10.4 | | | 60.2 | | | 59.9 | |
| Progression Factor | 1.00 | 1.00 | | 1.09 | 0.46 | | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 2.3 | 3.4 | | 3.5 | 0.1 | | | 0.9 | | | 0.4 | |
| Delay (s) | 73.5 | 17.4 | | 83.2 | 4.9 | | | 61.1 | | | 60.3 | |
| Level of Service | E | B | | F | A | | | E | | | E | |
| Approach Delay (s) | | 19.0 | | | 7.3 | | | 61.1 | | | 60.3 | |
| Approach LOS | | B | | | A | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 17.4 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.61 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 22.8 |
| Intersection Capacity Utilization | 63.3% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

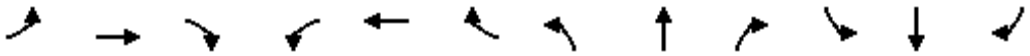
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 53 | 786 | 16 | 4 | 440 | 74 | 12 | 0 | 6 | 39 | 1 | 45 |
| Future Volume (vph) | 53 | 786 | 16 | 4 | 440 | 74 | 12 | 0 | 6 | 39 | 1 | 45 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | 5.6 | | | 5.6 | 5.6 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | | 1.00 | | | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.98 | | | 0.95 | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 1855 | | 1770 | 3432 | | | 1718 | | | 1776 | 1559 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.85 | | | 0.73 | 1.00 |
| Satd. Flow (perm) | 1770 | 1855 | | 1770 | 3432 | | | 1501 | | | 1362 | 1559 |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 54 | 802 | 16 | 4 | 449 | 76 | 12 | 0 | 6 | 40 | 1 | 46 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 15 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 54 | 818 | 0 | 4 | 518 | 0 | 0 | 3 | 0 | 0 | 41 | 46 |
| Confl. Peds. (#/hr) | 8 | | 8 | 8 | | 8 | 2 | | | | | 2 |
| Confl. Bikes (#/hr) | | | 16 | | | 25 | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 |
| Actuated Green, G (s) | 7.3 | 110.3 | | 1.4 | 104.4 | | | 21.6 | | | 21.6 | 21.6 |
| Effective Green, g (s) | 7.3 | 110.9 | | 1.4 | 105.0 | | | 21.6 | | | 21.6 | 21.6 |
| Actuated g/C Ratio | 0.05 | 0.74 | | 0.01 | 0.70 | | | 0.14 | | | 0.14 | 0.14 |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | 5.6 | | | 5.6 | 5.6 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | 2.5 | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 86 | 1371 | | 16 | 2402 | | | 216 | | | 196 | 224 |
| v/s Ratio Prot | c0.03 | c0.44 | | 0.00 | 0.15 | | | | | | | |
| v/s Ratio Perm | | | | | | | | 0.00 | | | c0.03 | 0.03 |
| v/c Ratio | 0.63 | 0.60 | | 0.25 | 0.22 | | | 0.01 | | | 0.21 | 0.21 |
| Uniform Delay, d1 | 70.0 | 9.1 | | 73.8 | 7.9 | | | 55.1 | | | 56.7 | 56.6 |
| Progression Factor | 1.18 | 0.34 | | 1.47 | 0.50 | | | 1.00 | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 7.6 | 1.5 | | 2.9 | 0.2 | | | 0.0 | | | 0.4 | 0.3 |
| Delay (s) | 90.1 | 4.5 | | 111.3 | 4.2 | | | 55.1 | | | 57.1 | 57.0 |
| Level of Service | F | A | | F | A | | | E | | | E | E |
| Approach Delay (s) | | 9.8 | | | 5.0 | | | 55.1 | | | 57.0 | |
| Approach LOS | | A | | | A | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 11.4 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.55 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 61.0% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

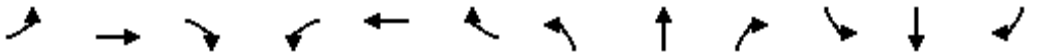
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 833 | 8 | 27 | 419 | 0 | 5 | 0 | 18 | 293 | 13 | 96 |
| Future Volume (vph) | 0 | 833 | 8 | 27 | 419 | 0 | 5 | 0 | 18 | 293 | 13 | 96 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | 6.0 | 6.0 | |
| Lane Util. Factor | | 1.00 | | 1.00 | 0.95 | | | 1.00 | | 1.00 | 1.00 | |
| Frpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 0.99 | |
| Flpb, ped/bikes | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 1.00 | |
| Frt | | 1.00 | | 1.00 | 1.00 | | | 0.89 | | 1.00 | 0.87 | |
| Flt Protected | | 1.00 | | 0.95 | 1.00 | | | 0.99 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | | 1859 | | 1770 | 3539 | | | 1645 | | 1770 | 1595 | |
| Flt Permitted | | 1.00 | | 0.95 | 1.00 | | | 0.99 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | | 1859 | | 1770 | 3539 | | | 1645 | | 1770 | 1595 | |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 905 | 9 | 29 | 455 | 0 | 5 | 0 | 20 | 318 | 14 | 104 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 914 | 0 | 29 | 455 | 0 | 0 | 0 | 0 | 318 | 118 | 0 |
| Confl. Peds. (#/hr) | 8 | | 6 | 6 | | 8 | 2 | | | | | 2 |
| Confl. Bikes (#/hr) | | | 18 | | | 29 | | | | | | |
| Turn Type | | NA | | Prot | NA | | Split | NA | | Split | NA | |
| Protected Phases | | 2 | | 1 | 6 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | | 89.5 | | 5.2 | 99.7 | | | 3.3 | | 31.0 | 31.0 | |
| Effective Green, g (s) | | 89.5 | | 4.2 | 99.7 | | | 2.3 | | 30.0 | 30.0 | |
| Actuated g/C Ratio | | 0.60 | | 0.03 | 0.66 | | | 0.02 | | 0.20 | 0.20 | |
| Clearance Time (s) | | 6.0 | | 5.0 | 6.0 | | | 5.0 | | 5.0 | 5.0 | |
| Vehicle Extension (s) | | 5.0 | | 3.0 | 5.0 | | | 3.0 | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | | 1109 | | 49 | 2352 | | | 25 | | 354 | 319 | |
| v/s Ratio Prot | | c0.49 | | c0.02 | 0.13 | | | c0.00 | | c0.18 | 0.07 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | | 0.82 | | 0.59 | 0.19 | | | 0.02 | | 0.90 | 0.37 | |
| Uniform Delay, d1 | | 24.0 | | 72.1 | 9.7 | | | 72.7 | | 58.5 | 51.8 | |
| Progression Factor | | 0.55 | | 0.83 | 0.59 | | | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | | 6.2 | | 17.6 | 0.2 | | | 0.2 | | 24.2 | 0.7 | |
| Delay (s) | | 19.4 | | 77.6 | 5.9 | | | 73.0 | | 82.7 | 52.6 | |
| Level of Service | | B | | E | A | | | E | | F | D | |
| Approach Delay (s) | | 19.4 | | | 10.2 | | | 73.0 | | | 74.6 | |
| Approach LOS | | B | | | B | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 30.6 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.82 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 24.0 |
| Intersection Capacity Utilization | 77.2% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

c Critical Lane Group



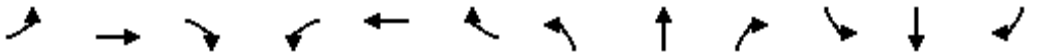
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 43 | 1031 | 58 | 69 | 391 | 46 | 0 | 0 | 0 | 59 | 5 | 51 |
| Future Volume (vph) | 43 | 1031 | 58 | 69 | 391 | 46 | 0 | 0 | 0 | 59 | 5 | 51 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | 6.1 | 5.0 | 5.5 | | | | | | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | | | | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | 0.97 | 1.00 | 0.99 | | | | | | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 0.98 | | | | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | | | | | | 0.96 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | 1541 | 1770 | 3459 | | | | | | 1780 | 1583 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | | | | | | 0.96 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | 1541 | 1770 | 3459 | | | | | | 1780 | 1583 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 46 | 1097 | 62 | 73 | 416 | 49 | 0 | 0 | 0 | 63 | 5 | 54 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| Lane Group Flow (vph) | 46 | 1097 | 62 | 73 | 456 | 0 | 0 | 0 | 0 | 0 | 68 | 4 |
| Confl. Peds. (#/hr) | 9 | | 5 | 5 | | 9 | | | | 2 | | |
| Confl. Bikes (#/hr) | | | 14 | | | 23 | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | | | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | | | | 4 | 4 | |
| Permitted Phases | | | 6 | | | | | | | | | 4 |
| Actuated Green, G (s) | 49.4 | 113.0 | 113.0 | 10.4 | 74.0 | | | | | | 9.8 | 9.8 |
| Effective Green, g (s) | 49.4 | 113.6 | 113.0 | 10.4 | 74.6 | | | | | | 10.0 | 10.0 |
| Actuated g/C Ratio | 0.33 | 0.76 | 0.75 | 0.07 | 0.50 | | | | | | 0.07 | 0.07 |
| Clearance Time (s) | 5.0 | 6.1 | 6.1 | 5.0 | 6.1 | | | | | | 5.7 | 5.7 |
| Vehicle Extension (s) | 1.0 | 2.5 | 2.5 | 1.0 | 2.5 | | | | | | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 582 | 1410 | 1160 | 122 | 1720 | | | | | | 118 | 105 |
| v/s Ratio Prot | 0.03 | c0.59 | | c0.04 | 0.13 | | | | | | c0.04 | |
| v/s Ratio Perm | | | 0.04 | | | | | | | | | 0.00 |
| v/c Ratio | 0.08 | 0.78 | 0.05 | 0.60 | 0.27 | | | | | | 0.58 | 0.03 |
| Uniform Delay, d1 | 34.6 | 10.8 | 4.8 | 67.8 | 21.8 | | | | | | 67.9 | 65.5 |
| Progression Factor | 0.70 | 0.61 | 0.56 | 0.91 | 0.50 | | | | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.0 | 2.6 | 0.1 | 5.1 | 0.1 | | | | | | 5.5 | 0.1 |
| Delay (s) | 24.3 | 9.1 | 2.7 | 66.7 | 10.9 | | | | | | 73.4 | 65.6 |
| Level of Service | C | A | A | E | B | | | | | | E | E |
| Approach Delay (s) | | 9.3 | | | 18.5 | | | 0.0 | | | 70.0 | |
| Approach LOS | | A | | | B | | | A | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 15.9 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.75 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 16.0 |
| Intersection Capacity Utilization | 73.2% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

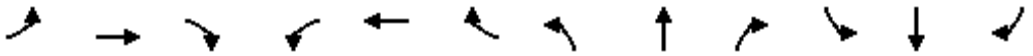
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 32 | 1027 | 25 | 13 | 458 | 41 | 6 | 3 | 13 | 44 | 12 | 41 |
| Future Volume (vph) | 32 | 1027 | 25 | 13 | 458 | 41 | 6 | 3 | 13 | 44 | 12 | 41 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2100 | 2100 | 1900 | 2100 | 2100 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | 4.0 | 5.7 | | 4.0 | 5.7 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | 1.00 | 1.00 | | 1.00 | 0.99 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frt | 1.00 | 0.80 | | 1.00 | 0.99 | | 1.00 | 0.88 | | 1.00 | 0.88 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 2817 | | 1770 | 3478 | | 1770 | 1804 | | 1770 | 1795 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | 1770 | 2817 | | 1770 | 3478 | | 1770 | 500 | | 1770 | 1795 | |
| Peak-hour factor, PHF | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Adj. Flow (vph) | 34 | 1104 | 27 | 14 | 492 | 44 | 6 | 3 | 14 | 47 | 13 | 44 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 13 | 0 | 0 | 40 | 0 |
| Lane Group Flow (vph) | 34 | 1130 | 0 | 14 | 533 | 0 | 6 | 4 | 0 | 47 | 17 | 0 |
| Confl. Peds. (#/hr) | 8 | | 6 | 6 | | 8 | 1 | | | | | 1 |
| Confl. Bikes (#/hr) | | | 24 | | | 24 | | | | | | 2 |
| Bus Blockages (#/hr) | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | 6.7 | 109.3 | | 3.2 | 105.8 | | 1.4 | 9.2 | | 7.5 | 15.3 | |
| Effective Green, g (s) | 6.7 | 109.9 | | 3.2 | 106.4 | | 1.4 | 9.2 | | 7.5 | 15.3 | |
| Actuated g/C Ratio | 0.04 | 0.73 | | 0.02 | 0.71 | | 0.01 | 0.06 | | 0.05 | 0.10 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | 4.0 | 5.7 | | 4.0 | 5.7 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 3.0 | 2.5 | | 3.0 | 2.5 | |
| Lane Grp Cap (vph) | 79 | 2063 | | 37 | 2467 | | 16 | 110 | | 88 | 183 | |
| v/s Ratio Prot | c0.02 | c0.40 | | 0.01 | 0.15 | | 0.00 | 0.00 | | c0.03 | c0.01 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | 0.43 | 0.55 | | 0.38 | 0.22 | | 0.38 | 0.04 | | 0.53 | 0.10 | |
| Uniform Delay, d1 | 69.8 | 9.0 | | 72.4 | 7.5 | | 73.9 | 66.2 | | 69.5 | 61.1 | |
| Progression Factor | 1.13 | 0.52 | | 1.01 | 0.45 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 0.9 | 0.7 | | 2.1 | 0.2 | | 14.1 | 0.1 | | 6.1 | 0.2 | |
| Delay (s) | 79.7 | 5.3 | | 75.5 | 3.6 | | 88.0 | 66.3 | | 75.7 | 61.2 | |
| Level of Service | E | A | | E | A | | F | E | | E | E | |
| Approach Delay (s) | | 7.5 | | | 5.4 | | | 72.0 | | | 67.8 | |
| Approach LOS | | A | | | A | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 11.1 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.52 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 20.2 |
| Intersection Capacity Utilization | 48.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



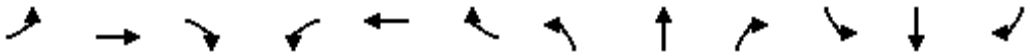
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 58 | 1019 | 5 | 15 | 457 | 178 | 4 | 9 | 12 | 458 | 12 | 100 |
| Future Volume (vph) | 58 | 1019 | 5 | 15 | 457 | 178 | 4 | 9 | 12 | 458 | 12 | 100 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.5 | 5.5 | | 5.5 | 5.5 | | 5.6 | 5.6 | | 5.5 | 5.5 | 5.5 |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 1.00 | 1.00 | | 0.95 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.98 | | 1.00 | 0.98 | | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.96 | | 1.00 | 0.92 | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.96 | 1.00 |
| Satd. Flow (prot) | 1770 | 3522 | | 1770 | 3308 | | 1770 | 1678 | | 1681 | 1691 | 1552 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.96 | 1.00 |
| Satd. Flow (perm) | 1770 | 3522 | | 1770 | 3308 | | 1770 | 1678 | | 1681 | 1691 | 1552 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 62 | 1084 | 5 | 16 | 486 | 189 | 4 | 10 | 13 | 487 | 13 | 106 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 62 | 1089 | 0 | 16 | 675 | 0 | 4 | 23 | 0 | 307 | 193 | 106 |
| Confl. Peds. (#/hr) | 12 | | 13 | 13 | | 12 | 3 | | 8 | 8 | | 3 |
| Confl. Bikes (#/hr) | | | 16 | | | 15 | | | 2 | | | 3 |
| Bus Blockages (#/hr) | 0 | 2 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Split | NA | | Split | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | | | | | | | 4 |
| Actuated Green, G (s) | 9.0 | 64.7 | | 4.8 | 60.5 | | 26.0 | 26.0 | | 31.2 | 31.2 | 31.2 |
| Effective Green, g (s) | 9.0 | 65.3 | | 4.8 | 61.1 | | 26.0 | 26.0 | | 31.8 | 31.8 | 31.8 |
| Actuated g/C Ratio | 0.06 | 0.44 | | 0.03 | 0.41 | | 0.17 | 0.17 | | 0.21 | 0.21 | 0.21 |
| Clearance Time (s) | 5.5 | 6.1 | | 5.5 | 6.1 | | 5.6 | 5.6 | | 6.1 | 6.1 | 6.1 |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 1.0 | | 2.5 | 2.5 | 2.5 |
| Lane Grp Cap (vph) | 106 | 1533 | | 56 | 1347 | | 306 | 290 | | 356 | 358 | 329 |
| v/s Ratio Prot | c0.04 | c0.31 | | 0.01 | 0.20 | | 0.00 | c0.01 | | c0.18 | 0.11 | |
| v/s Ratio Perm | | | | | | | | | | | | 0.07 |
| v/c Ratio | 0.58 | 0.71 | | 0.29 | 0.50 | | 0.01 | 0.08 | | 0.86 | 0.54 | 0.32 |
| Uniform Delay, d1 | 68.7 | 34.6 | | 70.9 | 33.1 | | 51.4 | 52.0 | | 57.0 | 52.6 | 50.0 |
| Progression Factor | 1.24 | 0.69 | | 1.40 | 0.50 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 4.6 | 2.5 | | 1.0 | 1.3 | | 0.0 | 0.0 | | 18.7 | 1.2 | 0.4 |
| Delay (s) | 89.8 | 26.3 | | 100.1 | 17.7 | | 51.4 | 52.0 | | 75.7 | 53.8 | 50.4 |
| Level of Service | F | C | | F | B | | D | D | | E | D | D |
| Approach Delay (s) | | 29.7 | | | 19.6 | | | 51.9 | | | 64.3 | |
| Approach LOS | | C | | | B | | | D | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 35.6 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.63 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 22.1 |
| Intersection Capacity Utilization | 72.9% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 24 | 1427 | 39 | 22 | 585 | 62 | 0 | 0 | 0 | 47 | 3 | 25 |
| Future Volume (vph) | 24 | 1427 | 39 | 22 | 585 | 62 | 0 | 0 | 0 | 47 | 3 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | | | | | 5.6 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | | | | | 0.99 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | | | | | 0.99 | |
| Frt | 1.00 | 1.00 | | 1.00 | 0.99 | | | | | | 0.96 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.97 | |
| Satd. Flow (prot) | 1770 | 3490 | | 1770 | 3439 | | | | | | 1699 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | | | | 0.97 | |
| Satd. Flow (perm) | 1770 | 3490 | | 1770 | 3439 | | | | | | 1699 | |
| Peak-hour factor, PHF | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Adj. Flow (vph) | 26 | 1568 | 43 | 24 | 643 | 68 | 0 | 0 | 0 | 52 | 3 | 27 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 12 | 0 |
| Lane Group Flow (vph) | 26 | 1610 | 0 | 24 | 707 | 0 | 0 | 0 | 0 | 0 | 70 | 0 |
| Confl. Peds. (#/hr) | 10 | | 9 | 9 | | 10 | 9 | | 5 | 5 | | 9 |
| Confl. Bikes (#/hr) | | | 20 | | | 17 | | | 4 | | | 1 |
| Bus Blockages (#/hr) | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | | | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | | | | 4 | |
| Permitted Phases | | | | | | | | | | 4 | | |
| Actuated Green, G (s) | 4.9 | 103.9 | | 4.4 | 103.4 | | | | | | 25.0 | |
| Effective Green, g (s) | 4.9 | 104.5 | | 4.4 | 104.0 | | | | | | 25.0 | |
| Actuated g/C Ratio | 0.03 | 0.70 | | 0.03 | 0.69 | | | | | | 0.17 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | | | | | 5.6 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | | | | | 2.5 | |
| Lane Grp Cap (vph) | 57 | 2431 | | 51 | 2384 | | | | | | 283 | |
| v/s Ratio Prot | c0.01 | c0.46 | | 0.01 | 0.21 | | | | | | | |
| v/s Ratio Perm | | | | | | | | | | | 0.04 | |
| v/c Ratio | 0.46 | 0.66 | | 0.47 | 0.30 | | | | | | 0.25 | |
| Uniform Delay, d1 | 71.2 | 12.8 | | 71.7 | 8.9 | | | | | | 54.3 | |
| Progression Factor | 1.25 | 0.29 | | 1.03 | 1.31 | | | | | | 1.00 | |
| Incremental Delay, d2 | 1.6 | 1.1 | | 2.0 | 0.3 | | | | | | 0.3 | |
| Delay (s) | 90.4 | 4.9 | | 75.9 | 11.9 | | | | | | 54.7 | |
| Level of Service | F | A | | E | B | | | | | | D | |
| Approach Delay (s) | | 6.2 | | | 14.0 | | | 0.0 | | | 54.7 | |
| Approach LOS | | A | | | B | | | A | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 10.2 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.58 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 16.1 |
| Intersection Capacity Utilization | 63.7% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 80 | 910 | 438 | 236 | 456 | 190 | 234 | 338 | 279 | 228 | 576 | 62 |
| Future Volume (vph) | 80 | 910 | 438 | 236 | 456 | 190 | 234 | 338 | 279 | 228 | 576 | 62 |
| Ideal Flow (vphpl) | 1900 | 2100 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.5 | | 5.0 | 5.5 | | 5.0 | 5.1 | | 5.0 | 5.1 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | 0.97 | 0.95 | | 1.00 | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.98 | | 1.00 | 0.98 | | 1.00 | 0.96 | | 1.00 | 0.99 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frt | 1.00 | 0.95 | | 1.00 | 0.96 | | 1.00 | 0.93 | | 1.00 | 0.99 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 3639 | | 1770 | 3322 | | 3433 | 3181 | | 1770 | 3467 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | 1770 | 3639 | | 1770 | 3322 | | 3433 | 3181 | | 1770 | 3467 | |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 85 | 968 | 466 | 251 | 485 | 202 | 249 | 360 | 297 | 243 | 613 | 66 |
| RTOR Reduction (vph) | 0 | 38 | 0 | 0 | 28 | 0 | 0 | 101 | 0 | 0 | 5 | 0 |
| Lane Group Flow (vph) | 85 | 1396 | 0 | 251 | 659 | 0 | 249 | 556 | 0 | 243 | 674 | 0 |
| Confl. Peds. (#/hr) | 25 | | 33 | 33 | | 25 | 31 | | 40 | 40 | | 31 |
| Confl. Bikes (#/hr) | | | 19 | | | 15 | | | 14 | | | 13 |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | 11.4 | 56.7 | | 21.9 | 67.2 | | 13.0 | 30.6 | | 19.0 | 36.6 | |
| Effective Green, g (s) | 11.4 | 57.3 | | 21.9 | 67.8 | | 13.0 | 31.2 | | 19.0 | 37.2 | |
| Actuated g/C Ratio | 0.08 | 0.38 | | 0.15 | 0.45 | | 0.09 | 0.21 | | 0.13 | 0.25 | |
| Clearance Time (s) | 5.0 | 6.1 | | 5.0 | 6.1 | | 5.0 | 5.7 | | 5.0 | 5.7 | |
| Vehicle Extension (s) | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | | 1.0 | 2.5 | |
| Lane Grp Cap (vph) | 134 | 1390 | | 258 | 1501 | | 297 | 661 | | 224 | 859 | |
| v/s Ratio Prot | 0.05 | c0.38 | | c0.14 | 0.20 | | 0.07 | 0.17 | | c0.14 | c0.19 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | 0.63 | 1.00 | | 0.97 | 0.44 | | 0.84 | 0.84 | | 1.08 | 0.78 | |
| Uniform Delay, d1 | 67.3 | 46.4 | | 63.8 | 28.1 | | 67.5 | 57.0 | | 65.5 | 52.7 | |
| Progression Factor | 1.05 | 0.63 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 5.4 | 22.1 | | 48.0 | 0.9 | | 17.6 | 9.3 | | 84.6 | 4.6 | |
| Delay (s) | 76.3 | 51.2 | | 111.7 | 29.0 | | 85.0 | 66.3 | | 150.1 | 57.2 | |
| Level of Service | E | D | | F | C | | F | E | | F | E | |
| Approach Delay (s) | | 52.6 | | | 51.2 | | | 71.5 | | | 81.7 | |
| Approach LOS | | D | | | D | | | E | | | F | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 62.5 | HCM 2000 Level of Service | E |
| HCM 2000 Volume to Capacity ratio | 0.97 | | |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | 20.6 |
| Intersection Capacity Utilization | 104.7% | ICU Level of Service | G |
| Analysis Period (min) | 15 | | |

c Critical Lane Group