Attachment 9

Gibson Transportation Consulting, Inc., Transportation Studies

ESA

9-1 Transportation Study, April 2021

TRANSPORTATION STUDY FOR THE 600 FOOTHILL BOULEVARD PROJECT

LA CAÑADA FLINTRIDGE, CALIFORNIA

JUNE 2020
REVISED APRIL 2021

PREPARED FOR

600 FOOTHILL OWNER, LP
c/o CEDAR STREET PARTNERS, LLC

PREPARED BY

Gibson
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Prepared by:

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Chapter 1
Introduction

This study presents the transportation analysis for the proposed mixed-use development (the Project) at the existing First Church of Christ, Scientist church (the First Church). The methodology and base assumptions used in the analysis were established in conjunction with the City of La Cañada Flintridge (the City).

PROJECT DESCRIPTION

The Project proposes to remove the existing First Church and surface parking lot to construct a 75-unit age-restricted housing development with 6,218 square feet (sf) of office space. Pedestrians and bicyclists can access the residential lobby, plazas, and garden area via sidewalks along Foothill Boulevard and Woodleigh Lane. The Project would provide 140 parking spaces on-site within two subterranean levels. Access to the parking garage will be provided via one driveway located at the southeast corner of the Project Site, along Woodleigh Lane. The Project is anticipated to be completed by Year 2022.

Figure 1 illustrates the proposed Project site plan.

PROJECT LOCATION

As shown in Figure 2, the Project is located at 600 Foothill Boulevard (the Project Site) in the City and is generally bounded by Foothill Boulevard to the north, Woodleigh Lane to the east, and the La Cañada Presbyterian Church and surface parking lot to the south and west. The Project is located immediately south of the Foothill Freeway (I-210) and in the City's downtown area. The Project is located within walking distance to a shopping center to the north, which includes a supermarket, local restaurant, retail shops, and post office. Other nearby uses

include residential single-family homes, La Cañada Flintridge library, and private schools. Figure 3 illustrates the vehicle and pedestrian circulation to the Project Site from the surrounding street system.

STUDY SCOPE

The scope of analysis for this study was developed based on direction from City staff and in compliance with the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations, Title 14, Section 15000 and following).

The base assumptions and technical methodologies (i.e., vehicle miles traveled [VMT], trip generation, study locations, analysis methodology, etc.) were identified and agreed to in a Memorandum of Understanding (MOU), which was reviewed and approved by the City on April 9, 2020. A copy of the signed MOU is provided in Appendix A.

ORGANIZATION OF REPORT

This report is divided into nine chapters, including this introduction. Chapter 2 describes the methodology used to analyze intersection operating characteristics and assess traffic impacts. Chapter 3 describes the existing circulation system, traffic volumes, and traffic conditions in the Study Area, as well as the methodologies used to forecast future background traffic volumes. Chapter 4 discusses the methodologies used to forecast Project traffic and describes Project design features. Chapter 5 assesses intersection operating conditions of the existing and future street system after completion of the Project. Chapter 6 evaluates the site access, safety, and circulation. Chapter 7 reviews the proposed parking and the City's parking requirement for the Project. Chapter 8 presents the VMT analysis conducted for the Project. Chapter 9 summarizes the analyses and study conclusions. The appendices contain supporting documentation, including the MOU that outlines the study scope and assumptions, and additional details supporting the technical analyses.

Source: KFA Architecture. April, 2020.

PROJECT SITE PLAN

FIGURE 1

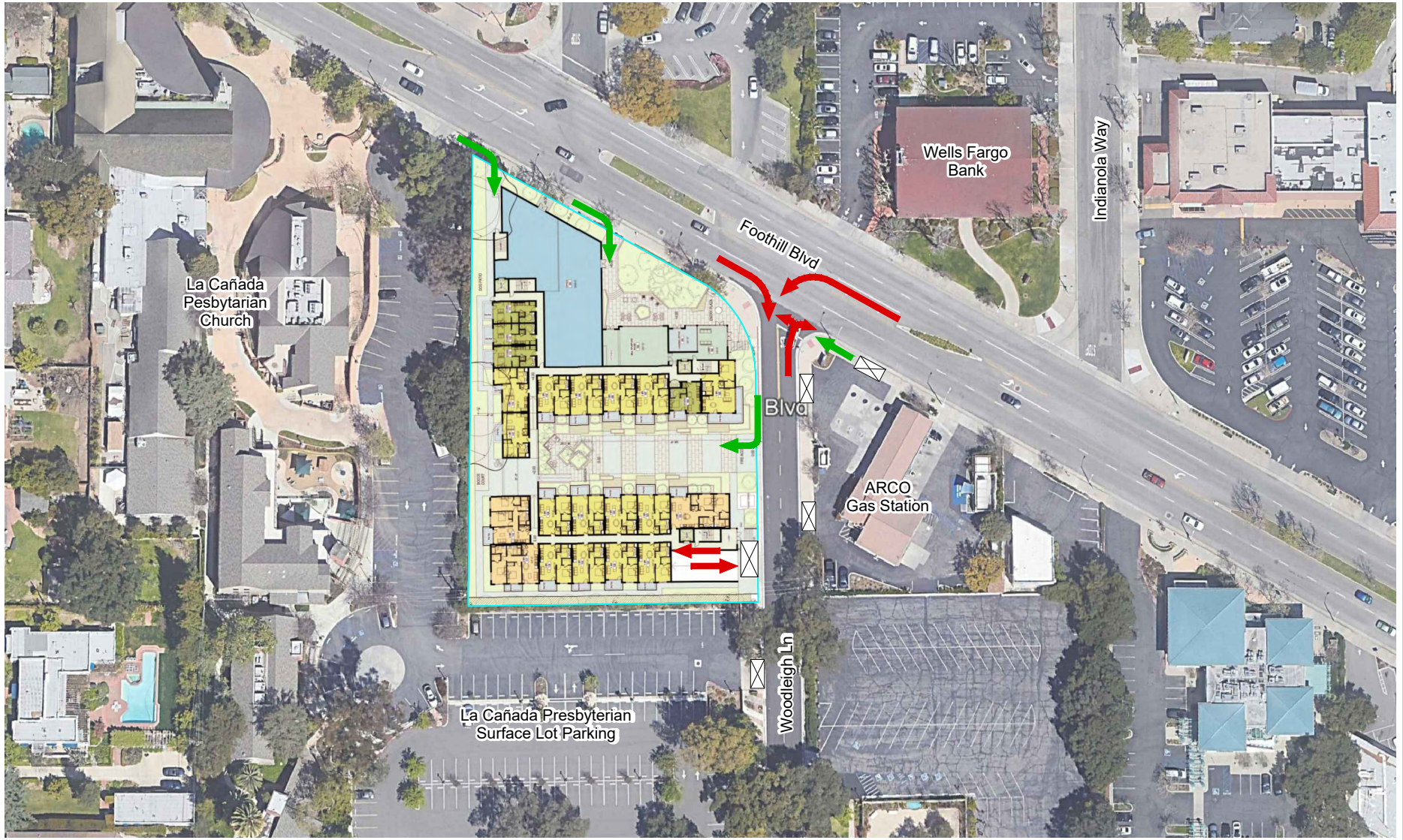
LEGEND

Project Site

N
Not to Scale

PROJECT SITE LOCATION

FIGURE 2



VEHICLE & PEDESTRIAN CIRCULATION

FIGURE 3

Chapter 2

Traffic Impact Analysis Methodology

This chapter describes the various traffic scenarios analyzed, the methodologies used for assessing intersection and street segment operating conditions, and traffic impacts.

STUDY SCOPE AND METHODOLOGY

This study follows the City traffic study procedures, which establish the guidelines for determining the appropriate analysis methodologies and significance thresholds for the Project. The scope of analysis for this study was developed in consultation with City staff.

The traffic impact study evaluated the potential for impacts caused by the Project on the street system surrounding the Project Site. The following analysis conditions were analyzed for the Project:

- Existing Conditions (Year 2020) – The analysis of existing traffic conditions provides a basis for the assessment of existing with project and future traffic conditions. The Existing Conditions analysis includes street and highway descriptions, traffic volumes, and current operating conditions.

- Existing with Project Conditions (Year 2020) – CEQA and the City require an evaluation of project traffic impacts on the existing environment as part of traffic impact analyses. This analysis evaluates the potential Project-related traffic impacts as compared to existing conditions.

- Future without Project Conditions (Year 2022) – This analysis estimates the future traffic volumes and intersection operating conditions that could be expected as a result of regional growth and related projects in the vicinity of the Project Site by Year 2022. The Future without Project traffic conditions are estimated by adding ambient traffic growth to existing conditions. This analysis provides the baseline conditions by which Project impacts are evaluated at full buildout.

- Future with Project Conditions (Year 2022) – This analysis identifies the potential incremental impacts of the Project at full buildout on future operating conditions by

adding the Project-generated traffic to the Future without Project traffic forecasts (Year 2022).

INTERSECTION LEVEL OF SERVICE METHODOLOGY

As required by the City, the intersection delay and queue analyses at the study intersections were evaluated using the *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016) (HCM) for signalized and unsignalized methodologies. The HCM methodology for analyzing signalized and all-way stop-controlled intersections calculates the average delay, in seconds, for each vehicle passing through an intersection. The HCM methodology for analyzing two-way stop-controlled intersections calculates the control delay, in seconds, for individual approaches to an intersection. The HCM methodology was implemented using Synchro software to calculate the intersection delay and its corresponding level of service (LOS) value. LOS is a qualitative measure used to describe the traffic flow conditions. Table 1 presents a description of the LOS categories, which range from excellent, nearly free-flow traffic at LOS A to congested, stop-and-go conditions at LOS F.

In addition, the overall intersection volume to capacity (V/C) ratio was determined based on the intersection capacity utilization (ICU) methodology. This methodology was utilized to determine the change in V/C ratio for the purposes of identifying traffic impacts, as discussed below.

IMPACT CRITERIA AND SIGNIFICANCE THRESHOLDS

The significance of the potential impacts of Project generated traffic at each study intersection was identified based on guidelines provided by the City. According to the City's methodology for calculating the level of impact due to traffic generated by a proposed project, a significant traffic impact is determined based on the criteria presented below:

- A significant impact occurs if traffic generated by the Project causes an intersection to worsen from LOS D or better to LOS E or F, or
- For an intersection operating at LOS E or LOS F conditions, the addition of Project traffic increases the V/C by 0.02 or greater.

The City's methodology requires mitigation of Project traffic impacts whenever traffic generated by the Project exceeds the criteria above.

The relative impact of the added Project traffic was evaluated based on an analysis of operating conditions at the study intersections, with and without the Project. The Project's impacts were evaluated against the Existing (Year 2020) and Future without Project (Year 2022) Conditions.

State of California Senate Bill No. 743

Senate Bill No. 743 (Steinberg, 2013) (SB 743), made effective in January 2014, requires the Governor's Office of Planning and Research to change CEQA guidelines regarding the analysis of transportation impacts. Under SB 743, the focus of transportation analysis will shift from driver delay to VMT to promote a reduction of greenhouse gas emissions (GHG) and to encourage creation of multimodal networks and promotion of mixed-use developments. Although originally scheduled to be fully implemented in guidelines by January 1, 2016, an extension has allowed cities more time to establish an analysis methodology. Consistent with the latest guidelines, the City Council adopted VMT Baselines and Thresholds of Significance for identifying transportation-related impacts in July 2020. A VMT analysis for the Project was conducted and summarized in Chapter 8.

TABLE 1
INTERSECTION LEVEL OF SERVICE DEFINITIONS

Delay [a]		Level of Service	Description
Signalized Intersections	**Unsignalized Intersections**		
≤ 10	≤ 10	A	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
> 10 and ≤ 20	> 10 and ≤ 15	B	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
> 20 and ≤ 35	> 15 and ≤ 25	C	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
> 35 and ≤ 55	> 25 and ≤ 35	D	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
> 55 and ≤ 80	> 35 and ≤ 50	E	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
> 80	> 50	F	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Notes

Source: *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016).

[a] Measured in seconds.

Chapter 3
Existing and Future Conditions

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the Study Area. The Existing Conditions analysis relevant to this study includes an assessment of the existing street system, an analysis of traffic volumes and current operating conditions, and an assessment of the existing public transit service, as well as pedestrian and bicycle circulation.

In addition, this Chapter contains a discussion of the future conditions detailing the assumptions used to develop the Future without Project Conditions in Year 2022, which corresponds to expected occupancy of the Project.

STUDY AREA

The Study Area generally includes the key intersections along Foothill Boulevard as shown in Figure 4. This Study Area was established in consultation with the City and by reviewing the existing intersection/corridor operations, Project peak hour vehicle trip generation, the anticipated distribution of Project vehicular trips, and the potential impact locations.

A traffic analysis study area generally comprises those locations with the greatest potential to experience traffic impacts due to the Project as defined by the lead agency. In the traffic engineering practice, a study area generally includes those intersections that are:

1. Immediately adjacent or in close proximity to the project site
2. In the vicinity of the project site that are documented to have current or projected future adverse operational issues
3. In the vicinity of the project site that are forecast to experience a relatively greater percentage of project-related vehicular turning movements (e.g., at freeway ramp intersections)

The Study Area was designed to ensure that all potentially impacted intersections were analyzed, and the boundary of the Study Area was extended, as necessary, to confirm that there were no traffic impacts at or outside the Study Area by reviewing the Project traffic's travel patterns.

A total of four study intersections, including two signalized intersections and two unsignalized intersections, were identified for detailed analysis of the above conditions:

1. Oakwood Avenue & Foothill Boulevard (signalized)
2. Rinetti Lane & Foothill Boulevard (unsignalized)
3. Woodleigh Lane & Foothill Boulevard (unsignalized)
4. Gould Avenue & Foothill Boulevard (signalized)

Figure 4 illustrates the location of the Project Site in relation to the surrounding street system and the four study intersections.

EXISTING TRANSPORTATION CONDITIONS

Existing Street System

The existing street system in the Study Area consists of a regional roadway system including primary and secondary arterials and collector and local streets that provide regional, sub-regional, or local access and circulation to the Project Site. These transportation facilities generally provide two to four travel lanes and usually allow parking on either side of the street. Typically, the speed limits range between 25 and 40 miles per hour (mph) on the streets.

The City utilizes similar roadway categories recognized by regional, state and federal transportation agencies. There are five general roadway classifications used to designate public streets: Primary, Major, Collector, Residential Collector and Local Residential. The first four categories are part of *City of La Cañada Flintridge General Plan 2030* (City of La Cañada Flintridge, January 2013) (General Plan 2030) circulation network as their function is to move traffic efficiently from one part of the City to another as well as in and out of the City. Local residential streets and private roadways provide direct access to adjacent properties. Per the

Circulation Element of the General Plan 2030, the following are brief descriptions of the roadway classifications:

- Primary Roadway – Major streets that primarily serve through traffic and provide access to abutting properties as a secondary function. Primary Roadways provide up to two travel lanes in each direction divided by a raised or painted median, and generally includes a right-of-way width of 100 feet and roadway width of 80 feet.

- Major Roadway – Roadways that primarily serve local and commuter traffic. Major Roadways provide up to four travel lanes in each direction with a target operating speed of 40 mph, and generally includes a right-of-way width of 80 feet and varied roadway width.

- Special Major Roadway – Major Roadways with wider rights-of-way. Special Major Roadways provide up to four travel lanes in each direction with a target operating speed of 40 mph, and generally includes a right-of-way width of 66 feet and varied roadway width.

- Collector – Roadways designed to carry traffic between local streets and the arterial street network. Collectors provide up to one travel lane in each direction and can accommodate either a center turn lane or on-street parking, and generally includes a right-of-way width of 88 feet and roadway width of 68 feet.

- Residential Collector – Roadways that are residential in nature due to surrounding development but are also designed to carry traffic between local streets and the arterial street network. Residential Collectors provide up to one travel lane in each direction with on-street parking, and generally includes a right-of-way width of 60 feet and roadway width of 40 feet.

- Local Residential – Roadways that provide direct access to adjacent properties, short distance intra-neighborhood traffic, and access to higher classification roads and streets. Local Residential streets provide up to one travel lane in each direction with on-street parking, and generally includes a right-of-way width of 44-52 feet and roadway width of 28-36 feet.

- Private – Neighborhood roadways not dedicated to the City and not maintained by the City. These streets are typically maintained by a homeowners' association.

Regional Highway System

Primary regional access to the Project Site is provided by I-210, a major east-west oriented freeway connecting I-5 in the Sylmar area to SR 57 near San Dimas. In the vicinity of the Study Area, I-210 generally runs northwest-southeast and provides four travel lanes in each direction.

I-210 is located approximately 1,000 feet north of the Project Site. Access to and from I-210 is available via interchanges along Foothill Boulevard and Gould Avenue.

Roadway Descriptions

The major arterials providing regional and sub-regional access to the Project vicinity include Foothill Boulevard and Gould Avenue. The following is a brief description of the streets serving the Study Area:

- Oakwood Avenue – Oakwood is a designated Residential Collector that runs in the north-south direction and is located west of the Project Site. It provides two travel lanes, one in each direction. Parking is generally available along both sides of the street in the Study Area.

- Rinetti Lane – Rinetti Lane is a designated Local Residential that runs in the north-south direction and is located directly north of the Project Site. Rinetti Lane terminates at Foothill Boulevard and provides two travel lanes, one in each direction. Parking is generally available along both sides of the street in the Study Area.

- Woodleigh Lane – Woodleigh Lane is a designated Residential Collector that runs in the north-south direction and is located adjacent to the eastern boundary of the Project Site. Woodleigh Lane terminates at Foothill Boulevard and provides two travel lanes, one in each direction. Parking is generally available along both sides of the street in the Study Area. The Project proposes access to/from Woodleigh Lane.

- Gould Avenue – Gould Avenue is a designated Major Roadway north of Foothill Boulevard and a Local Residential south of Foothill Boulevard. It runs in the north-south direction and is located east of the Project Site. It provides two travel lanes, one in each direction, with a center turn lane and exclusive left/right-turn lanes at intersections north of Foothill Boulevard. Parking is generally available along both sides of the street in the Study Area.

- Foothill Boulevard – Foothill Boulevard is a designated Primary Roadway that runs in the east-west direction and is located along the northern boundary of the Project Site. It provides four travel lanes, two in each direction, divided by a raised medium with left-turn lanes at intersections. Parking is generally not available on either side of the street within the Study Area.

The existing lane configurations at each study intersection are provided in Figure 5.

Existing Transit System

The Study Area is served by bus lines operated by Glendale Beeline and La Cañada Flintridge (LCF) Shuttle. Figure 6 illustrates the existing infrastructure, including transit service, in the Study Area. Table 2 summarizes the transit lines operating in the Study Area, the type of service (peak vs. off-peak, express vs. local), and frequency of service. The following provides a brief description of the bus lines providing service in Project vicinity:

- Glendale Beeline Route 3 – Route 3 is a local line that travels from Glendale Galleria to the Jet Propulsion Laboratory, with average headways of 30 minutes during the weekday morning peak hour and 35 to 40 minutes during the afternoon commuter peak hour. This line travels along Foothill Boulevard in the vicinity of the Project Site.
- LCF Shuttle – LCF Shuttle is a shuttle within the City, with average headways of 45 to 60 minutes during the weekday morning and afternoon commuter peak hours. This line travels along Foothill Boulevard in the vicinity of the Project Site.

Existing Bicycle System

Based on the Circulation Element of the General Plan 2030, the City's existing bicycle facilities consists of a limited network of bicycle paths (Class I), bicycle lanes (Class II), and bicycle routes (Class III). Class I bicycle paths provide bicycle travel on a paved right-of-way completely separated from vehicular or pedestrian traffic. Class II bicycle lanes are a component of street design with dedicated striping separating vehicular traffic from bicycle traffic. Class III bicycle routes are those where motorists and cyclists share the roadway and there is no separated striping for bicycle travel. Class III bicycle routes are typically identified only by posted signage. Currently, there are no existing bicycle facilities within the Study Area.

Existing Pedestrian Facilities

The walkability of an area is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile. These attributes are quantified by WalkScore.com and assigned a score out of 100 points. WalkScore.com takes into consideration of population density and road metrics (e.g., length of a block and intersection density) to analyze available walking routes to amenities and destinations. Data sources

include Google, Factual, Great Schools, Open Street Map, the U.S. Census, Localeze, and places added by community users. With the various commercial businesses, employment, entertainment, and cultural centers adjacent to residential neighborhoods, the walkability of the Study Area is approximately 73 points[1].

As shown in Figure 6, sidewalks are provided along the Project frontage, including 7.5-foot wide sidewalks on Foothill Boulevard and 6-foot wide sidewalks on Woodleigh Lane. The signalized intersections at Oakwood Avenue & Foothill Boulevard (Intersection #1), located approximately 450 feet west of the Project Site, and Gould Avenue & Foothill Boulevard (Intersection #4), located approximately 750 feet east of the Project Site, provide marked pedestrian crossings on all approaches, as well as pedestrian phasing, crosswalk striping, and Americans with Disabilities Act curb ramps.

Existing Traffic Volumes

This section presents the existing peak hour turning movement traffic volumes for the intersections analyzed in the study, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each intersection indicating delay, V/C ratios and LOS.

Traffic count data collection is generally conducted during times with typical travel demand patterns (i.e., when local schools are in session, weeks without holidays, etc.) Due to the current traffic conditions related to the State and City's response to COVID-19, the collection of new traffic counts cannot occur until the Safer At Home order is lifted, local schools are in session, businesses are operational, etc. Given the uncertainty of the termination of the order, historical traffic count data previously conducted was utilized for the analyses.

Traffic counts were collected at the four study intersections, as well as the existing site driveways and ARCO gas station driveways, on Wednesday, November 4, 2015 as part of the traffic study prepared for a prior development proposed at the Project Site (*Oakmont of La*

[1] Walk Score (www.walkscore.com) rates the Project Site with a score of 73 of 100 possible points (scores assessed on April 29, 2020 for 600 Foothill Boulevard). Walk Score calculates the walkability of specific addresses by taking into account the ease of living in the neighborhood with a reduced reliance on automobile travel.

Canada Flintridge Assisted Living Facility, Mark D. Crane, December 15, 2015). The intersection counts consisted of peak period turning movement counts during commuter peak periods from 7:00 AM to 9:00 AM and from 4:00 PM to 7:00 PM. Additionally, to determine weekend traffic demand, counts were collected at the two adjacent unsignalized study intersections on Saturday, November 14, 2015 from 9:00 AM to 2:00 PM and on Sunday, November 15, 2015 from 8:00 AM to 3:00 PM. The Year 2015 traffic counts were increased by an ambient growth rate of 1% per year over five years to represent Existing Conditions in Year 2020. The weekday and weekend traffic volumes are provided in Figures 7 and 8, respectively, and were analyzed to determine the existing operating conditions at the study intersections. The summary data worksheets of turning movement counts at the study intersections are available in Appendix B.

FUTURE CUMULATIVE TRANSPORTATION CONDITIONS

The forecast of Future without Project Conditions was prepared in accordance with procedures outlined in the CEQA Guidelines. Specifically, two options for developing the cumulative traffic volume forecast:

> "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or
>
> "(B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency."

Future Cumulative Traffic Volumes

Although existing traffic is typically expected to increase as a result of regional growth and development, due to the implications of COVID-19, it is speculated that future traffic conditions may show reduced congestion as people shift to telecommuting and fewer vehicle trips are made on a daily basis. Based on discussions with the City staff during the MOU process, an

ambient growth factor of 1% per year was conservatively applied to the adjusted existing traffic volumes that were conducted prior to the Safer at Home order as a response to COVID-19 to reflect the effects of potential regional growth and development by Year 2022. Thus, the cumulative traffic conditions provide a highly conservative estimate of Future without Project traffic volumes. Traffic to/from the cumulative developments and regional growth within the City are captured in the ambient growth factor of 1% per year. The total adjustment applied over the two-year period (from the adjusted base existing Year 2020 to the future Year 2022) was 2%. The resulting weekday and weekend Future without Project peak hour traffic volumes are illustrated in Figures 9 and 10.

Future Roadway Improvements

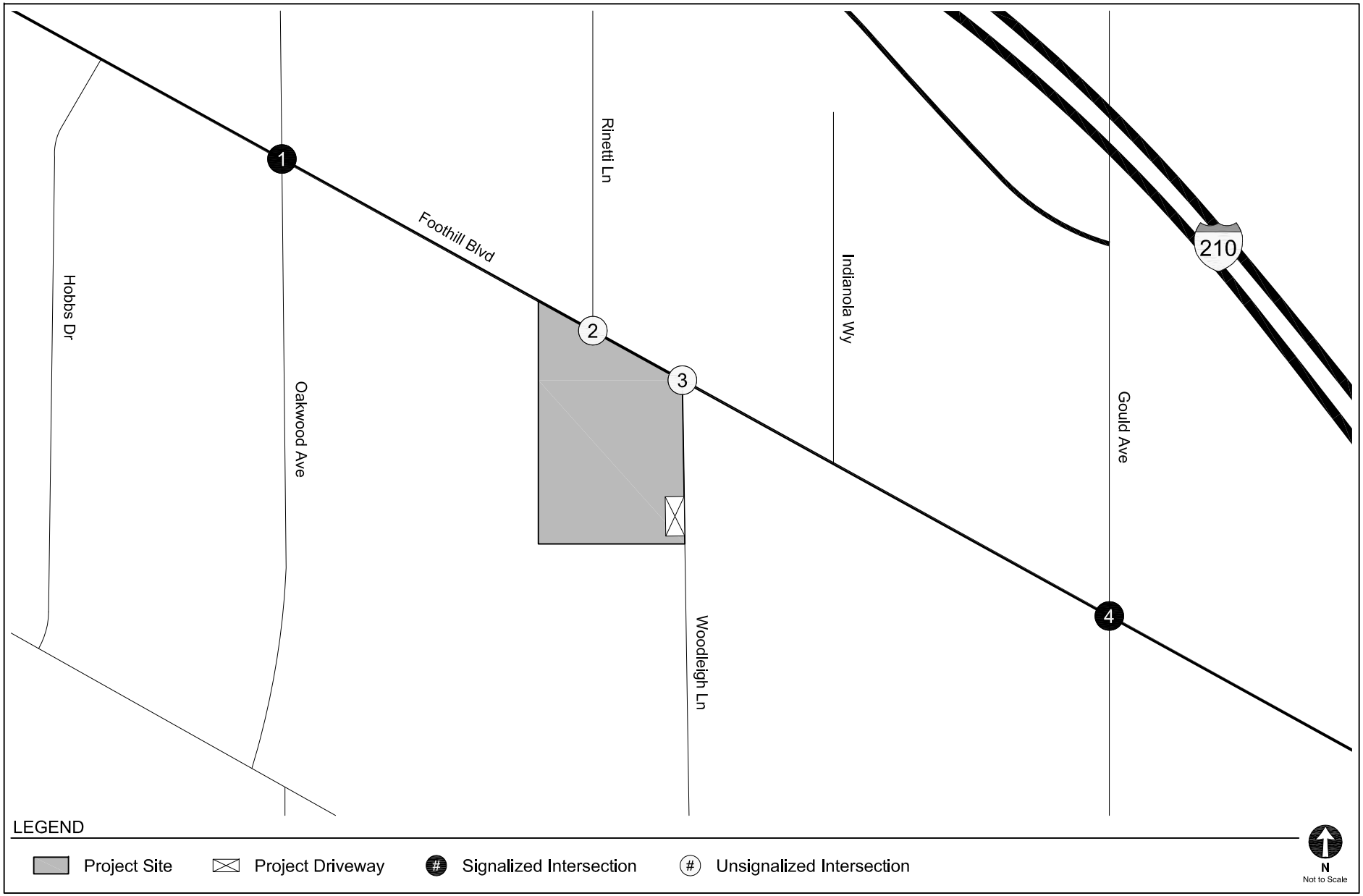
The analysis of Future Conditions accounts for funded roadway improvements expected to be implemented prior to the buildout of the proposed Project that would change the physical configuration at study intersections. The following projects were evaluated for their potential effects on the future roadway configurations.

General Plan 2030. To support the increase in bicycle activity and provide connectivity between intra-jurisdictional bicycle networks, the City has developed a Bikeway Master Plan to identify planned bicycle facilities. Within the Study Area, Class II bicycle lanes are planned along Foothill Boulevard. The schedule for implementation of the bicycle lanes is unknown at this time and were therefore not considered in the Future Conditions analysis. No changes to the roadway system were made based on the General Plan 2030 Bikeway Master Plan.

Downtown Village Specific Plan (DVSP). The DVSP (City of La Cañada Flintridge, November 2000) identifies several transportation-related improvements that align with the goals, policies, and designs of Foothill Boulevard. The DVSP would retain Foothill Boulevard as a four-lane roadway through the downtown area.

Based on discussions with the City staff, there are no future roadway improvements (either programmed improvements or other mitigation for other recently approved developments) in the Study Area that are anticipated to be fully funded and constructed prior to the buildout of the

Project (i.e., Year 2022). Thus, no changes to the roadway system were incorporated into the Future Conditions analysis based on the DVSP.



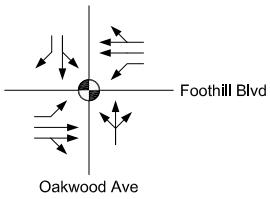
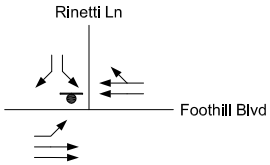
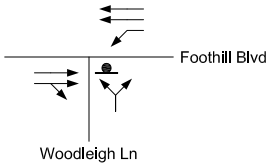
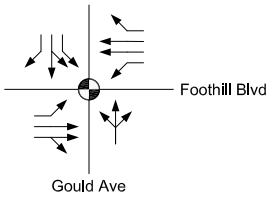
STUDY AREA & ANALYZED INTERSECTIONS

FIGURE 4

LEGEND

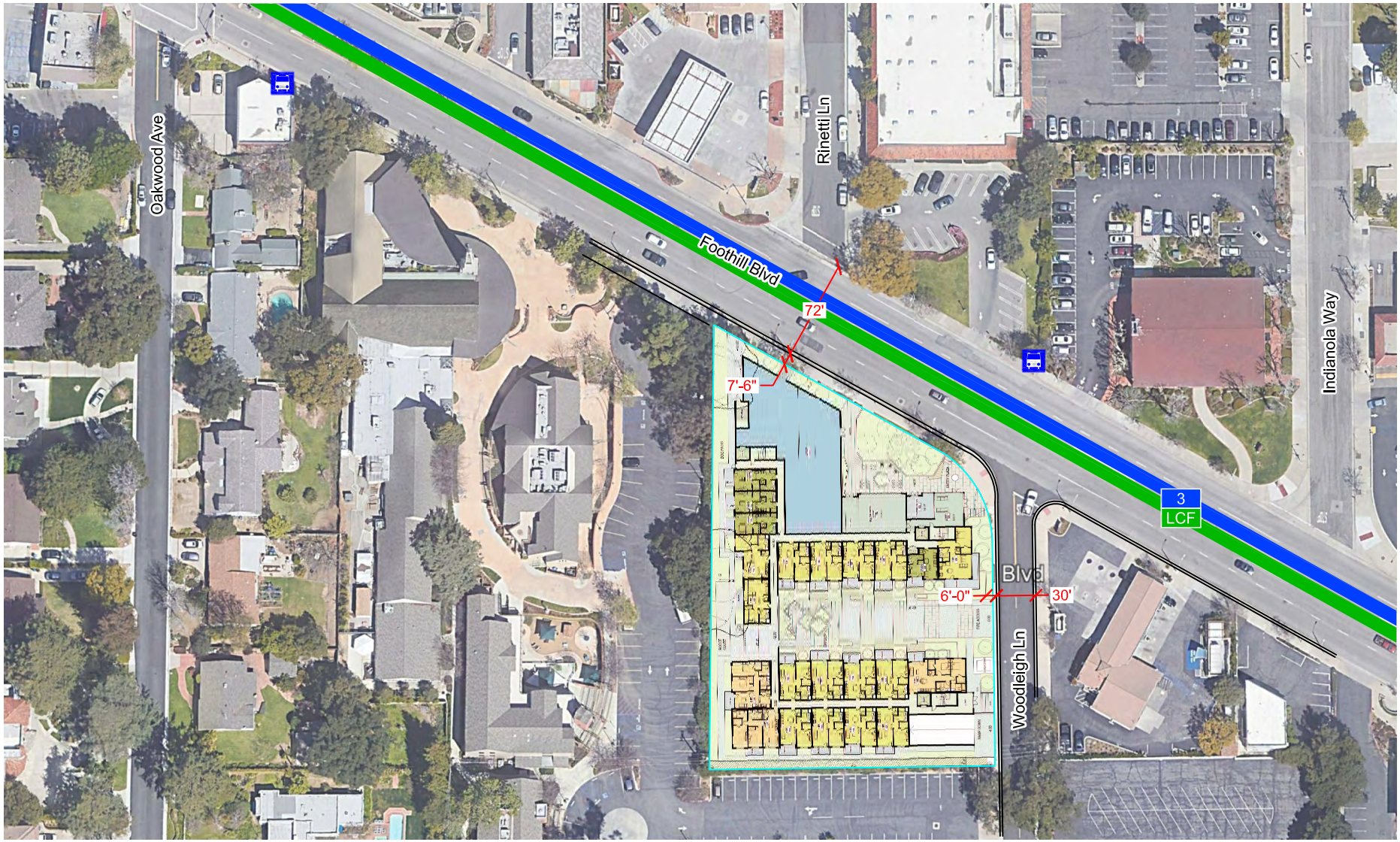
Traffic Signal

Stop Sign

	EXISTING CONDITIONS (YEAR 2020)	FUTURE CONDITIONS (YEAR 2022)
1. Oakwood Avenue & Foothill Boulevard		Same as Existing Conditions
2. Rinetti Lane & Foothill Boulevard		Same as Existing Conditions
3. Woodleigh Lane & Foothill Boulevard		Same as Existing Conditions
4. Gould Avenue & Foothill Boulevard		Same as Existing Conditions

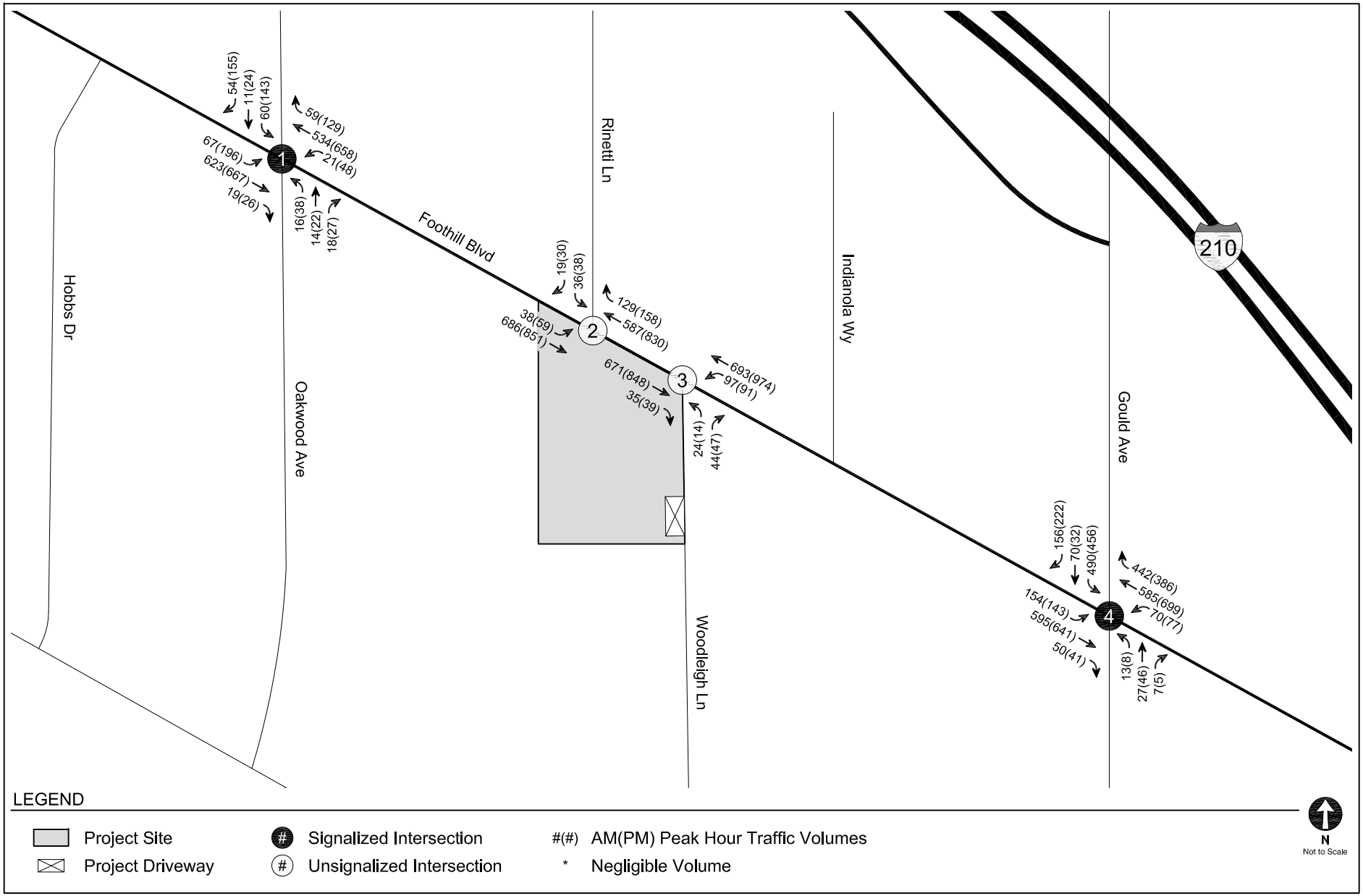
INTERSECTION LANE CONFIGURATIONS

FIGURE 5



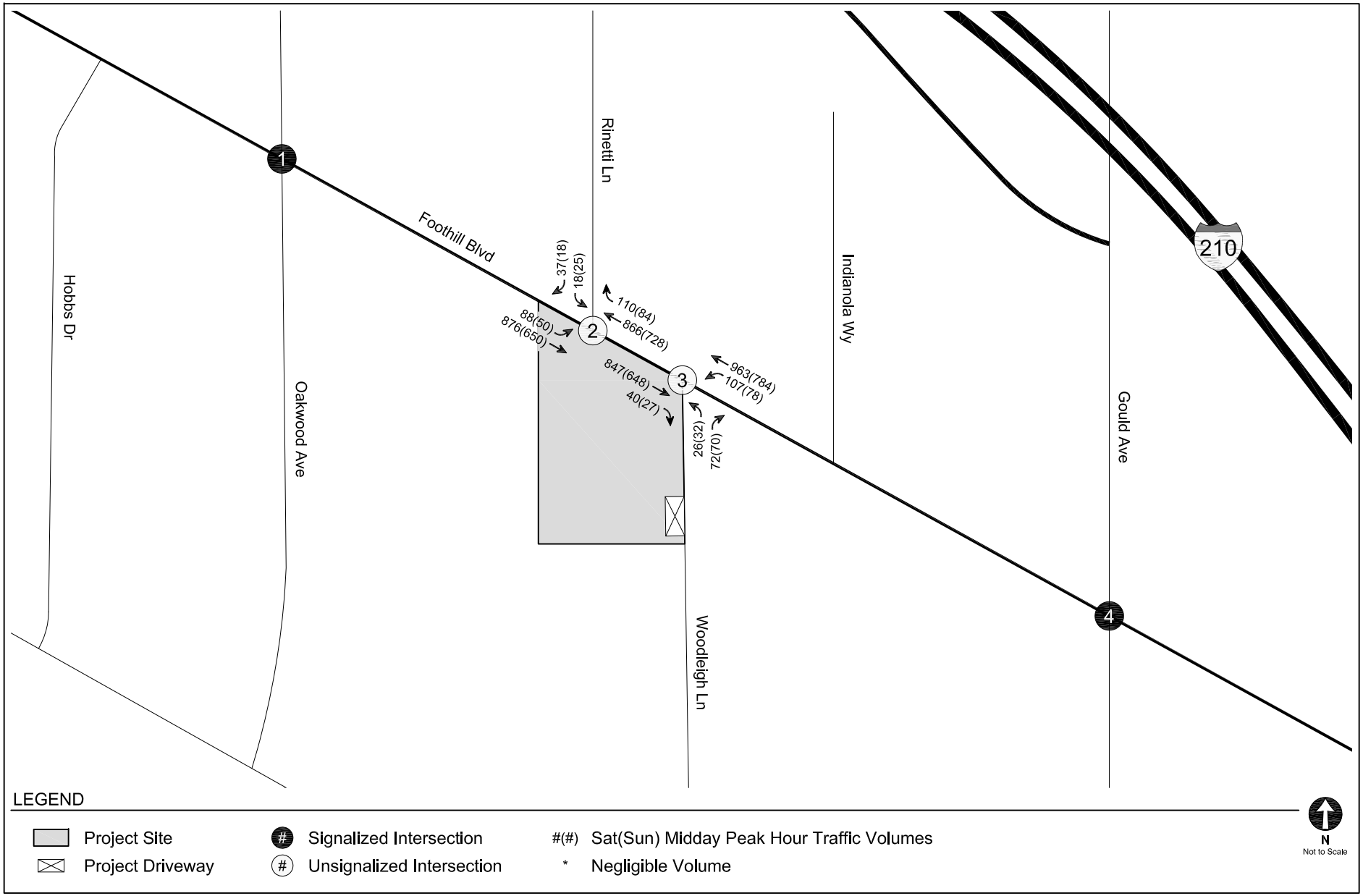
EXISTING INFRASTRUCTURE

FIGURE 6



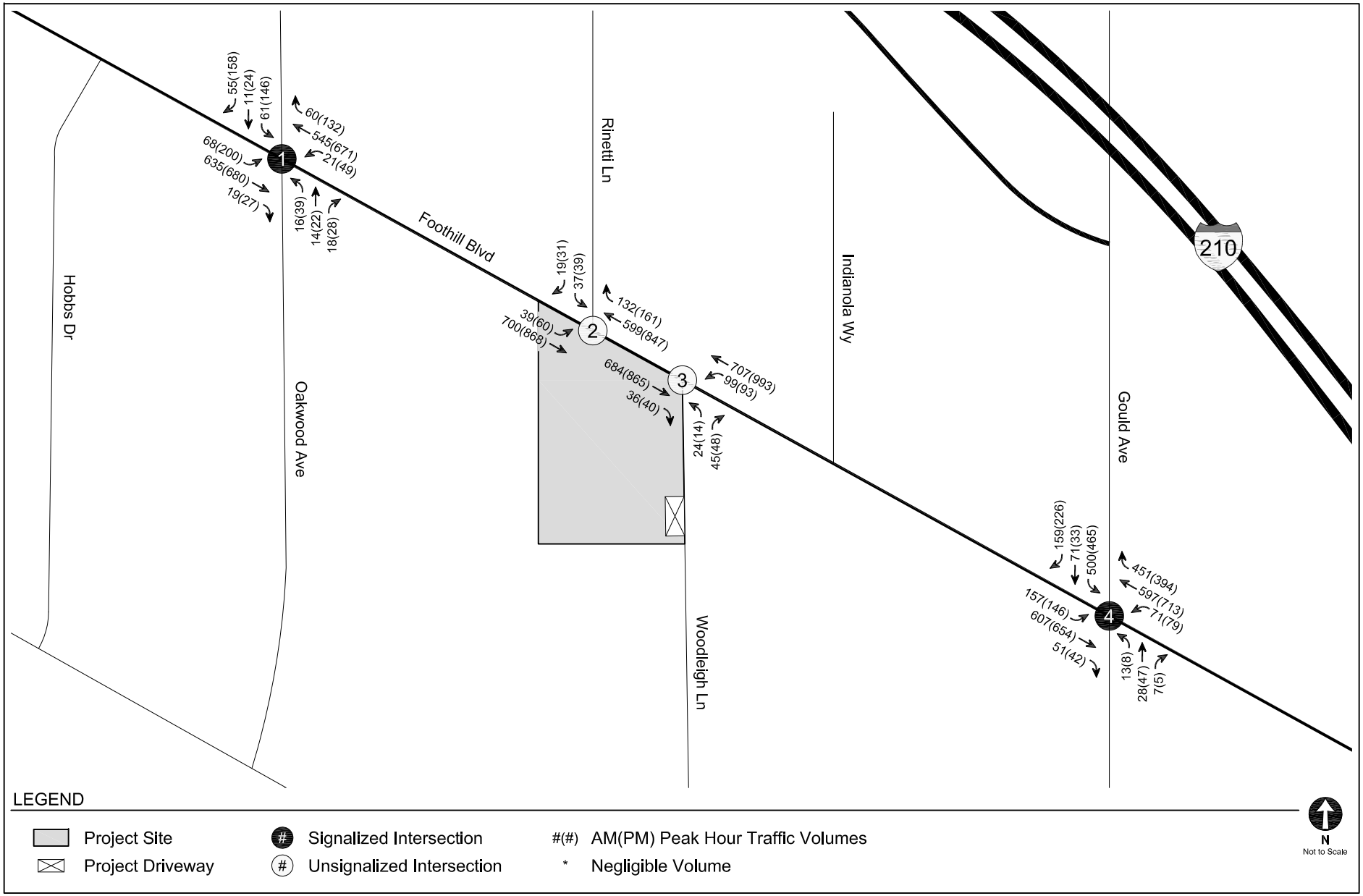
EXISTING CONDITIONS (YEAR 2020)
WEEKDAY PEAK HOUR TRAFFIC VOLUMES

FIGURE 7



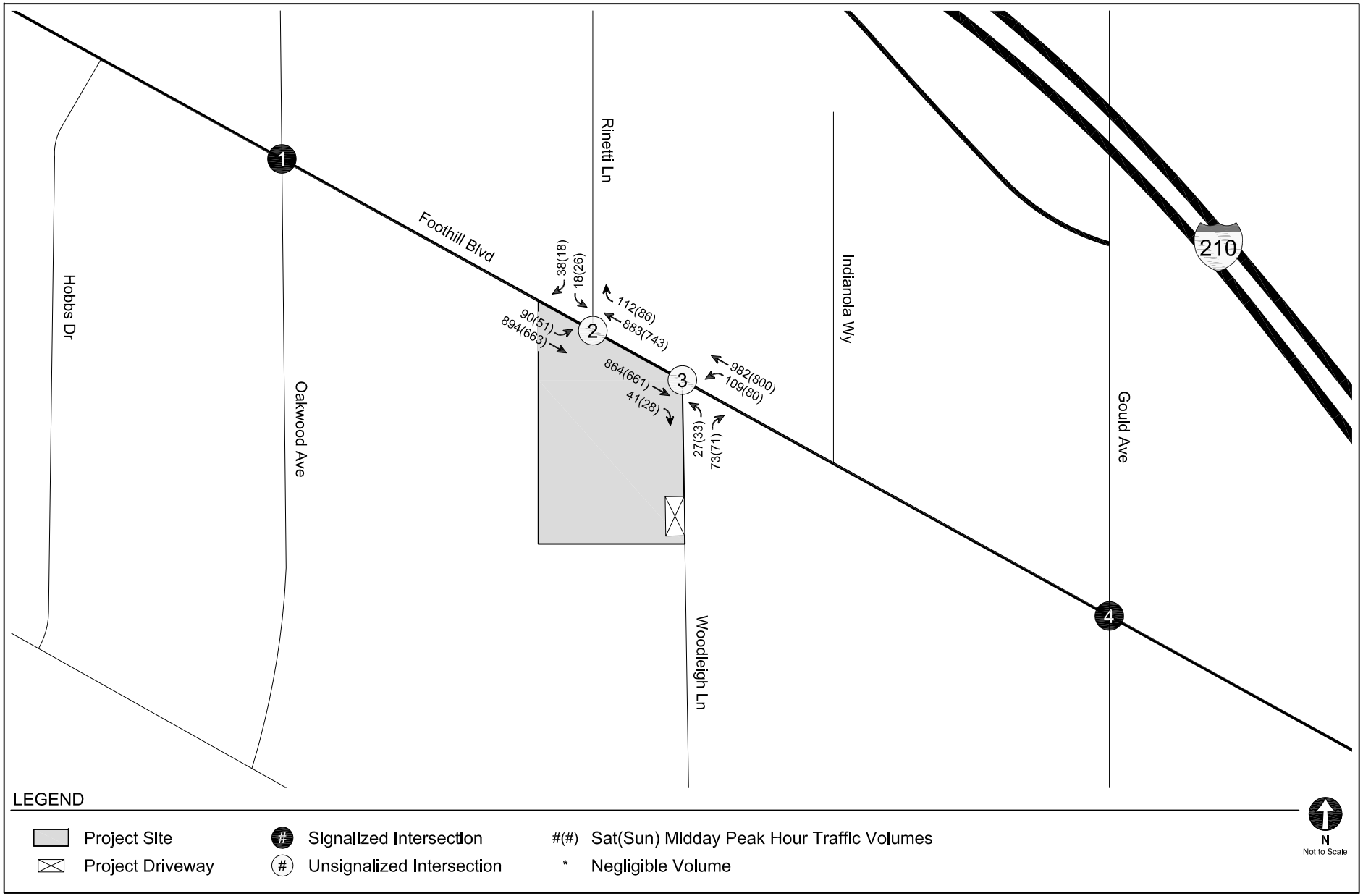
EXISTING CONDITIONS (YEAR 2020)
WEEKEND PEAK HOUR TRAFFIC VOLUMES

FIGURE 8



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2022)
WEEKDAY PEAK HOUR TRAFFIC VOLUMES

FIGURE 9



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2022)
WEEKEND PEAK HOUR TRAFFIC VOLUMES

FIGURE 10

TABLE 2
EXISTING TRANSIT SERVICE

Provider, Route, and Service Area	Service Type	Hours of Operation	Average Headway (minutes)			
			AM Peak Hour		PM Peak Hour	
Glendale Beeline			**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
3 Glendale Galleria - JPL	Local	6:30 A.M. - 8:15 P.M.	30	30	40	34
La Canada Flintridge			**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
Shuttle Montrose - JPL - La Canada High School (LCHS)	Shuttle	6:00 A.M. - 5:00 P.M.	48	48	60	40

Notes:
A.M. Peak from 6-10 A.M.
P.M. Peak from 3-7 P.M.

Chapter 4
Project Traffic

A trip generation estimate, trip distribution pattern, and trip assignment were prepared for the Project. These components form the basis of the Project's traffic impact analysis.

PROJECT TRAFFIC VOLUMES

The first step of the forecasting process is trip generation, which estimates the total arriving and departing trips generated by the Project on a peak hour and daily basis by applying the appropriate vehicle trip generation equations, or rates, to the size each Project land use component.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound Project trips. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the Study Area. Localized routes of travel through the Study Area are developed based on existing traffic patterns and relative travel times on various corridors.

The third step of the forecasting process is traffic assignment. This involves multiplying the volume of traffic generated by the Project (the trip generation) to the intersections and street segments in the Study Area by the estimated trip distribution percentages. These results can then be added to existing or future background traffic volumes to generate scenarios which include the Project.

With the forecasting process complete and Project traffic assignments calculated, the potential impact of the proposed Project is isolated by comparing operational (i.e., LOS) conditions at the study intersections without and with Project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated and the significance of the Project's impacts quantified.

Project Trip Generation

As described in Chapter 1, the Project proposes to construct a 75-unit age-restricted housing development with 6,218 sf of office space to replace an existing church. The trip generation rates from *Trip Generation Manual, 10th Edition* (Institute of Transportation Engineers, 2017) (ITE) for Land Use Code 252 (Senior Adult Housing) and Land Use Code 710 (General Office Building) were used to develop the Project trip generation estimates. It should be noted that up to eight units may be utilized as short-term housing for visitors and guests to the area. However, it is expected that trips generated by these visitors and guests would be nominal, as most visitors would either remain on-site or walk to nearby commercial uses. Thus, no additional external vehicle trips were assumed to be generated by these units. Empirical peak hour trip rates for the existing First Church were developed based on traffic data collected at the existing driveways in May 2015. Daily trip rates (24-hour period) for First Church were calculated from *Trip Generation Manual, 10th Edition* for weekdays, Saturdays, and Sundays.

Project trip estimates are conservative and no adjustments were made to account for transit usage or any walking trips made to nearby commercial uses. Additionally, no further trip reductions were considered to account for the proposed TDM strategies to be employed by the Project that would reduce vehicle trips to the site to provide a conservative analysis. As shown in Table 3, after accounting for the removal of trips associated with the existing First Church, the Project is anticipated to generate 269 net new daily trips, including 22 net new morning peak hour trips (11 inbound, 11 outbound) and 19 net new afternoon peak hour trips (eight inbound, 11 outbound) during the weekday. The Project is anticipated to generate 196 net new Saturday daily trips, including 25 net new midday peak hour trips (16 inbound, nine outbound) and a net reduction of 36 Sunday daily trips, including 12 net new midday peak hour trips (17 additional inbound, five fewer outbound). Based on Table 3, the Project would generate a maximum of 28 vehicles during any single peak hour, or an average of one vehicle every three minutes.

Compared to the traffic generated by a typical single-family home (ITE Land Use Code 210) which would generate 9.44 daily trips per unit, the senior adult housing (ITE Land Use Code 252) would generate 3.7 daily trips per unit. Thus, the traffic generated by the Project would generate 60% fewer daily trips than single-family homes.

As detailed in Chapter 5, the Project proposes the implementation of transportation demand management (TDM) strategies (e.g. such as providing unbundled parking, electric vehicle (EV)-ready charging stations, bicycle parking, promotions and marketing of alternative travel modes, and pedestrian-friendly environment) to further reduce Project trips. However, to provide a conservative analysis, no trip reductions were taken to account for the traffic impact analysis.

Project Trip Distribution

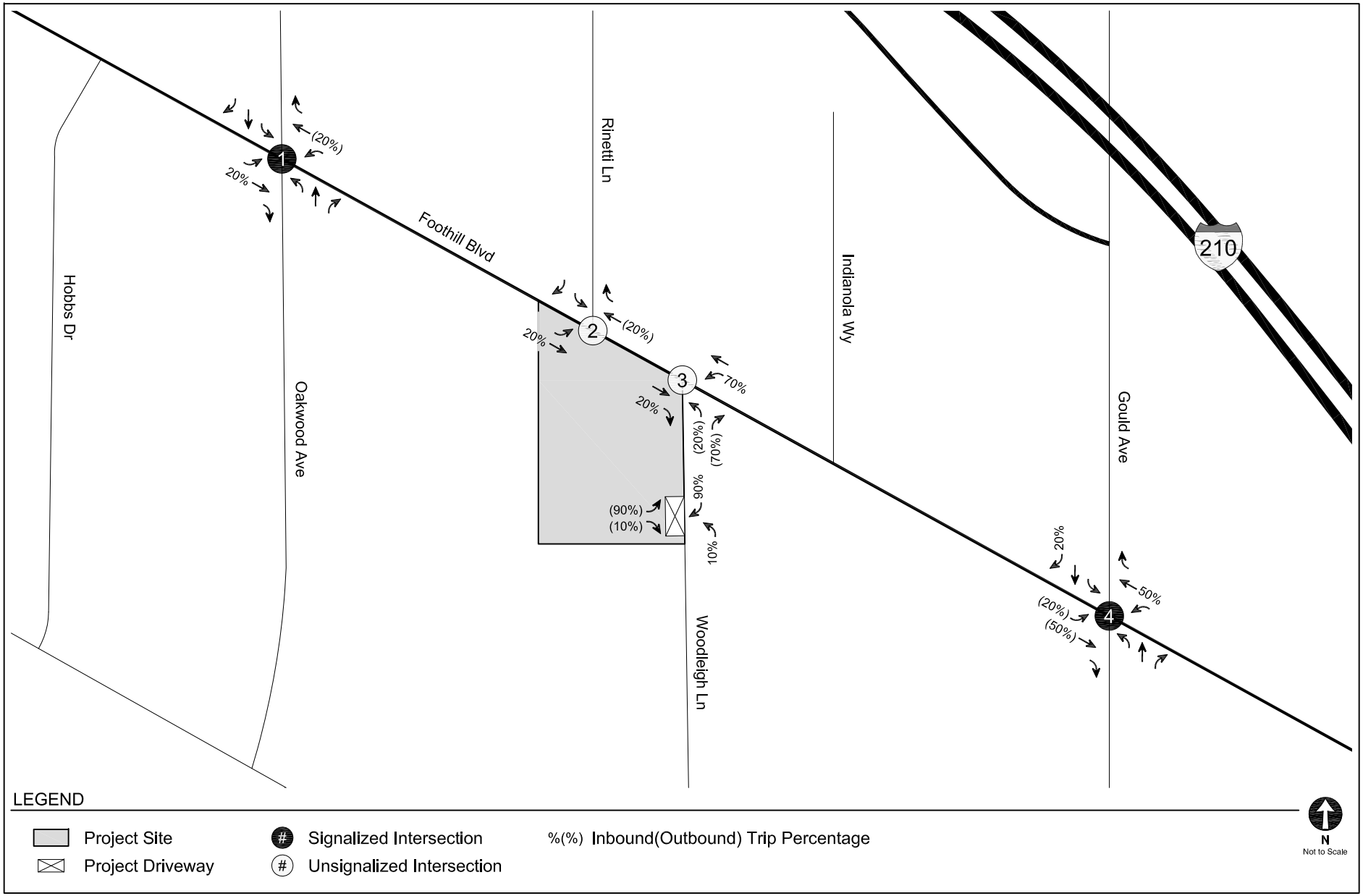
Project traffic volumes both entering and exiting the Project Site were distributed and assigned to the local street system based on the location of residential and commercial centers from which residents, employees, and guests of the Project would be drawn, characteristics of the street system serving the Project Site, existing intersection traffic volumes, the location of Project access, proximity to major highways, as well as input from the City staff. Project traffic was assigned to the surrounding street system based on the following distribution pattern:

- 20% to/from the north
- 50% to/from the east
- 10% to/from the south
- 20% to/from the west

The detailed distribution of Project traffic through the study intersections is illustrated in Figure 11.

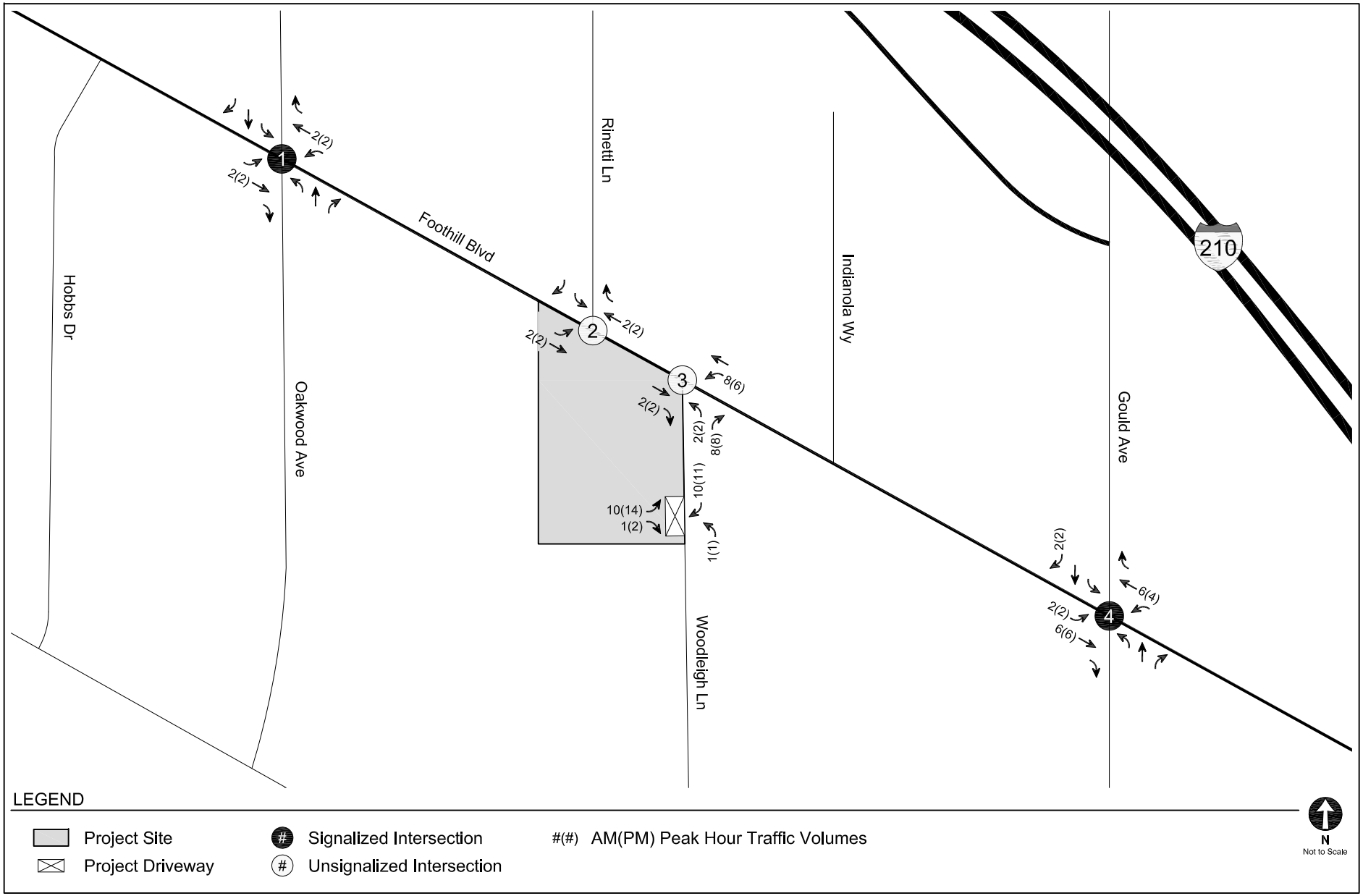
Project Trip Assignment

The trip distribution pattern percentages were applied to the trip generation values to develop the Project-only traffic assignments. Figures 12 and 13 illustrate the weekday and weekend Project-only volumes, respectively, through the study intersections.



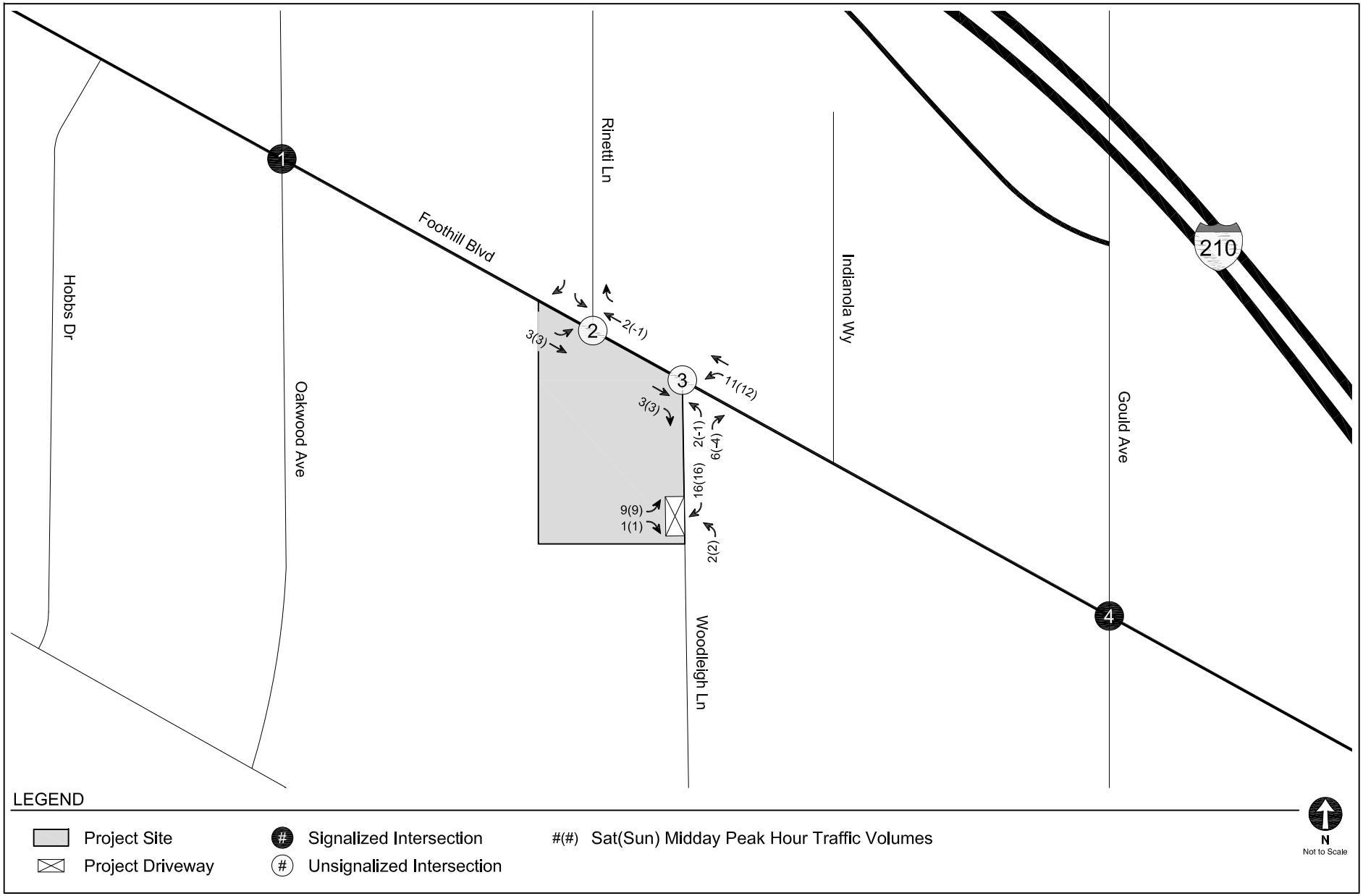
PROJECT TRIP DISTRIBUTION

FIGURE 11



PROJECT-ONLY
WEEKDAY PEAK HOUR TRAFFIC VOLUMES

FIGURE
12



PROJECT-ONLY
WEEKEND PEAK HOUR TRAFFIC VOLUMES

FIGURE
13

TABLE 3
PROJECT TRIP GENERATION

Land Use	ITE Land Use	Rate	Daily	Morning Peak Hour			Afternoon Peak Hour			Saturday Daily	Midday Peak Hour			Sunday Daily	Midday Peak Hour		
				In	Out	Total	In	Out	Total		In	Out	Total		In	Out	Total
TRIP GENERATION RATES [a]																	
Senior Adult Housing - Attached	252	per Dwelling Unit	3.70	35%	65%	0.20	55%	45%	0.26	3.23	62%	38%	0.33	3.14	64%	36%	0.36
Church [b]	560	per ksf	6.95	--	--	0.00	50%	50%	0.80	5.99	66%	34%	0.30	27.63	6%	94%	1.60
General Office Building	710	per ksf	9.74	86%	14%	1.16	16%	84%	1.15	2.21	54%	46%	0.53	0.70	58%	42%	0.21
TRIP GENERATION ESTIMATES																	
Proposed Project [c]																	
Age Restricted Housing	252	75 du	278	5	10	15	11	9	20	242	16	9	25	236	17	10	27
Office	710	6.218 ksf	61	6	1	7	1	6	7	14	2	1	3	4	1	0	1
TOTAL - PROPOSED			**339**	**11**	**11**	**22**	**12**	**15**	**27**	**256**	**18**	**10**	**28**	**240**	**18**	**10**	**28**
Existing to be Removed																	
Church [b]	560	10 ksf	70	0	0	0	4	4	8	60	2	1	3	276	1	15	16
TOTAL - EXISTING TO BE REMOVED			***70***	***0***	***0***	***0***	***4***	***4***	***8***	***60***	***2***	***1***	***3***	***276***	***1***	***15***	***16***
TOTAL - NET NEW PROJECT TRIPS			**269**	**11**	**11**	**22**	**8**	**11**	**19**	**196**	**16**	**9**	**25**	**(36)**	**17**	**-5**	**12**

Notes:

ksf: 1,000 square feet

[a] Trip generation rates are from *Trip Generation Manual, 10th Edition* (Institute of Transportation Engineers, 2017) and are based on developments located in "General Urban/Suburban" area.

[b] Existing trips based on driveway counts conducted during the peak periods on a Wednesday (November 4), Saturday (November 14), and Sunday (November 15) in 2015. Daily trips based on rates in *Trip Generation Manual, 10th Edition.*

[c] Project trip estimates are conservative as all trips are considered to be driving trips and no adjustments were made to account for transit usage or any walking trips made to nearby commercial uses. Additionally, no further trip reductions were considered for the proposed TDM strategies to be employed by the Project that would reduce vehicle trips to the site.

Chapter 5
Intersection Analysis Traffic Evaluation

This chapter describes the evaluation of Project traffic on the existing environment and on future background traffic.

EXISTING WITH PROJECT CONDITIONS

Traffic Volumes

The weekday and weekend Project-only traffic volumes described in Chapter 4 and shown in Figures 12 and 13, respectively, were added to the weekday and weekend existing traffic volumes shown in Figures 7 and 8, respectively. The resulting weekday and weekend Existing with Project peak hour traffic volumes are illustrated in Figures 14 and 15, respectively. These volumes represent the Existing Conditions after the development of the Project in the year 2020.

Intersection Levels of Service

Table 4 shows the results of the Existing and Existing with Project Conditions analysis at the study intersections during weekday morning and afternoon peak hours. Under Existing with Project Conditions, all four study intersections operate at LOS C or better during both weekday peak hours.

Table 5 shows the results of the Existing and Existing with Project Conditions analysis at the study intersections during weekend midday peak hours. Under Existing with Project Conditions, both unsignalized intersections would operate at LOS A during both Saturday and Sunday midday peak hours.

The LOS calculation worksheets are provided in Appendix C.

Traffic Impact Analysis

The relative impact of the added Project traffic volumes during the analyzed hours was evaluated at the study intersections based on the operating conditions without and with the Project. The previously discussed significance criteria and thresholds outlined in Chapter 2 were used to determine the significance of traffic impacts.

As shown in Tables 4 and 5, the addition of Project traffic would not change the intersection LOS from LOS D or better to LOS E or F at any study intersection. Additionally, the change in V/C ratio is less than 0.02 at all study intersections. Based on the significant impact criteria guidelines provided by the City, Project is not anticipated to result in a significant impact at any study intersections during the analyzed peak hours under Existing with Project Conditions.

FUTURE WITH PROJECT CONDITIONS

The horizon year (Year 2022) corresponds with the anticipated buildout year of the Project.

Traffic Volumes

The weekday and weekend Project-only traffic volumes described in Chapter 4 and shown in Figures 12 and 13, respectively, were added to the weekday and weekend Future without Project traffic volumes shown in Figures 9 and 10, respectively. The resulting weekday and weekend Future with Project peak hour traffic volumes are illustrated in Figures 16 and 17, respectively. These volumes are the sum of the existing traffic volumes, cumulative traffic growth, and Project-only traffic, and represent Future Conditions after the development of the Project in the year 2022.

Intersection LOS

Table 6 shows the results of the Future without and with Project Conditions analysis at the study intersections during weekday morning and afternoon peak hours. Under Future with Project Conditions, all four study intersections operate at LOS C or better during both weekday peak hours.

Table 7 shows the results of the Future and Future with Project Conditions analysis at the study intersections during weekend midday peak hours. Under Future with Project Conditions, both unsignalized intersections would operate at LOS A during both Saturday and Sunday midday peak hours.

The LOS calculation worksheets are provided in Appendix C.

Traffic Impact Analysis

As shown in Tables 6 and 7, the addition of Project traffic would not change the intersection LOS operation from LOS D or better to LOS E or F at any study intersection. Additionally, the change in V/C ratio is less than 0.02 at all study intersections. Based on the significant impact criteria guidelines provided by the City, the Project is not anticipated to result in a significant impact at any study intersections during the analyzed peak hours under Future with Project Conditions.

SUMMARY

The Project is not anticipated to significantly impact any of the four study intersections based on the City's thresholds under Existing with Project and Future with Project conditions during any of the analyzed peak hours.

TRANSPORTATION DEMAND MANAGEMENT STRATEGIES

Although the Project is not anticipated to result in any significant traffic impacts, the Project proposes the implementation of TDM strategies to further reduce the trips generated by the Project during the weekday and weekend peak hours and minimize the impact to traffic operations in the area. The TDM strategies will also reduce parking demand and single-occupant automobile dependency, as well as promote alternative travel modes (e.g., transit, walking, bicycling, carpool, etc.) The TDM strategies are estimated to reduce peak hour traffic demand as compared to development at a site that is unmanaged. The TDM strategies may include the following:

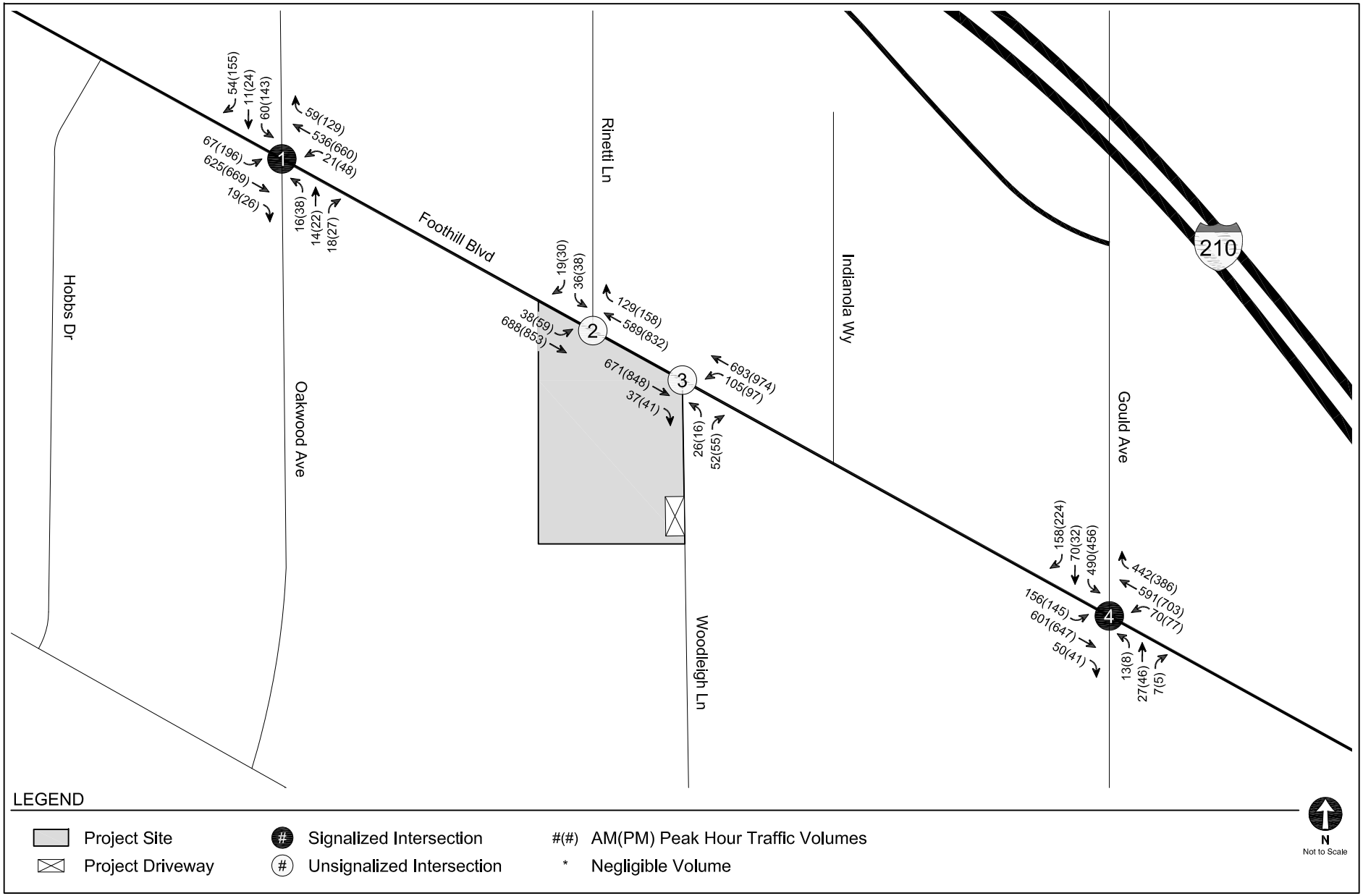
- **Unbundled Parking.** Tenant parking would be rented separately from the building space, which separates or "unbundles" the cost of obtaining assigned parking spaces from the cost of purchasing or renting residential units. Unbundling parking is an essential step toward getting people to understand the economic cost of parking. Without unbundled parking, tenants often assume parking is free.

- **EV Charging Stations.** The Project would provide EV-ready charging stations or have EV charging spaces capable of supporting future EV supply equipment to accommodate those who arrive in EVs. By providing this type of service, the Project promotes usage of EVs, which produce less GHG emissions compared to non-electric vehicles.

- **Promotions & Marketing of Alternative Travel Modes.** This would include passive educational and promotional materials, such as posters, information boards and digital media where Project residents, employees, and visitors can obtain information about transit schedules, commute planning, rideshare, telecommuting, and bicycle and pedestrian plans. It is also possible to provide information virtually, providing every resident and employee access to commuter information through a website portal and/or other digital media resources in order to preemptively provide information on alternative modes of transportation and travel directions to potential patrons.

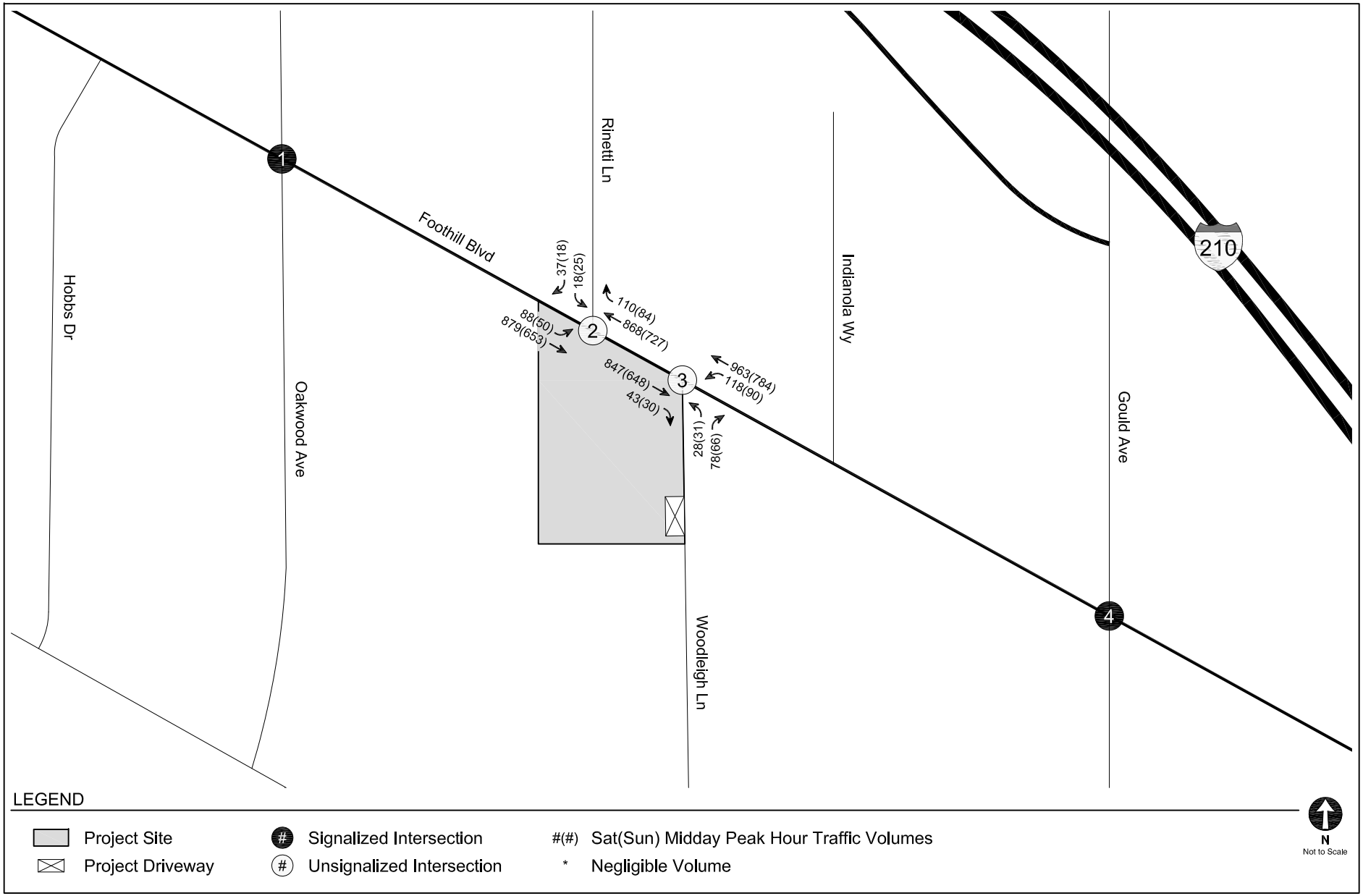
- **Bicycle Parking.** The Project would provide City Municipal Code (LCFMC)-required bicycle parking including short-term bicycle parking along Foothill Boulevard and Woodleigh Lane, and long-term bicycle storage within the subterranean parking levels.

- **<u>Pedestrian-Friendly Environment</u>.** The Project would improve existing pedestrian circulation within and around the project site by providing separate pedestrian entrances, open space, pedestrian entry plaza, and open garden/courtyard.



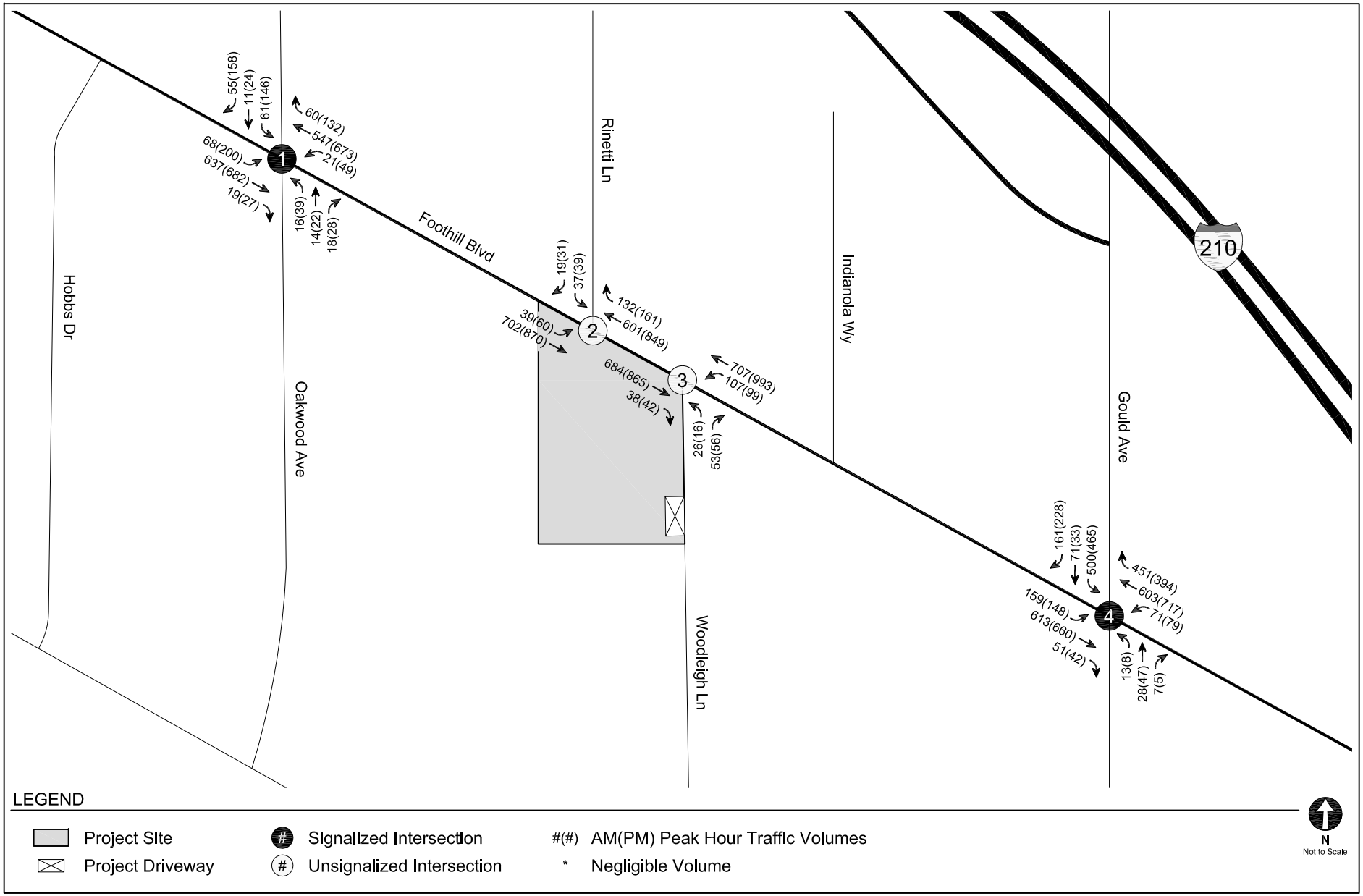
EXISTING WITH PROJECT CONDITIONS (YEAR 2020)
WEEKDAY PEAK HOUR TRAFFIC VOLUMES

FIGURE 14



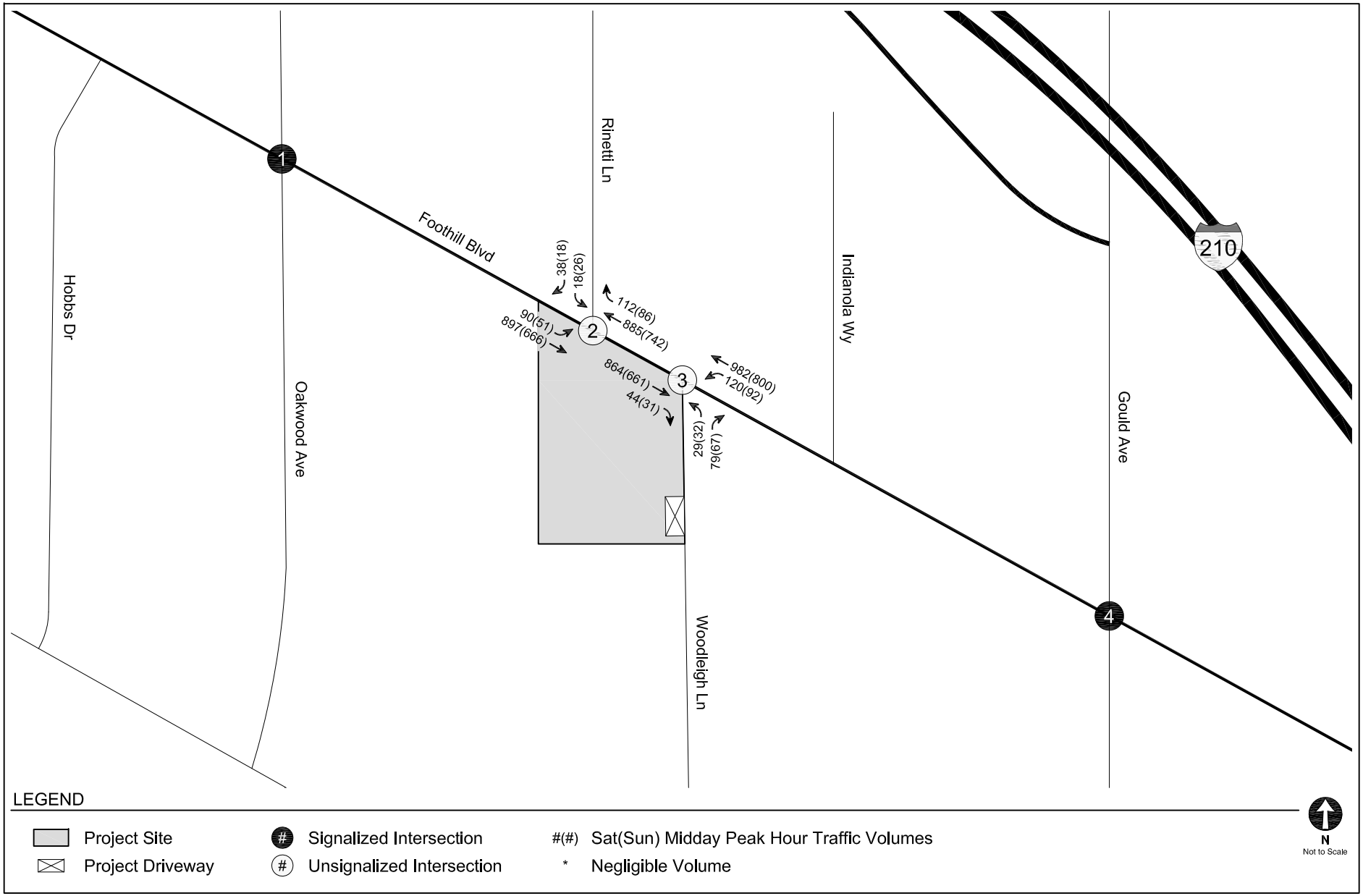
EXISTING WITH PROJECT CONDITIONS (YEAR 2020)
WEEKEND PEAK HOUR TRAFFIC VOLUMES

FIGURE 15



FUTURE WITH PROJECT CONDITIONS (YEAR 2022)
WEEKDAY PEAK HOUR TRAFFIC VOLUMES

FIGURE 16



FUTURE WITH PROJECT CONDITIONS (YEAR 2022)
WEEKEND PEAK HOUR TRAFFIC VOLUMES

FIGURE 17

TABLE 4
EXISTING WITH PROJECT CONDITIONS (YEAR 2020) - WEEKDAY
INTERSECTION PEAK HOUR LEVELS OF SERVICE

No.	Intersection	Peak Hour	Existing Conditions			Existing with Project Conditions				Significant Impact
			Delay	LOS	V/C	Delay	LOS	V/C	Change in V/C	
1.	Oakwood Avenue & Foothill Boulevard	Wkdy AM Wkdy PM	11.3 11.2	B B	0.395 0.612	11.3 11.2	B B	0.396 0.613	0.001 0.001	NO NO
2. [a]	Rinetti Lane & Foothill Boulevard	Wkdy AM Wkdy PM	1.1 2.0	A A	0.338 0.462	1.1 2.0	A A	0.338 0.463	0.000 0.001	NO NO
3. [a]	Woodleigh Lane & Foothill Boulevard	Wkdy AM Wkdy PM	1.7 1.3	A A	0.405 0.465	1.9 1.6	A A	0.420 0.478	0.015 0.013	NO NO
4.	Gould Avenue & Foothill Boulevard	Wkdy AM Wkdy PM	30.7 24.2	C C	0.589 0.597	30.9 24.3	C C	0.591 0.601	0.002 0.004	NO NO

Notes:

Delay (seconds) and LOS results per Synchro 10 (Methodology from Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016).

V/C is volume to capacity ratio and based on ICU methodology. This methodology was utilized to determine the change in V/C ratio for the purposes of identifying traffic impacts. Changes in V/C is less than 0.02 regardless of the operating LOS at each intersection.

[a] Intersection is unsignalized and is stop-controlled on the minor street. The average intersection delay is reported, which takes into account the observed gaps in through traffic on Foothill Boulevard that are created by the adjacent traffic signals.

TABLE 5
EXISTING WITH PROJECT CONDITIONS (YEAR 2020) - WEEKEND
INTERSECTION PEAK HOUR LEVELS OF SERVICE

No.	Intersection	Peak Hour	Existing Conditions			Existing with Project Conditions				Significant Impact
			Delay	LOS	V/C	Delay	LOS	V/C	Change in V/C	
2.	Rinetti Lane &	Sat MD	1.4	A	0.464	1.4	A	0.465	0.001	NO
[a]	Foothill Boulevard	Sun MD	1.0	A	0.376	1.0	A	0.376	0.000	NO
3.	Woodleigh Lane &	Sat MD	2.7	A	0.507	3.3	A	0.523	0.016	NO
[a]	Foothill Boulevard	Sun MD	2.3	A	0.405	2.0	A	0.411	0.006	NO

Notes:

Delay (seconds) and LOS results per Synchro 10 (Methodology from Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016).

V/C is volume to capacity ratio and based on ICU methodology. This methodology was utilized to determine the change in V/C ratio for the purposes of identifying traffic impacts. Changes in V/C is less than 0.02 regardless of the operating LOS at each intersection.

[a] Intersection is unsignalized and is stop-controlled on the minor street. The average intersection delay is reported, which takes into account the observed gaps in through traffic on Foothill Boulevard that are created by the adjacent traffic signals.

TABLE 6
FUTURE WITH PROJECT CONDITIONS (YEAR 2022) - WEEKDAY
INTERSECTION PEAK HOUR LEVELS OF SERVICE

No.	Intersection	Peak Hour	Future without Project Conditions			Future with Project Conditions				Significant Impact
			Delay	LOS	V/C	Delay	LOS	V/C	Change in V/C	
1.	Oakwood Avenue & Foothill Boulevard	Wkdy AM Wkdy PM	11.3 11.2	B B	0.400 0.623	11.3 11.2	B B	0.401 0.624	0.001 0.001	NO NO
2. [a]	Rinetti Lane & Foothill Boulevard	Wkdy AM Wkdy PM	1.1 2.0	A A	0.345 0.471	1.1 2.0	A A	0.345 0.472	0.000 0.001	NO NO
3. [a]	Woodleigh Lane & Foothill Boulevard	Wkdy AM Wkdy PM	1.7 1.3	A A	0.412 0.475	1.9 1.6	A A	0.428 0.487	0.016 0.012	NO NO
4.	Gould Avenue & Foothill Boulevard	Wkdy AM Wkdy PM	30.7 24.2	C C	0.599 0.608	30.9 24.3	C C	0.600 0.611	0.001 0.003	NO NO

Notes:

Delay (seconds) and LOS results per Synchro 10 (Methodology from Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016).

V/C is volume to capacity ratio and based on ICU methodology. This methodology was utilized to determine the change in V/C ratio for the purposes of identifying traffic impacts. Changes in V/C is less than 0.02 regardless of the operating LOS at each intersection.

[a] Intersection is unsignalized and is stop-controlled on the minor street. The average intersection delay is reported, which takes into account the observed gaps in through traffic on Foothill Boulevard that are created by the adjacent traffic signals.

TABLE 7
FUTURE WITH PROJECT CONDITIONS (YEAR 2022) - WEEKEND
INTERSECTION PEAK HOUR LEVELS OF SERVICE

No.	Intersection	Peak Hour	Future without Project Conditions			Future with Project Conditions				Significant Impact
			Delay	LOS	V/C	Delay	LOS	V/C	Change in V/C	
2.	Rinetti Lane &	Sat MD	1.4	A	0.473	1.4	A	0.473	0.000	NO
[a]	Foothill Boulevard	Sun MD	1.0	A	0.384	1.0	A	0.383	-0.001	NO
3.	Woodleigh Lane &	Sat MD	2.7	A	0.517	3.3	A	0.533	0.016	NO
[a]	Foothill Boulevard	Sun MD	2.3	A	0.413	2.0	A	0.419	0.006	NO

Notes:

Delay (seconds) and LOS results per Synchro 10 (Methodology from Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016).

V/C is volume to capacity ratio and based on ICU methodology. This methodology was utilized to determine the change in V/C ratio for the purposes of identifying traffic impacts. Changes in V/C is less than 0.02 regardless of the operating LOS at each intersection.

[a] Intersection is unsignalized and is stop-controlled on the minor street. The average intersection delay is reported, which takes into account the observed gaps in through traffic on Foothill Boulevard that are created by the adjacent traffic signals.

Chapter 6
Project Access, Safety, and Circulation Evaluation

This section summarizes the site access, safety, and circulation of the Project Site.

SITE ACCESS AND CIRCULATION

Vehicles

The proposed site access and circulation plan for the Project is illustrated in Figure 3. Vehicular access to the Project Site would be provided via one full-access driveway (i.e., accommodate both left and right ingress and egress turning movements) along Woodleigh Lane. The driveway is located 175 feet south of Foothill Boulevard, away from pedestrian entrances to minimize potential pedestrian/vehicle conflicts. The Project driveway is located south of the ARCO gas station driveways, which are located on the east side of Woodleigh Lane, immediately south of Foothill Boulevard. Therefore, the Project driveway would not conflict with the ingress and egress at the ARCO gas station driveways. The distance between the Project driveway and the La Cañada Presbyterian Church driveway on the west side of Woodleigh Lane is approximately 70 feet.

The proposed driveway would utilize the existing curb cut. Thus, the Project would not affect any on-street parking adjacent to the Project Site. The driveway along Woodleigh Lane intersects the roadway at right angles to maximize sight distance for all travel modes.

Pedestrians and Bicycles

As shown in Figure 3, pedestrian access to the Project would be provided via a residential lobby entrance, entry plaza, and garden area/courtyard accessible from sidewalks along Foothill

Boulevard and Woodleigh Lane. Residents, visitors, and employees arriving by bicycle would have the same access opportunities as pedestrian visitors. In order to facilitate bicycle use, short-term and long-term bicycle parking spaces would be provided.

QUEUING ANALYSIS

Driveway

As detailed in Table 3, the Project would generate a maximum of 28 vehicles to the Project driveway during a one-hour period (Saturday and Sunday midday peak hours). Based on the LOS calculation worksheets provided in Appendix C, the driveway would operate at acceptable LOS A conditions during all analyzed peak hours and could accommodate peak Project traffic demand. The analysis reported no significant vehicle queuing; therefore, no significant internal congestion at the driveway is anticipated and traffic flow on the adjacent public streets would not be impeded.

Adjacent Queues

The adjacent study intersection of Woodleigh Lane & Foothill Boulevard (Intersection #2) was analyzed to determine whether the Project would cause vehicle queues to extend beyond the available storage lengths. The queue lengths were estimated using Synchro software, which reports the 95th percentile queue length in vehicle-length. The estimated vehicle queues under without and with Project Conditions for the weekday morning and afternoon peak hours are illustrated in Figures 18 and 19, respectively, and Saturday and Sunday midday peak hours are illustrated in Figures 20 and 21, respectively.

During the weekday morning and afternoon peak hours, the Project would add one vehicle-length (approximately 25 feet) to the existing queue along Woodleigh Lane. The expected northbound queue with or without Project Conditions is less than two vehicle-lengths during the weekday analyzed peak hours, which would not extend past the Project driveway nor adjacent uses (e.g. ARCO gas station and La Cañada Presbyterian Church). During the Saturday midday peak hour, without the Project, the northbound queue length is approximately three vehicle-

lengths. The Project would add one vehicle-length to the queue on Woodleigh Lane. Woodleigh Lane is currently striped with a “KEEP CLEAR”, located approximately 25 feet south of the stop line of Foothill Boulevard. It should be noted that vehicles tend to pull forward beyond the stop line prior to entering Foothill Boulevard, which provides additional queuing storage area. During the Sunday midday peak hour, the northbound queue along Woodleigh Lane, with or without Project Conditions, is less than two vehicle-lengths. The Project would add one vehicle-length to the queue. Similar to weekday conditions, the northbound queue would not extend past the Project driveway during Saturday or Sunday midday peak hours.

Additionally, the Project would not affect queueing along Foothill Boulevard during the weekday or weekend peak hours. The Project is anticipated to add one vehicle-length to the queue in the westbound left-turn pocket along Foothill Boulevard. The expected queue with Project Conditions is approximately one vehicle-length during all analyzed peak hours, which could be accommodated within the available left-turn storage pocket and would not spill over to the main through lanes along Foothill Boulevard. Thus, the Project would not substantially impact the queue along Foothill Boulevard.

In summary, the added Project traffic to the adjacent street system would not cause vehicle queues to extend into the adjacent neighborhood to the south along Woodleigh Lane or beyond the turn pockets along Foothill Boulevard.

FOOTHILL BOULEVARD OPERATIONS

Although located outside of the Study Area, many private and public schools are located along Foothill Boulevard, including St. Bede the Venerable Elementary School, St. Francis High School, La Cañada High School, Crestview Preparatory School, and Childhood Educational Center. As the morning drop-off operations for these schools overlap, and school traffic coincides with the morning commuter peak hours, often a queue is formed in both directions along Foothill Boulevard east of Gould Avenue. Afternoon school pick-up operations occur outside the afternoon commute peak hour window and, thus, the traffic queues along Foothill Boulevard are more equally distributed. In addition, school traffic is dispersed during the afternoon due to after school student activities and programs.

Due to the substantial school-related traffic along Foothill Boulevard, the operations at the two signalized intersections along Foothill Boulevard were reviewed. It is important to note that the school traffic is typically concentrated within a 10 or 15-minute period prior to school start time and after school dismissal time. The intersection analysis focuses on hourly traffic volumes (i.e. 60-minute period), and, therefore, the reported LOS may not account for vehicular queuing, pedestrian, conflicts, etc. along Foothill Boulevard and may appear better than is observed during the school peak.

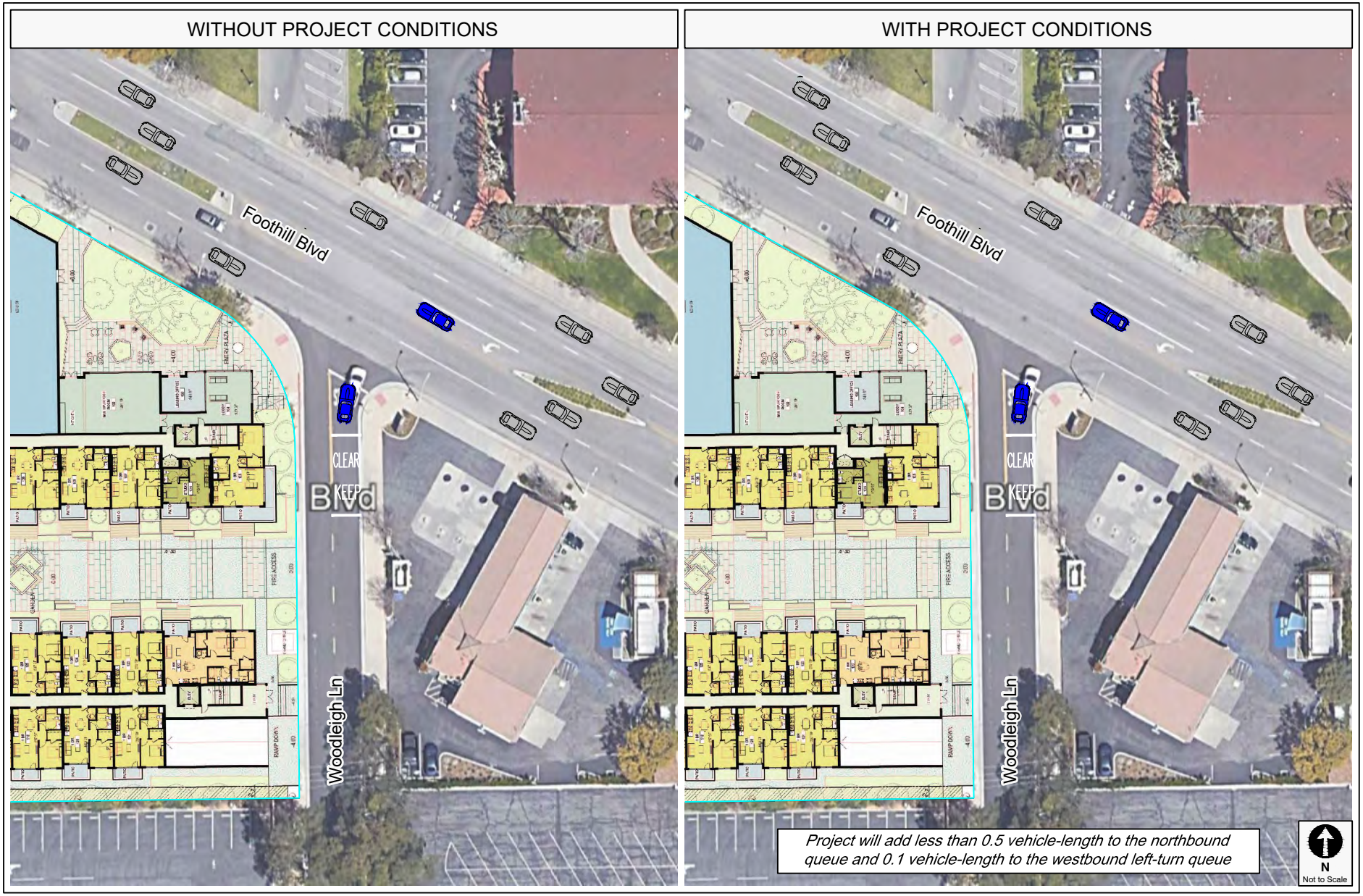
As shown in Tables 4 and 6, the two signalized intersections operate at acceptable LOS conditions, with LOS C or better during the weekday morning and afternoon peak hours. Operational analysis during the weekend is not required as schools are not in operation at that time.

SAFETY AND CIRCULATION EVALUATION

A safety evaluation was conducted to determine whether the location or configuration of the Project driveway or the increase in traffic resulting from the Project would result in unsafe conditions. As described above, the driveway is located 175 feet south of Foothill Boulevard and is located away from pedestrian entrances to minimize potential pedestrian/vehicle conflicts. The driveway location provides driver visibility for each approach direction as it intersects Woodleigh Lane at a right angle. Additionally, vehicular driveways are not proposed along Foothill Boulevard, which would have necessitated new median openings or U-turn maneuvers. No unusual or new obstacles are presented in the Woodleigh Lane driveway design that would be considered hazardous to vehicles, bicycles, or pedestrians. Furthermore, as determined in the driveway operational evaluation provided above, the driveway would operate at LOS A during all analyzed peak hours.

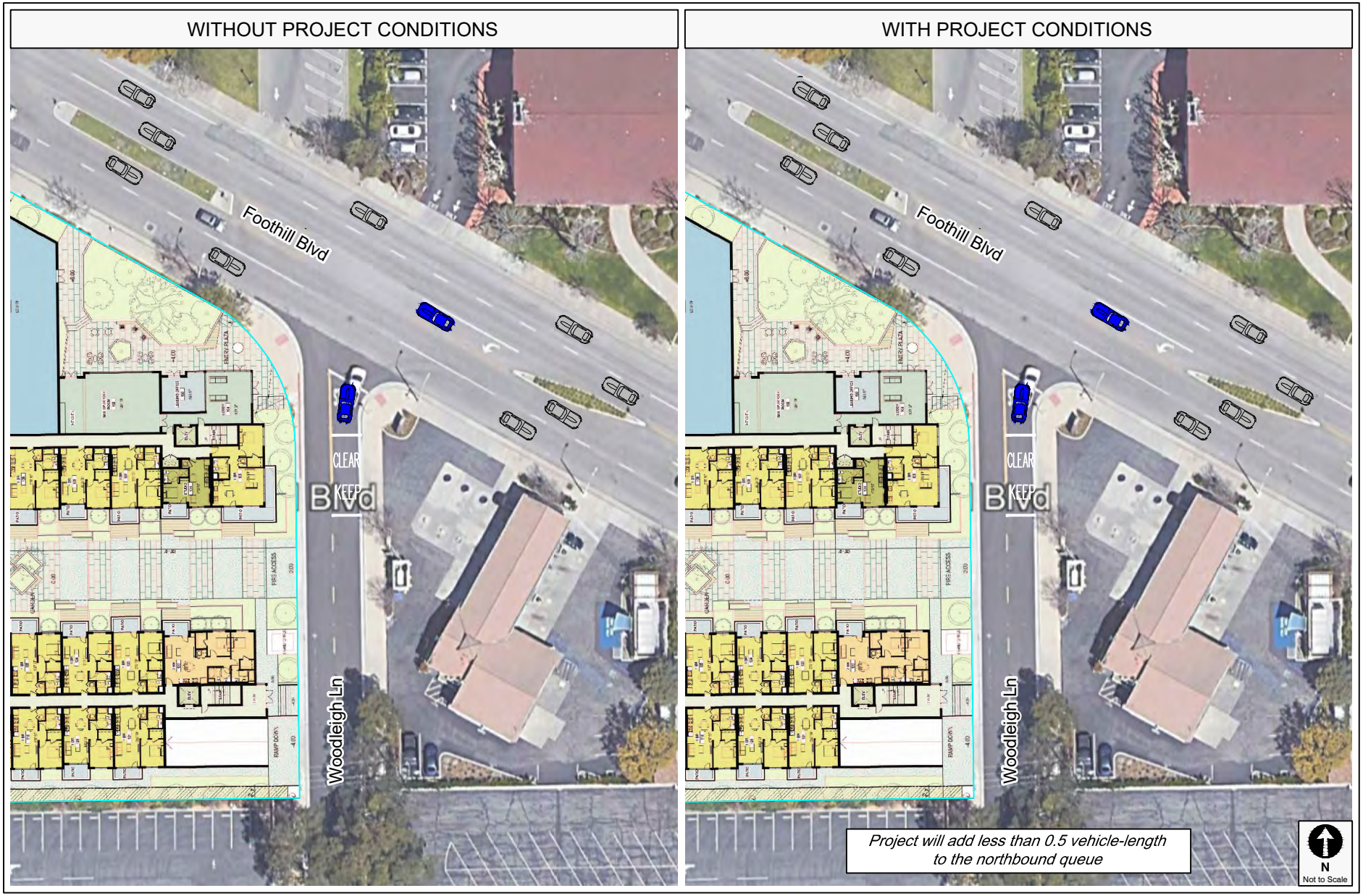
It is anticipated that the Project will add an average of one vehicle every three minutes to the adjacent streets during any single peak hour. As described in Chapter 5, the Project will implement various TDM strategies, such as providing unbundled parking, EV-ready charging stations, bicycle parking, promotions and marketing of alternative travel modes, and pedestrian-friendly environment, to reduce single occupancy trips to the Project Site and Project traffic throughout the Study Area.

Additionally, the Project will explore opportunities to manage site access and circulation operations as well as provide road safety enhancements for pedestrian, bicycle, and transit users. Currently, the adjacent intersection of Woodleigh Lane & Foothill Boulevard (Intersection #2) only provides curb ramps at an unmarked crossing across Woodleigh Lane. The Project could enhance pedestrian safety through upgraded striped crosswalks to alert road users, including inbound and outbound vehicles to the ARCO gas station, of a pedestrian crossing the uncontrolled intersection.



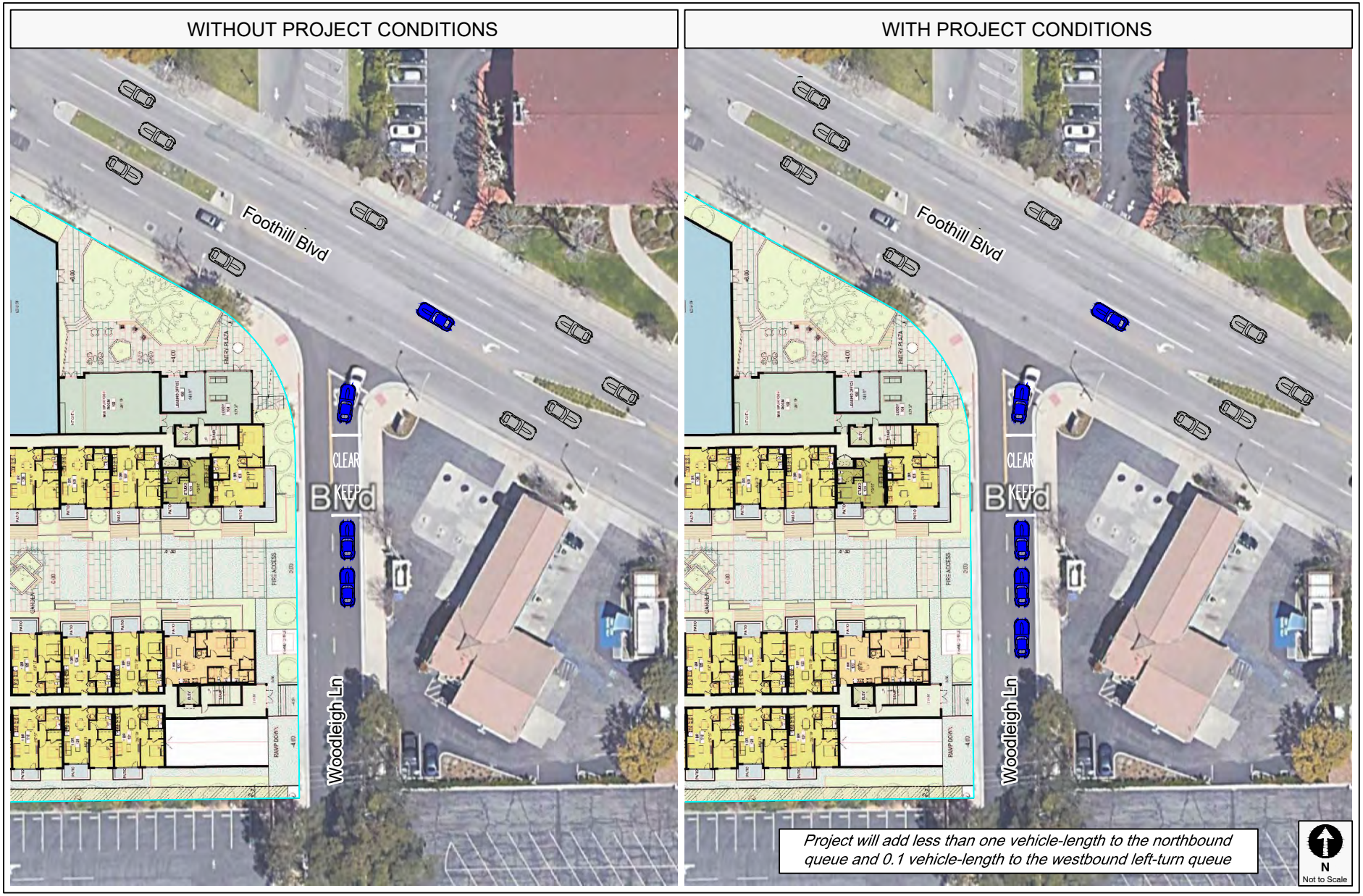
WEEKDAY MORNING VEHICULAR QUEUE

FIGURE 18



WEEKDAY AFTERNOON VEHICULAR QUEUE

FIGURE 19



SATURDAY MIDDAY VEHICULAR QUEUE

FIGURE 20

WITHOUT PROJECT CONDITIONS

WITH PROJECT CONDITIONS

Project will add less than 0.5 vehicle-length to the northbound queue and 0.1 vehicle-length to the westbound left-turn queue

N
Not to Scale

SUNDAY MIDDAY VEHICULAR QUEUE

FIGURE 21

Chapter 7
Parking Analysis

This section provides an analysis of the proposed parking supply and the potential parking demand of the Project.

PARKING SUPPLY

The Project will provide a total of 140 vehicle parking spaces on-site within a two-level subterranean parking garage. The Project will also provide long-term and short-term bicycle parking spaces.

VEHICLE PARKING

Code Parking Requirements

The parking requirements of the Project were calculated by applying the appropriate parking ratios from Chapter 11.38 of the LCFMC. Per the LCFMC parking rates, detailed in Table 8, the Project is required to provide a total of 129 parking spaces. The Project's proposed 140 spaces exceed the requirements for on-site parking supply by 11 spaces.

Parking Demand Analysis

To determine if the proposed parking supply could accommodate the peak parking demand, the methodology detailed in the *Shared Parking, 3rd Edition* (Urban Land Institute, International Council of Shopping Centers and National Parking Association, 2020) was utilized. *Shared Parking, 3rd Edition* contains a comprehensive database that identifies the peak parking demand for every land use typically found within a mixed-use development. *Shared Parking, 3rd Edition*

also considers factors such as time-of-day, weekday and weekend parking ratios, seasonal variation, mode split, captive market, and auto occupancy.

Exhibit 1 summarizes the results of the peak parking demand analysis for the Project. Exhibit 2 and 3 show the hourly parking patterns for the peak month conditions during weekdays and weekends, respectively. As shown, the peak weekday and weekend parking demand of 87 spaces and 58 spaces, respectively, can be easily accommodated by the parking supply of 140 spaces.

In addition, the Project would have available parking spaces during the weekday and weekend (53 spaces and 82 spaces, respectively) that could be shared with the other adjacent uses such as La Cañada Presbyterian Church, which currently experiences high parking demands, particularly on weekends. Furthermore, the excess parking supply would alleviate any parking encroachment into the adjacent neighborhoods.

BICYCLE PARKING

As summarized in Table 9, the Project is required to provide a total of 50 bicycle parking spaces, including 10 short-term spaces and 40 long-term spaces, which would be satisfied by the proposed on-site bicycle space supply.

TABLE 8
CODE VEHICLE PARKING REQUIREMENTS

Land Use	Size	Parking Rate	Total Spaces
Residential			
<= 3 habitable rooms (studio and 1 bedroom)	59 du	1.00 sp / 1 du	59
> 3 habitable rooms (2+ bedrooms)	16 du	2.00 sp / 1 du	32
Guest Parking	75 du	1.00 sp / 4 du	19
Office	6,218 sf	3.00 sp / 1,000 sf	19
		Total Parking Requirement	**129**
		Total Parking Provided	**140**

Notes:
[a] Parking rates per Chapter 11.38 of the La Canada Flintridge Municipal Code.

TABLE 9
CODE BICYCLE PARKING REQUIREMENTS

Project	Size	Bicycle Short-Term Parking Rate [a]	Total Short-Term Bicycle Spaces	Bicycle Long-Term Parking Rate [a]	Total Long-Term Bicycle Spaces
Residential	75 du	1.00 sp / 10 du	8	1.00 sp / 2 du	38
Office [b]	6,218 sf	1.00 sp / 8,000 sf	2	1.00 sp / 8,000 sf	2
Total Bicycle Parking Required			**10**		**40**

Notes:

[a] Bicycle parking rates per Chapter 22.112.100 of the Los Angeles County Municipal Code.

[b] A minimum of two short-term and two long-term bicycle parking spaces shall be provided.

EXHIBIT 1
PEAK PARKING DEMAND SUMMARY

Shared Parking Demand Summary																		
Peak Month: JANUARY -- Peak Period: 10 AM, WEEKDAY																		
Land Use	Project Data		Weekday					Weekend					Weekday			Weekend		
	Quantity	Unit	Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Peak Hr Adj 10 AM	Peak Mo Adj January	Estimated Parking Demand	Peak Hr Adj 1 PM	Peak Mo Adj January	Estimated Parking Demand
Retail																		
Food and Beverage																		
Entertainment and Institutions																		
Hotel and Residential																		
Active Senior Housing	75	units	0.55	100%	100%	0.55	unit	0.42	100%	100%	0.42	unit	99%	100%	41	99%	100%	32
Residents			0.30	100%	100%	0.30		0.30	100%	100%	0.30		99%	100%	23	99%	100%	23
Office																		
Office <25 ksf	6,218	sf GFA	0.30	100%	100%	0.30	ksf GFA	0.03	100%	100%	0.03	ksf GFA	100%	100%	2	80%	100%	1
Reserved		empl	0.00	100%	100%	0.00		0.00	100%	100%	0.00		100%	100%	-	100%	100%	-
Employee			3.50	100%	95%	3.31		0.35	100%	95%	0.33		100%	100%	21	80%	100%	2
Additional Land Uses																		
													Customer/Visitor		43	Customer		32
													Employee/Resident		43	Employee/Resident		25
													Reserved		-	Reserved		-
													Total		87	Total		58

EXHIBIT 2
PEAK MONTH DAILY PARKING DEMAND BY HOUR (WEEKDAY)

EXHIBIT 3
PEAK MONTH DAILY PARKING DEMAND BY HOUR (WEEKEND)

Chapter 8
VMT Analysis

The City Council adopted VMT Baselines and Thresholds of Significance for identifying transportation impacts in July 2020. The following provides an analysis to evaluate the effects of the Project on VMT.

PROJECT TDM

The Project characteristics (e.g., its location, proximity to transit, access to other nearby destinations, pedestrian connections, bicycle amenities, etc.) would encourage non-automobile modes of transportation such as walking, bicycling, carpool, vanpool, transit, etc. and would, therefore, reduce VMT to/from the Project Site.

In addition, the Project proposes the implementation of TDM strategies to further reduce peak hour Project trips and single-occupant automobile dependency, as well as promote alternative travel modes. The TDM strategies include providing unbundled parking, EV-ready charging stations, bicycle parking, promotions and marketing of alternative travel modes, and pedestrian-friendly environment. The combined effect of the various strategies would result in a reduction in peak hour trip generation by offering services, actions, specific facilities, etc., aimed at encouraging use of alternative transportation modes. *Trip Generation Handbook, 3rd Edition* (Institute of Transportation Engineers, September 2017) provides a summary of research of TDM programs at many different employers. At places that had the most comprehensive TDM programs, including both economic incentives (e.g., transit passes, etc.) and support services, the programs resulted in an average 24% reduction in commuter vehicles. Thus, as an achievable but conservative estimate, the TDM strategies identified above could reduce Project trips, as well as VMT, by up to 10%.

PROJECT VMT

The trip type and average trip lengths for each land use were determined using the California Emissions Estimator Model (CalEEMod). The trip type describes the purpose of the trip generated at each land use, such as residential trips and commercial trips. Residential trips include home-work, home-shop, and home-other. Commercial trips include commercial-customer, commercial-work, and commercial-nonwork. The trip lengths are based on the location and urbanization of the project area. The average trip length of each land use is the sum of the trip length of each trip type multiplied by the percentage of trip type. The trip lengths and percentage of types from CalEEMod are detailed in Table 10.

As shown in Table 10, the average trip length for the Project area as calculated by CalEEMod is 10.6 miles for retirement community uses and 10.8 for office uses. These trip lengths were applied to the Project trips to develop the total VMT of the Project. As detailed in Table 11, the Project would generate 3,606 daily weekday VMT, 2,716 daily Saturday VMT, and 2,545 daily Sunday VMT.

The Project is considered an “infill” development, as it would replace the existing church uses that are currently on-site. CalEEMod estimates an average trip length of 8.3 miles for places of worship. Accounting for the removal of the existing church currently on-site, the Project would generate a net total of 3,025 daily weekday VMT, 2,218 daily Saturday VMT, and 254 daily Sunday VMT. Thus, the Project’s net weekday VMT would be approximately 16% less than the VMT of a comparable project developed on a vacant site.

As previously detailed, the Project would implement a TDM program to reduce the use of single occupant vehicles by increasing the number of trips by walking, bicycle, and transit. The TDM program would include design features, transportation services, education, and incentives intended to reduce the amount of single occupant vehicles during commuter peak hours. Implementation of a TDM program could further reduce the Project VMT by up to 10%. In addition, The Project Site is located within walking distance of local bus stops along Foothill Boulevard, which is a designated Primary Roadway, and adjacent to a mix of commercial retail uses in the City’s downtown area. The location efficiency of the Project Site would result in synergistic benefits that would reduce the Project’s anticipated vehicle trips and VMT, while encouraging walking, non-auto mode of transportation, and transit ridership, which would result in

corresponding reductions in transportation-related emissions. Thus, the combined effects of the Project's proximity to commercial centers and bus transit service and the Project's proposed TDM program would further reduce the Project's anticipated VMT as compared to a comparable project.

Further, *2016-2040 Regional Transportation Plan/Sustainable Communities Strategies* (April 2016) (SCAG RTP/SCS) aims to reduce VMT per capita by 7% or more as a result of more location efficient land use patterns and improved transit service. Thus, the Project's site location, implementation of a TDM program, and proximity to walkable bus stops and commercial destinations would reduce Project VMT consistent with the goals of the SCAG RTP/SCS.

TABLE 10
TRIP LENGTHS

Land Use Type	Residential [a]							Commercial [a]						
	H-W Trip Length (miles)	H-S Trip Length (miles)	H-O Trip Length (miles)	H-W Trip (%)	H-S Trip (%)	H-O Trip (%)	Average Residential Trip Length (miles) [b]	C-C Trip Length (miles)	C-W Trip Length (miles)	C-NW Trip Length	C-C Trip (%)	C-W Trip (%)	C-NW Trip (%)	Average Commercial Trip Length (miles) [b]
General Office Building	--	--	--	--	--	--	--	8.4	16.6	6.9	48	33	19	10.8
Retirement Community	14.7	5.9	8.7	40.2	19.2	40.6	10.6	--	--	--	--	--	--	--
Place of Worship	--	--	--	--	--	--	--	8.4	16.6	6.9	95	0	5	8.3

Notes:

H-W = Home to Work; H-S = Home to Shop; H-O = Home to Other

C-C = Commercial to Customer; C-W = Customer to Work; C-NW = Customer to Nonwork (e.g., deliveries)

[a] Trip lengths based on outputs from California Emissions Estimator Tool (2016).

[b] Average trip lengths based on the sum of the average trip lengths for each trip type.

TABLE 11
PROJECT VMT

Land Use	ITE Land Use	Land Use Metric/Size	Average Trip Length [b]	Weekday	Saturday	Sunday
Trip Generation Rates [a]						
Senior Adult Housing - Attached	252	per dwelling unit	10.60	3.70	3.23	3.14
General Office Building	710	per ksf	10.80	9.74	2.21	0.70
Church	560	per ksf	8.30	6.95	5.99	27.63
Project Trip Generation						
Age Restricted Housing	252	75 du	--	278	242	236
Office	710	6.218 ksf	--	61	14	4
Total Project Trips				**339**	**256**	**240**
Existing Trips to be Removed						
Church	560	10 ksf	--	70	60	276
Total Net Project Trips				**269**	**196**	**(36)**
Project VMT						
Age Restricted Housing	252	75 du	10.60	2,947	2,565	2,502
Office	710	6.218 ksf	10.80	659	151	43
Total Project VMT				**3,606**	**2,716**	**2,545**
Existing VMT to be Removed						
Church	560	10 ksf	8.30	581	498	2,291
Total Net Project VMT				**3,025**	**2,218**	**254**

Notes:
ksf: 1,000 square feet
[a] Trip generation rates are from *Trip Generation Manual, 10th Edition* (Institute of Transportation Engineers, 2017) and are based on developments located in "General Urban/Suburban" area.
[b] See Table 1 for details on the average trip lengths.

Chapter 9

Summary and Conclusions

This study was undertaken to analyze the potential traffic impacts of the Project on the local street system. The following summarizes the results of this analysis:

- The Project proposes to remove the existing First Church and surface parking lot to construct a 75-unit age-restricted housing development with 6,218 sf of office space. Access to the parking garage will be provided via one driveway located along Woodleigh Lane. The Project is anticipated to be completed by Year 2022.

- The study conducted detailed traffic impact analysis at a total of four study intersections during the weekday morning and afternoon peak hours and the two adjacent unsignalized study intersections during the Saturday and Sunday midday peak hours.

- Historical traffic count data was utilized for analyses due to current traffic conditions related to the State and City's Safer at Home order as a response to COVID-19. Although it is speculated that future traffic conditions may show reduced congestion, an ambient growth factor of 1% per year was conservatively applied to the adjusted existing traffic volumes to reflect the effects of potential regional growth and development by Year 2022. Thus, the cumulative traffic conditions provide a highly conservative estimate of Future without Project traffic volumes.

- Project trip estimates are conservative and no trip reductions were made to account for transit usage, walking trips made to nearby commercial uses, or the proposed TDM strategies to be employed by the Project that would reduce vehicle trips to the site. The Project is anticipated to generate 269 net new daily trips, including 22 net new morning peak hour trips and 19 net new afternoon peak hour trips during the weekday. The Project is anticipated to generate 196 net new Saturday daily trips, including 25 net new midday peak hour trips, and a net reduction of 36 Sunday daily trips, including 12 net new midday peak hour trips.

- Analysis of Existing and Future with Project Conditions indicate that, using the significance criteria established by the City, the Project is not anticipated to result in a significant traffic impact at any of the study intersections during any of the analyzed peak hours.

- Although the Project is not anticipated to result in any significant traffic impacts at the study intersections, the Project would implement TDM strategies, such as providing unbundled parking, EV-ready charging stations, bicycle parking, promotions and marketing of alternative travel modes, and pedestrian-friendly environment, to further reduce Project-related traffic within the Study Area during peak hours.

- The added Project traffic to adjacent street system would add less than one vehicle-length to the northbound queue along Woodleigh Lane and would not cause vehicle queues to extend into the adjacent neighborhood to the south.

- The Project driveway location and design would not result in unsafe conditions to vehicles, bicycles, or pedestrians.

- The Project could enhance pedestrian safety through upgraded striped crosswalks at the adjacent intersection of Woodleigh Lane & Foothill Boulevard.

- The Project would provide vehicle and bicycle parking to meet the City requirements. Additionally, the Project has available vehicular parking spaces during the weekday and weekend that could be shared with other adjacent uses and alleviate existing parking encroachment.

- The Project would encourage non-auto modes of transportation through its implementation of TDM strategies and locating a mixed-use development within the City's downtown area adjacent to many commercial uses. These combined effects would reduce VMT to/from the Project Site, consistent with the goals of the SCAG RTP/SDS and as compared to a comparable project with a similar land use program.

References

California Environmental Quality Act Guidelines, California Code of Regulations, Title 14, Section 15000 and following.

City of La Cañada Flintridge General Plan 2030, City of La Cañada Flintridge, January 2013.

Downtown Village Specific Plan, City of La Cañada Flintridge, November 2000.

Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016.

La Cañada Flintridge Municipal Code, City of La Cañada Flintridge, 2000.

Senate Bill No. 743, Steinberg, 2013.

Shared Parking, 3rd Edition, Urban Land Institute, International Council of Shopping Centers and National Parking Association, 2020.

Trip Generation Handbook, 3rd Edition, Institute of Transportation Engineers, September 2017.

Trip Generation Manual, 10th Edition, Institute of Transportation Engineers, 2017.

Appendix A

Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING
MARCH 26, 2020

600 FOOTHILL BOULEVARD PROJECT
LA CAÑADA FLINTRIDGE, CA 91011

This memorandum of understanding (MOU) summarizes the assumptions guiding the traffic study for the 600 Foothill Boulevard Project. The MOU was prepared in consultation with City of La Canada Flintridge staff, including discussion and comments provided during meetings on March 18, 2020.

PROJECT DESCRIPTION: See Figure 1 for Project Site Plan.

PROJECT BUILDOUT YEAR: 2 years

SCOPE OF TRAFFIC ANALYSIS

Study Locations (See attached Figure 2)

The following study locations have been selected for analysis:

1. Oakwood Avenue & Foothill Boulevard (Signalized)
2. Rinetti Lane & Foothill Boulevard (Two-Way Stop-Controlled)
3. Woodleigh Lane & Foothill Boulevard (Two-Way Stop-Controlled)
4. Gould Avenue & Foothill Boulevard (Signalized)

Data Collection

Traffic counts were conducted at the four study intersections on Wednesday, November 4, 2015. The intersection counts consisted of peak period turning movement counts during commuter peak periods from 7:00 AM to 9:00 AM and from 4:00 PM to 7:00 PM. Traffic counts were also conducted on Saturday, November 14, 2015 from 9:00 AM to 2:00 PM and on Sunday, November 15, 2015 from 8:00 AM to 3:00 PM.

Traffic count data collection is generally conducted during times with typical travel demand patterns (i.e., when local schools are in session, weeks without holidays, etc.). Due to the current traffic conditions related to the State and City's response to COVID-19, the collection of new traffic counts would need to take place when the Stay At Home order is lifted, local schools are in session, businesses are operational, etc. Given the uncertainty of the termination of the order, the traffic count data previously conducted will be utilized for the study locations during this interim period. Thus, the 2015 traffic counts will be adjusted by a growth factor (1% per year) for five years to represent Existing Conditions in Year 2020.

Cumulative Traffic Growth

Traffic to/from any potential cumulative developments within the City of La Cañada (City), in addition to any increase in traffic due to regional growth and development outside of the Study Area will be captured in the ambient growth factor of 1% per year. The ambient growth factor was based in part on review of the background traffic growth estimates for the area in the 2010 Congestion Management Program (CMP), which indicated an annual growth rate of approximately 0.49% per year between years 2015 and 2030. Thus, the annual growth rate of 1% increase per year to the buildout year is conservative for analysis purposes.

Intersection Analysis Traffic Evaluation

The traffic study will analyze all study intersections using the *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016) (HCM) methodology to obtain delay and the corresponding level of service (LOS) value. It may be necessary to analyze the study intersections using the Intersection Capacity Utilization (ICU) methodology from *Highway Capacity Manual, Special Report 209* (Transportation Research Board, 2000) to obtain the incremental change in ICU value. The following analysis scenarios will be evaluated:

- Existing (Year 2020)
- Existing with Project (Year 2020)
- Future without Project (Opening Year)
- Future with Project (Opening Year)

Based on City methodology, capacity calculations will be performed for each of the study intersections under the scenarios described above to allow the determination of the incremental traffic impact due to the proposed Project. Physical and/or operational improvements necessary to accommodate Project trips will be identified.

Project Access, Safety, and Circulation Evaluation

The traffic study will review the site access and circulation, including any queues along residential streets adjacent to the Project. These operations and parking are key issues for the surrounding neighborhood. The traffic study will evaluate the following transportation-related issues based on City staff comments:

a) Driveway Analysis: The study will include a review the proposed site plan and provide recommendations regarding site access and circulation, including the location of the driveway, parking circulation, potential turn restrictions, pedestrian circulation, etc.

b) Queueing Analysis: The HCM analysis will be used to assess queue lengths at key turning pockets, adjacent intersections, and residential streets. The study will include an analysis of potential queuing of on-site vehicles to determine the queue lengths for vehicles waiting to access the Project. Recommendations to reduce the potential for queuing onto public streets will be included in the study.

c) Safety Evaluation: An assessment of whether the Project would cause or worsen unsafe conditions for pedestrians and bicyclists will be provided.

d) Passenger Loading Evaluation: The sufficiency of infrastructure or operational plans to accommodate pick-up and drop-off operations at the Project site will be evaluated.

e) Parking Analysis: If any modifications require the removal of on-street parking, then an analysis will be conducted to determine the current demand for that parking. The study will include a parking demand analysis and an evaluation of the adequacy of the proposed parking supply. Both a comparison to Code-required parking and overall parking demand will be made.

Vehicle Miles Traveled (VMT) Analysis

Under *State of California Senate Bill 743* (Steinberg, 2013), the focus of transportation analysis has shifted from driver delay to VMT. GTC will work with the City to understand the likely methodology, thresholds, and mitigation. The daily vehicle trips, daily VMT, and daily VMT per capita for the Project will be estimated based on regional models such as California Emissions Estimator Model (CalEEMod).

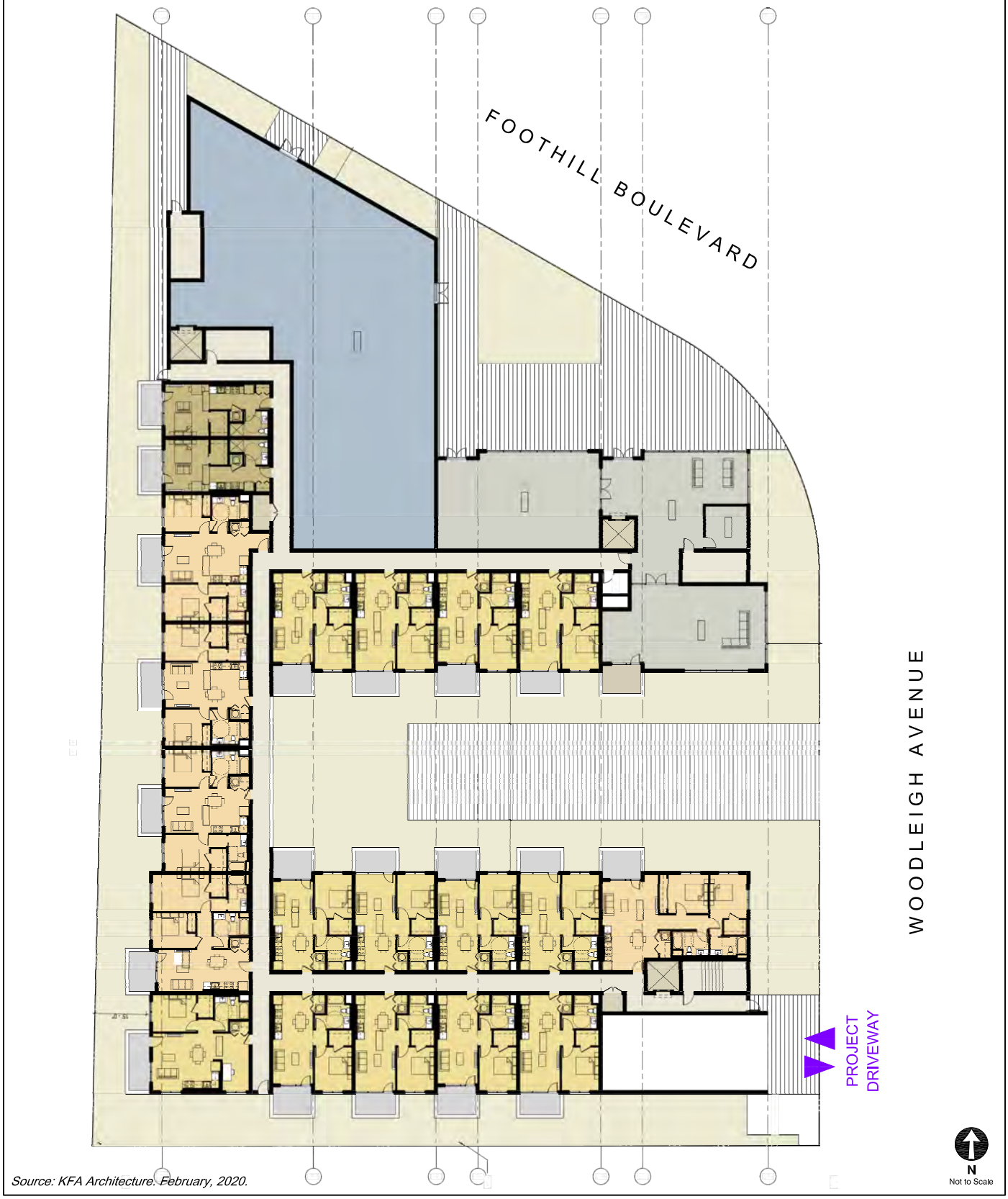
The study will include a review applicable Transportation Demand Management (TDM) measures that may be considered as part of the Project's mitigation program and/or Project design features that would reduce any identified VMT impacts. The study will also evaluate the effectiveness of the selected TDM measures in reducing the Project's VMT to below the established regional threshold target.

Approved by:

4/9/2020

City of La Cañada
Traffic Engineer

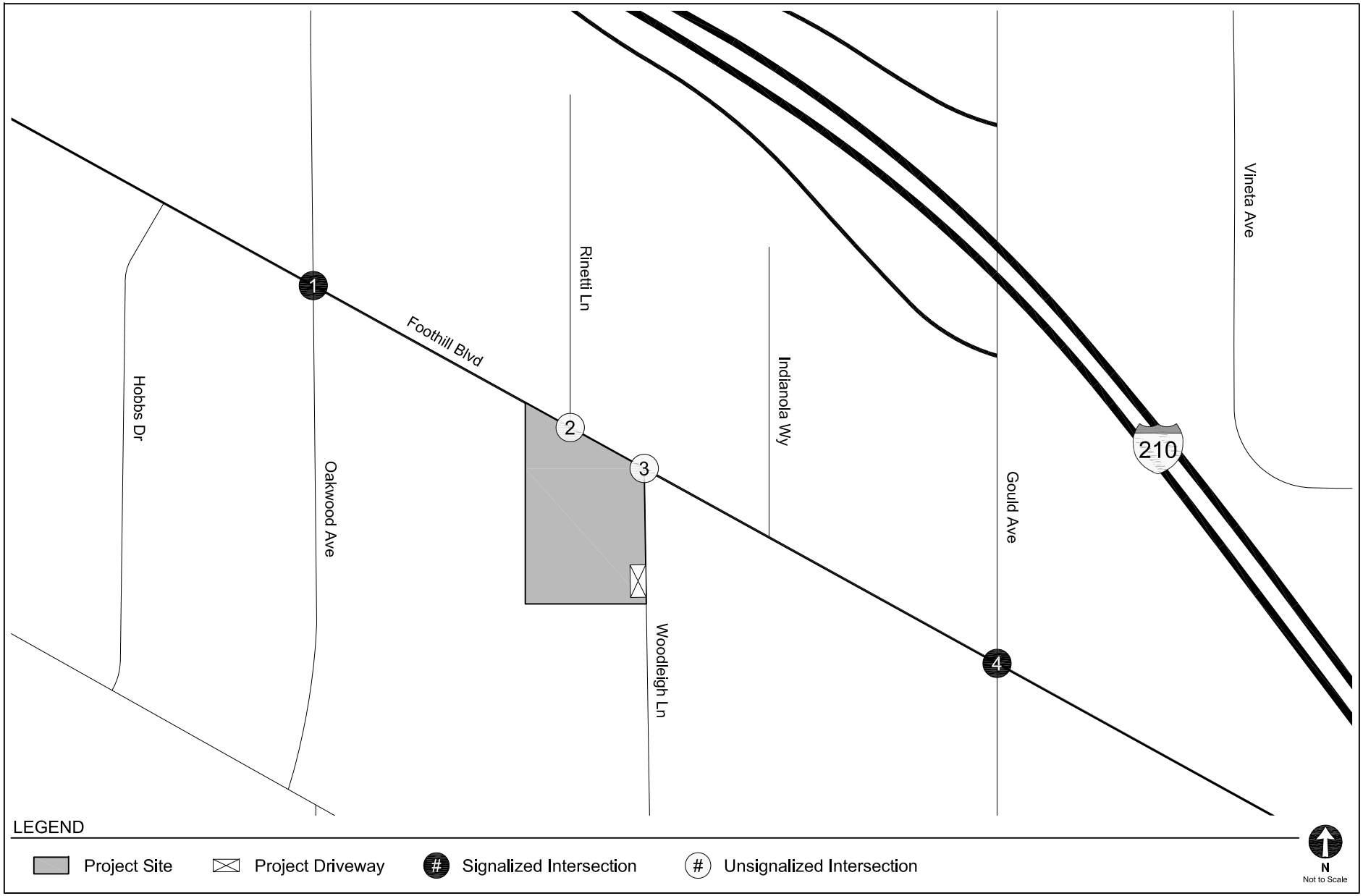
Date



Source: KFA Architecture. February, 2020.

PROJECT SITE PLAN

FIGURE 1



STUDY AREA & ANALYZED INTERSECTIONS

FIGURE 2

Appendix B

Intersection Turning Movement Counts

TRAFFIC IMPACT STUDY

OAKMONT OF LA CANADA FLINTRIDGE ASSISTED LIVING FACILITY

December 15, 2015

Prepared for: OAKMONT OF LA CANADA FLINTRIDGE ASSISTED LIVING FACILITY

Prepared by: Mark D. Crane, P.E.
California Registered Traffic Engineer (#1381)
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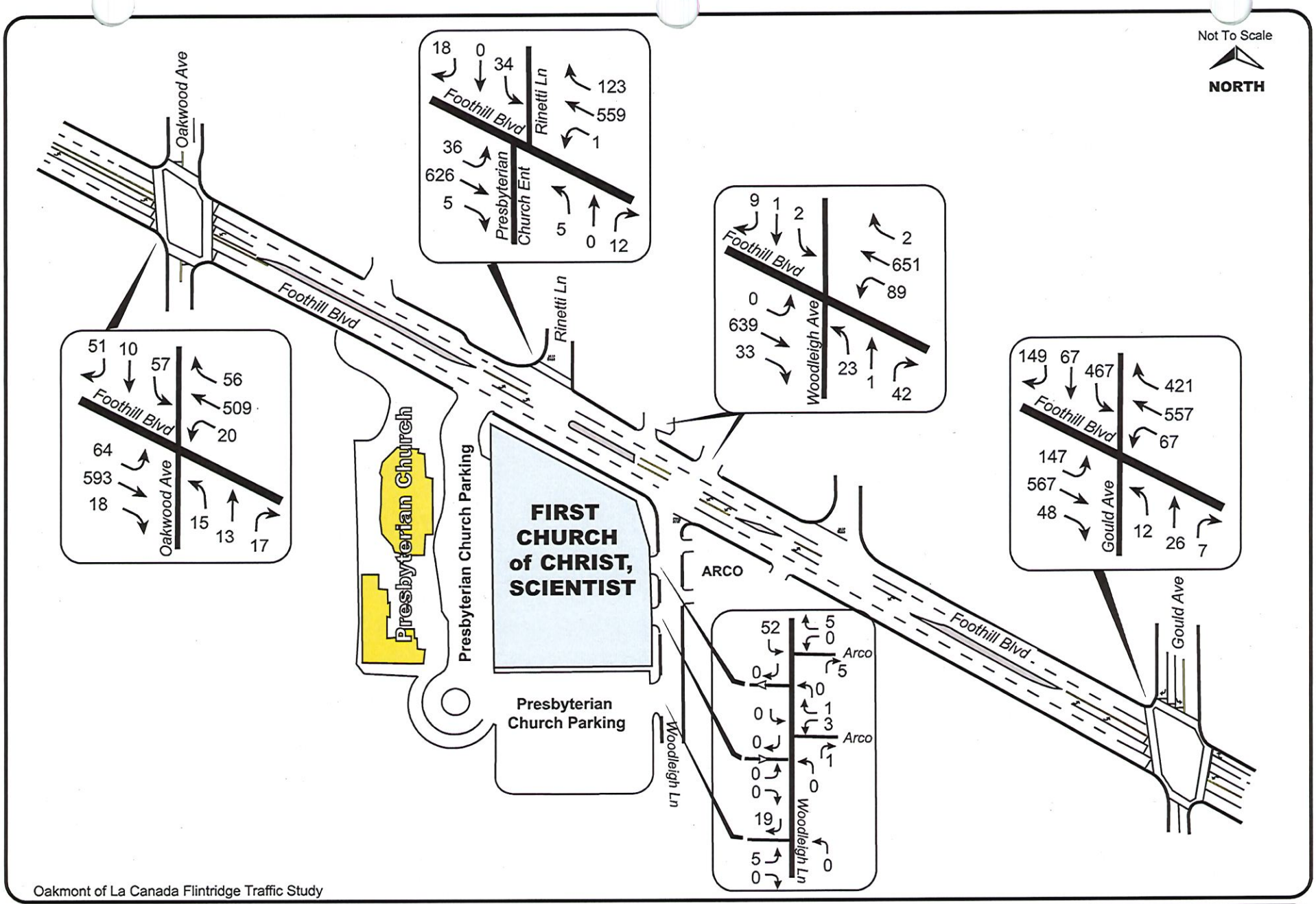
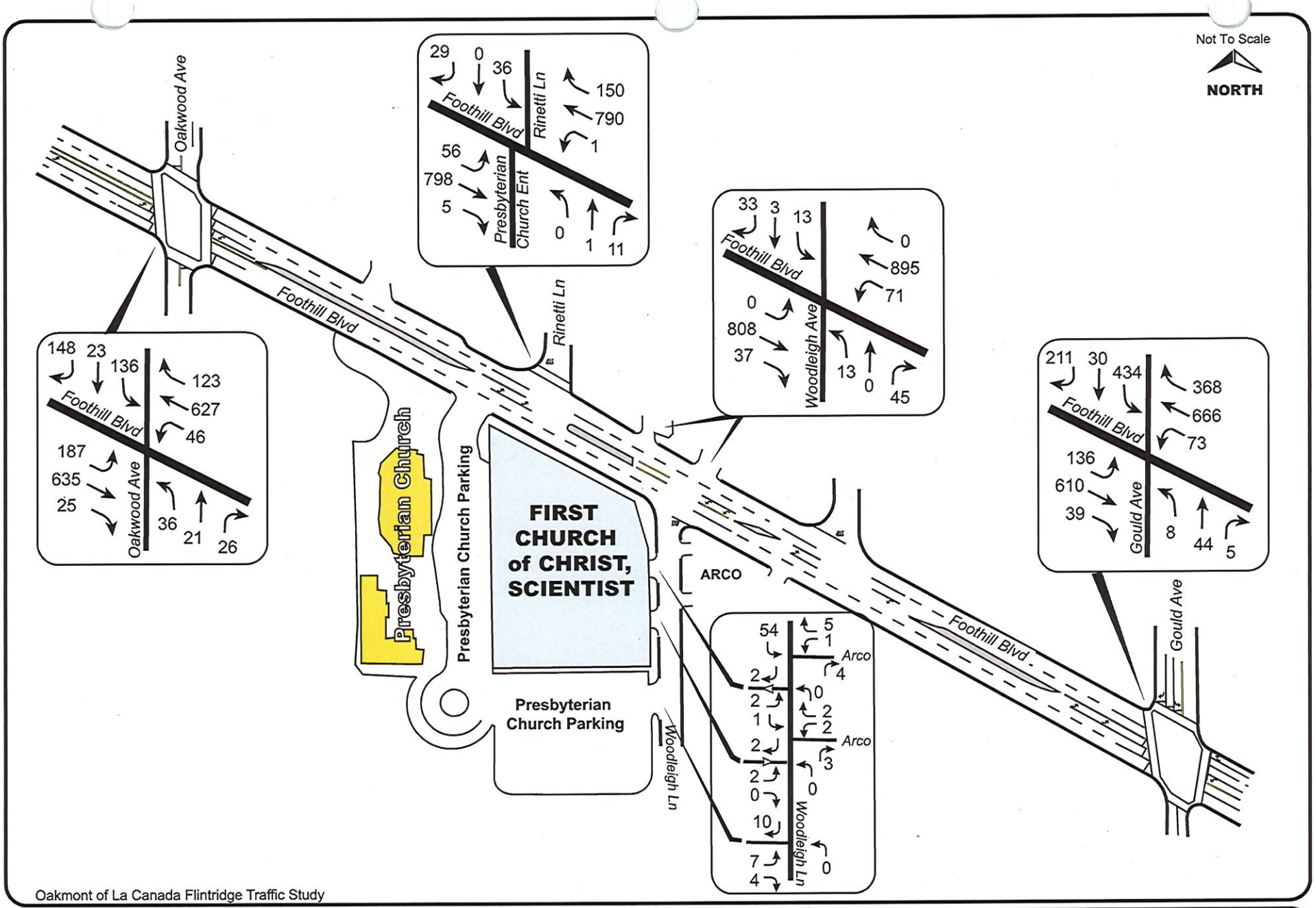
(916) 647-3406



CRANE TRANSPORTATION GROUP

Figure 5
Existing Weekday AM Peak Hour Volumes (without Project)
November 4, 2015 (7:30 - 8:30)



CRANE TRANSPORTATION GROUP

Figure 6
Existing Weekday PM Peak Hour Volumes (without Project)
November 4, 2015 (4:30 - 5:30)

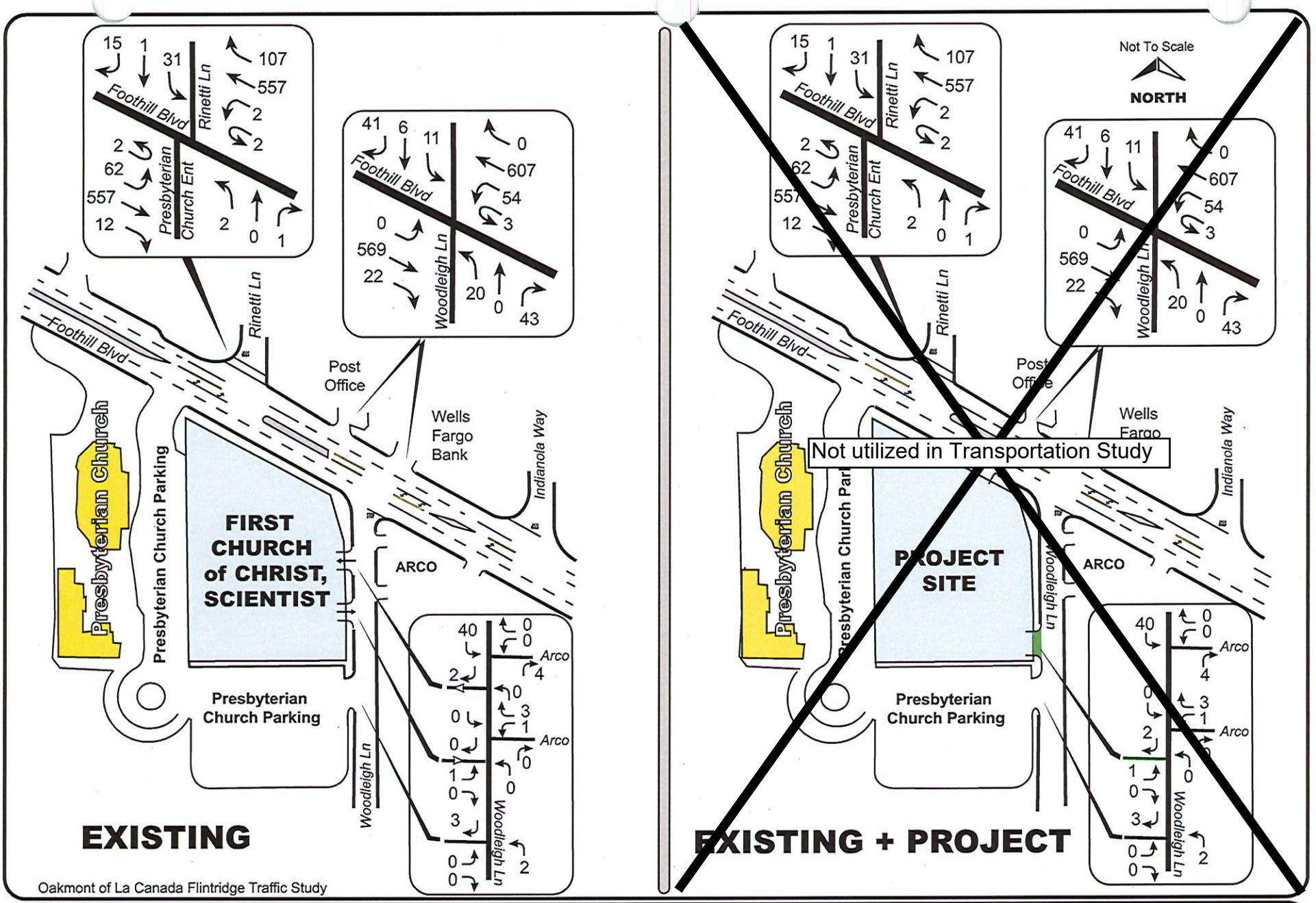


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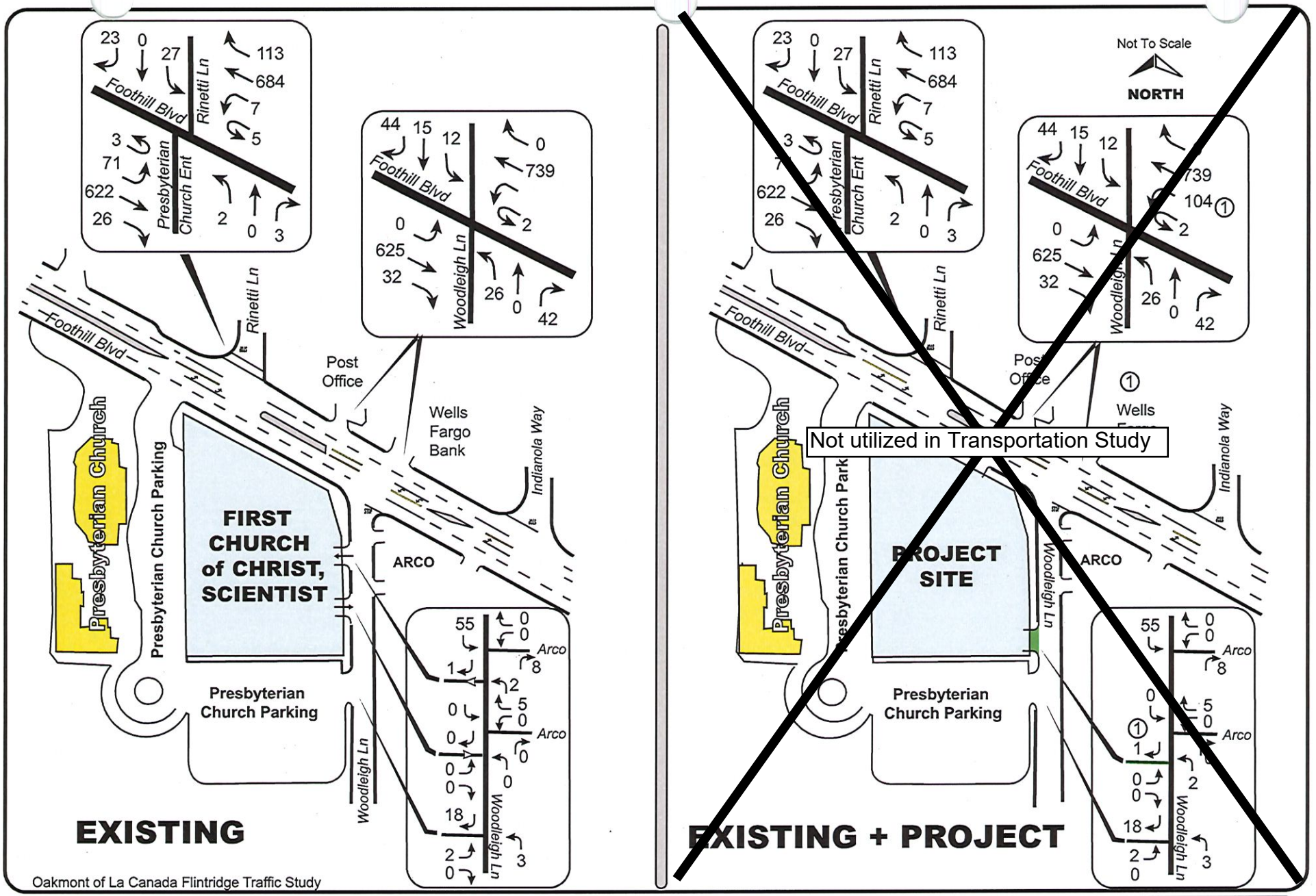
Figure A-1

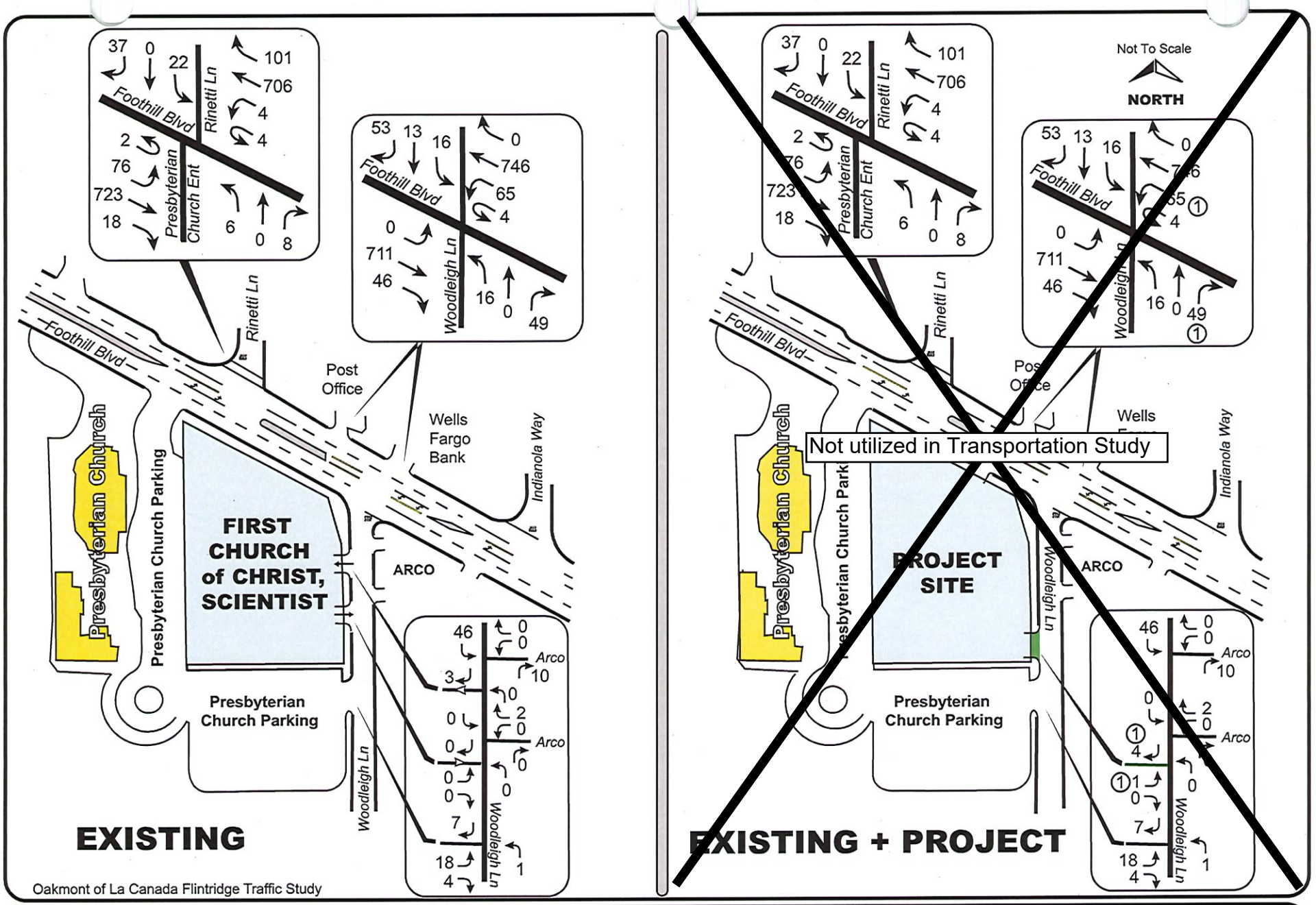
Saturday With and Without Project
9:00-10:00 AM



CRANE TRANSPORTATION GROUP

Figure A-2

Saturday With and Without Project
10:00-11:00 AM

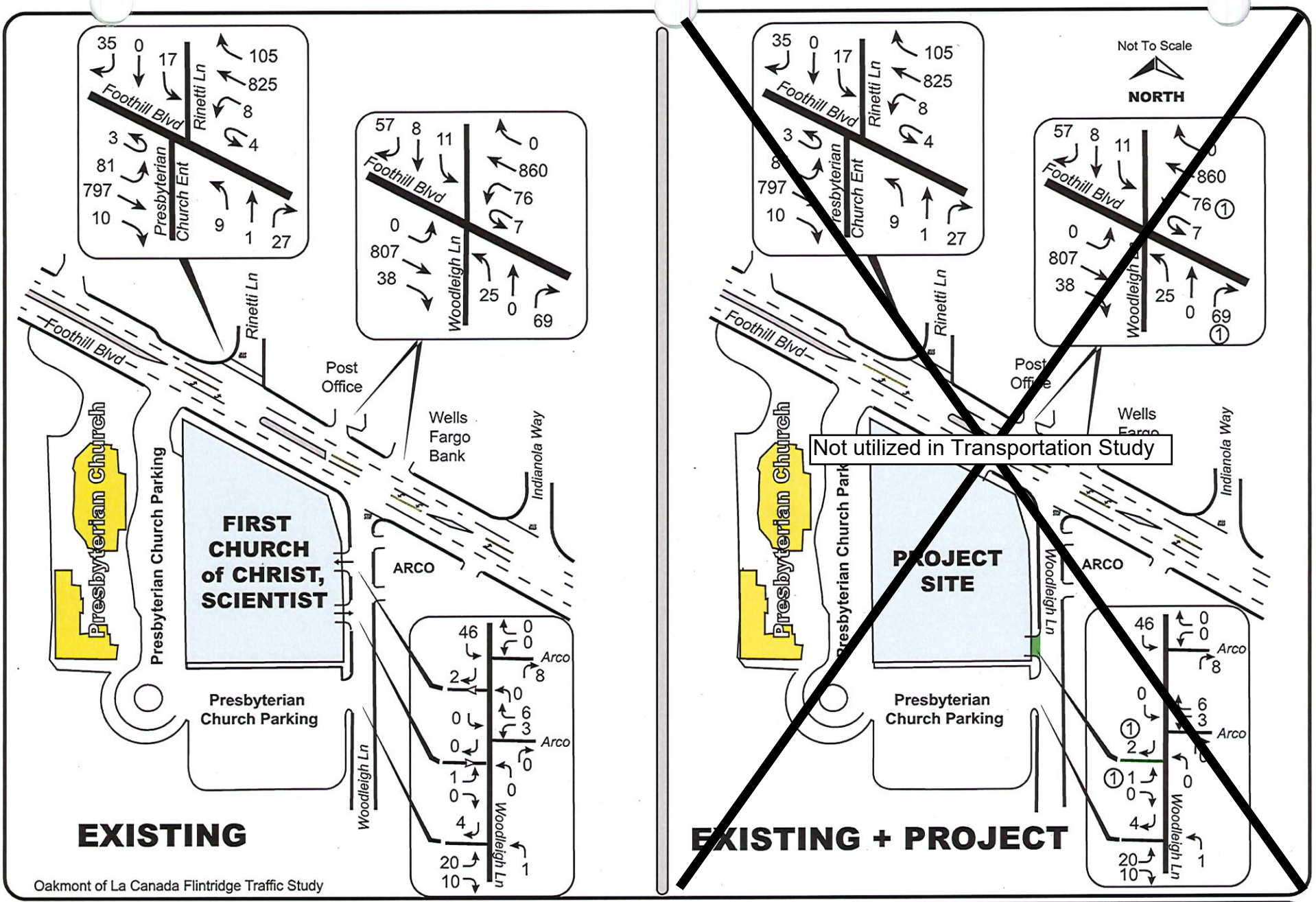


CRANE TRANSPORTATION GROUP

① - Assisted Living Facility Traffic Increment

Figure A-3

Saturday With and Without Project
11:00-12:00 Noon



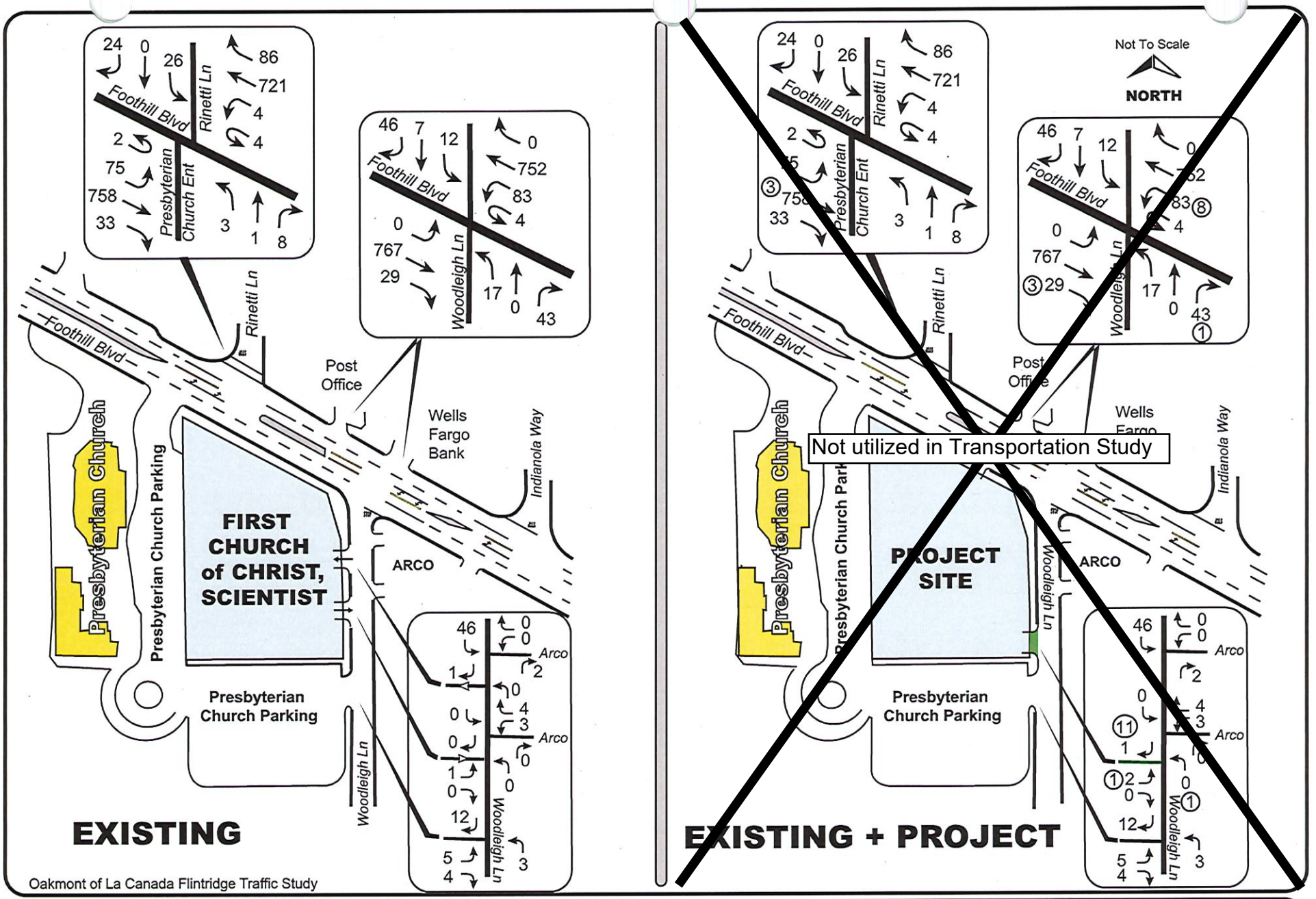
Oakmont of La Canada Flintridge Traffic Study

CRANE TRANSPORTATION GROUP

① - Assisted Living Facility Traffic Increment

Figure A-4

Saturday With and Without Project
12:00 Noon - 1:00 PM

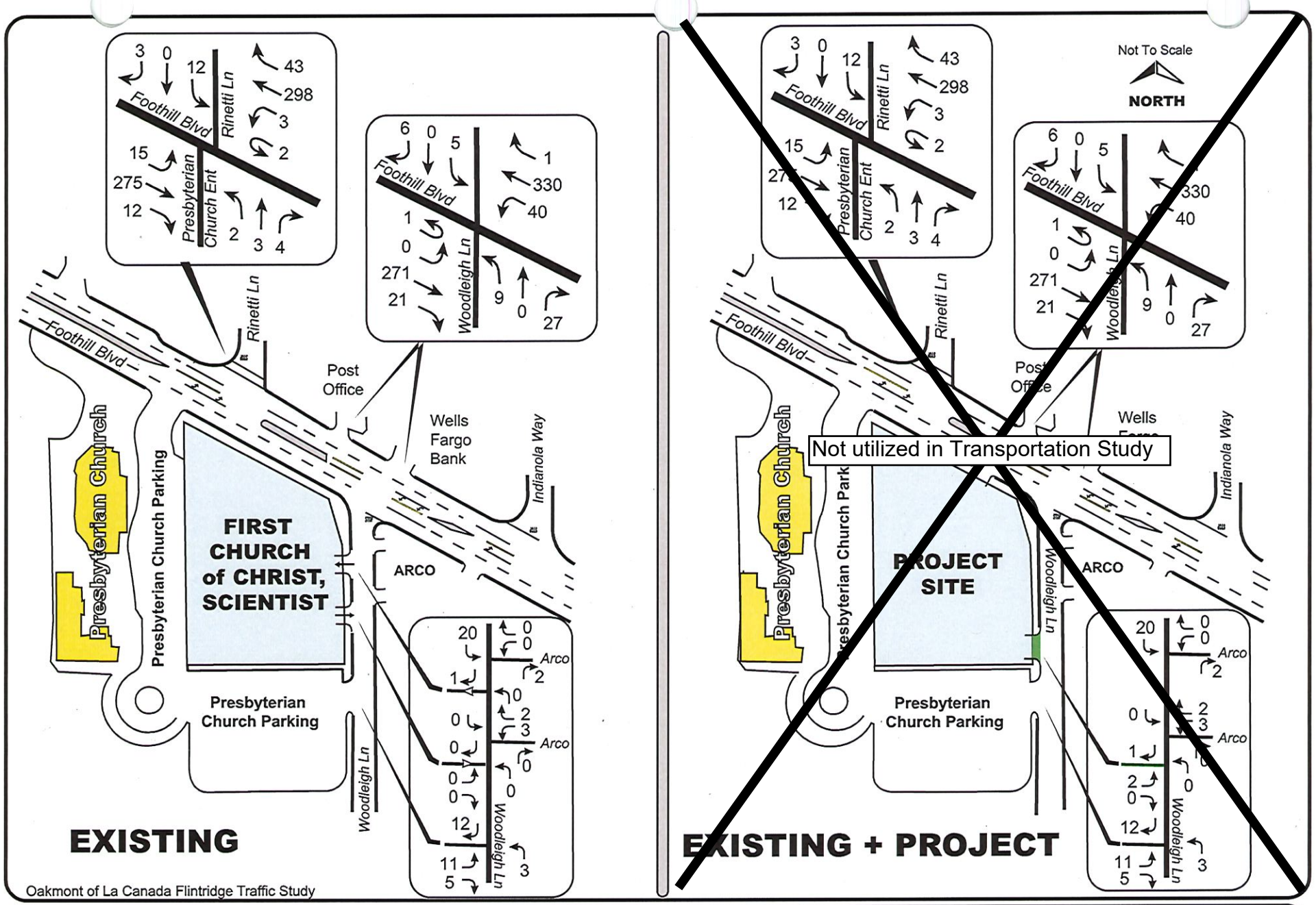


CRANE TRANSPORTATION GROUP

① - Assisted Living Facility Traffic Increment

Figure A-5

Saturday With and Without Project
1:00 Noon - 2:00 PM

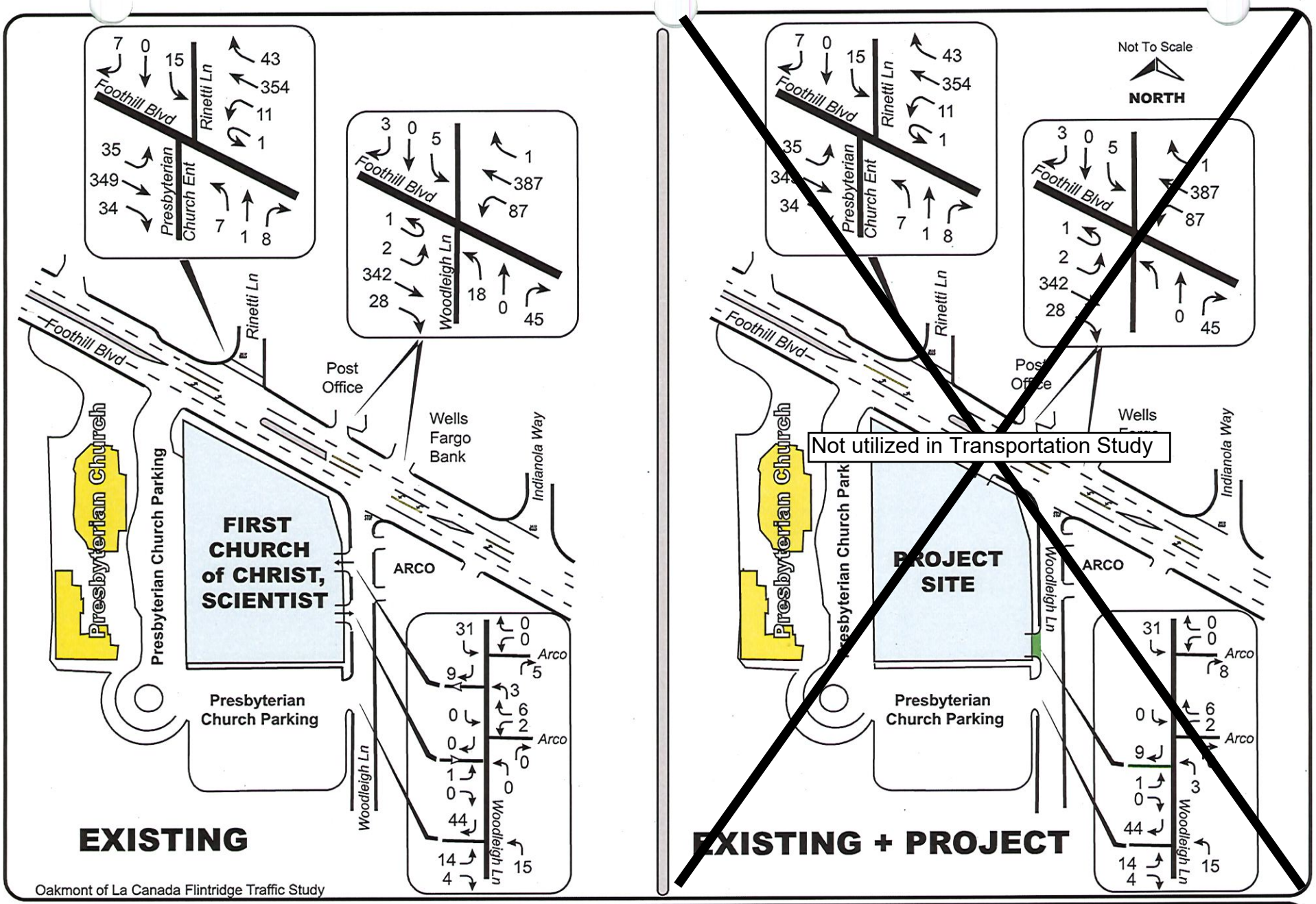


Oakmont of La Canada Flintridge Traffic Study

CRANE TRANSPORTATION GROUP

Figure A-6

Sunday With and Without Project
8:00 AM - 9:00 AM

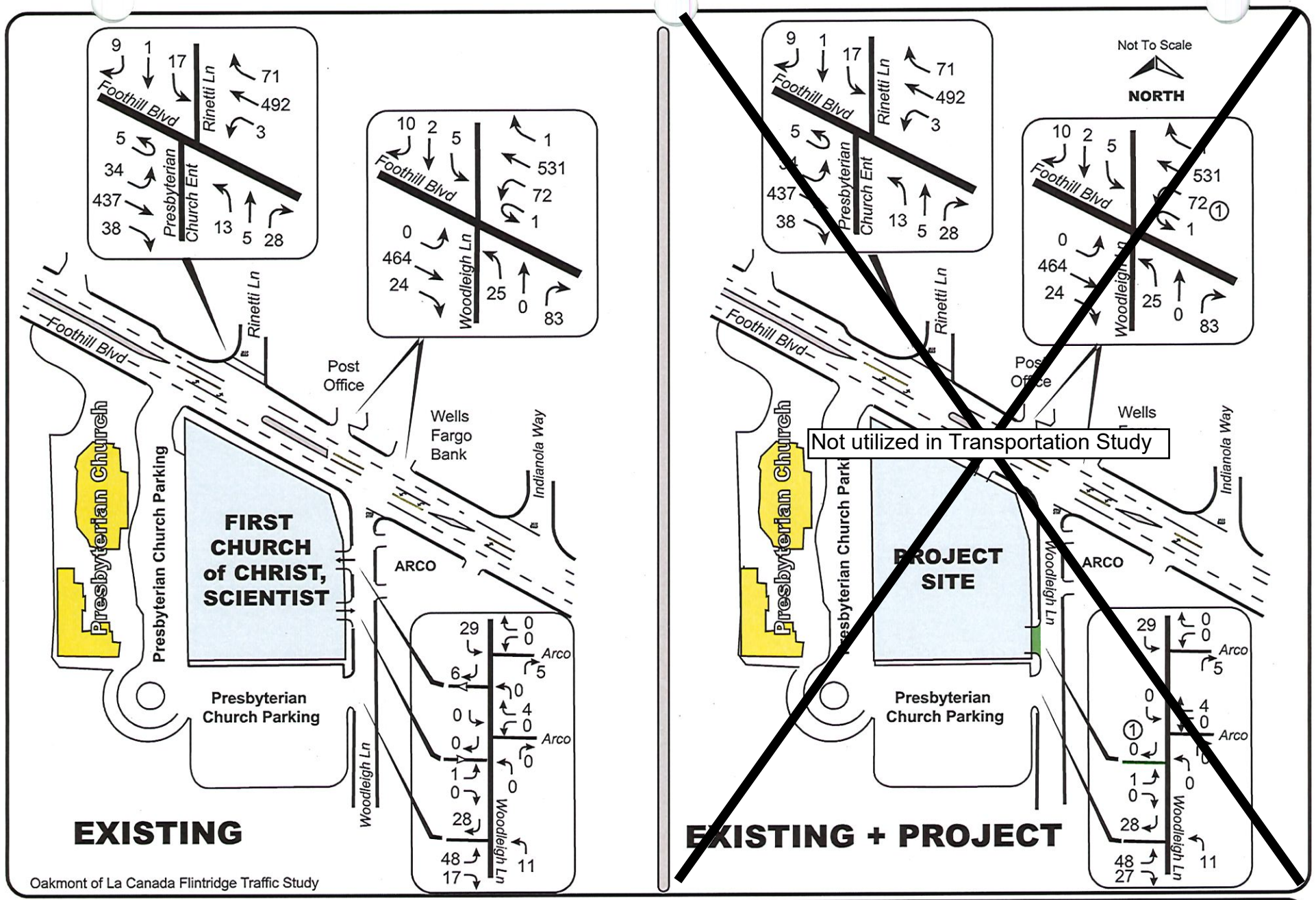


Oakmont of La Canada Flintridge Traffic Study

CRANE TRANSPORTATION GROUP

Figure A-7

Sunday With and Without Project
9:00 AM - 10:00 AM

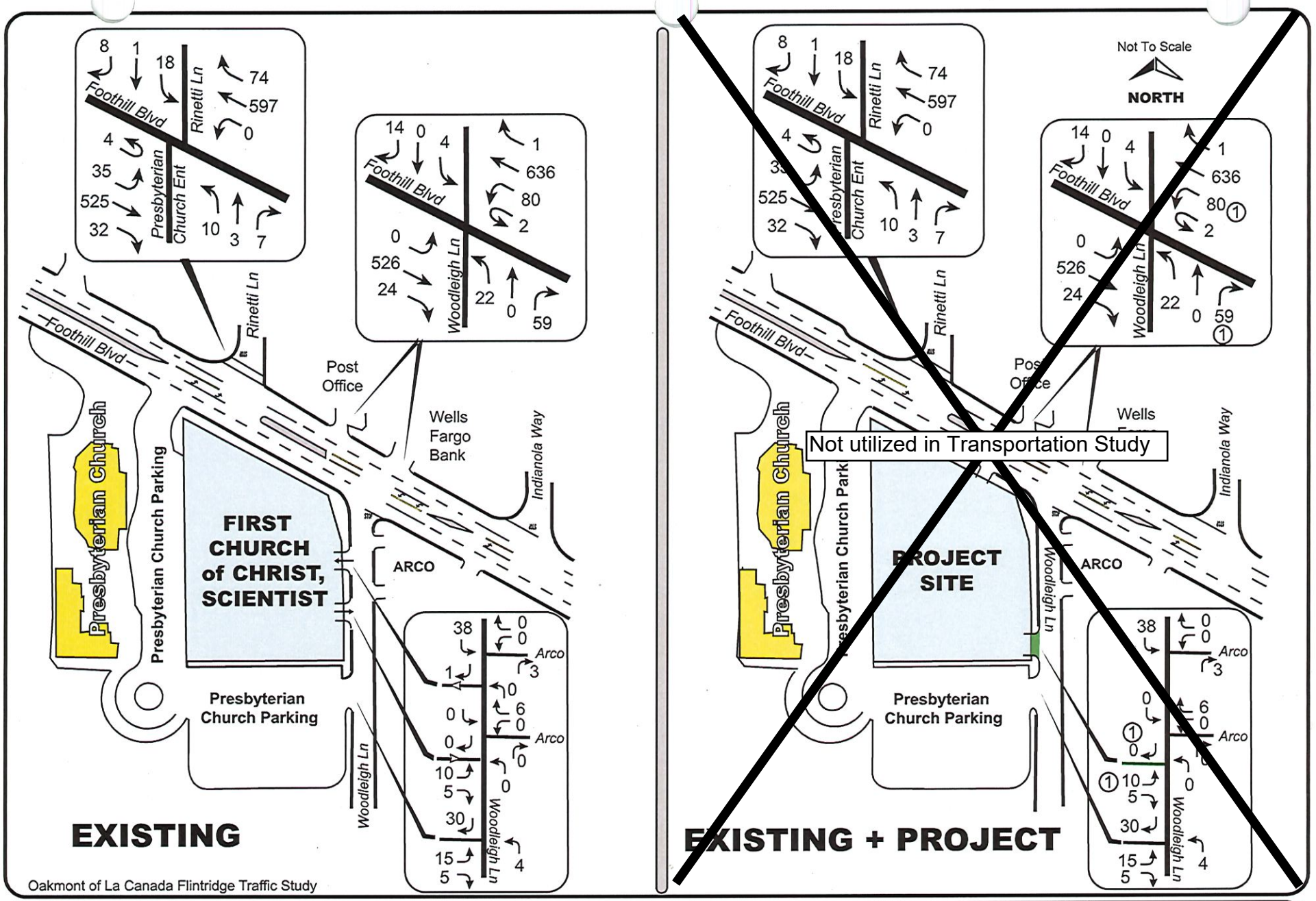


CRANE TRANSPORTATION GROUP

① - Assisted Living Facility Traffic Increment

Figure A-8

Sunday With and Without Project
10:00 AM - 11:00 AM



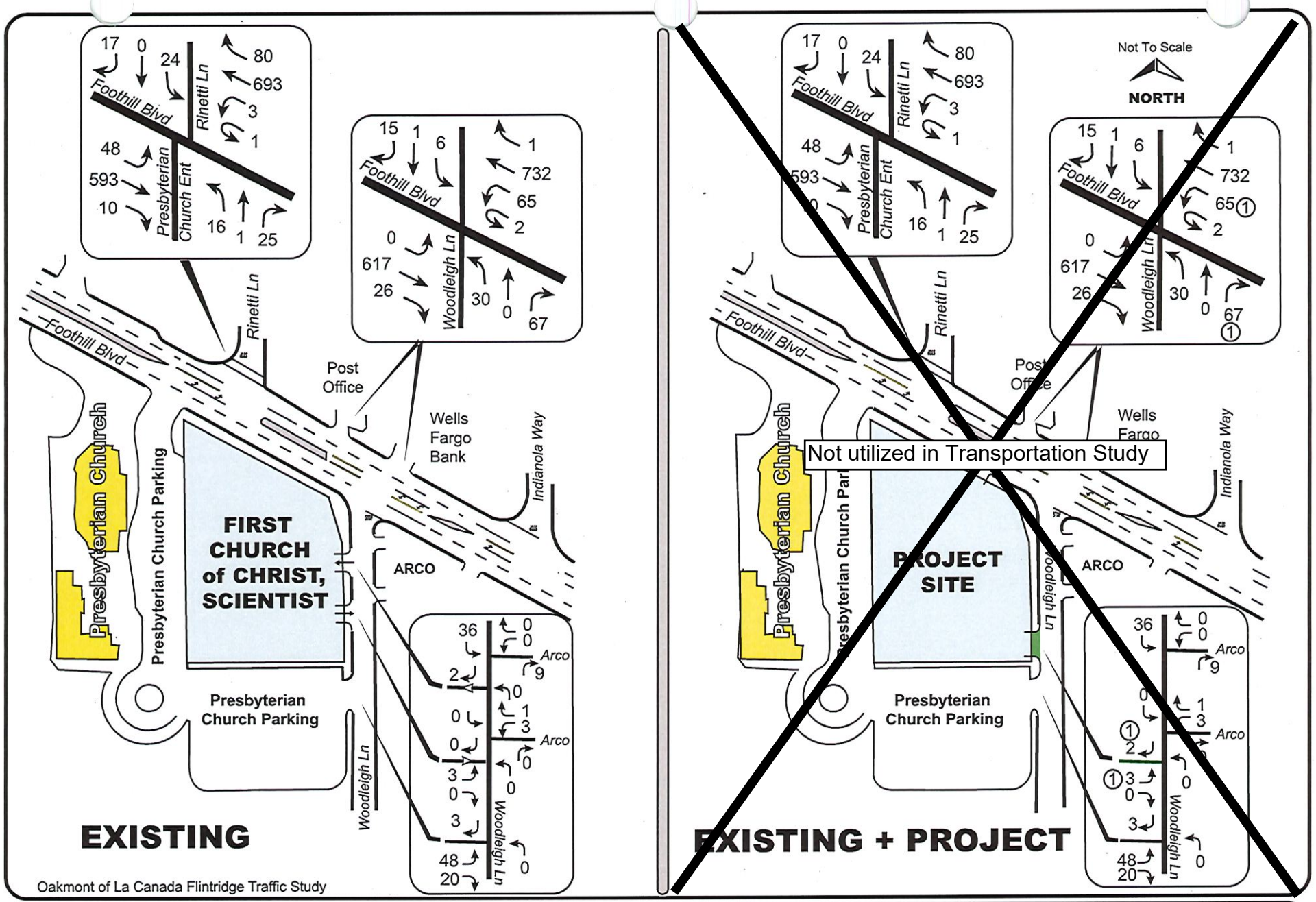
Oakmont of La Canada Flintridge Traffic Study

CRANE TRANSPORTATION GROUP

① - Assisted Living Facility Traffic Increment

Figure A-9

Sunday With and Without Project
11:00 AM - 12:00 Noon

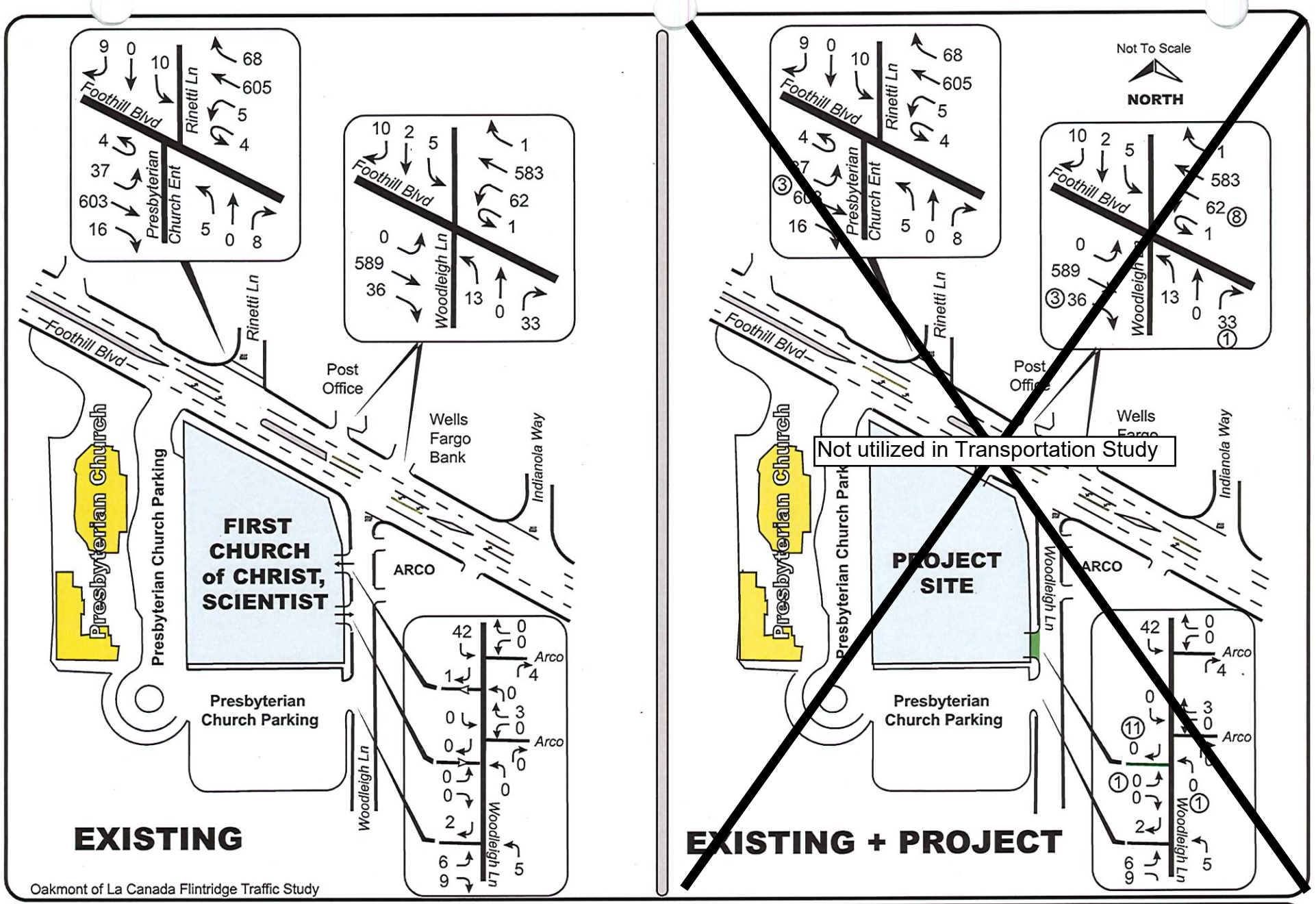


CRANE TRANSPORTATION GROUP

① - Assisted Living Facility Traffic Increment

Figure A-10

Sunday With and Without Project
12:00 Noon - 1:00 PM

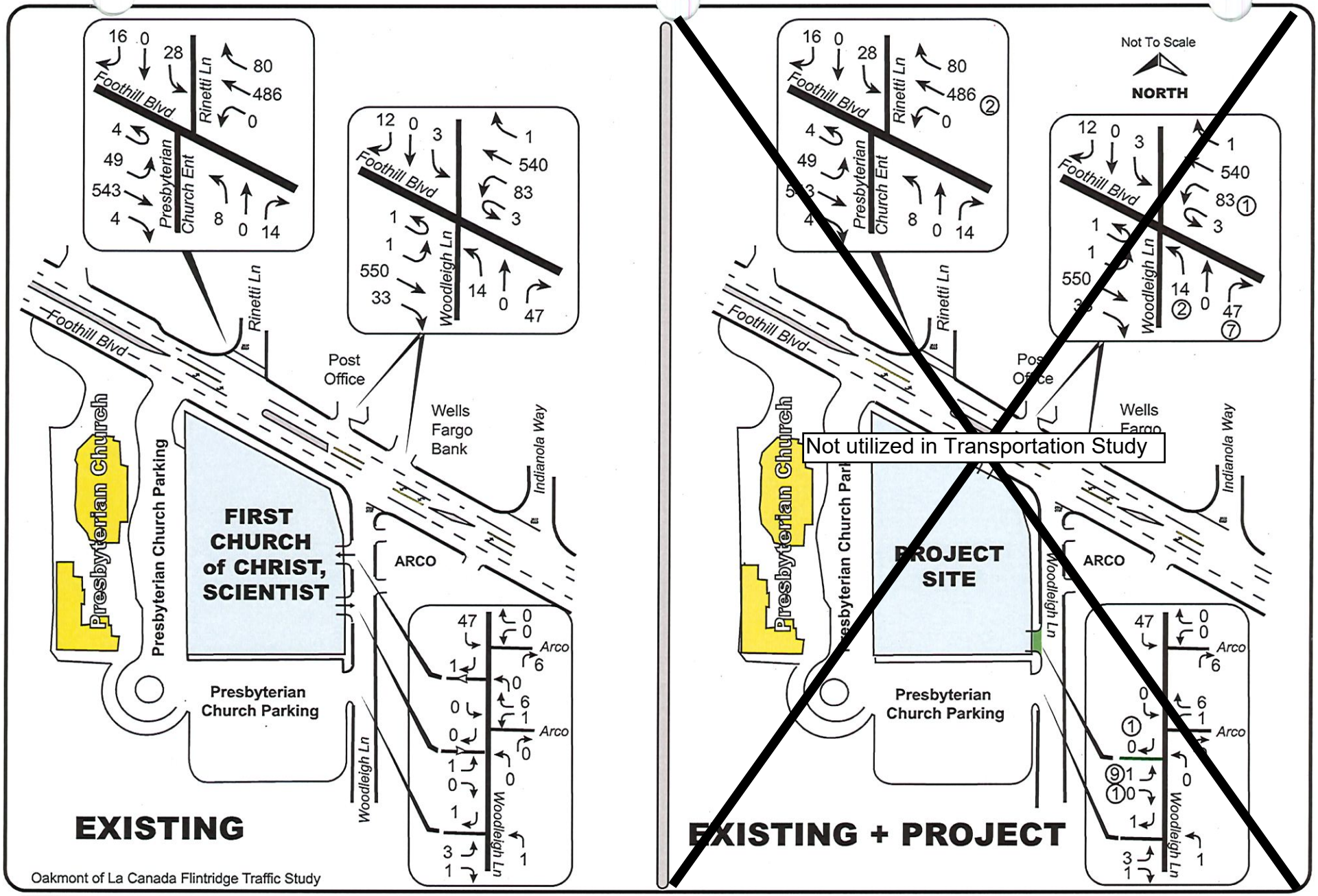


CRANE TRANSPORTATION GROUP

① - Assisted Living Facility Traffic Increment

Figure A-11

Sunday With and Without Project
1:00 PM - 2:00 PM



Oakmont of La Canada Flintridge Traffic Study

CRANE TRANSPORTATION GROUP

① - Assisted Living Facility Traffic Increment

Figure A-12

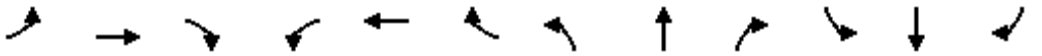
Sunday With and Without Project
2:00 PM - 3:00 PM

Appendix C

Level of Service Worksheets

HCM 6th Signalized Intersection Summary
1: Foothill Blvd & Oakwood Ave

04/28/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	623	19	21	534	59	16	14	18	60	11	54
Future Volume (veh/h)	67	623	19	21	534	59	16	14	18	60	11	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	677	21	23	580	64	17	15	20	65	12	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	330	1198	37	313	1099	121	291	259	270	686	114	697
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	786	3518	109	748	3228	355	396	588	615	1190	258	1585
Grp Volume(v), veh/h	73	342	356	23	319	325	52	0	0	77	0	59
Grp Sat Flow(s),veh/h/ln	786	1777	1851	748	1777	1806	1599	0	0	1448	0	1585
Q Serve(g_s), s	3.4	6.4	6.4	1.1	5.9	5.9	0.0	0.0	0.0	0.4	0.0	0.9
Cycle Q Clear(g_c), s	9.3	6.4	6.4	7.5	5.9	5.9	0.7	0.0	0.0	1.1	0.0	0.9
Prop In Lane	1.00		0.06	1.00		0.20	0.33		0.38	0.84		1.00
Lane Grp Cap(c), veh/h	330	605	630	313	605	615	820	0	0	799	0	697
V/C Ratio(X)	0.22	0.57	0.57	0.07	0.53	0.53	0.06	0.00	0.00	0.10	0.00	0.08
Avail Cap(c_a), veh/h	408	781	814	387	781	794	820	0	0	799	0	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.6	11.0	11.0	14.1	10.9	10.9	6.6	0.0	0.0	6.7	0.0	6.7
Incr Delay (d2), s/veh	0.3	0.8	0.8	0.1	0.7	0.7	0.1	0.0	0.0	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	1.0	3.6	3.7	0.3	3.3	3.4	0.4	0.0	0.0	0.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	11.9	11.8	14.2	11.6	11.6	6.8	0.0	0.0	7.0	0.0	6.9
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		771			667			52			136	
Approach Delay, s/veh		12.1			11.7			6.8			6.9	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		18.4		22.5		18.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.7		11.3		3.1		9.5				
Green Ext Time (p_c), s		0.2		2.6		0.4		2.7				

Intersection Summary												
HCM 6th Ctrl Delay			11.3									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	686	587	129	36	19
Future Vol, veh/h	38	686	587	129	36	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	746	638	140	39	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	778	0	-	0	1163	389
Stage 1	-	-	-	-	708	-
Stage 2	-	-	-	-	455	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	834	-	-	-	188	610
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	606	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	834	-	-	-	179	610
Mov Cap-2 Maneuver	-	-	-	-	179	-
Stage 1	-	-	-	-	427	-
Stage 2	-	-	-	-	606	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	23.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	834	-	-	-	179	610
HCM Lane V/C Ratio	0.05	-	-	-	0.219	0.034
HCM Control Delay (s)	9.5	-	-	-	30.7	11.1
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8	0.1

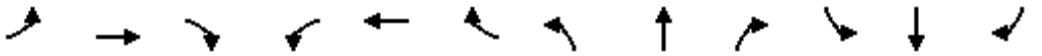
Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	671	35	97	693	24	44
Future Vol, veh/h	671	35	97	693	24	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	729	38	105	753	26	48

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	767	0	1335	384
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	587	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	842	-	145	614
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	519	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	842	-	127	614
Mov Cap-2 Maneuver	-	-	-	-	127	-
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	454	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	24.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	261	-	-	842	-
HCM Lane V/C Ratio	0.283	-	-	0.125	-
HCM Control Delay (s)	24.2	-	-	9.9	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	1.1	-	-	0.4	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	595	50	70	585	442	13	27	7	490	70	156
Future Volume (veh/h)	154	595	50	70	585	442	13	27	7	490	70	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	167	647	54	76	636	480	14	29	8	587	0	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	208	1165	97	105	1042	465	40	83	23	766	0	526
Arrive On Green	0.12	0.35	0.35	0.06	0.29	0.29	0.08	0.08	0.08	0.22	0.00	0.22
Sat Flow, veh/h	1781	3321	277	1781	3554	1585	493	1021	282	3563	0	1585
Grp Volume(v), veh/h	167	346	355	76	636	480	51	0	0	587	0	170
Grp Sat Flow(s),veh/h/ln	1781	1777	1821	1781	1777	1585	1795	0	0	1781	0	1585
Q Serve(g_s), s	5.6	9.6	9.7	2.6	9.5	18.0	1.6	0.0	0.0	9.5	0.0	4.9
Cycle Q Clear(g_c), s	5.6	9.6	9.7	2.6	9.5	18.0	1.6	0.0	0.0	9.5	0.0	4.9
Prop In Lane	1.00		0.15	1.00		1.00	0.27		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	208	624	639	105	1042	465	146	0	0	766	0	526
V/C Ratio(X)	0.80	0.55	0.56	0.72	0.61	1.03	0.35	0.00	0.00	0.77	0.00	0.32
Avail Cap(c_a), veh/h	226	624	639	180	1042	465	532	0	0	1045	0	650
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.4	16.1	16.1	28.4	18.7	21.7	26.6	0.0	0.0	22.6	0.0	15.3
Incr Delay (d2), s/veh	17.3	1.1	1.1	8.9	1.0	50.4	1.4	0.0	0.0	2.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	5.1	5.7	5.8	2.4	5.7	16.5	1.3	0.0	0.0	6.0	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	17.1	17.1	37.3	19.7	72.1	28.1	0.0	0.0	25.0	0.0	15.7
LnGrp LOS	D	B	B	D	B	F	C	A	A	C	A	B
Approach Vol, veh/h		868			1192			51			757	
Approach Delay, s/veh		22.2			41.9			28.1			22.9	
Approach LOS		C			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	8.1	26.0		17.7	11.7	22.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.2	6.2	19.6		18.0	7.8	18.0				
Max Q Clear Time (g_c+I1), s		3.6	4.6	11.7		11.5	7.6	20.0				
Green Ext Time (p_c), s		0.1	0.0	2.7		1.7	0.0	0.0				

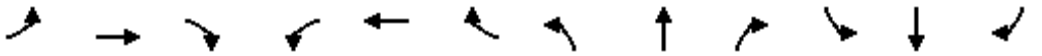
Intersection Summary												
HCM 6th Ctrl Delay			30.7									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Foothill Blvd & Oakwood Ave

04/28/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	667	26	48	658	129	38	22	27	143	24	155
Future Volume (veh/h)	196	667	26	48	658	129	38	22	27	143	24	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	213	725	28	52	715	140	41	24	29	155	26	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	368	1844	71	411	1566	306	229	136	123	496	75	503
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	646	3488	135	710	2963	580	441	429	388	1201	235	1585
Grp Volume(v), veh/h	213	369	384	52	429	426	94	0	0	181	0	168
Grp Sat Flow(s),veh/h/ln	646	1777	1846	710	1777	1766	1258	0	0	1437	0	1585
Q Serve(g_s), s	17.9	7.2	7.2	2.7	8.7	8.8	0.2	0.0	0.0	0.0	0.0	4.7
Cycle Q Clear(g_c), s	26.6	7.2	7.2	10.0	8.7	8.8	5.6	0.0	0.0	5.4	0.0	4.7
Prop In Lane	1.00		0.07	1.00		0.33	0.44		0.31	0.86		1.00
Lane Grp Cap(c), veh/h	368	939	976	411	939	933	488	0	0	570	0	503
V/C Ratio(X)	0.58	0.39	0.39	0.13	0.46	0.46	0.19	0.00	0.00	0.32	0.00	0.33
Avail Cap(c_a), veh/h	386	990	1029	431	990	984	488	0	0	570	0	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.8	8.2	8.2	11.1	8.5	8.5	14.4	0.0	0.0	15.4	0.0	15.2
Incr Delay (d2), s/veh	2.0	0.3	0.3	0.1	0.3	0.3	0.9	0.0	0.0	1.5	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	4.1	3.8	4.0	0.7	4.5	4.5	1.7	0.0	0.0	3.3	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	8.5	8.4	11.3	8.9	8.9	15.3	0.0	0.0	16.9	0.0	17.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		966			907			94			349	
Approach Delay, s/veh		10.7			9.0			15.3			16.9	
Approach LOS		B			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		35.3		23.0		35.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		7.6		28.6		7.4		12.0				
Green Ext Time (p_c), s		0.3		2.2		1.2		6.1				

Intersection Summary												
HCM 6th Ctrl Delay			11.2									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	59	851	830	158	38	30
Future Vol, veh/h	59	851	830	158	38	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	925	902	172	41	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1074	0	-	0	1579	537
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	591	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	645	-	-	-	100	488
Stage 1	-	-	-	-	321	-
Stage 2	-	-	-	-	516	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	645	-	-	-	90	488
Mov Cap-2 Maneuver	-	-	-	-	90	-
Stage 1	-	-	-	-	289	-
Stage 2	-	-	-	-	516	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	47.7
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	645	-	-	-	90	488
HCM Lane V/C Ratio	0.099	-	-	-	0.459	0.067
HCM Control Delay (s)	11.2	-	-	-	75.2	12.9
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.9	0.2

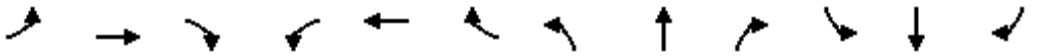
Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	848	39	91	974	14	47
Future Vol, veh/h	848	39	91	974	14	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	922	42	99	1059	15	51

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	964	0	1671	482
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	728	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	710	-	87	530
Stage 1	-	-	-	-	339	-
Stage 2	-	-	-	-	439	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	710	-	75	530
Mov Cap-2 Maneuver	-	-	-	-	75	-
Stage 1	-	-	-	-	339	-
Stage 2	-	-	-	-	378	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	28
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	222	-	-	710	-
HCM Lane V/C Ratio	0.299	-	-	0.139	-
HCM Control Delay (s)	28	-	-	10.9	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1.2	-	-	0.5	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	641	41	77	699	386	8	46	5	456	32	222
Future Volume (veh/h)	143	641	41	77	699	386	8	46	5	456	32	222
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	155	697	45	84	760	420	9	50	5	521	0	241
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	1169	75	113	1061	473	22	121	12	722	0	495
Arrive On Green	0.11	0.35	0.35	0.06	0.30	0.30	0.08	0.08	0.08	0.20	0.00	0.20
Sat Flow, veh/h	1781	3389	219	1781	3554	1585	258	1431	143	3563	0	1585
Grp Volume(v), veh/h	155	365	377	84	760	420	64	0	0	521	0	241
Grp Sat Flow(s),veh/h/ln	1781	1777	1831	1781	1777	1585	1832	0	0	1781	0	1585
Q Serve(g_s), s	5.0	10.0	10.0	2.7	11.3	15.0	2.0	0.0	0.0	8.1	0.0	7.3
Cycle Q Clear(g_c), s	5.0	10.0	10.0	2.7	11.3	15.0	2.0	0.0	0.0	8.1	0.0	7.3
Prop In Lane	1.00		0.12	1.00		1.00	0.14		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	196	613	632	113	1061	473	155	0	0	722	0	495
V/C Ratio(X)	0.79	0.60	0.60	0.75	0.72	0.89	0.41	0.00	0.00	0.72	0.00	0.49
Avail Cap(c_a), veh/h	232	619	638	154	1082	482	567	0	0	1084	0	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.7	16.0	16.0	27.2	18.5	19.8	25.7	0.0	0.0	22.0	0.0	16.5
Incr Delay (d2), s/veh	14.6	1.5	1.5	12.2	2.2	17.7	1.8	0.0	0.0	1.4	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	4.5	5.9	6.1	2.7	6.7	10.1	1.6	0.0	0.0	5.1	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	17.5	17.5	39.5	20.8	37.5	27.4	0.0	0.0	23.4	0.0	17.2
LnGrp LOS	D	B	B	D	C	D	C	A	A	C	A	B
Approach Vol, veh/h		897			1264			64			762	
Approach Delay, s/veh		21.4			27.6			27.4			21.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	8.2	24.9		16.5	11.0	22.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.3	5.1	20.6		18.0	7.7	18.0				
Max Q Clear Time (g_c+I1), s		4.0	4.7	12.0		10.1	7.0	17.0				
Green Ext Time (p_c), s		0.2	0.0	3.0		1.9	0.0	0.7				

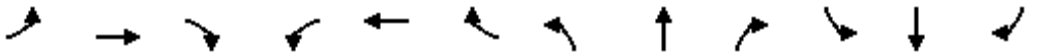
Intersection Summary												
HCM 6th Ctrl Delay			24.2									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Foothill Blvd & Oakwood Ave

04/28/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	625	19	21	536	59	16	14	18	60	11	54
Future Volume (veh/h)	67	625	19	21	536	59	16	14	18	60	11	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	679	21	23	583	64	17	15	20	65	12	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	329	1200	37	313	1101	121	290	258	270	685	113	696
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	784	3519	109	746	3230	354	396	588	615	1190	258	1585
Grp Volume(v), veh/h	73	343	357	23	320	327	52	0	0	77	0	59
Grp Sat Flow(s),veh/h/ln	784	1777	1851	746	1777	1807	1599	0	0	1448	0	1585
Q Serve(g_s), s	3.4	6.5	6.5	1.1	5.9	6.0	0.0	0.0	0.0	0.4	0.0	0.9
Cycle Q Clear(g_c), s	9.3	6.5	6.5	7.5	5.9	6.0	0.7	0.0	0.0	1.1	0.0	0.9
Prop In Lane	1.00		0.06	1.00		0.20	0.33		0.38	0.84		1.00
Lane Grp Cap(c), veh/h	329	606	631	313	606	616	819	0	0	798	0	696
V/C Ratio(X)	0.22	0.57	0.57	0.07	0.53	0.53	0.06	0.00	0.00	0.10	0.00	0.08
Avail Cap(c_a), veh/h	406	781	813	386	781	794	819	0	0	798	0	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.6	11.0	11.0	14.1	10.9	10.9	6.6	0.0	0.0	6.7	0.0	6.7
Incr Delay (d2), s/veh	0.3	0.8	0.8	0.1	0.7	0.7	0.1	0.0	0.0	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	1.0	3.6	3.7	0.3	3.4	3.4	0.4	0.0	0.0	0.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	11.9	11.8	14.2	11.6	11.6	6.8	0.0	0.0	7.0	0.0	6.9
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		773			670			52			136	
Approach Delay, s/veh		12.1			11.7			6.8			7.0	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		18.5		22.5		18.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.7		11.3		3.1		9.5				
Green Ext Time (p_c), s		0.2		2.6		0.4		2.7				

Intersection Summary												
HCM 6th Ctrl Delay			11.3									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	688	589	129	36	19
Future Vol, veh/h	38	688	589	129	36	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	748	640	140	39	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	780	0	-	0	1166	390
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	456	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	833	-	-	-	187	609
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	605	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	833	-	-	-	178	609
Mov Cap-2 Maneuver	-	-	-	-	178	-
Stage 1	-	-	-	-	426	-
Stage 2	-	-	-	-	605	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	24
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	833	-	-	-	178	609
HCM Lane V/C Ratio	0.05	-	-	-	0.22	0.034
HCM Control Delay (s)	9.5	-	-	-	30.8	11.1
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8	0.1

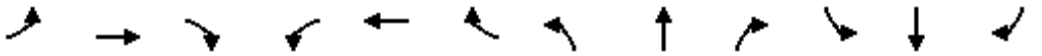
Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	671	37	105	693	26	52
Future Vol, veh/h	671	37	105	693	26	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	729	40	114	753	28	57

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	769	0	1354	385
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	605	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	841	-	141	613
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	508	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	841	-	122	613
Mov Cap-2 Maneuver	-	-	-	-	122	-
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	439	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	25.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	262	-	-	841	-
HCM Lane V/C Ratio	0.324	-	-	0.136	-
HCM Control Delay (s)	25.2	-	-	10	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	1.4	-	-	0.5	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	601	50	70	591	442	13	27	7	490	70	158
Future Volume (veh/h)	156	601	50	70	591	442	13	27	7	490	70	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	653	54	76	642	480	14	29	8	587	0	172
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	1170	97	105	1039	464	40	83	23	766	0	529
Arrive On Green	0.12	0.35	0.35	0.06	0.29	0.29	0.08	0.08	0.08	0.21	0.00	0.21
Sat Flow, veh/h	1781	3323	275	1781	3554	1585	493	1021	282	3563	0	1585
Grp Volume(v), veh/h	170	349	358	76	642	480	51	0	0	587	0	172
Grp Sat Flow(s),veh/h/ln	1781	1777	1821	1781	1777	1585	1795	0	0	1781	0	1585
Q Serve(g_s), s	5.7	9.7	9.8	2.6	9.6	18.0	1.7	0.0	0.0	9.5	0.0	5.0
Cycle Q Clear(g_c), s	5.7	9.7	9.8	2.6	9.6	18.0	1.7	0.0	0.0	9.5	0.0	5.0
Prop In Lane	1.00		0.15	1.00		1.00	0.27		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	212	626	641	105	1039	464	146	0	0	766	0	529
V/C Ratio(X)	0.80	0.56	0.56	0.72	0.62	1.04	0.35	0.00	0.00	0.77	0.00	0.33
Avail Cap(c_a), veh/h	229	626	641	179	1039	464	528	0	0	1042	0	652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.4	16.1	16.1	28.5	18.8	21.8	26.7	0.0	0.0	22.7	0.0	15.3
Incr Delay (d2), s/veh	17.4	1.1	1.1	9.0	1.1	51.2	1.4	0.0	0.0	2.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	5.2	5.8	5.9	2.4	5.8	16.7	1.3	0.0	0.0	6.0	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.8	17.2	17.2	37.4	19.9	73.0	28.2	0.0	0.0	25.1	0.0	15.7
LnGrp LOS	D	B	B	D	B	F	C	A	A	C	A	B
Approach Vol, veh/h		877			1198			51			759	
Approach Delay, s/veh		22.3			42.3			28.2			22.9	
Approach LOS		C			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	8.1	26.2		17.7	11.8	22.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.1	6.2	19.7		18.0	7.9	18.0				
Max Q Clear Time (g_c+I1), s		3.7	4.6	11.8		11.5	7.7	20.0				
Green Ext Time (p_c), s		0.1	0.0	2.7		1.7	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			30.9									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	1	3	0	1	1	68	1	0	75	10
Future Vol, veh/h	10	0	1	3	0	1	1	68	1	0	75	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	0	1	3	0	1	1	74	1	0	82	11

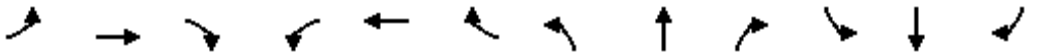
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	165	165	88	165	170	75	93	0	0	75	0	0
Stage 1	88	88	-	77	77	-	-	-	-	-	-	-
Stage 2	77	77	-	88	93	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	800	728	970	800	723	986	1501	-	-	1524	-	-
Stage 1	920	822	-	932	831	-	-	-	-	-	-	-
Stage 2	932	831	-	920	818	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	798	727	970	798	722	986	1501	-	-	1524	-	-
Mov Cap-2 Maneuver	798	727	-	798	722	-	-	-	-	-	-	-
Stage 1	919	822	-	931	830	-	-	-	-	-	-	-
Stage 2	930	830	-	919	818	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.3	0.1	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1501	-	-	811	838	1524	-	-
HCM Lane V/C Ratio	0.001	-	-	0.015	0.005	-	-	-
HCM Control Delay (s)	7.4	0	-	9.5	9.3	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th Signalized Intersection Summary
1: Foothill Blvd & Oakwood Ave

04/28/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	669	26	48	660	129	38	22	27	143	24	155
Future Volume (veh/h)	196	669	26	48	660	129	38	22	27	143	24	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	213	727	28	52	717	140	41	24	29	155	26	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	367	1845	71	410	1568	306	228	136	123	495	75	502
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	644	3489	134	709	2964	579	440	428	388	1201	235	1585
Grp Volume(v), veh/h	213	370	385	52	430	427	94	0	0	181	0	168
Grp Sat Flow(s),veh/h/ln	644	1777	1846	709	1777	1766	1256	0	0	1436	0	1585
Q Serve(g_s), s	17.9	7.2	7.2	2.8	8.8	8.8	0.2	0.0	0.0	0.0	0.0	4.7
Cycle Q Clear(g_c), s	26.7	7.2	7.2	10.0	8.8	8.8	5.7	0.0	0.0	5.5	0.0	4.7
Prop In Lane	1.00		0.07	1.00		0.33	0.44		0.31	0.86		1.00
Lane Grp Cap(c), veh/h	367	940	976	410	940	934	487	0	0	570	0	502
V/C Ratio(X)	0.58	0.39	0.39	0.13	0.46	0.46	0.19	0.00	0.00	0.32	0.00	0.33
Avail Cap(c_a), veh/h	385	989	1028	430	989	983	487	0	0	570	0	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.8	8.2	8.2	11.2	8.5	8.5	14.5	0.0	0.0	15.5	0.0	15.2
Incr Delay (d2), s/veh	2.0	0.3	0.3	0.1	0.3	0.4	0.9	0.0	0.0	1.5	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	4.1	3.9	4.0	0.7	4.5	4.5	1.7	0.0	0.0	3.3	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	8.5	8.4	11.3	8.9	8.9	15.3	0.0	0.0	16.9	0.0	17.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		968			909			94			349	
Approach Delay, s/veh		10.7			9.0			15.3			17.0	
Approach LOS		B			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		35.4		23.0		35.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		7.7		28.7		7.5		12.0				
Green Ext Time (p_c), s		0.3		2.2		1.2		6.1				

Intersection Summary												
HCM 6th Ctrl Delay			11.2									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	59	853	832	158	38	30
Future Vol, veh/h	59	853	832	158	38	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	927	904	172	41	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1076	0	-	0	1582	538
Stage 1	-	-	-	-	990	-
Stage 2	-	-	-	-	592	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	644	-	-	-	99	488
Stage 1	-	-	-	-	320	-
Stage 2	-	-	-	-	516	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	644	-	-	-	89	488
Mov Cap-2 Maneuver	-	-	-	-	89	-
Stage 1	-	-	-	-	288	-
Stage 2	-	-	-	-	516	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	48.4
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	644	-	-	-	89	488
HCM Lane V/C Ratio	0.1	-	-	-	0.464	0.067
HCM Control Delay (s)	11.2	-	-	-	76.5	12.9
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.3	-	-	-	2	0.2

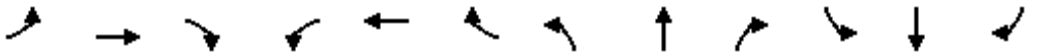
Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	848	41	97	974	16	55
Future Vol, veh/h	848	41	97	974	16	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	922	45	105	1059	17	60

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	967	0	1685	484
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	740	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	708	-	85	529
Stage 1	-	-	-	-	338	-
Stage 2	-	-	-	-	433	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	708	-	72	529
Mov Cap-2 Maneuver	-	-	-	-	72	-
Stage 1	-	-	-	-	338	-
Stage 2	-	-	-	-	369	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	30.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	218	-	-	708	-
HCM Lane V/C Ratio	0.354	-	-	0.149	-
HCM Control Delay (s)	30.3	-	-	11	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1.5	-	-	0.5	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	647	41	77	703	386	8	46	5	456	32	224
Future Volume (veh/h)	145	647	41	77	703	386	8	46	5	456	32	224
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	158	703	45	84	764	420	9	50	5	521	0	243
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	1175	75	113	1059	472	22	121	12	722	0	498
Arrive On Green	0.11	0.35	0.35	0.06	0.30	0.30	0.08	0.08	0.08	0.20	0.00	0.20
Sat Flow, veh/h	1781	3391	217	1781	3554	1585	258	1431	143	3563	0	1585
Grp Volume(v), veh/h	158	368	380	84	764	420	64	0	0	521	0	243
Grp Sat Flow(s),veh/h/ln	1781	1777	1831	1781	1777	1585	1832	0	0	1781	0	1585
Q Serve(g_s), s	5.1	10.1	10.1	2.8	11.4	15.0	2.0	0.0	0.0	8.1	0.0	7.4
Cycle Q Clear(g_c), s	5.1	10.1	10.1	2.8	11.4	15.0	2.0	0.0	0.0	8.1	0.0	7.4
Prop In Lane	1.00		0.12	1.00		1.00	0.14		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	199	616	635	113	1059	472	154	0	0	722	0	498
V/C Ratio(X)	0.79	0.60	0.60	0.75	0.72	0.89	0.41	0.00	0.00	0.72	0.00	0.49
Avail Cap(c_a), veh/h	234	620	639	153	1078	481	562	0	0	1081	0	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.7	16.0	16.0	27.3	18.6	19.9	25.8	0.0	0.0	22.1	0.0	16.5
Incr Delay (d2), s/veh	14.7	1.6	1.5	12.4	2.3	18.0	1.8	0.0	0.0	1.4	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	4.6	6.0	6.1	2.7	6.8	10.1	1.6	0.0	0.0	5.2	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	17.5	17.5	39.7	21.0	37.9	27.5	0.0	0.0	23.5	0.0	17.2
LnGrp LOS	D	B	B	D	C	D	C	A	A	C	A	B
Approach Vol, veh/h		906			1268			64			764	
Approach Delay, s/veh		21.5			27.8			27.5			21.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	8.2	25.1		16.5	11.1	22.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.2	5.1	20.7		18.0	7.8	18.0				
Max Q Clear Time (g_c+I1), s		4.0	4.8	12.1		10.1	7.1	17.0				
Green Ext Time (p_c), s		0.2	0.0	3.0		1.9	0.0	0.7				

Intersection Summary												
HCM 6th Ctrl Delay			24.3									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	0	2	2	0	2	1	54	3	1	56	11
Future Vol, veh/h	14	0	2	2	0	2	1	54	3	1	56	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	0	2	2	0	2	1	59	3	1	61	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	133	133	67	133	138	61	73	0	0	62	0	0
Stage 1	69	69	-	63	63	-	-	-	-	-	-	-
Stage 2	64	64	-	70	75	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	839	758	997	839	753	1004	1527	-	-	1541	-	-
Stage 1	941	837	-	948	842	-	-	-	-	-	-	-
Stage 2	947	842	-	940	833	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	836	756	997	836	751	1004	1527	-	-	1541	-	-
Mov Cap-2 Maneuver	836	756	-	836	751	-	-	-	-	-	-	-
Stage 1	940	836	-	947	841	-	-	-	-	-	-	-
Stage 2	944	841	-	937	832	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	9	0.1	0.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1527	-	-	853	912	1541	-	-
HCM Lane V/C Ratio	0.001	-	-	0.02	0.005	0.001	-	-
HCM Control Delay (s)	7.4	0	-	9.3	9	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

1. OAKWOOD AVE & FOOTHILL BLVD

Through Lane Capacity:	1600 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,600	54	0.013	N/S 1:	0.068 *
Southbound	Through	0.50	1,600	11	0.044	N/S 2:	0.054
	Left	0.50	1,600	60	0.038 *	E/W 1:	0.214
	Right	0.50	0	59	0.000	E/W 2:	0.227 *
Westbound	Through	1.50	3,200	534	0.185 *		
	Left	1.00	1,600	21	0.013	V/C Ratio:	0.295
	Right	0.33	0	18	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	14	0.030 *	ITS:	0.000
	Left	0.33	1,600	16	0.010		
	Right	0.50	0	19	0.000	ICU:	0.395
Eastbound	Through	1.50	3,200	623	0.201		
	Left	1.00	1,600	67	0.042 *	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,600	155	0.036	N/S 1:	0.143 *
Southbound	Through	0.50	1,600	24	0.104	N/S 2:	0.128
	Left	0.50	1,600	143	0.089 *	E/W 1:	0.247
	Right	0.50	0	129	0.000	E/W 2:	0.369 *
Westbound	Through	1.50	3,200	658	0.246 *		
	Left	1.00	1,600	48	0.030	V/C Ratio:	0.512
	Right	0.33	0	27	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	22	0.054 *	ITS:	0.000
	Left	0.33	1,600	38	0.024		
	Right	0.50	0	26	0.000	ICU:	0.612
Eastbound	Through	1.50	3,200	667	0.217		
	Left	1.00	1,600	196	0.123 *	LOS:	B

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

2. RINETTI LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	19	0.000	N/S 1:	0.028 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	36	0.028 *	E/W 1:	0.268
	Right	0.50	0	129	0.000	E/W 2:	0.310 *
Westbound	Through	1.50	2,560	587	0.280 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.338
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.338
Eastbound	Through	2.00	2,560	686	0.268		
	Left	1.00	1,280	38	0.030 *	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	30	0.000	N/S 1:	0.030 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	38	0.030 *	E/W 1:	0.332
	Right	0.50	0	158	0.000	E/W 2:	0.432 *
Westbound	Through	1.50	2,560	830	0.386 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.462
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.462
Eastbound	Through	2.00	2,560	851	0.332		
	Left	1.00	1,280	59	0.046 *	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

3. WOODLEIGH LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.015
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.053 *
	Left	0.00	0	0	0.000	E/W 1:	0.352 *
	Right	0.00	0	0	0.000	E/W 2:	0.271
Westbound	Through	2.00	2,560	693	0.271		
	Left	1.00	1,280	97	0.076 *	V/C Ratio:	0.405
	Right	0.50	828	44	0.015	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	452	24	0.053 *		
	Right	0.50	0	35	0.000	ICU:	0.405
Eastbound	Through	1.50	2,560	671	0.276 *		
	Left	0.00	0	0	0.000	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.012
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.048 *
	Left	0.00	0	0	0.000	E/W 1:	0.417 *
	Right	0.00	0	0	0.000	E/W 2:	0.380
Westbound	Through	2.00	2,560	974	0.380		
	Left	1.00	1,280	91	0.071 *	V/C Ratio:	0.465
	Right	0.50	986	47	0.012	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	294	14	0.048 *		
	Right	0.50	0	39	0.000	ICU:	0.465
Eastbound	Through	1.50	2,560	848	0.346 *		
	Left	0.00	0	0	0.000	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

4. GOULD AVE & FOOTHILL BLVD

Through Lane Capacity:	1600 vph	North/South Split Phase:	Y
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:	S		

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis	
	Right	1.00	1,600	156	0.001		N/S 1:	0.204 *
Southbound	Through	0.50	400	70	0.175	*	N/S 2:	0.000
	Left	1.50	2,800	490	0.175		E/W 1:	0.246
	Right	1.00	1,600	442	0.189	*	E/W 2:	0.285 *
Westbound	Through	2.00	3,200	585	0.183			
	Left	1.00	1,600	70	0.044		V/C Ratio:	0.489
	Right	0.33	0	7	0.000		Loss Time:	0.100
Northbound	Through	0.34	1,600	27	0.029	*	ITS:	0.000
	Left	0.33	1,600	13	0.008			
	Right	0.50	0	50	0.000		ICU:	0.589
Eastbound	Through	1.50	3,200	595	0.202			
	Left	1.00	1,600	154	0.096	*	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis	
	Right	1.00	1,600	222	0.094		N/S 1:	0.190 *
Southbound	Through	0.50	210	32	0.153	*	N/S 2:	0.000
	Left	1.50	2,990	456	0.153		E/W 1:	0.261
	Right	1.00	1,600	386	0.165		E/W 2:	0.307 *
Westbound	Through	2.00	3,200	699	0.218	*		
	Left	1.00	1,600	77	0.048		V/C Ratio:	0.497
	Right	0.33	0	5	0.000		Loss Time:	0.100
Northbound	Through	0.34	1,600	46	0.037	*	ITS:	0.000
	Left	0.33	1,600	8	0.005			
	Right	0.50	0	41	0.000		ICU:	0.597
Eastbound	Through	1.50	3,200	641	0.213			
	Left	1.00	1,600	143	0.089	*	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

1. OAKWOOD AVE & FOOTHILL BLVD

Through Lane Capacity:	1600 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,600	54	0.013	N/S 1:	0.068 *
Southbound	Through	0.50	1,600	11	0.044	N/S 2:	0.054
	Left	0.50	1,600	60	0.038 *	E/W 1:	0.214
	Right	0.50	0	59	0.000	E/W 2:	0.228 *
Westbound	Through	1.50	3,200	536	0.186 *		
	Left	1.00	1,600	21	0.013	V/C Ratio:	0.296
	Right	0.33	0	18	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	14	0.030 *	ITS:	0.000
	Left	0.33	1,600	16	0.010		
	Right	0.50	0	19	0.000	ICU:	0.396
Eastbound	Through	1.50	3,200	625	0.201		
	Left	1.00	1,600	67	0.042 *	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,600	155	0.036	N/S 1:	0.143 *
Southbound	Through	0.50	1,600	24	0.104	N/S 2:	0.128
	Left	0.50	1,600	143	0.089 *	E/W 1:	0.247
	Right	0.50	0	129	0.000	E/W 2:	0.370 *
Westbound	Through	1.50	3,200	660	0.247 *		
	Left	1.00	1,600	48	0.030	V/C Ratio:	0.513
	Right	0.33	0	27	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	22	0.054 *	ITS:	0.000
	Left	0.33	1,600	38	0.024		
	Right	0.50	0	26	0.000	ICU:	0.613
Eastbound	Through	1.50	3,200	669	0.217		
	Left	1.00	1,600	196	0.123 *	LOS:	B

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

2. RINETTI LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	19	0.000	N/S 1:	0.028 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	36	0.028 *	E/W 1:	0.269
	Right	0.50	0	129	0.000	E/W 2:	0.310 *
Westbound	Through	1.50	2,560	589	0.280 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.338
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.338
Eastbound	Through	2.00	2,560	688	0.269		
	Left	1.00	1,280	38	0.030 *	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	30	0.000	N/S 1:	0.030 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	38	0.030 *	E/W 1:	0.333
	Right	0.50	0	158	0.000	E/W 2:	0.433 *
Westbound	Through	1.50	2,560	832	0.387 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.463
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.463
Eastbound	Through	2.00	2,560	853	0.333		
	Left	1.00	1,280	59	0.046 *	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

3. WOODLEIGH LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.020
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.061 *
	Left	0.00	0	0	0.000	E/W 1:	0.359 *
	Right	0.00	0	0	0.000	E/W 2:	0.271
Westbound	Through	2.00	2,560	693	0.271		
	Left	1.00	1,280	105	0.082 *	V/C Ratio:	0.420
	Right	0.50	853	52	0.020	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	427	26	0.061 *		
	Right	0.50	0	37	0.000	ICU:	0.420
Eastbound	Through	1.50	2,560	671	0.277 *		
	Left	0.00	0	0	0.000	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.018
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.055 *
	Left	0.00	0	0	0.000	E/W 1:	0.423 *
	Right	0.00	0	0	0.000	E/W 2:	0.380
Westbound	Through	2.00	2,560	974	0.380		
	Left	1.00	1,280	97	0.076 *	V/C Ratio:	0.478
	Right	0.50	992	55	0.018	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	288	16	0.055 *		
	Right	0.50	0	41	0.000	ICU:	0.478
Eastbound	Through	1.50	2,560	848	0.347 *		
	Left	0.00	0	0	0.000	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

4. GOULD AVE & FOOTHILL BLVD

Through Lane Capacity:	1600 vph	North/South Split Phase:	Y
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:	S		

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis	
	Right	1.00	1,600	158	0.001		N/S 1:	0.204 *
Southbound	Through	0.50	400	70	0.175	*	N/S 2:	0.000
	Left	1.50	2,800	490	0.175		E/W 1:	0.247
	Right	1.00	1,600	442	0.189	*	E/W 2:	0.287 *
Westbound	Through	2.00	3,200	591	0.185			
	Left	1.00	1,600	70	0.044		V/C Ratio:	0.491
	Right	0.33	0	7	0.000		Loss Time:	0.100
Northbound	Through	0.34	1,600	27	0.029	*	ITS:	0.000
	Left	0.33	1,600	13	0.008			
	Right	0.50	0	50	0.000		ICU:	0.591
Eastbound	Through	1.50	3,200	601	0.203			
	Left	1.00	1,600	156	0.098	*	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis	
	Right	1.00	1,600	224	0.095		N/S 1:	0.190 *
Southbound	Through	0.50	210	32	0.153	*	N/S 2:	0.000
	Left	1.50	2,990	456	0.153		E/W 1:	0.263
	Right	1.00	1,600	386	0.165		E/W 2:	0.311 *
Westbound	Through	2.00	3,200	703	0.220	*		
	Left	1.00	1,600	77	0.048		V/C Ratio:	0.501
	Right	0.33	0	5	0.000		Loss Time:	0.100
Northbound	Through	0.34	1,600	46	0.037	*	ITS:	0.000
	Left	0.33	1,600	8	0.005			
	Right	0.50	0	41	0.000		ICU:	0.601
Eastbound	Through	1.50	3,200	647	0.215			
	Left	1.00	1,600	145	0.091	*	LOS:	B

* Critical Movement

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	88	876	866	110	18	37
Future Vol, veh/h	88	876	866	110	18	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	96	952	941	120	20	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1061	0	-	0	1669	531
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	668	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	652	-	-	-	87	493
Stage 1	-	-	-	-	316	-
Stage 2	-	-	-	-	471	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	652	-	-	-	74	493
Mov Cap-2 Maneuver	-	-	-	-	74	-
Stage 1	-	-	-	-	270	-
Stage 2	-	-	-	-	471	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	31.8
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	652	-	-	-	74	493
HCM Lane V/C Ratio	0.147	-	-	-	0.264	0.082
HCM Control Delay (s)	11.5	-	-	-	70.3	13
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.9	0.3

Intersection	
Int Delay, s/veh	2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	847	40	107	963	26	72
Future Vol, veh/h	847	40	107	963	26	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	921	43	116	1047	28	78

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	964	0	1699	482
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	756	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	710	-	83	530
Stage 1	-	-	-	-	339	-
Stage 2	-	-	-	-	424	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	710	-	69	530
Mov Cap-2 Maneuver	-	-	-	-	69	-
Stage 1	-	-	-	-	339	-
Stage 2	-	-	-	-	355	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	45.3
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	191	-	-	710	-
HCM Lane V/C Ratio	0.558	-	-	0.164	-
HCM Control Delay (s)	45.3	-	-	11.1	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	3	-	-	0.6	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	650	728	84	25	18
Future Vol, veh/h	50	650	728	84	25	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	707	791	91	27	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	882	0	-	0	1299	441
Stage 1	-	-	-	-	837	-
Stage 2	-	-	-	-	462	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	762	-	-	-	153	564
Stage 1	-	-	-	-	385	-
Stage 2	-	-	-	-	601	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	762	-	-	-	142	564
Mov Cap-2 Maneuver	-	-	-	-	142	-
Stage 1	-	-	-	-	358	-
Stage 2	-	-	-	-	601	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	26
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	762	-	-	-	142	564
HCM Lane V/C Ratio	0.071	-	-	-	0.191	0.035
HCM Control Delay (s)	10.1	-	-	-	36.3	11.6
HCM Lane LOS	B	-	-	-	E	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7	0.1

Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	648	27	78	784	32	70
Future Vol, veh/h	648	27	78	784	32	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	704	29	85	852	35	76

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	733	0	1315	367
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	596	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	868	-	149	630
Stage 1	-	-	-	-	444	-
Stage 2	-	-	-	-	513	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	868	-	134	630
Mov Cap-2 Maneuver	-	-	-	-	134	-
Stage 1	-	-	-	-	444	-
Stage 2	-	-	-	-	463	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	24.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	291	-	-	868	-
HCM Lane V/C Ratio	0.381	-	-	0.098	-
HCM Control Delay (s)	24.8	-	-	9.6	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	1.7	-	-	0.3	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	88	879	868	110	18	37
Future Vol, veh/h	88	879	868	110	18	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	96	955	943	120	20	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1063	0	-	0	1673	532
Stage 1	-	-	-	-	1003	-
Stage 2	-	-	-	-	670	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	651	-	-	-	87	492
Stage 1	-	-	-	-	315	-
Stage 2	-	-	-	-	470	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	651	-	-	-	74	492
Mov Cap-2 Maneuver	-	-	-	-	74	-
Stage 1	-	-	-	-	269	-
Stage 2	-	-	-	-	470	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	31.8
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	651	-	-	-	74	492
HCM Lane V/C Ratio	0.147	-	-	-	0.264	0.082
HCM Control Delay (s)	11.5	-	-	-	70.3	13
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.9	0.3

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	847	43	118	963	28	78
Future Vol, veh/h	847	43	118	963	28	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	921	47	128	1047	30	85

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	968	0	1725	484
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	780	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	707	-	80	529
Stage 1	-	-	-	-	338	-
Stage 2	-	-	-	-	412	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	707	-	66	529
Mov Cap-2 Maneuver	-	-	-	-	66	-
Stage 1	-	-	-	-	338	-
Stage 2	-	-	-	-	337	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	52.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	185	-	-	707	-
HCM Lane V/C Ratio	0.623	-	-	0.181	-
HCM Control Delay (s)	52.1	-	-	11.2	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	3.5	-	-	0.7	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	0	1	3	0	6	2	90	0	0	85	16
Future Vol, veh/h	9	0	1	3	0	6	2	90	0	0	85	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	0	1	3	0	7	2	98	0	0	92	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	207	203	101	203	211	98	109	0	0	98	0	0
Stage 1	101	101	-	102	102	-	-	-	-	-	-	-
Stage 2	106	102	-	101	109	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	751	693	954	755	686	958	1481	-	-	1495	-	-
Stage 1	905	811	-	904	811	-	-	-	-	-	-	-
Stage 2	900	811	-	905	805	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	745	692	954	753	685	958	1481	-	-	1495	-	-
Mov Cap-2 Maneuver	745	692	-	753	685	-	-	-	-	-	-	-
Stage 1	904	811	-	903	810	-	-	-	-	-	-	-
Stage 2	893	810	-	904	805	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	9.1	0.2	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1481	-	-	762	878	1495	-	-
HCM Lane V/C Ratio	0.001	-	-	0.014	0.011	-	-	-
HCM Control Delay (s)	7.4	0	-	9.8	9.1	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	653	727	84	25	18
Future Vol, veh/h	50	653	727	84	25	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	710	790	91	27	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	881	0	-	0	1299	441
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	463	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	763	-	-	-	153	564
Stage 1	-	-	-	-	386	-
Stage 2	-	-	-	-	600	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	763	-	-	-	142	564
Mov Cap-2 Maneuver	-	-	-	-	142	-
Stage 1	-	-	-	-	359	-
Stage 2	-	-	-	-	600	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	26
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	763	-	-	-	142	564
HCM Lane V/C Ratio	0.071	-	-	-	0.191	0.035
HCM Control Delay (s)	10.1	-	-	-	36.3	11.6
HCM Lane LOS	B	-	-	-	E	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7	0.1

Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	648	30	90	784	31	66
Future Vol, veh/h	648	30	90	784	31	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	704	33	98	852	34	72

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	737	0	1343	369
Stage 1	-	-	-	-	721	-
Stage 2	-	-	-	-	622	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	865	-	143	628
Stage 1	-	-	-	-	443	-
Stage 2	-	-	-	-	498	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	865	-	127	628
Mov Cap-2 Maneuver	-	-	-	-	127	-
Stage 1	-	-	-	-	443	-
Stage 2	-	-	-	-	442	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	25.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	278	-	-	865	-
HCM Lane V/C Ratio	0.379	-	-	0.113	-
HCM Control Delay (s)	25.6	-	-	9.7	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	1.7	-	-	0.4	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	0	1	3	0	1	2	107	0	0	59	16
Future Vol, veh/h	9	0	1	3	0	1	2	107	0	0	59	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	0	1	3	0	1	2	116	0	0	64	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	194	193	73	193	201	116	81	0	0	116	0	0
Stage 1	73	73	-	120	120	-	-	-	-	-	-	-
Stage 2	121	120	-	73	81	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	765	702	989	767	695	936	1517	-	-	1473	-	-
Stage 1	937	834	-	884	796	-	-	-	-	-	-	-
Stage 2	883	796	-	937	828	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	763	701	989	765	694	936	1517	-	-	1473	-	-
Mov Cap-2 Maneuver	763	701	-	765	694	-	-	-	-	-	-	-
Stage 1	936	834	-	883	795	-	-	-	-	-	-	-
Stage 2	881	795	-	936	828	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	9.5	0.1	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1517	-	-	781	802	1473	-	-
HCM Lane V/C Ratio	0.001	-	-	0.014	0.005	-	-	-
HCM Control Delay (s)	7.4	0	-	9.7	9.5	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

2. RINETTI LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

SATURDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	37	0.000	N/S 1:	0.014 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	18	0.014 *	E/W 1:	0.342
	Right	0.50	0	110	0.000	E/W 2:	0.450 *
Westbound	Through	1.50	2,560	866	0.381 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.464
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.464
Eastbound	Through	2.00	2,560	876	0.342		
	Left	1.00	1,280	88	0.069 *	LOS:	A

SUNDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	18	0.000	N/S 1:	0.020 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	25	0.020 *	E/W 1:	0.254
	Right	0.50	0	84	0.000	E/W 2:	0.356 *
Westbound	Through	1.50	2,560	728	0.317 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.376
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.376
Eastbound	Through	2.00	2,560	650	0.254		
	Left	1.00	1,280	50	0.039 *	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

3. WOODLEIGH LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

SATURDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.035
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.077 *
	Left	0.00	0	0	0.000	E/W 1:	0.430 *
	Right	0.00	0	0	0.000	E/W 2:	0.376
Westbound	Through	2.00	2,560	963	0.376		
	Left	1.00	1,280	107	0.084 *	V/C Ratio:	0.507
	Right	0.50	940	72	0.035	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	340	26	0.077 *		
	Right	0.50	0	40	0.000	ICU:	0.507
Eastbound	Through	1.50	2,560	847	0.346 *		
	Left	0.00	0	0	0.000	LOS:	A

SUNDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.049
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.080 *
	Left	0.00	0	0	0.000	E/W 1:	0.325 *
	Right	0.00	0	0	0.000	E/W 2:	0.306
Westbound	Through	2.00	2,560	784	0.306		
	Left	1.00	1,280	78	0.061 *	V/C Ratio:	0.405
	Right	0.50	878	70	0.049	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	402	32	0.080 *		
	Right	0.50	0	27	0.000	ICU:	0.405
Eastbound	Through	1.50	2,560	648	0.264 *		
	Left	0.00	0	0	0.000	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

2. RINETTI LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

SATURDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	37	0.000	N/S 1:	0.014 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	18	0.014 *	E/W 1:	0.343
	Right	0.50	0	110	0.000	E/W 2:	0.451 *
Westbound	Through	1.50	2,560	868	0.382 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.465
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.465
Eastbound	Through	2.00	2,560	879	0.343		
	Left	1.00	1,280	88	0.069 *	LOS:	A

SUNDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	18	0.000	N/S 1:	0.020 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	25	0.020 *	E/W 1:	0.255
	Right	0.50	0	84	0.000	E/W 2:	0.356 *
Westbound	Through	1.50	2,560	727	0.317 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.376
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.376
Eastbound	Through	2.00	2,560	653	0.255		
	Left	1.00	1,280	50	0.039 *	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

3. WOODLEIGH LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

SATURDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.037
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.083 *
	Left	0.00	0	0	0.000	E/W 1:	0.440 *
	Right	0.00	0	0	0.000	E/W 2:	0.376
Westbound	Through	2.00	2,560	963	0.376		
	Left	1.00	1,280	118	0.092 *	V/C Ratio:	0.523
	Right	0.50	942	78	0.037	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	338	28	0.083 *		
	Right	0.50	0	43	0.000	ICU:	0.523
Eastbound	Through	1.50	2,560	847	0.348 *		
	Left	0.00	0	0	0.000	LOS:	A

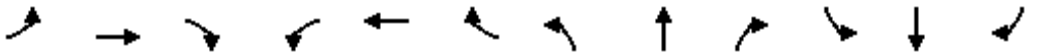
SUNDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.041
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.076 *
	Left	0.00	0	0	0.000	E/W 1:	0.335 *
	Right	0.00	0	0	0.000	E/W 2:	0.306
Westbound	Through	2.00	2,560	784	0.306		
	Left	1.00	1,280	90	0.070 *	V/C Ratio:	0.411
	Right	0.50	871	66	0.041	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	409	31	0.076 *		
	Right	0.50	0	30	0.000	ICU:	0.411
Eastbound	Through	1.50	2,560	648	0.265 *		
	Left	0.00	0	0	0.000	LOS:	A

* Critical Movement

HCM 6th Signalized Intersection Summary
1: Foothill Blvd & Oakwood Ave

05/06/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	635	19	21	545	60	16	14	18	61	11	55
Future Volume (veh/h)	68	635	19	21	545	60	16	14	18	61	11	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	690	21	23	592	65	17	15	20	66	12	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	1212	37	311	1111	122	289	257	269	683	111	693
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	777	3521	107	739	3230	354	395	588	615	1193	255	1585
Grp Volume(v), veh/h	74	348	363	23	325	332	52	0	0	78	0	60
Grp Sat Flow(s),veh/h/ln	777	1777	1851	739	1777	1807	1598	0	0	1448	0	1585
Q Serve(g_s), s	3.5	6.6	6.6	1.1	6.0	6.1	0.0	0.0	0.0	0.4	0.0	0.9
Cycle Q Clear(g_c), s	9.6	6.6	6.6	7.7	6.0	6.1	0.7	0.0	0.0	1.1	0.0	0.9
Prop In Lane	1.00		0.06	1.00		0.20	0.33		0.38	0.85		1.00
Lane Grp Cap(c), veh/h	328	611	637	311	611	622	815	0	0	794	0	693
V/C Ratio(X)	0.23	0.57	0.57	0.07	0.53	0.53	0.06	0.00	0.00	0.10	0.00	0.09
Avail Cap(c_a), veh/h	400	777	809	380	777	790	815	0	0	794	0	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.7	11.0	11.0	14.1	10.8	10.8	6.7	0.0	0.0	6.8	0.0	6.8
Incr Delay (d2), s/veh	0.3	0.8	0.8	0.1	0.7	0.7	0.2	0.0	0.0	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	1.0	3.7	3.8	0.3	3.4	3.5	0.4	0.0	0.0	0.6	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	11.8	11.8	14.2	11.6	11.6	6.9	0.0	0.0	7.1	0.0	7.0
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		785			680			52			138	
Approach Delay, s/veh		12.1			11.6			6.9			7.0	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		18.7		22.5		18.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.7		11.6		3.1		9.7				
Green Ext Time (p_c), s		0.2		2.6		0.4		2.7				

Intersection Summary												
HCM 6th Ctrl Delay			11.3									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	700	599	132	37	19
Future Vol, veh/h	39	700	599	132	37	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	761	651	143	40	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	794	0	-	0	1188	397
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	465	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	823	-	-	-	181	602
Stage 1	-	-	-	-	441	-
Stage 2	-	-	-	-	599	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	823	-	-	-	172	602
Mov Cap-2 Maneuver	-	-	-	-	172	-
Stage 1	-	-	-	-	419	-
Stage 2	-	-	-	-	599	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	25.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	823	-	-	-	172	602
HCM Lane V/C Ratio	0.052	-	-	-	0.234	0.034
HCM Control Delay (s)	9.6	-	-	-	32.2	11.2
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9	0.1

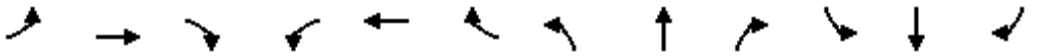
Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	684	36	99	707	24	45
Future Vol, veh/h	684	36	99	707	24	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	743	39	108	768	26	49

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	782	0	1363	391
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	600	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	832	-	139	608
Stage 1	-	-	-	-	421	-
Stage 2	-	-	-	-	511	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	832	-	121	608
Mov Cap-2 Maneuver	-	-	-	-	121	-
Stage 1	-	-	-	-	421	-
Stage 2	-	-	-	-	445	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	25.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	253	-	-	832	-
HCM Lane V/C Ratio	0.296	-	-	0.129	-
HCM Control Delay (s)	25.1	-	-	10	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	1.2	-	-	0.4	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	607	51	71	597	451	13	28	7	500	71	159
Future Volume (veh/h)	157	607	51	71	597	451	13	28	7	500	71	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	660	55	77	649	490	14	30	8	598	0	173
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	213	1166	97	106	1035	461	39	84	22	775	0	534
Arrive On Green	0.12	0.35	0.35	0.06	0.29	0.29	0.08	0.08	0.08	0.22	0.00	0.22
Sat Flow, veh/h	1781	3321	276	1781	3554	1585	484	1036	276	3563	0	1585
Grp Volume(v), veh/h	171	353	362	77	649	490	52	0	0	598	0	173
Grp Sat Flow(s),veh/h/ln	1781	1777	1821	1781	1777	1585	1796	0	0	1781	0	1585
Q Serve(g_s), s	5.8	9.9	10.0	2.6	9.8	18.0	1.7	0.0	0.0	9.8	0.0	5.0
Cycle Q Clear(g_c), s	5.8	9.9	10.0	2.6	9.8	18.0	1.7	0.0	0.0	9.8	0.0	5.0
Prop In Lane	1.00		0.15	1.00		1.00	0.27		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	213	624	639	106	1035	461	145	0	0	775	0	534
V/C Ratio(X)	0.80	0.57	0.57	0.73	0.63	1.06	0.36	0.00	0.00	0.77	0.00	0.32
Avail Cap(c_a), veh/h	230	624	639	179	1035	461	523	0	0	1037	0	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.5	16.2	16.2	28.6	19.0	21.9	26.9	0.0	0.0	22.7	0.0	15.3
Incr Delay (d2), s/veh	17.3	1.2	1.2	9.2	1.2	59.3	1.5	0.0	0.0	2.6	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	5.2	5.9	6.0	2.4	5.9	18.1	1.4	0.0	0.0	6.2	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.8	17.4	17.4	37.8	20.2	81.2	28.4	0.0	0.0	25.3	0.0	15.6
LnGrp LOS	D	B	B	D	C	F	C	A	A	C	A	B
Approach Vol, veh/h		886			1216			52			771	
Approach Delay, s/veh		22.5			45.9			28.4			23.1	
Approach LOS		C			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	8.2	26.2		17.9	11.9	22.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	6.2	19.8		18.0	8.0	18.0				
Max Q Clear Time (g_c+I1), s		3.7	4.6	12.0		11.8	7.8	20.0				
Green Ext Time (p_c), s		0.1	0.0	2.7		1.7	0.0	0.0				

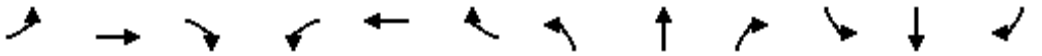
Intersection Summary	
HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Foothill Blvd & Oakwood Ave

05/06/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	680	27	49	671	132	39	22	28	146	24	158
Future Volume (veh/h)	200	680	27	49	671	132	39	22	28	146	24	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	217	739	29	53	729	143	42	24	30	159	26	172
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	364	1861	73	408	1581	310	218	128	117	483	71	497
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	635	3486	137	700	2962	581	417	407	374	1177	226	1585
Grp Volume(v), veh/h	217	377	391	53	437	435	96	0	0	185	0	172
Grp Sat Flow(s),veh/h/ln	635	1777	1846	700	1777	1766	1198	0	0	1403	0	1585
Q Serve(g_s), s	18.9	7.4	7.4	2.9	9.0	9.0	0.3	0.0	0.0	0.0	0.0	4.9
Cycle Q Clear(g_c), s	27.9	7.4	7.4	10.3	9.0	9.0	6.4	0.0	0.0	6.2	0.0	4.9
Prop In Lane	1.00		0.07	1.00		0.33	0.44		0.31	0.86		1.00
Lane Grp Cap(c), veh/h	364	948	985	408	948	943	463	0	0	553	0	497
V/C Ratio(X)	0.60	0.40	0.40	0.13	0.46	0.46	0.21	0.00	0.00	0.33	0.00	0.35
Avail Cap(c_a), veh/h	375	979	1017	420	979	973	463	0	0	553	0	497
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.1	8.1	8.1	11.2	8.5	8.5	14.8	0.0	0.0	16.0	0.0	15.6
Incr Delay (d2), s/veh	2.4	0.3	0.3	0.1	0.4	0.4	1.0	0.0	0.0	1.6	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	4.3	3.9	4.1	0.7	4.6	4.6	1.8	0.0	0.0	3.4	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.6	8.4	8.4	11.3	8.9	8.9	15.8	0.0	0.0	17.6	0.0	17.5
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		985			925			96			357	
Approach Delay, s/veh		10.9			9.0			15.8			17.5	
Approach LOS		B			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		36.0		23.0		36.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		8.4		29.9		8.2		12.3				
Green Ext Time (p_c), s		0.3		1.6		1.2		6.2				

Intersection Summary												
HCM 6th Ctrl Delay			11.3									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	60	868	847	161	39	31
Future Vol, veh/h	60	868	847	161	39	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	943	921	175	42	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1096	0	-	0	1611	548
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	602	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	633	-	-	-	95	480
Stage 1	-	-	-	-	313	-
Stage 2	-	-	-	-	510	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	633	-	-	-	85	480
Mov Cap-2 Maneuver	-	-	-	-	85	-
Stage 1	-	-	-	-	281	-
Stage 2	-	-	-	-	510	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	52.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	633	-	-	-	85	480
HCM Lane V/C Ratio	0.103	-	-	-	0.499	0.07
HCM Control Delay (s)	11.3	-	-	-	83.6	13.1
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.3	-	-	-	2.1	0.2

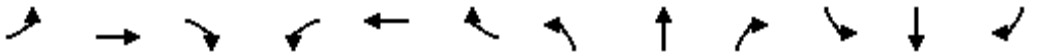
Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	865	40	93	993	14	48
Future Vol, veh/h	865	40	93	993	14	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	940	43	101	1079	15	52

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	983	0	1704	492
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	742	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	698	-	82	522
Stage 1	-	-	-	-	331	-
Stage 2	-	-	-	-	432	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	698	-	70	522
Mov Cap-2 Maneuver	-	-	-	-	70	-
Stage 1	-	-	-	-	331	-
Stage 2	-	-	-	-	369	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	29.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	212	-	-	698	-
HCM Lane V/C Ratio	0.318	-	-	0.145	-
HCM Control Delay (s)	29.7	-	-	11	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1.3	-	-	0.5	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	654	42	79	713	394	8	47	5	465	33	226
Future Volume (veh/h)	146	654	42	79	713	394	8	47	5	465	33	226
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	159	711	46	86	775	428	9	51	5	531	0	246
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	200	1176	76	113	1061	473	21	120	12	730	0	503
Arrive On Green	0.11	0.35	0.35	0.06	0.30	0.30	0.08	0.08	0.08	0.20	0.00	0.20
Sat Flow, veh/h	1781	3389	219	1781	3554	1585	254	1438	141	3563	0	1585
Grp Volume(v), veh/h	159	373	384	86	775	428	65	0	0	531	0	246
Grp Sat Flow(s),veh/h/ln	1781	1777	1831	1781	1777	1585	1832	0	0	1781	0	1585
Q Serve(g_s), s	5.2	10.4	10.4	2.8	11.7	15.5	2.0	0.0	0.0	8.3	0.0	7.5
Cycle Q Clear(g_c), s	5.2	10.4	10.4	2.8	11.7	15.5	2.0	0.0	0.0	8.3	0.0	7.5
Prop In Lane	1.00		0.12	1.00		1.00	0.14		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	200	617	636	113	1061	473	153	0	0	730	0	503
V/C Ratio(X)	0.80	0.60	0.60	0.76	0.73	0.90	0.42	0.00	0.00	0.73	0.00	0.49
Avail Cap(c_a), veh/h	232	617	636	152	1069	477	557	0	0	1072	0	655
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.9	16.1	16.1	27.6	18.8	20.2	26.0	0.0	0.0	22.2	0.0	16.5
Incr Delay (d2), s/veh	15.2	1.7	1.6	14.2	2.6	20.5	1.9	0.0	0.0	1.4	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	4.7	6.1	6.3	2.9	7.0	10.7	1.7	0.0	0.0	5.3	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	17.8	17.8	41.8	21.4	40.7	27.9	0.0	0.0	23.6	0.0	17.3
LnGrp LOS	D	B	B	D	C	D	C	A	A	C	A	B
Approach Vol, veh/h		916			1289			65			777	
Approach Delay, s/veh		21.8			29.2			27.9			21.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	8.3	25.3		16.8	11.2	22.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.2	5.1	20.7		18.0	7.8	18.0				
Max Q Clear Time (g_c+I1), s		4.0	4.8	12.4		10.3	7.2	17.5				
Green Ext Time (p_c), s		0.2	0.0	3.0		1.9	0.0	0.3				

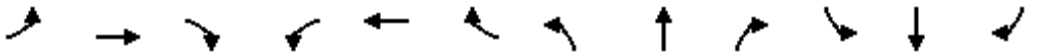
Intersection Summary												
HCM 6th Ctrl Delay			25.0									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Foothill Blvd & Oakwood Ave

05/06/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	637	19	21	547	60	16	14	18	61	11	55
Future Volume (veh/h)	68	637	19	21	547	60	16	14	18	61	11	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	692	21	23	595	65	17	15	20	66	12	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	327	1214	37	311	1114	121	289	257	269	682	111	692
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	774	3521	107	737	3231	352	395	588	615	1193	255	1585
Grp Volume(v), veh/h	74	349	364	23	327	333	52	0	0	78	0	60
Grp Sat Flow(s),veh/h/ln	774	1777	1851	737	1777	1807	1598	0	0	1448	0	1585
Q Serve(g_s), s	3.5	6.6	6.6	1.1	6.1	6.1	0.0	0.0	0.0	0.4	0.0	0.9
Cycle Q Clear(g_c), s	9.6	6.6	6.6	7.7	6.1	6.1	0.7	0.0	0.0	1.1	0.0	0.9
Prop In Lane	1.00		0.06	1.00		0.19	0.33		0.38	0.85		1.00
Lane Grp Cap(c), veh/h	327	613	638	311	613	623	814	0	0	794	0	692
V/C Ratio(X)	0.23	0.57	0.57	0.07	0.53	0.54	0.06	0.00	0.00	0.10	0.00	0.09
Avail Cap(c_a), veh/h	398	776	809	379	776	789	814	0	0	794	0	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.7	11.0	11.0	14.1	10.8	10.8	6.7	0.0	0.0	6.8	0.0	6.8
Incr Delay (d2), s/veh	0.3	0.8	0.8	0.1	0.7	0.7	0.2	0.0	0.0	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	1.0	3.7	3.8	0.3	3.4	3.5	0.4	0.0	0.0	0.6	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.1	11.8	11.8	14.2	11.6	11.6	6.9	0.0	0.0	7.1	0.0	7.0
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		787			683			52			138	
Approach Delay, s/veh		12.1			11.7			6.9			7.1	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		18.7		22.5		18.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.7		11.6		3.1		9.7				
Green Ext Time (p_c), s		0.2		2.6		0.4		2.7				

Intersection Summary												
HCM 6th Ctrl Delay			11.3									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	702	601	132	37	19
Future Vol, veh/h	39	702	601	132	37	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	763	653	143	40	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	796	0	-	0	1191	398
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	466	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	822	-	-	-	180	601
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	598	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	822	-	-	-	171	601
Mov Cap-2 Maneuver	-	-	-	-	171	-
Stage 1	-	-	-	-	418	-
Stage 2	-	-	-	-	598	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	25.2
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	822	-	-	-	171	601
HCM Lane V/C Ratio	0.052	-	-	-	0.235	0.034
HCM Control Delay (s)	9.6	-	-	-	32.4	11.2
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9	0.1

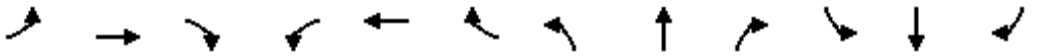
Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	684	38	107	707	26	53
Future Vol, veh/h	684	38	107	707	26	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	743	41	116	768	28	58

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	784	0	1380	392
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	616	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	830	-	135	607
Stage 1	-	-	-	-	420	-
Stage 2	-	-	-	-	501	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	830	-	116	607
Mov Cap-2 Maneuver	-	-	-	-	116	-
Stage 1	-	-	-	-	420	-
Stage 2	-	-	-	-	431	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	26.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	254	-	-	830	-
HCM Lane V/C Ratio	0.338	-	-	0.14	-
HCM Control Delay (s)	26.2	-	-	10	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1.4	-	-	0.5	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	613	51	71	603	451	13	28	7	500	71	161
Future Volume (veh/h)	159	613	51	71	603	451	13	28	7	500	71	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	173	666	55	77	655	490	14	30	8	598	0	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	1170	96	106	1033	461	39	84	22	775	0	536
Arrive On Green	0.12	0.35	0.35	0.06	0.29	0.29	0.08	0.08	0.08	0.22	0.00	0.22
Sat Flow, veh/h	1781	3324	274	1781	3554	1585	484	1036	276	3563	0	1585
Grp Volume(v), veh/h	173	356	365	77	655	490	52	0	0	598	0	175
Grp Sat Flow(s),veh/h/ln	1781	1777	1821	1781	1777	1585	1796	0	0	1781	0	1585
Q Serve(g_s), s	5.9	10.0	10.1	2.6	9.9	18.0	1.7	0.0	0.0	9.8	0.0	5.1
Cycle Q Clear(g_c), s	5.9	10.0	10.1	2.6	9.9	18.0	1.7	0.0	0.0	9.8	0.0	5.1
Prop In Lane	1.00		0.15	1.00		1.00	0.27		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	215	625	641	106	1033	461	145	0	0	775	0	536
V/C Ratio(X)	0.81	0.57	0.57	0.73	0.63	1.06	0.36	0.00	0.00	0.77	0.00	0.33
Avail Cap(c_a), veh/h	230	625	641	178	1033	461	522	0	0	1035	0	652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.5	16.3	16.3	28.6	19.1	22.0	26.9	0.0	0.0	22.8	0.0	15.3
Incr Delay (d2), s/veh	17.7	1.2	1.2	9.2	1.3	59.9	1.5	0.0	0.0	2.6	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	5.3	5.9	6.1	2.4	6.0	18.2	1.4	0.0	0.0	6.2	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.2	17.5	17.5	37.9	20.4	81.8	28.4	0.0	0.0	25.4	0.0	15.6
LnGrp LOS	D	B	B	D	C	F	C	A	A	C	A	B
Approach Vol, veh/h		894			1222			52			773	
Approach Delay, s/veh		22.7			46.1			28.4			23.2	
Approach LOS		C			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	8.2	26.3		18.0	12.0	22.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	6.2	19.8		18.0	8.0	18.0				
Max Q Clear Time (g_c+I1), s		3.7	4.6	12.1		11.8	7.9	20.0				
Green Ext Time (p_c), s		0.1	0.0	2.7		1.7	0.0	0.0				

Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	1	3	0	1	1	69	1	0	77	10
Future Vol, veh/h	10	0	1	3	0	1	1	69	1	0	77	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	0	1	3	0	1	1	75	1	0	84	11

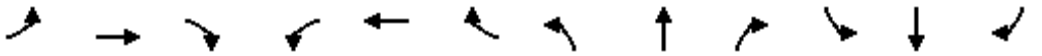
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	168	168	90	168	173	76	95	0	0	76	0	0
Stage 1	90	90	-	78	78	-	-	-	-	-	-	-
Stage 2	78	78	-	90	95	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	796	725	968	796	720	985	1499	-	-	1523	-	-
Stage 1	917	820	-	931	830	-	-	-	-	-	-	-
Stage 2	931	830	-	917	816	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	794	724	968	794	719	985	1499	-	-	1523	-	-
Mov Cap-2 Maneuver	794	724	-	794	719	-	-	-	-	-	-	-
Stage 1	916	820	-	930	829	-	-	-	-	-	-	-
Stage 2	929	829	-	916	816	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.3	0.1	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1499	-	-	807	834	1523	-	-
HCM Lane V/C Ratio	0.001	-	-	0.015	0.005	-	-	-
HCM Control Delay (s)	7.4	0	-	9.5	9.3	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th Signalized Intersection Summary
1: Foothill Blvd & Oakwood Ave

05/06/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	682	27	49	673	132	39	22	28	146	24	158
Future Volume (veh/h)	200	682	27	49	673	132	39	22	28	146	24	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	217	741	29	53	732	143	42	24	30	159	26	172
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	364	1863	73	407	1584	309	218	127	117	482	71	497
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	634	3486	136	699	2964	579	416	406	374	1176	225	1585
Grp Volume(v), veh/h	217	378	392	53	439	436	96	0	0	185	0	172
Grp Sat Flow(s),veh/h/ln	634	1777	1846	699	1777	1766	1195	0	0	1401	0	1585
Q Serve(g_s), s	19.0	7.4	7.4	2.9	9.0	9.0	0.3	0.0	0.0	0.0	0.0	4.9
Cycle Q Clear(g_c), s	28.0	7.4	7.4	10.3	9.0	9.0	6.5	0.0	0.0	6.2	0.0	4.9
Prop In Lane	1.00		0.07	1.00		0.33	0.44		0.31	0.86		1.00
Lane Grp Cap(c), veh/h	364	949	986	407	949	944	462	0	0	552	0	497
V/C Ratio(X)	0.60	0.40	0.40	0.13	0.46	0.46	0.21	0.00	0.00	0.33	0.00	0.35
Avail Cap(c_a), veh/h	374	978	1016	419	978	972	462	0	0	552	0	497
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.2	8.1	8.1	11.2	8.5	8.5	14.8	0.0	0.0	16.0	0.0	15.6
Incr Delay (d2), s/veh	2.5	0.3	0.3	0.1	0.4	0.4	1.0	0.0	0.0	1.6	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	4.3	3.9	4.1	0.7	4.6	4.6	1.8	0.0	0.0	3.5	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	8.4	8.4	11.3	8.9	8.9	15.9	0.0	0.0	17.6	0.0	17.5
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		987			928			96			357	
Approach Delay, s/veh		10.9			9.0			15.9			17.6	
Approach LOS		B			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		36.0		23.0		36.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		8.5		30.0		8.2		12.3				
Green Ext Time (p_c), s		0.3		1.5		1.2		6.2				

Intersection Summary												
HCM 6th Ctrl Delay			11.4									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	60	870	849	161	39	31
Future Vol, veh/h	60	870	849	161	39	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	946	923	175	42	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1098	0	-	0	1614	549
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	603	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	631	-	-	-	95	480
Stage 1	-	-	-	-	312	-
Stage 2	-	-	-	-	509	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	631	-	-	-	85	480
Mov Cap-2 Maneuver	-	-	-	-	85	-
Stage 1	-	-	-	-	280	-
Stage 2	-	-	-	-	509	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	52.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	631	-	-	-	85	480
HCM Lane V/C Ratio	0.103	-	-	-	0.499	0.07
HCM Control Delay (s)	11.4	-	-	-	83.6	13.1
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.3	-	-	-	2.1	0.2

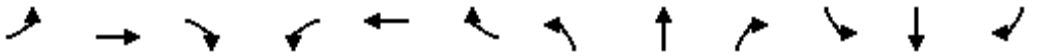
Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	865	42	99	993	16	56
Future Vol, veh/h	865	42	99	993	16	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	940	46	108	1079	17	61

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	986	0	1719	493
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	756	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	696	-	81	522
Stage 1	-	-	-	-	331	-
Stage 2	-	-	-	-	424	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	696	-	68	522
Mov Cap-2 Maneuver	-	-	-	-	68	-
Stage 1	-	-	-	-	331	-
Stage 2	-	-	-	-	358	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	32
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	210	-	-	696	-
HCM Lane V/C Ratio	0.373	-	-	0.155	-
HCM Control Delay (s)	32	-	-	11.1	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1.6	-	-	0.5	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	660	42	79	717	394	8	47	5	465	33	228
Future Volume (veh/h)	148	660	42	79	717	394	8	47	5	465	33	228
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	161	717	46	86	779	428	9	51	5	531	0	248
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	202	1180	76	113	1059	472	21	120	12	730	0	505
Arrive On Green	0.11	0.35	0.35	0.06	0.30	0.30	0.08	0.08	0.08	0.20	0.00	0.20
Sat Flow, veh/h	1781	3391	217	1781	3554	1585	254	1438	141	3563	0	1585
Grp Volume(v), veh/h	161	376	387	86	779	428	65	0	0	531	0	248
Grp Sat Flow(s),veh/h/ln	1781	1777	1831	1781	1777	1585	1832	0	0	1781	0	1585
Q Serve(g_s), s	5.3	10.5	10.5	2.8	11.8	15.6	2.0	0.0	0.0	8.4	0.0	7.6
Cycle Q Clear(g_c), s	5.3	10.5	10.5	2.8	11.8	15.6	2.0	0.0	0.0	8.4	0.0	7.6
Prop In Lane	1.00		0.12	1.00		1.00	0.14		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	202	618	637	113	1059	472	153	0	0	730	0	505
V/C Ratio(X)	0.80	0.61	0.61	0.76	0.74	0.91	0.43	0.00	0.00	0.73	0.00	0.49
Avail Cap(c_a), veh/h	235	618	637	152	1067	476	553	0	0	1070	0	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.9	16.2	16.2	27.6	18.9	20.2	26.1	0.0	0.0	22.3	0.0	16.5
Incr Delay (d2), s/veh	15.1	1.7	1.7	14.4	2.7	20.7	1.9	0.0	0.0	1.4	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	4.7	6.2	6.3	2.9	7.1	10.8	1.7	0.0	0.0	5.3	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.0	17.9	17.8	42.0	21.6	41.0	28.0	0.0	0.0	23.7	0.0	17.3
LnGrp LOS	D	B	B	D	C	D	C	A	A	C	A	B
Approach Vol, veh/h		924			1293			65			779	
Approach Delay, s/veh		21.9			29.4			28.0			21.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	8.3	25.4		16.8	11.3	22.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.1	5.1	20.8		18.0	7.9	18.0				
Max Q Clear Time (g_c+I1), s		4.0	4.8	12.5		10.4	7.3	17.6				
Green Ext Time (p_c), s		0.2	0.0	3.0		1.9	0.0	0.3				

Intersection Summary		
HCM 6th Ctrl Delay		25.1
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	14	0	2	2	0	2	1	55	3	1	57	11
Future Vol, veh/h	14	0	2	2	0	2	1	55	3	1	57	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	0	2	2	0	2	1	60	3	1	62	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	135	135	68	135	140	62	74	0	0	63	0	0
Stage 1	70	70	-	64	64	-	-	-	-	-	-	-
Stage 2	65	65	-	71	76	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	836	756	995	836	751	1003	1526	-	-	1540	-	-
Stage 1	940	837	-	947	842	-	-	-	-	-	-	-
Stage 2	946	841	-	939	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	833	754	995	833	749	1003	1526	-	-	1540	-	-
Mov Cap-2 Maneuver	833	754	-	833	749	-	-	-	-	-	-	-
Stage 1	939	836	-	946	841	-	-	-	-	-	-	-
Stage 2	943	840	-	936	831	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	9	0.1	0.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1526	-	-	850	910	1540	-	-
HCM Lane V/C Ratio	0.001	-	-	0.02	0.005	0.001	-	-
HCM Control Delay (s)	7.4	0	-	9.3	9	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

1. OAKWOOD AVE & FOOTHILL BLVD

Through Lane Capacity:	1600 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,600	55	0.013	N/S 1:	0.068 *
Southbound	Through	0.50	1,600	11	0.045	N/S 2:	0.055
	Left	0.50	1,600	61	0.038 *	E/W 1:	0.217
	Right	0.50	0	60	0.000	E/W 2:	0.232 *
Westbound	Through	1.50	3,200	545	0.189 *		
	Left	1.00	1,600	21	0.013	V/C Ratio:	0.300
	Right	0.33	0	18	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	14	0.030 *	ITS:	0.000
	Left	0.33	1,600	16	0.010		
	Right	0.50	0	19	0.000	ICU:	0.400
Eastbound	Through	1.50	3,200	635	0.204		
	Left	1.00	1,600	68	0.043 *	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,600	158	0.036	N/S 1:	0.147 *
Southbound	Through	0.50	1,600	24	0.106	N/S 2:	0.130
	Left	0.50	1,600	146	0.091 *	E/W 1:	0.252
	Right	0.50	0	132	0.000	E/W 2:	0.376 *
Westbound	Through	1.50	3,200	671	0.251 *		
	Left	1.00	1,600	49	0.031	V/C Ratio:	0.523
	Right	0.33	0	28	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	22	0.056 *	ITS:	0.000
	Left	0.33	1,600	39	0.024		
	Right	0.50	0	27	0.000	ICU:	0.623
Eastbound	Through	1.50	3,200	680	0.221		
	Left	1.00	1,600	200	0.125 *	LOS:	B

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

2. RINETTI LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	19	0.000	N/S 1:	0.029 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	37	0.029 *	E/W 1:	0.273
	Right	0.50	0	132	0.000	E/W 2:	0.316 *
Westbound	Through	1.50	2,560	599	0.286 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.345
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.345
Eastbound	Through	2.00	2,560	700	0.273		
	Left	1.00	1,280	39	0.030 *	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	31	0.001	N/S 1:	0.030 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.001
	Left	1.00	1,280	39	0.030 *	E/W 1:	0.339
	Right	0.50	0	161	0.000	E/W 2:	0.441 *
Westbound	Through	1.50	2,560	847	0.394 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.471
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.471
Eastbound	Through	2.00	2,560	868	0.339		
	Left	1.00	1,280	60	0.047 *	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

3. WOODLEIGH LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis	
	Right	0.00	0	0	0.000		N/S 1:	0.015
Southbound	Through	0.00	0	0	0.000	*	N/S 2:	0.054 *
	Left	0.00	0	0	0.000		E/W 1:	0.358 *
	Right	0.00	0	0	0.000		E/W 2:	0.276
Westbound	Through	2.00	2,560	707	0.276			
	Left	1.00	1,280	99	0.077	*	V/C Ratio:	0.412
	Right	0.50	835	45	0.015		Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000		ITS:	0.000
	Left	0.50	445	24	0.054	*		
	Right	0.50	0	36	0.000		ICU:	0.412
Eastbound	Through	1.50	2,560	684	0.281	*		
	Left	0.00	0	0	0.000		LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis	
	Right	0.00	0	0	0.000		N/S 1:	0.012
Southbound	Through	0.00	0	0	0.000	*	N/S 2:	0.048 *
	Left	0.00	0	0	0.000		E/W 1:	0.427 *
	Right	0.00	0	0	0.000		E/W 2:	0.388
Westbound	Through	2.00	2,560	993	0.388			
	Left	1.00	1,280	93	0.073	*	V/C Ratio:	0.475
	Right	0.50	991	48	0.012		Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000		ITS:	0.000
	Left	0.50	289	14	0.048	*		
	Right	0.50	0	40	0.000		ICU:	0.475
Eastbound	Through	1.50	2,560	865	0.354	*		
	Left	0.00	0	0	0.000		LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

4. GOULD AVE & FOOTHILL BLVD

Through Lane Capacity:	1600 vph	North/South Split Phase:	Y
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:	S		

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	1.00	1,600	159	0.001		N/S 1:	0.208	*
Southbound	Through	0.50	398	71	0.178	*	N/S 2:	0.000	
	Left	1.50	2,802	500	0.178		E/W 1:	0.250	
	Right	1.00	1,600	451	0.193	*	E/W 2:	0.291	*
Westbound	Through	2.00	3,200	597	0.187				
	Left	1.00	1,600	71	0.044		V/C Ratio:	0.499	
	Right	0.33	0	7	0.000		Loss Time:	0.100	
Northbound	Through	0.34	1,600	28	0.030	*	ITS:	0.000	
	Left	0.33	1,600	13	0.008				
	Right	0.50	0	51	0.000		ICU:	0.599	
Eastbound	Through	1.50	3,200	607	0.206				
	Left	1.00	1,600	157	0.098	*	LOS:	A	

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	1.00	1,600	226	0.096		N/S 1:	0.194	*
Southbound	Through	0.50	212	33	0.156	*	N/S 2:	0.000	
	Left	1.50	2,988	465	0.156		E/W 1:	0.267	
	Right	1.00	1,600	394	0.168		E/W 2:	0.314	*
Westbound	Through	2.00	3,200	713	0.223	*			
	Left	1.00	1,600	79	0.049		V/C Ratio:	0.508	
	Right	0.33	0	5	0.000		Loss Time:	0.100	
Northbound	Through	0.34	1,600	47	0.038	*	ITS:	0.000	
	Left	0.33	1,600	8	0.005				
	Right	0.50	0	42	0.000		ICU:	0.608	
Eastbound	Through	1.50	3,200	654	0.218				
	Left	1.00	1,600	146	0.091	*	LOS:	B	

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

1. OAKWOOD AVE & FOOTHILL BLVD

Through Lane Capacity:	1600 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,600	55	0.013	N/S 1:	0.068 *
Southbound	Through	0.50	1,600	11	0.045	N/S 2:	0.055
	Left	0.50	1,600	61	0.038 *	E/W 1:	0.218
	Right	0.50	0	60	0.000	E/W 2:	0.233 *
Westbound	Through	1.50	3,200	547	0.190 *		
	Left	1.00	1,600	21	0.013	V/C Ratio:	0.301
	Right	0.33	0	18	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	14	0.030 *	ITS:	0.000
	Left	0.33	1,600	16	0.010		
	Right	0.50	0	19	0.000	ICU:	0.401
Eastbound	Through	1.50	3,200	637	0.205		
	Left	1.00	1,600	68	0.043 *	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,600	158	0.036	N/S 1:	0.147 *
Southbound	Through	0.50	1,600	24	0.106	N/S 2:	0.130
	Left	0.50	1,600	146	0.091 *	E/W 1:	0.253
	Right	0.50	0	132	0.000	E/W 2:	0.377 *
Westbound	Through	1.50	3,200	673	0.252 *		
	Left	1.00	1,600	49	0.031	V/C Ratio:	0.524
	Right	0.33	0	28	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	22	0.056 *	ITS:	0.000
	Left	0.33	1,600	39	0.024		
	Right	0.50	0	27	0.000	ICU:	0.624
Eastbound	Through	1.50	3,200	682	0.222		
	Left	1.00	1,600	200	0.125 *	LOS:	B

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

2. RINETTI LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	19	0.000	N/S 1:	0.029 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	37	0.029 *	E/W 1:	0.274
	Right	0.50	0	132	0.000	E/W 2:	0.316 *
Westbound	Through	1.50	2,560	601	0.286 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.345
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.345
Eastbound	Through	2.00	2,560	702	0.274		
	Left	1.00	1,280	39	0.030 *	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	31	0.001	N/S 1:	0.030 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.001
	Left	1.00	1,280	39	0.030 *	E/W 1:	0.340
	Right	0.50	0	161	0.000	E/W 2:	0.442 *
Westbound	Through	1.50	2,560	849	0.395 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.472
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.472
Eastbound	Through	2.00	2,560	870	0.340		
	Left	1.00	1,280	60	0.047 *	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

3. WOODLEIGH LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.020
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.062 *
	Left	0.00	0	0	0.000	E/W 1:	0.366 *
	Right	0.00	0	0	0.000	E/W 2:	0.276
Westbound	Through	2.00	2,560	707	0.276		
	Left	1.00	1,280	107	0.084 *	V/C Ratio:	0.428
	Right	0.50	859	53	0.020	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	421	26	0.062 *		
	Right	0.50	0	38	0.000	ICU:	0.428
Eastbound	Through	1.50	2,560	684	0.282 *		
	Left	0.00	0	0	0.000	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.018
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.056 *
	Left	0.00	0	0	0.000	E/W 1:	0.431 *
	Right	0.00	0	0	0.000	E/W 2:	0.388
Westbound	Through	2.00	2,560	993	0.388		
	Left	1.00	1,280	99	0.077 *	V/C Ratio:	0.487
	Right	0.50	996	56	0.018	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	284	16	0.056 *		
	Right	0.50	0	42	0.000	ICU:	0.487
Eastbound	Through	1.50	2,560	865	0.354 *		
	Left	0.00	0	0	0.000	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

4. GOULD AVE & FOOTHILL BLVD

Through Lane Capacity:	1600 vph	North/South Split Phase:	Y
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:	S		

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	1.00	1,600	161	0.001		N/S 1:	0.208	*
Southbound	Through	0.50	398	71	0.178	*	N/S 2:	0.000	
	Left	1.50	2,802	500	0.178		E/W 1:	0.252	
	Right	1.00	1,600	451	0.193	*	E/W 2:	0.292	*
Westbound	Through	2.00	3,200	603	0.188				
	Left	1.00	1,600	71	0.044		V/C Ratio:	0.500	
	Right	0.33	0	7	0.000		Loss Time:	0.100	
Northbound	Through	0.34	1,600	28	0.030	*	ITS:	0.000	
	Left	0.33	1,600	13	0.008				
	Right	0.50	0	51	0.000		ICU:	0.600	
Eastbound	Through	1.50	3,200	613	0.208				
	Left	1.00	1,600	159	0.099	*	LOS:	A	

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	1.00	1,600	228	0.096		N/S 1:	0.194	*
Southbound	Through	0.50	212	33	0.156	*	N/S 2:	0.000	
	Left	1.50	2,988	465	0.156		E/W 1:	0.268	
	Right	1.00	1,600	394	0.168		E/W 2:	0.317	*
Westbound	Through	2.00	3,200	717	0.224	*			
	Left	1.00	1,600	79	0.049		V/C Ratio:	0.511	
	Right	0.33	0	5	0.000		Loss Time:	0.100	
Northbound	Through	0.34	1,600	47	0.038	*	ITS:	0.000	
	Left	0.33	1,600	8	0.005				
	Right	0.50	0	42	0.000		ICU:	0.611	
Eastbound	Through	1.50	3,200	660	0.219				
	Left	1.00	1,600	148	0.093	*	LOS:	B	

* Critical Movement

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	90	894	883	112	18	38
Future Vol, veh/h	90	894	883	112	18	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	98	972	960	122	20	41

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1082	0	-	0	1703	541
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	682	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	640	-	-	-	83	485
Stage 1	-	-	-	-	309	-
Stage 2	-	-	-	-	464	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	640	-	-	-	70	485
Mov Cap-2 Maneuver	-	-	-	-	70	-
Stage 1	-	-	-	-	262	-
Stage 2	-	-	-	-	464	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	33.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	640	-	-	-	70	485
HCM Lane V/C Ratio	0.153	-	-	-	0.28	0.085
HCM Control Delay (s)	11.6	-	-	-	75.3	13.1
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.5	-	-	-	1	0.3

Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	864	41	109	982	27	73
Future Vol, veh/h	864	41	109	982	27	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	939	45	118	1067	29	79

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	984	0	1732	492
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	770	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	698	-	79	522
Stage 1	-	-	-	-	331	-
Stage 2	-	-	-	-	417	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	698	-	66	522
Mov Cap-2 Maneuver	-	-	-	-	66	-
Stage 1	-	-	-	-	331	-
Stage 2	-	-	-	-	347	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	50.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	182	-	-	698	-
HCM Lane V/C Ratio	0.597	-	-	0.17	-
HCM Control Delay (s)	50.5	-	-	11.2	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	3.3	-	-	0.6	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	51	663	743	86	26	18
Future Vol, veh/h	51	663	743	86	26	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	55	721	808	93	28	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	901	0	-	0	1326	451
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	471	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	750	-	-	-	147	556
Stage 1	-	-	-	-	377	-
Stage 2	-	-	-	-	594	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	750	-	-	-	136	556
Mov Cap-2 Maneuver	-	-	-	-	136	-
Stage 1	-	-	-	-	349	-
Stage 2	-	-	-	-	594	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	27.4
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	750	-	-	-	136	556
HCM Lane V/C Ratio	0.074	-	-	-	0.208	0.035
HCM Control Delay (s)	10.2	-	-	-	38.3	11.7
HCM Lane LOS	B	-	-	-	E	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7	0.1

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	661	28	80	800	33	71
Future Vol, veh/h	661	28	80	800	33	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	718	30	87	870	36	77

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	748	0	1342	374
Stage 1	-	-	-	-	733	-
Stage 2	-	-	-	-	609	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	856	-	143	623
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	505	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	856	-	128	623
Mov Cap-2 Maneuver	-	-	-	-	128	-
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	453	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	26.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	280	-	-	856	-
HCM Lane V/C Ratio	0.404	-	-	0.102	-
HCM Control Delay (s)	26.3	-	-	9.7	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	1.9	-	-	0.3	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	90	897	885	112	18	38
Future Vol, veh/h	90	897	885	112	18	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	98	975	962	122	20	41

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1084	0	-	0	1707	542
Stage 1	-	-	-	-	1023	-
Stage 2	-	-	-	-	684	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	639	-	-	-	82	485
Stage 1	-	-	-	-	308	-
Stage 2	-	-	-	-	462	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	639	-	-	-	69	485
Mov Cap-2 Maneuver	-	-	-	-	69	-
Stage 1	-	-	-	-	261	-
Stage 2	-	-	-	-	462	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	33.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	639	-	-	-	69	485
HCM Lane V/C Ratio	0.153	-	-	-	0.284	0.085
HCM Control Delay (s)	11.6	-	-	-	76.6	13.1
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.5	-	-	-	1	0.3

Intersection	
Int Delay, s/veh	3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	864	44	120	982	29	79
Future Vol, veh/h	864	44	120	982	29	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	939	48	130	1067	32	86

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	987	0	1757	494
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	794	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	696	-	76	521
Stage 1	-	-	-	-	331	-
Stage 2	-	-	-	-	406	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	696	-	62	521
Mov Cap-2 Maneuver	-	-	-	-	62	-
Stage 1	-	-	-	-	331	-
Stage 2	-	-	-	-	330	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	60.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	174	-	-	696	-
HCM Lane V/C Ratio	0.675	-	-	0.187	-
HCM Control Delay (s)	60.4	-	-	11.4	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	4	-	-	0.7	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	0	1	3	0	6	2	92	0	0	87	16
Future Vol, veh/h	9	0	1	3	0	6	2	92	0	0	87	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	0	1	3	0	7	2	100	0	0	95	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	212	208	104	208	216	100	112	0	0	100	0	0
Stage 1	104	104	-	104	104	-	-	-	-	-	-	-
Stage 2	108	104	-	104	112	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	745	689	951	749	682	956	1478	-	-	1493	-	-
Stage 1	902	809	-	902	809	-	-	-	-	-	-	-
Stage 2	897	809	-	902	803	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	739	688	951	748	681	956	1478	-	-	1493	-	-
Mov Cap-2 Maneuver	739	688	-	748	681	-	-	-	-	-	-	-
Stage 1	901	809	-	901	808	-	-	-	-	-	-	-
Stage 2	890	808	-	901	803	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	9.2	0.2	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1478	-	-	756	875	1493	-	-
HCM Lane V/C Ratio	0.001	-	-	0.014	0.011	-	-	-
HCM Control Delay (s)	7.4	0	-	9.8	9.2	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	51	666	742	86	26	18
Future Vol, veh/h	51	666	742	86	26	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	55	724	807	93	28	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	900	0	-	0	1326	450
Stage 1	-	-	-	-	854	-
Stage 2	-	-	-	-	472	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	751	-	-	-	147	556
Stage 1	-	-	-	-	377	-
Stage 2	-	-	-	-	594	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	751	-	-	-	136	556
Mov Cap-2 Maneuver	-	-	-	-	136	-
Stage 1	-	-	-	-	349	-
Stage 2	-	-	-	-	594	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	27.4
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	751	-	-	-	136	556
HCM Lane V/C Ratio	0.074	-	-	-	0.208	0.035
HCM Control Delay (s)	10.2	-	-	-	38.3	11.7
HCM Lane LOS	B	-	-	-	E	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7	0.1

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	661	31	92	800	32	67
Future Vol, veh/h	661	31	92	800	32	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	718	34	100	870	35	73

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	752	0	1370	376
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	635	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	853	-	137	622
Stage 1	-	-	-	-	435	-
Stage 2	-	-	-	-	490	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	853	-	121	622
Mov Cap-2 Maneuver	-	-	-	-	121	-
Stage 1	-	-	-	-	435	-
Stage 2	-	-	-	-	433	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	27.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	266	-	-	853	-
HCM Lane V/C Ratio	0.405	-	-	0.117	-
HCM Control Delay (s)	27.4	-	-	9.8	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	1.9	-	-	0.4	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	0	1	3	0	1	2	109	0	0	60	16
Future Vol, veh/h	9	0	1	3	0	1	2	109	0	0	60	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	0	1	3	0	1	2	118	0	0	65	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	197	196	74	196	204	118	82	0	0	118	0	0
Stage 1	74	74	-	122	122	-	-	-	-	-	-	-
Stage 2	123	122	-	74	82	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	762	699	988	763	692	934	1515	-	-	1470	-	-
Stage 1	935	833	-	882	795	-	-	-	-	-	-	-
Stage 2	881	795	-	935	827	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	760	698	988	761	691	934	1515	-	-	1470	-	-
Mov Cap-2 Maneuver	760	698	-	761	691	-	-	-	-	-	-	-
Stage 1	934	833	-	881	794	-	-	-	-	-	-	-
Stage 2	879	794	-	934	827	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	9.5	0.1	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1515	-	-	778	798	1470	-	-
HCM Lane V/C Ratio	0.001	-	-	0.014	0.005	-	-	-
HCM Control Delay (s)	7.4	0	-	9.7	9.5	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

2. RINETTI LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

SATURDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	38	0.000	N/S 1:	0.014 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	18	0.014 *	E/W 1:	0.349
	Right	0.50	0	112	0.000	E/W 2:	0.459 *
Westbound	Through	1.50	2,560	883	0.389 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.473
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.473
Eastbound	Through	2.00	2,560	894	0.349		
	Left	1.00	1,280	90	0.070 *	LOS:	A

SUNDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	18	0.000	N/S 1:	0.020 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	26	0.020 *	E/W 1:	0.259
	Right	0.50	0	86	0.000	E/W 2:	0.364 *
Westbound	Through	1.50	2,560	743	0.324 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.384
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.384
Eastbound	Through	2.00	2,560	663	0.259		
	Left	1.00	1,280	51	0.040 *	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

3. WOODLEIGH LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

SATURDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.036
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.078 *
	Left	0.00	0	0	0.000	E/W 1:	0.439 *
	Right	0.00	0	0	0.000	E/W 2:	0.384
Westbound	Through	2.00	2,560	982	0.384		
	Left	1.00	1,280	109	0.085 *	V/C Ratio:	0.517
	Right	0.50	934	73	0.036	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	346	27	0.078 *		
	Right	0.50	0	41	0.000	ICU:	0.517
Eastbound	Through	1.50	2,560	864	0.354 *		
	Left	0.00	0	0	0.000	LOS:	A

SUNDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.050
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.081 *
	Left	0.00	0	0	0.000	E/W 1:	0.332 *
	Right	0.00	0	0	0.000	E/W 2:	0.313
Westbound	Through	2.00	2,560	800	0.313		
	Left	1.00	1,280	80	0.063 *	V/C Ratio:	0.413
	Right	0.50	874	71	0.050	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	406	33	0.081 *		
	Right	0.50	0	28	0.000	ICU:	0.413
Eastbound	Through	1.50	2,560	661	0.269 *		
	Left	0.00	0	0	0.000	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

2. RINETTI LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

SATURDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	38	0.000	N/S 1:	0.014 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	18	0.014 *	E/W 1:	0.350
	Right	0.50	0	112	0.000	E/W 2:	0.459 *
Westbound	Through	1.50	2,560	885	0.389 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.473
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.473
Eastbound	Through	2.00	2,560	897	0.350		
	Left	1.00	1,280	90	0.070 *	LOS:	A

SUNDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	18	0.000	N/S 1:	0.020 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	26	0.020 *	E/W 1:	0.260
	Right	0.50	0	86	0.000	E/W 2:	0.363 *
Westbound	Through	1.50	2,560	742	0.323 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.383
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.383
Eastbound	Through	2.00	2,560	666	0.260		
	Left	1.00	1,280	51	0.040 *	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

3. WOODLEIGH LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

SATURDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.038
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.084 *
	Left	0.00	0	0	0.000	E/W 1:	0.449 *
	Right	0.00	0	0	0.000	E/W 2:	0.384
Westbound	Through	2.00	2,560	982	0.384		
	Left	1.00	1,280	120	0.094 *	V/C Ratio:	0.533
	Right	0.50	936	79	0.038	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	344	29	0.084 *		
	Right	0.50	0	44	0.000	ICU:	0.533
Eastbound	Through	1.50	2,560	864	0.355 *		
	Left	0.00	0	0	0.000	LOS:	A

SUNDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.041
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.077 *
	Left	0.00	0	0	0.000	E/W 1:	0.342 *
	Right	0.00	0	0	0.000	E/W 2:	0.313
Westbound	Through	2.00	2,560	800	0.313		
	Left	1.00	1,280	92	0.072 *	V/C Ratio:	0.419
	Right	0.50	866	67	0.041	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	414	32	0.077 *		
	Right	0.50	0	31	0.000	ICU:	0.419
Eastbound	Through	1.50	2,560	661	0.270 *		
	Left	0.00	0	0	0.000	LOS:	A

* Critical Movement

9-2 Trip Generation Analysis, April 2021

MEMORANDUM

TO: Alexandra Hack, Cedar Streets Partners LLC

FROM: Sarah M. Drobis, P.E., and Casey Le, P.E.

DATE: December 11, 2020
Revised April 15, 2021

RE: Trip Generation Analysis for the Refinements to the 600 Foothill Boulevard Project
La Cañada Flintridge, California **Ref:** J1813

Gibson Transportation Consulting, Inc. (GTC) was asked to conduct a review of recent refinements to the 600 Foothill Boulevard Project (Project) in the City of La Cañada Flintridge (City). This memorandum summarizes the findings of our review.

PROJECT BACKGROUND

GTC prepared *Transportation Study for the 600 Foothill Boulevard Project* (Revised April 2021) (Transportation Study) analyzing the Project's 75-unit age-restricted housing development with 6,218 square feet (sf) of office space. The Project would provide 140 parking spaces on-site within two subterranean levels with access via Woodleigh Lane.

Since the completion of the Transportation Study, the Project has been modified to provide a total of 59 residential units, a reduction of 16 units as compared to that proposed in the Transportation Study, and approximately 7,600 sf of office space (Refined Project). Of the 59 residential units, 47 units would be dedicated to age-restricted housing and 12 units would operate as hotel rooms and be utilized as short-term housing for visitors and guests to the area. The Refined Project would provide 107 parking spaces on-site within one subterranean level with access via Woodleigh Lane.

TRIP GENERATION

The trip generation of the Refined Project was estimated using the same methodology used in the Transportation Study. The trip generation rates from *Trip Generation Manual, 10th Edition* (Institute of Transportation Engineers, 2017) for Land Use Code 221 (Mullti-Family Housing Mid-Rise) were used to develop the trip generation estimates for the hotel rooms/short-term housing units.

As summarized in Table 1, the Transportation Study detailed that the Project is anticipated to generate 269 net new daily trips, including 22 net new morning peak hour trips and 19 net new afternoon peak hour trips during the weekday. The Project is

anticipated to generate 196 net new Saturday daily trips, including 25 net new midday peak hour trips, and a net reduction of 36 Sunday daily trips, including 12 net new midday peak hour trips. The Refined Project is anticipated to generate 243 net new daily trips, including 22 net new morning peak hour trips and 18 net new afternoon peak hour trips during the weekday. The Refined Project is anticipated to generate 168 net new Saturday daily trips, including 22 net new midday peak hour trips, and a net reduction of 74 Sunday daily trips, including eight net new midday peak hour trips.

The Refined Project is anticipated to generate fewer trips than the Project. Accordingly, the Refined Project's traffic effects on intersection operations and queuing would be less than those identified in the Transportation Study. Therefore, the analysis contained in the Transportation Study is conservative and the conclusions remain valid. The Refined Project would not result in significant transportation-related impacts.

SUMMARY

As detailed above, the Refined Project would generate fewer trips as the Project analyzed in the Transportation Study. Therefore, the analysis contained in the Transportation Study is conservative and the conclusions remain valid. The Refined Project would not result in significant transportation-related impacts.

TABLE 1
TRIP GENERATION COMPARISON

Land Use	ITE Land Use	Rate	Daily	Morning Peak Hour			Afternoon Peak Hour			Saturday Daily	Midday Peak Hour			Sunday Daily	Midday Peak Hour		
				In	Out	Total	In	Out	Total		In	Out	Total		In	Out	Total
TRIP GENERATION RATES [a]																	
Senior Adult Housing - Attached	252	per Dwelling Unit	3.70	35%	65%	0.20	55%	45%	0.26	3.23	62%	38%	0.33	3.14	64%	36%	0.36
Multi-Family Housing - Mid-Rise	221	per Dwelling Unit	5.44	26%	74%	0.36	61%	39%	0.44	4.91	49%	51%	0.44	4.09	62%	38%	0.39
Church [b]	560	per ksf	6.95	--	--	0.00	50%	50%	0.80	5.99	66%	34%	0.30	27.63	6%	94%	1.60
General Office Building	710	per ksf	9.74	86%	14%	1.16	16%	84%	1.15	2.21	54%	46%	0.53	0.70	58%	42%	0.21
TRIP GENERATION ESTIMATES																	
Refined Project [c]																	
Age Restricted Housing	252	47 du	174	3	6	9	7	5	12	152	10	6	16	148	11	6	17
Hotel/Short-Term Housing [d]	221	12 du	65	1	3	4	3	2	5	59	2	3	5	49	3	2	5
Office	710	7.600 ksf	74	8	1	9	1	8	9	17	2	2	4	5	1	1	2
TOTAL - REFINED PROJECT			**313**	**12**	**10**	**22**	**11**	**15**	**26**	**228**	**14**	**11**	**25**	**202**	**15**	**9**	**24**
Existing to be Removed																	
Church [b]	560	10 ksf	70	0	0	0	4	4	8	60	2	1	3	276	1	15	16
TOTAL - EXISTING TO BE REMOVED			***70***	***0***	***0***	***0***	***4***	***4***	***8***	***60***	***2***	***1***	***3***	***276***	***1***	***15***	***16***
TOTAL - NET NEW TRIPS (REFINED PROJECT)			**243**	**12**	**10**	**22**	**7**	**11**	**18**	**168**	**12**	**10**	**22**	**(74)**	**14**	**(6)**	**8**
TOTAL - NET NEW TRIPS (TRANSPORTATION STUDY PROJECT) [e]			**269**	**11**	**11**	**22**	**8**	**11**	**19**	**196**	**16**	**9**	**25**	**(36)**	**17**	**(5)**	**12**
TRIP DIFFERENCE			**(26)**	**1**	**(1)**	**0**	**(1)**	**0**	**(1)**	**(28)**	**(4)**	**1**	**(3)**	**(38)**	**(3)**	**(1)**	**(4)**

Notes:

ksf: 1,000 square feet

[a] Trip generation rates are from *Trip Generation Manual, 10th Edition* (Institute of Transportation Engineers, 2017) and are based on developments located in "General Urban/Suburban" area.

[b] Existing trips based on driveway counts conducted during the peak periods on a Wednesday (November 4), Saturday (November 14), and Sunday (November 15) in 2015. Daily trips based on rates in *Trip Generation Manual, 10th Edition.*

[c] Project trip estimates are conservative as all trips are considered to be driving trips and no adjustments were made to account for transit usage or any walking trips made to nearby commercial uses. Additionally, no further trip reductions were considered to account for the proposed TDM strategies to be employed by the Project that would reduce vehicle trips to the site.

[d] The Project proposes units that would operate as hotel rooms and be utilized as short-term housing for visitors and guests to the area. Thus, multi-family housing (Land Use Code 220) trip generation rates were used.

[e] Total net new trip estimates based on Table 3 of the Transportation Study.

9-3 Updated Cumulative Transportation Analysis, February 2021

DRAFT

MEMORANDUM

TO: Alexandra Hack, Cedar Streets Partners LLC

FROM: Sarah M. Drobis, P.E., and Casey Le, P.E.

DATE: February 10, 2021

RE: Updated Cumulative Transportation Analysis for the 600 Foothill Boulevard Project
La Cañada Flintridge, California **Ref:** J1813

Gibson Transportation Consulting, Inc. (GTC) was asked to review recent updates to the 600 Foothill Boulevard Project (Project) in the City of La Cañada Flintridge (City). Since the completion of *Transportation Study for the 600 Foothill Boulevard Project* (GTC, Revised November 2020) (Transportation Study) analyzing the Project's 75-unit age-restricted housing development with 6,218 square feet of office space, the buildout year of the Project has been extended from Year 2022 to Year 2023. This memorandum summarizes the findings of the Year 2023 cumulative transportation analyses.

INTERSECTION ANALYSIS TRAFFIC EVALUATION

Future Cumulative Traffic Volumes

Since the buildout of the Project has been extended from Year 2022 to Year 2023, an ambient growth factor of 1% per year was applied to the Existing Conditions traffic volumes, consistent with the Transportation Study. Traffic generated by the cumulative developments and regional growth within the City are captured in the ambient growth factor of 1% per year. The total ambient growth applied over the three-year period (from Existing Conditions Year 2020 to Future Conditions Year 2023) was 3%. The resulting weekday and weekend Future without Project Conditions peak hour traffic volumes are illustrated in Figures 1 and 2.

Future with Project Conditions

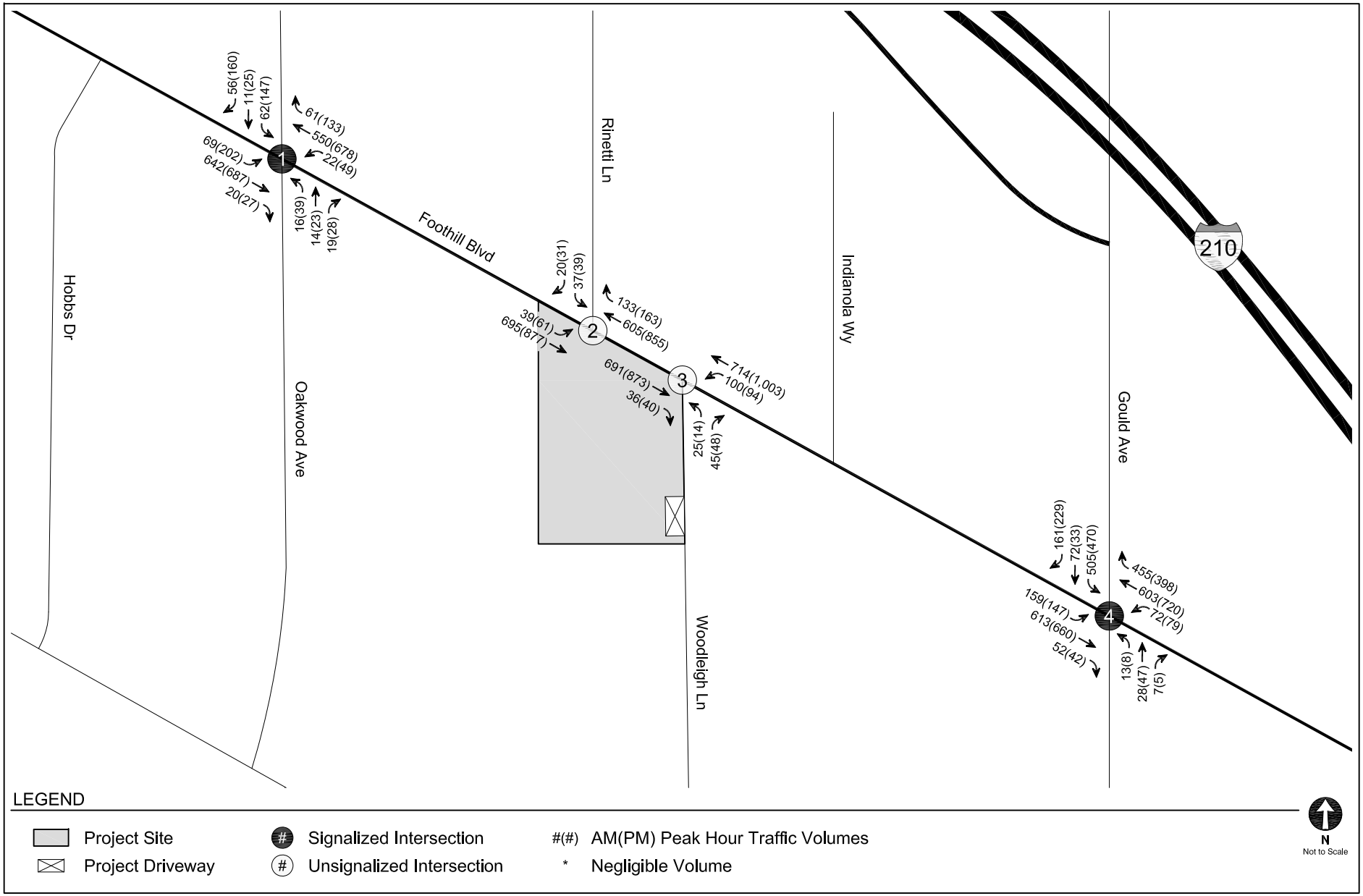
The weekday and weekend Project-only traffic volumes described in Chapter 4 of the Transportation Study were added to the weekday and weekend Future without Project Conditions traffic volumes shown in Figures 1 and 2, respectively. The resulting weekday and weekend Future with Project Conditions peak hour traffic volumes are illustrated in Figures 3 and 4, respectively. These volumes are the sum of the existing traffic volumes, cumulative traffic growth, and Project-only traffic, and represent Future Conditions after the development of the Project in Year 2023.

Table 1 shows the results of the Future without Project Conditions and Future with Project Conditions analyses at the study intersections during weekday morning and afternoon peak hours. Under Future with Project Conditions, all four study intersections operate at level of service (LOS) C or better during both weekday peak hours. Table 2 shows the results of the Future without Project Conditions and Future with Project Conditions analyses at the study intersections during weekend midday peak hours. Under Future with Project Conditions, both unsignalized intersections would operate at LOS A during both Saturday and Sunday midday peak hours. The LOS calculation worksheets are provided in the Attachment.

As shown in Tables 1 and 2, the addition of Project-related traffic would not change the intersection LOS operations from LOS D or better to LOS E or F at any study intersection. Additionally, the change in volume-to-capacity ratio is less than 0.02 at all study intersections. Based on the significant impact criteria guidelines provided by the City, the Project is not anticipated to result in a significant impact at any study intersections during the analyzed peak hours under Future with Project Conditions.

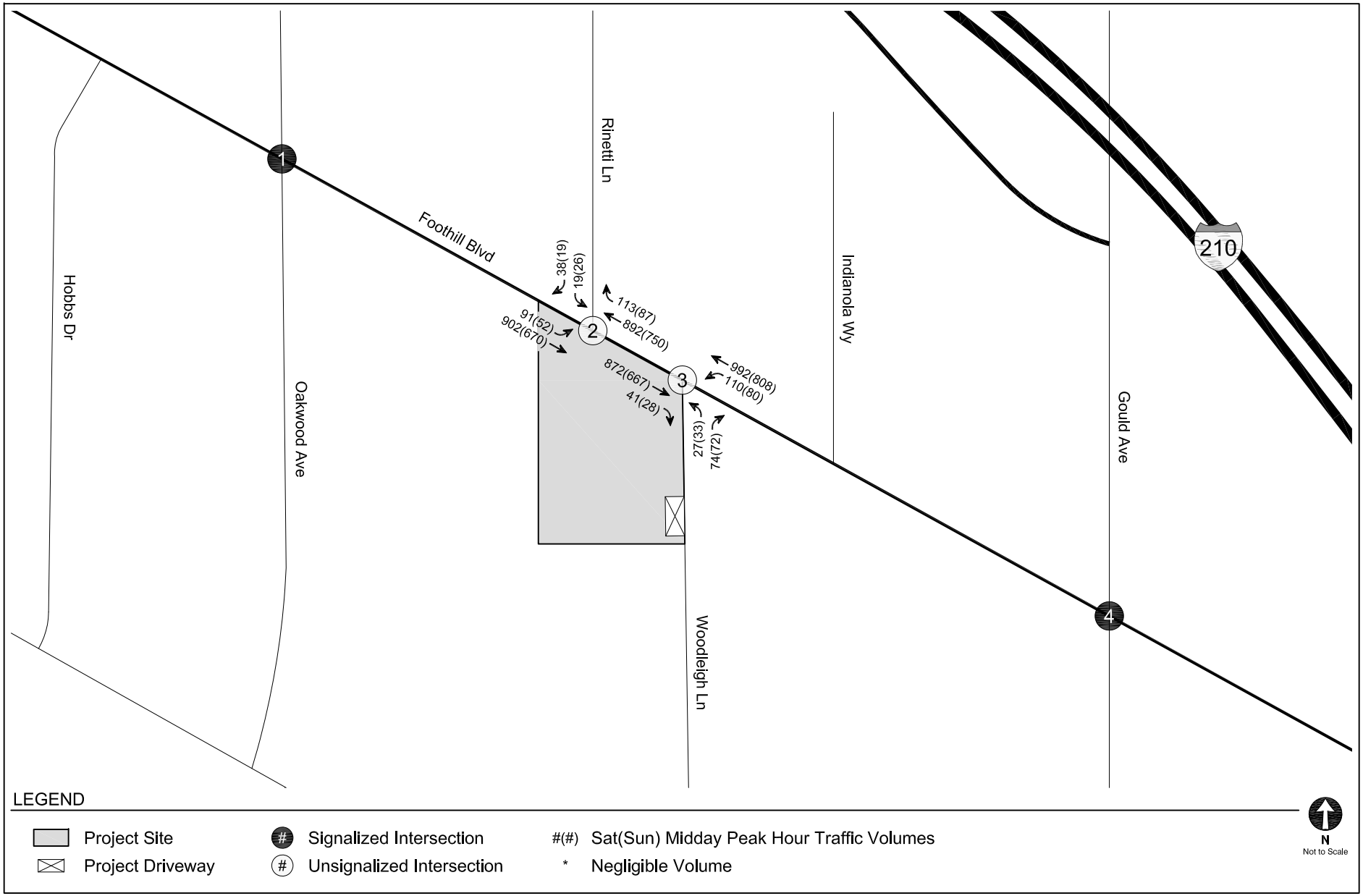
SUMMARY

Recent updates to the Project would extend the buildout to Year 2023. Nonetheless, consistent with the transportation analyses detailed in the Transportation Study, the Project is not anticipated to significantly impact any of the four study intersections based on the City's thresholds under Future with Project Conditions. Therefore, the conclusions of the Transportation Study remain valid.



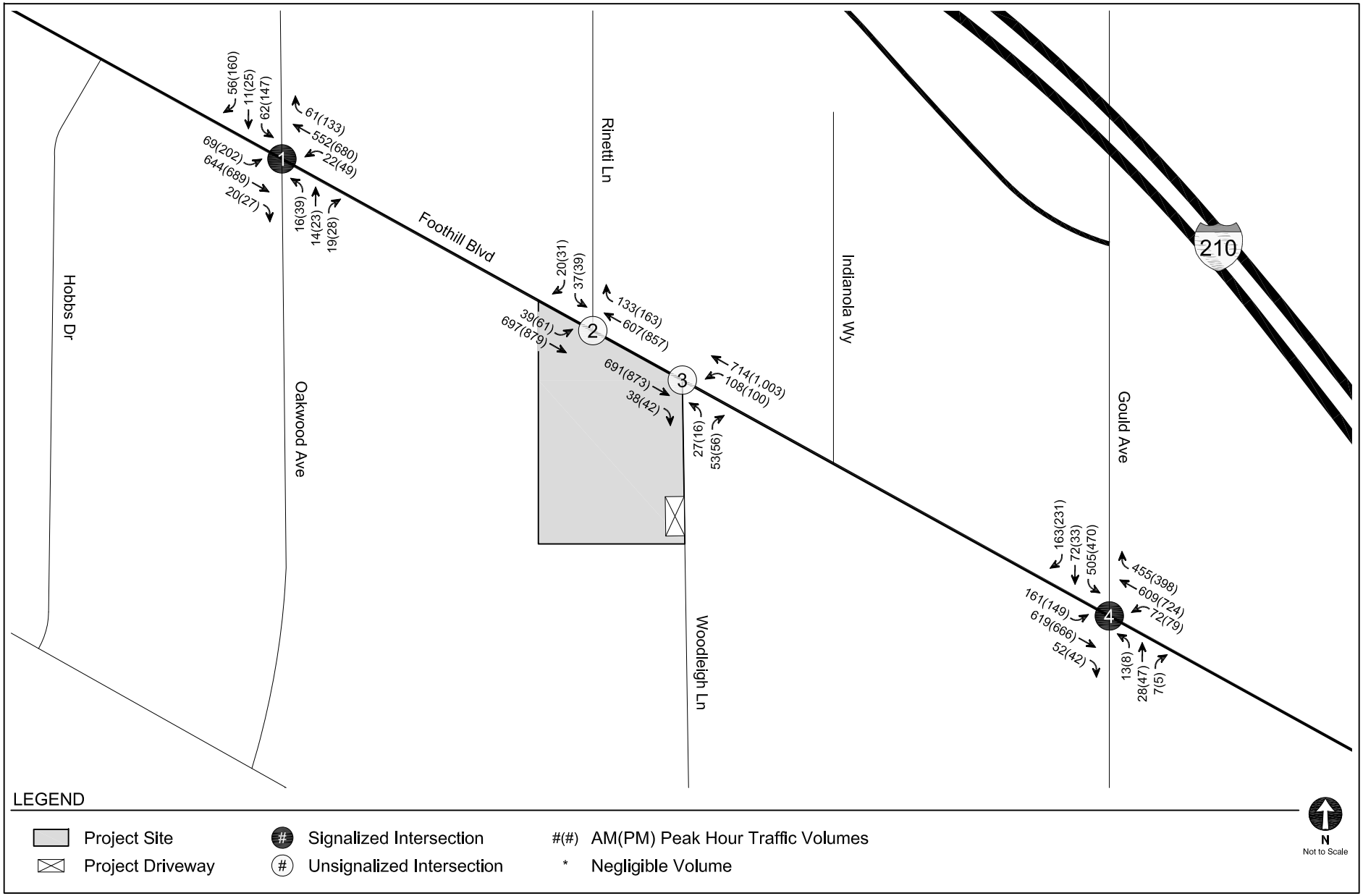
FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2023)
WEEKDAY PEAK HOUR TRAFFIC VOLUMES

FIGURE
1



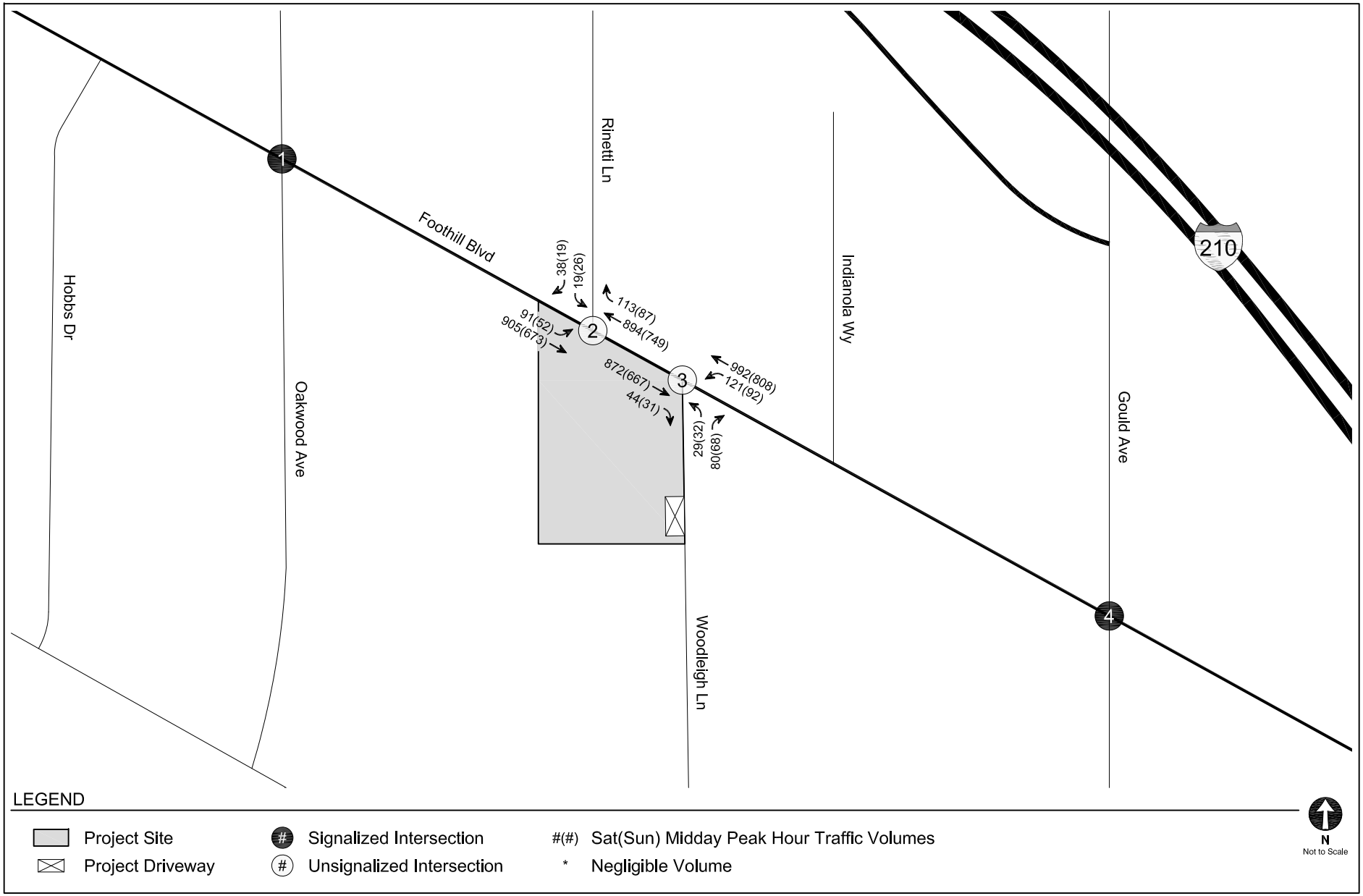
FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2023)
WEEKEND PEAK HOUR TRAFFIC VOLUMES

FIGURE
2



FUTURE WITH PROJECT CONDITIONS (YEAR 2023)
WEEKDAY PEAK HOUR TRAFFIC VOLUMES

FIGURE
3



FUTURE WITH PROJECT CONDITIONS (YEAR 2023)
WEEKEND PEAK HOUR TRAFFIC VOLUMES

FIGURE
4

TABLE 1
FUTURE WITH PROJECT CONDITIONS (YEAR 2023) - WEEKDAY
INTERSECTION PEAK HOUR LEVELS OF SERVICE

No.	Intersection	Peak Hour	Future without Project Conditions			Future with Project Conditions				Significant Impact
			Delay	LOS	V/C	Delay	LOS	V/C	Change in V/C	
1.	Oakwood Avenue & Foothill Boulevard	Wkdy AM Wkdy PM	11.4 11.4	B B	0.404 0.627	11.4 11.4	B B	0.405 0.628	0.001 0.001	NO NO
2. [a]	Rinetti Lane & Foothill Boulevard	Wkdy AM Wkdy PM	1.2 2.2	A A	0.347 0.476	1.2 2.2	A A	0.348 0.476	0.001 0.000	NO NO
3. [a]	Woodleigh Lane & Foothill Boulevard	Wkdy AM Wkdy PM	1.7 1.4	A A	0.417 0.478	2.0 1.6	A A	0.432 0.491	0.015 0.013	NO NO
4.	Gould Avenue & Foothill Boulevard	Wkdy AM Wkdy PM	33.6 23.1	C C	0.603 0.612	33.8 23.2	C C	0.605 0.614	0.002 0.002	NO NO

Notes:

Delay (seconds) and LOS results per Synchro 10 (Methodology from Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016).

V/C is volume to capacity ratio and based on ICU methodology. This methodology was utilized to determine the change in V/C ratio for the purposes of identifying traffic impacts. Changes in V/C is less than 0.02 regardless of the operating LOS at each intersection.

[a] Intersection is unsignalized and is stop-controlled on the minor street. The average intersection delay is reported, which takes into account the observed gaps in through traffic on Foothill Boulevard that are created by the adjacent traffic signals.

TABLE 2
FUTURE WITH PROJECT CONDITIONS (YEAR 2023) - WEEKEND
INTERSECTION PEAK HOUR LEVELS OF SERVICE

No.	Intersection	Peak Hour	Future without Project Conditions			Future with Project Conditions				Significant Impact
			Delay	LOS	V/C	Delay	LOS	V/C	Change in V/C	
2.	Rinetti Lane &	Sat MD	1.5	A	0.479	1.5	A	0.479	0.000	NO
[a]	Foothill Boulevard	Sun MD	1.1	A	0.388	1.1	A	0.388	0.000	NO
3.	Woodleigh Lane &	Sat MD	3.1	A	0.522	3.9	A	0.538	0.016	NO
[a]	Foothill Boulevard	Sun MD	2.1	A	0.416	2.2	A	0.423	0.007	NO

Notes:

Delay (seconds) and LOS results per Synchro 10 (Methodology from Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016).

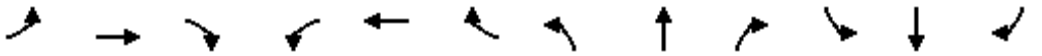
V/C is volume to capacity ratio and based on ICU methodology. This methodology was utilized to determine the change in V/C ratio for the purposes of identifying traffic impacts. Changes in V/C is less than 0.02 regardless of the operating LOS at each intersection.

[a] Intersection is unsignalized and is stop-controlled on the minor street. The average intersection delay is reported, which takes into account the observed gaps in through traffic on Foothill Boulevard that are created by the adjacent traffic signals.

Attachment

HCM 6th Signalized Intersection Summary
1: Foothill Blvd & Oakwood Ave

02/02/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	642	20	22	550	61	16	14	19	62	11	56
Future Volume (veh/h)	69	642	20	22	550	61	16	14	19	62	11	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	698	22	24	598	66	17	15	21	67	12	61
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	327	1219	38	309	1118	123	283	253	276	682	109	691
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	772	3516	111	732	3228	356	385	580	633	1195	251	1585
Grp Volume(v), veh/h	75	353	367	24	329	335	53	0	0	79	0	61
Grp Sat Flow(s),veh/h/ln	772	1777	1850	732	1777	1806	1599	0	0	1446	0	1585
Q Serve(g_s), s	3.6	6.7	6.7	1.1	6.1	6.2	0.0	0.0	0.0	0.4	0.0	0.9
Cycle Q Clear(g_c), s	9.7	6.7	6.7	7.8	6.1	6.2	0.7	0.0	0.0	1.1	0.0	0.9
Prop In Lane	1.00		0.06	1.00		0.20	0.32		0.40	0.85		1.00
Lane Grp Cap(c), veh/h	327	616	641	309	616	626	812	0	0	791	0	691
V/C Ratio(X)	0.23	0.57	0.57	0.08	0.53	0.54	0.07	0.00	0.00	0.10	0.00	0.09
Avail Cap(c_a), veh/h	395	774	806	375	774	787	812	0	0	791	0	691
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.7	11.0	11.0	14.2	10.8	10.8	6.8	0.0	0.0	6.9	0.0	6.8
Incr Delay (d2), s/veh	0.4	0.8	0.8	0.1	0.7	0.7	0.2	0.0	0.0	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	1.0	3.7	3.8	0.3	3.4	3.5	0.4	0.0	0.0	0.6	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.1	11.8	11.8	14.3	11.5	11.5	6.9	0.0	0.0	7.1	0.0	7.1
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		795			688			53			140	
Approach Delay, s/veh		12.1			11.6			6.9			7.1	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		18.8		22.5		18.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.7		11.7		3.1		9.8				
Green Ext Time (p_c), s		0.2		2.6		0.4		2.7				

Intersection Summary												
HCM 6th Ctrl Delay			11.4									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	695	605	133	37	20
Future Vol, veh/h	39	695	605	133	37	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	755	658	145	40	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	803	0	-	0	1193	402
Stage 1	-	-	-	-	731	-
Stage 2	-	-	-	-	462	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	817	-	-	-	180	598
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	601	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	817	-	-	-	171	598
Mov Cap-2 Maneuver	-	-	-	-	171	-
Stage 1	-	-	-	-	415	-
Stage 2	-	-	-	-	601	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	25
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	817	-	-	-	171	598
HCM Lane V/C Ratio	0.052	-	-	-	0.235	0.036
HCM Control Delay (s)	9.6	-	-	-	32.4	11.2
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9	0.1

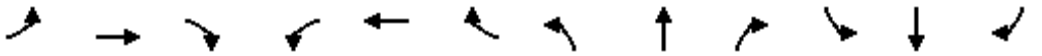
Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	691	36	100	714	25	45
Future Vol, veh/h	691	36	100	714	25	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	751	39	109	776	27	49

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	790	0	1377	395
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	606	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	826	-	136	604
Stage 1	-	-	-	-	417	-
Stage 2	-	-	-	-	507	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	826	-	118	604
Mov Cap-2 Maneuver	-	-	-	-	118	-
Stage 1	-	-	-	-	417	-
Stage 2	-	-	-	-	440	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	26.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	244	-	-	826	-
HCM Lane V/C Ratio	0.312	-	-	0.132	-
HCM Control Delay (s)	26.3	-	-	10	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1.3	-	-	0.5	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	613	52	72	603	455	13	28	7	505	72	161
Future Volume (veh/h)	159	613	52	72	603	455	13	28	7	505	72	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	173	666	57	78	655	495	14	30	8	605	0	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	1162	99	106	1030	460	39	83	22	781	0	538
Arrive On Green	0.12	0.35	0.35	0.06	0.29	0.29	0.08	0.08	0.08	0.22	0.00	0.22
Sat Flow, veh/h	1781	3313	283	1781	3554	1585	484	1036	276	3563	0	1585
Grp Volume(v), veh/h	173	357	366	78	655	495	52	0	0	605	0	175
Grp Sat Flow(s),veh/h/ln	1781	1777	1819	1781	1777	1585	1796	0	0	1781	0	1585
Q Serve(g_s), s	5.9	10.1	10.2	2.7	10.0	18.0	1.7	0.0	0.0	9.9	0.0	5.1
Cycle Q Clear(g_c), s	5.9	10.1	10.2	2.7	10.0	18.0	1.7	0.0	0.0	9.9	0.0	5.1
Prop In Lane	1.00		0.16	1.00		1.00	0.27		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	215	623	638	106	1030	460	145	0	0	781	0	538
V/C Ratio(X)	0.81	0.57	0.57	0.74	0.64	1.08	0.36	0.00	0.00	0.78	0.00	0.33
Avail Cap(c_a), veh/h	230	623	638	152	1030	460	521	0	0	1033	0	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.6	16.4	16.4	28.7	19.2	22.0	27.0	0.0	0.0	22.8	0.0	15.2
Incr Delay (d2), s/veh	17.8	1.3	1.2	10.3	1.3	64.2	1.5	0.0	0.0	2.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	5.3	6.0	6.1	2.5	6.0	19.0	1.4	0.0	0.0	6.3	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	17.6	17.6	39.0	20.5	86.3	28.5	0.0	0.0	25.5	0.0	15.6
LnGrp LOS	D	B	B	D	C	F	C	A	A	C	A	B
Approach Vol, veh/h		896			1228			52			780	
Approach Delay, s/veh		22.8			48.2			28.5			23.3	
Approach LOS		C			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	8.2	26.3		18.1	12.0	22.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.3	20.7		18.0	8.0	18.0				
Max Q Clear Time (g_c+I1), s		3.7	4.7	12.2		11.9	7.9	20.0				
Green Ext Time (p_c), s		0.1	0.0	2.9		1.7	0.0	0.0				

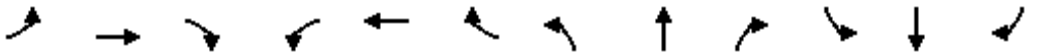
Intersection Summary	
HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Foothill Blvd & Oakwood Ave

02/02/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	687	27	49	678	133	39	23	28	147	25	160
Future Volume (veh/h)	202	687	27	49	678	133	39	23	28	147	25	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	220	747	29	53	737	145	42	25	30	160	27	174
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	363	1872	73	407	1589	313	212	128	113	473	72	494
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	629	3487	135	695	2960	582	401	411	363	1158	230	1585
Grp Volume(v), veh/h	220	380	396	53	442	440	97	0	0	187	0	174
Grp Sat Flow(s),veh/h/ln	629	1777	1846	695	1777	1766	1175	0	0	1387	0	1585
Q Serve(g_s), s	19.7	7.5	7.5	2.9	9.1	9.1	0.3	0.0	0.0	0.0	0.0	5.0
Cycle Q Clear(g_c), s	28.8	7.5	7.5	10.4	9.1	9.1	6.8	0.0	0.0	6.5	0.0	5.0
Prop In Lane	1.00		0.07	1.00		0.33	0.43		0.31	0.86		1.00
Lane Grp Cap(c), veh/h	363	954	991	407	954	948	453	0	0	545	0	494
V/C Ratio(X)	0.61	0.40	0.40	0.13	0.46	0.46	0.21	0.00	0.00	0.34	0.00	0.35
Avail Cap(c_a), veh/h	369	973	1010	414	973	966	453	0	0	545	0	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.4	8.1	8.1	11.2	8.5	8.5	15.0	0.0	0.0	16.3	0.0	15.8
Incr Delay (d2), s/veh	2.8	0.3	0.3	0.1	0.4	0.4	1.1	0.0	0.0	1.7	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	4.5	4.0	4.1	0.7	4.6	4.6	1.8	0.0	0.0	3.5	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.1	8.4	8.4	11.3	8.8	8.8	16.1	0.0	0.0	18.0	0.0	17.8
LnGrp LOS	C	A	A	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		996			935			97			361	
Approach Delay, s/veh		11.0			9.0			16.1			17.9	
Approach LOS		B			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		36.4		23.0		36.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		8.8		30.8		8.5		12.4				
Green Ext Time (p_c), s		0.3		1.1		1.2		6.3				

Intersection Summary												
HCM 6th Ctrl Delay			11.4									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	61	877	855	163	39	31
Future Vol, veh/h	61	877	855	163	39	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	953	929	177	42	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1106	0	-	0	1627	553
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	609	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	627	-	-	-	93	477
Stage 1	-	-	-	-	310	-
Stage 2	-	-	-	-	505	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	627	-	-	-	83	477
Mov Cap-2 Maneuver	-	-	-	-	83	-
Stage 1	-	-	-	-	277	-
Stage 2	-	-	-	-	505	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	54.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	627	-	-	-	83	477
HCM Lane V/C Ratio	0.106	-	-	-	0.511	0.071
HCM Control Delay (s)	11.4	-	-	-	86.9	13.1
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.4	-	-	-	2.2	0.2

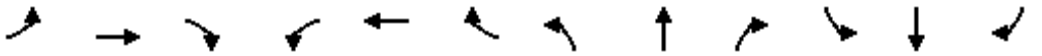
Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	873	40	94	1003	14	48
Future Vol, veh/h	873	40	94	1003	14	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	949	43	102	1090	15	52

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	992	0	1720	496
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	749	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	693	-	80	519
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	428	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	693	-	68	519
Mov Cap-2 Maneuver	-	-	-	-	68	-
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	365	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	30.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	208	-	-	693	-
HCM Lane V/C Ratio	0.324	-	-	0.147	-
HCM Control Delay (s)	30.4	-	-	11.1	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1.3	-	-	0.5	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	660	42	79	720	398	8	47	5	470	33	229
Future Volume (veh/h)	147	660	42	79	720	398	8	47	5	470	33	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	160	717	46	86	783	433	9	51	5	537	0	249
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	202	1291	83	111	1172	523	20	111	11	719	0	499
Arrive On Green	0.11	0.38	0.38	0.06	0.33	0.33	0.08	0.08	0.08	0.20	0.00	0.20
Sat Flow, veh/h	1781	3391	217	1781	3554	1585	254	1438	141	3563	0	1585
Grp Volume(v), veh/h	160	376	387	86	783	433	65	0	0	537	0	249
Grp Sat Flow(s),veh/h/ln	1781	1777	1831	1781	1777	1585	1832	0	0	1781	0	1585
Q Serve(g_s), s	5.7	10.7	10.8	3.1	12.3	16.3	2.2	0.0	0.0	9.2	0.0	8.3
Cycle Q Clear(g_c), s	5.7	10.7	10.8	3.1	12.3	16.3	2.2	0.0	0.0	9.2	0.0	8.3
Prop In Lane	1.00		0.12	1.00		1.00	0.14		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	202	677	697	111	1172	523	141	0	0	719	0	499
V/C Ratio(X)	0.79	0.55	0.56	0.78	0.67	0.83	0.46	0.00	0.00	0.75	0.00	0.50
Avail Cap(c_a), veh/h	289	733	755	201	1290	575	552	0	0	1018	0	632
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.0	15.7	15.7	29.9	18.7	20.0	28.6	0.0	0.0	24.3	0.0	18.0
Incr Delay (d2), s/veh	9.3	0.8	0.8	11.0	1.2	9.1	2.3	0.0	0.0	1.9	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	4.6	6.2	6.3	2.9	7.1	9.5	1.9	0.0	0.0	5.8	0.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	16.5	16.5	40.9	19.8	29.1	30.9	0.0	0.0	26.2	0.0	18.8
LnGrp LOS	D	B	B	D	B	C	C	A	A	C	A	B
Approach Vol, veh/h		923			1302			65			786	
Approach Delay, s/veh		20.1			24.3			30.9			23.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	9.5	8.5	29.2	17.6	11.8	25.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	7.3	26.7	18.5	10.5	23.5
Max Q Clear Time (g_c+I1), s	4.2	5.1	12.8	11.2	7.7	18.3
Green Ext Time (p_c), s	0.2	0.0	4.1	1.9	0.1	3.0

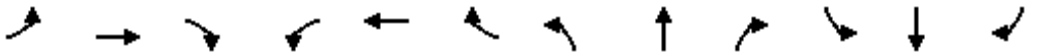
Intersection Summary	
HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Foothill Blvd & Oakwood Ave

02/02/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	644	20	22	552	61	16	14	19	62	11	56
Future Volume (veh/h)	69	644	20	22	552	61	16	14	19	62	11	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	700	22	24	600	66	17	15	21	67	12	61
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	326	1220	38	309	1120	123	283	253	276	681	109	690
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	770	3517	110	731	3229	355	385	580	633	1195	251	1585
Grp Volume(v), veh/h	75	354	368	24	330	336	53	0	0	79	0	61
Grp Sat Flow(s),veh/h/ln	770	1777	1850	731	1777	1807	1599	0	0	1446	0	1585
Q Serve(g_s), s	3.6	6.7	6.7	1.1	6.2	6.2	0.0	0.0	0.0	0.4	0.0	0.9
Cycle Q Clear(g_c), s	9.8	6.7	6.7	7.9	6.2	6.2	0.7	0.0	0.0	1.1	0.0	0.9
Prop In Lane	1.00		0.06	1.00		0.20	0.32		0.40	0.85		1.00
Lane Grp Cap(c), veh/h	326	617	642	309	617	627	811	0	0	791	0	690
V/C Ratio(X)	0.23	0.57	0.57	0.08	0.53	0.54	0.07	0.00	0.00	0.10	0.00	0.09
Avail Cap(c_a), veh/h	394	774	806	374	774	786	811	0	0	791	0	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.7	11.0	11.0	14.2	10.8	10.8	6.8	0.0	0.0	6.9	0.0	6.9
Incr Delay (d2), s/veh	0.4	0.8	0.8	0.1	0.7	0.7	0.2	0.0	0.0	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	1.0	3.7	3.8	0.3	3.4	3.5	0.4	0.0	0.0	0.6	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.1	11.8	11.8	14.3	11.5	11.5	7.0	0.0	0.0	7.1	0.0	7.1
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		797			690			53			140	
Approach Delay, s/veh		12.1			11.6			7.0			7.1	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		18.8		22.5		18.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.7		11.8		3.1		9.9				
Green Ext Time (p_c), s		0.2		2.6		0.4		2.7				

Intersection Summary												
HCM 6th Ctrl Delay			11.4									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	697	607	133	37	20
Future Vol, veh/h	39	697	607	133	37	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	758	660	145	40	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	805	0	-	0	1196	403
Stage 1	-	-	-	-	733	-
Stage 2	-	-	-	-	463	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	815	-	-	-	179	597
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	600	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	815	-	-	-	170	597
Mov Cap-2 Maneuver	-	-	-	-	170	-
Stage 1	-	-	-	-	413	-
Stage 2	-	-	-	-	600	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	25.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	815	-	-	-	170	597
HCM Lane V/C Ratio	0.052	-	-	-	0.237	0.036
HCM Control Delay (s)	9.7	-	-	-	32.6	11.3
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9	0.1

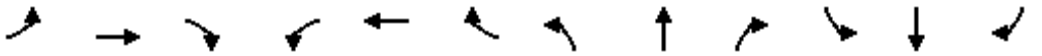
Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	691	38	108	714	27	53
Future Vol, veh/h	691	38	108	714	27	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	751	41	117	776	29	58

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	792	0	1394	396
Stage 1	-	-	-	-	772	-
Stage 2	-	-	-	-	622	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	824	-	133	603
Stage 1	-	-	-	-	416	-
Stage 2	-	-	-	-	498	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	824	-	114	603
Mov Cap-2 Maneuver	-	-	-	-	114	-
Stage 1	-	-	-	-	416	-
Stage 2	-	-	-	-	427	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	27.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	246	-	-	824	-
HCM Lane V/C Ratio	0.353	-	-	0.142	-
HCM Control Delay (s)	27.4	-	-	10.1	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1.5	-	-	0.5	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	619	52	72	609	455	13	28	7	505	72	163
Future Volume (veh/h)	161	619	52	72	609	455	13	28	7	505	72	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	175	673	57	78	662	495	14	30	8	605	0	177
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	1164	98	106	1030	459	39	83	22	781	0	539
Arrive On Green	0.12	0.35	0.35	0.06	0.29	0.29	0.08	0.08	0.08	0.22	0.00	0.22
Sat Flow, veh/h	1781	3316	281	1781	3554	1585	484	1036	276	3563	0	1585
Grp Volume(v), veh/h	175	360	370	78	662	495	52	0	0	605	0	177
Grp Sat Flow(s),veh/h/ln	1781	1777	1820	1781	1777	1585	1796	0	0	1781	0	1585
Q Serve(g_s), s	5.9	10.3	10.3	2.7	10.1	18.0	1.7	0.0	0.0	9.9	0.0	5.2
Cycle Q Clear(g_c), s	5.9	10.3	10.3	2.7	10.1	18.0	1.7	0.0	0.0	9.9	0.0	5.2
Prop In Lane	1.00		0.15	1.00		1.00	0.27		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	215	624	639	106	1030	459	145	0	0	781	0	539
V/C Ratio(X)	0.81	0.58	0.58	0.74	0.64	1.08	0.36	0.00	0.00	0.78	0.00	0.33
Avail Cap(c_a), veh/h	215	624	639	146	1030	459	535	0	0	1032	0	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.6	16.4	16.4	28.7	19.2	22.1	27.0	0.0	0.0	22.8	0.0	15.2
Incr Delay (d2), s/veh	20.7	1.3	1.3	11.5	1.4	64.4	1.5	0.0	0.0	2.7	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	5.6	6.1	6.2	2.6	6.1	19.0	1.4	0.0	0.0	6.3	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.3	17.7	17.7	40.3	20.6	86.5	28.5	0.0	0.0	25.5	0.0	15.6
LnGrp LOS	D	B	B	D	C	F	C	A	A	C	A	B
Approach Vol, veh/h		905			1235			52			782	
Approach Delay, s/veh		23.5			48.3			28.5			23.3	
Approach LOS		C			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	8.2	26.3		18.1	12.0	22.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	5.1	20.4		18.0	7.5	18.0				
Max Q Clear Time (g_c+I1), s		3.7	4.7	12.3		11.9	7.9	20.0				
Green Ext Time (p_c), s		0.2	0.0	2.9		1.7	0.0	0.0				

Intersection Summary	
HCM 6th Ctrl Delay	33.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	1	3	0	1	1	70	1	0	77	10
Future Vol, veh/h	10	0	1	3	0	1	1	70	1	0	77	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	0	1	3	0	1	1	76	1	0	84	11

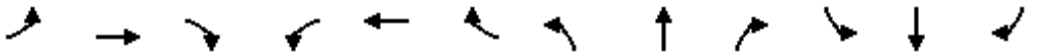
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	169	169	90	169	174	77	95	0	0	77	0	0
Stage 1	90	90	-	79	79	-	-	-	-	-	-	-
Stage 2	79	79	-	90	95	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	795	724	968	795	719	984	1499	-	-	1522	-	-
Stage 1	917	820	-	930	829	-	-	-	-	-	-	-
Stage 2	930	829	-	917	816	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	793	723	968	793	718	984	1499	-	-	1522	-	-
Mov Cap-2 Maneuver	793	723	-	793	718	-	-	-	-	-	-	-
Stage 1	916	820	-	929	828	-	-	-	-	-	-	-
Stage 2	928	828	-	916	816	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.3	0.1	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1499	-	-	806	833	1522	-	-
HCM Lane V/C Ratio	0.001	-	-	0.015	0.005	-	-	-
HCM Control Delay (s)	7.4	0	-	9.5	9.3	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th Signalized Intersection Summary
1: Foothill Blvd & Oakwood Ave

02/02/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	689	27	49	680	133	39	23	28	147	25	160
Future Volume (veh/h)	202	689	27	49	680	133	39	23	28	147	25	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	220	749	29	53	739	145	42	25	30	160	27	174
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	362	1874	73	406	1591	312	211	128	113	473	71	494
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	628	3488	135	694	2962	581	400	411	363	1157	229	1585
Grp Volume(v), veh/h	220	381	397	53	443	441	97	0	0	187	0	174
Grp Sat Flow(s),veh/h/ln	628	1777	1846	694	1777	1766	1174	0	0	1387	0	1585
Q Serve(g_s), s	19.7	7.5	7.5	2.9	9.1	9.1	0.3	0.0	0.0	0.0	0.0	5.0
Cycle Q Clear(g_c), s	28.9	7.5	7.5	10.4	9.1	9.1	6.8	0.0	0.0	6.5	0.0	5.0
Prop In Lane	1.00		0.07	1.00		0.33	0.43		0.31	0.86		1.00
Lane Grp Cap(c), veh/h	362	954	992	406	954	949	452	0	0	544	0	494
V/C Ratio(X)	0.61	0.40	0.40	0.13	0.46	0.46	0.21	0.00	0.00	0.34	0.00	0.35
Avail Cap(c_a), veh/h	368	972	1010	413	972	966	452	0	0	544	0	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.4	8.1	8.1	11.2	8.5	8.5	15.0	0.0	0.0	16.3	0.0	15.8
Incr Delay (d2), s/veh	2.8	0.3	0.3	0.1	0.4	0.4	1.1	0.0	0.0	1.7	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	4.5	4.0	4.1	0.7	4.7	4.6	1.9	0.0	0.0	3.5	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	8.4	8.4	11.3	8.8	8.8	16.1	0.0	0.0	18.0	0.0	17.8
LnGrp LOS	C	A	A	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		998			937			97			361	
Approach Delay, s/veh		11.0			9.0			16.1			17.9	
Approach LOS		B			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		36.4		23.0		36.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		8.8		30.9		8.5		12.4				
Green Ext Time (p_c), s		0.3		1.0		1.2		6.3				

Intersection Summary												
HCM 6th Ctrl Delay			11.4									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	61	879	857	163	39	31
Future Vol, veh/h	61	879	857	163	39	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	955	932	177	42	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1109	0	-	0	1631	555
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	610	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	625	-	-	-	92	475
Stage 1	-	-	-	-	309	-
Stage 2	-	-	-	-	505	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	625	-	-	-	82	475
Mov Cap-2 Maneuver	-	-	-	-	82	-
Stage 1	-	-	-	-	276	-
Stage 2	-	-	-	-	505	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	55.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	625	-	-	-	82	475
HCM Lane V/C Ratio	0.106	-	-	-	0.517	0.071
HCM Control Delay (s)	11.4	-	-	-	88.6	13.2
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.4	-	-	-	2.2	0.2

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	873	42	100	1003	16	56
Future Vol, veh/h	873	42	100	1003	16	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	949	46	109	1090	17	61

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	995	0	1735	498
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	763	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	691	-	79	518
Stage 1	-	-	-	-	327	-
Stage 2	-	-	-	-	421	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	691	-	67	518
Mov Cap-2 Maneuver	-	-	-	-	67	-
Stage 1	-	-	-	-	327	-
Stage 2	-	-	-	-	354	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	32.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	208	-	-	691	-
HCM Lane V/C Ratio	0.376	-	-	0.157	-
HCM Control Delay (s)	32.4	-	-	11.2	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1.6	-	-	0.6	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	666	42	79	724	398	8	47	5	470	33	231
Future Volume (veh/h)	149	666	42	79	724	398	8	47	5	470	33	231
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	162	724	46	86	787	433	9	51	5	537	0	251
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	1295	82	111	1171	522	20	111	11	719	0	501
Arrive On Green	0.11	0.38	0.38	0.06	0.33	0.33	0.08	0.08	0.08	0.20	0.00	0.20
Sat Flow, veh/h	1781	3393	215	1781	3554	1585	254	1438	141	3563	0	1585
Grp Volume(v), veh/h	162	379	391	86	787	433	65	0	0	537	0	251
Grp Sat Flow(s),veh/h/ln	1781	1777	1832	1781	1777	1585	1832	0	0	1781	0	1585
Q Serve(g_s), s	5.8	10.9	10.9	3.1	12.4	16.4	2.2	0.0	0.0	9.2	0.0	8.4
Cycle Q Clear(g_c), s	5.8	10.9	10.9	3.1	12.4	16.4	2.2	0.0	0.0	9.2	0.0	8.4
Prop In Lane	1.00		0.12	1.00		1.00	0.14		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	204	678	699	111	1171	522	141	0	0	719	0	501
V/C Ratio(X)	0.79	0.56	0.56	0.78	0.67	0.83	0.46	0.00	0.00	0.75	0.00	0.50
Avail Cap(c_a), veh/h	288	731	753	200	1287	574	550	0	0	1015	0	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.0	15.8	15.8	30.0	18.7	20.1	28.7	0.0	0.0	24.4	0.0	18.0
Incr Delay (d2), s/veh	9.7	0.8	0.8	11.0	1.2	9.2	2.3	0.0	0.0	1.9	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(85%),veh/ln	4.6	6.2	6.4	2.9	7.1	9.5	1.9	0.0	0.0	5.9	0.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	16.6	16.6	41.0	20.0	29.3	31.0	0.0	0.0	26.3	0.0	18.8
LnGrp LOS	D	B	B	D	B	C	C	A	A	C	A	B
Approach Vol, veh/h		932			1306			65			788	
Approach Delay, s/veh		20.2			24.4			31.0			23.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	8.5	29.3		17.6	11.9	25.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	7.3	26.7		18.5	10.5	23.5				
Max Q Clear Time (g_c+I1), s		4.2	5.1	12.9		11.2	7.8	18.4				
Green Ext Time (p_c), s		0.2	0.0	4.1		1.9	0.1	3.0				

Intersection Summary		
HCM 6th Ctrl Delay		23.2
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	14	0	2	2	0	2	1	56	3	1	58	11
Future Vol, veh/h	14	0	2	2	0	2	1	56	3	1	58	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	0	2	2	0	2	1	61	3	1	63	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	137	137	69	137	142	63	75	0	0	64	0	0
Stage 1	71	71	-	65	65	-	-	-	-	-	-	-
Stage 2	66	66	-	72	77	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	834	754	994	834	749	1002	1524	-	-	1538	-	-
Stage 1	939	836	-	946	841	-	-	-	-	-	-	-
Stage 2	945	840	-	938	831	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	831	752	994	831	748	1002	1524	-	-	1538	-	-
Mov Cap-2 Maneuver	831	752	-	831	748	-	-	-	-	-	-	-
Stage 1	938	835	-	945	840	-	-	-	-	-	-	-
Stage 2	942	839	-	935	830	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	9	0.1	0.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1524	-	-	848	909	1538	-	-
HCM Lane V/C Ratio	0.001	-	-	0.021	0.005	0.001	-	-
HCM Control Delay (s)	7.4	0	-	9.3	9	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

1. OAKWOOD AVE & FOOTHILL BLVD

Through Lane Capacity:	1600 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,600	56	0.013	N/S 1:	0.070 *
Southbound	Through	0.50	1,600	11	0.046	N/S 2:	0.056
	Left	0.50	1,600	62	0.039 *	E/W 1:	0.221
	Right	0.50	0	61	0.000	E/W 2:	0.234 *
Westbound	Through	1.50	3,200	550	0.191 *		
	Left	1.00	1,600	22	0.014	V/C Ratio:	0.304
	Right	0.33	0	19	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	14	0.031 *	ITS:	0.000
	Left	0.33	1,600	16	0.010		
	Right	0.50	0	20	0.000	ICU:	0.404
Eastbound	Through	1.50	3,200	642	0.207		
	Left	1.00	1,600	69	0.043 *	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,600	160	0.037	N/S 1:	0.148 *
Southbound	Through	0.50	1,600	25	0.108	N/S 2:	0.132
	Left	0.50	1,600	147	0.092 *	E/W 1:	0.254
	Right	0.50	0	133	0.000	E/W 2:	0.379 *
Westbound	Through	1.50	3,200	678	0.253 *		
	Left	1.00	1,600	49	0.031	V/C Ratio:	0.527
	Right	0.33	0	28	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	23	0.056 *	ITS:	0.000
	Left	0.33	1,600	39	0.024		
	Right	0.50	0	27	0.000	ICU:	0.627
Eastbound	Through	1.50	3,200	687	0.223		
	Left	1.00	1,600	202	0.126 *	LOS:	B

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

2. RINETTI LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	20	0.000	N/S 1:	0.029 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	37	0.029 *	E/W 1:	0.271
	Right	0.50	0	133	0.000	E/W 2:	0.318 *
Westbound	Through	1.50	2,560	605	0.288 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.347
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.347
Eastbound	Through	2.00	2,560	695	0.271		
	Left	1.00	1,280	39	0.030 *	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	31	0.000	N/S 1:	0.030 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	39	0.030 *	E/W 1:	0.343
	Right	0.50	0	163	0.000	E/W 2:	0.446 *
Westbound	Through	1.50	2,560	855	0.398 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.476
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.476
Eastbound	Through	2.00	2,560	877	0.343		
	Left	1.00	1,280	61	0.048 *	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

3. WOODLEIGH LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis	
	Right	0.00	0	0	0.000		N/S 1:	0.016
Southbound	Through	0.00	0	0	0.000	*	N/S 2:	0.055 *
	Left	0.00	0	0	0.000		E/W 1:	0.362 *
	Right	0.00	0	0	0.000		E/W 2:	0.279
Westbound	Through	2.00	2,560	714	0.279			
	Left	1.00	1,280	100	0.078	*	V/C Ratio:	0.417
	Right	0.50	823	45	0.016		Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000		ITS:	0.000
	Left	0.50	457	25	0.055	*		
	Right	0.50	0	36	0.000		ICU:	0.417
Eastbound	Through	1.50	2,560	691	0.284	*		
	Left	0.00	0	0	0.000		LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis	
	Right	0.00	0	0	0.000		N/S 1:	0.012
Southbound	Through	0.00	0	0	0.000	*	N/S 2:	0.048 *
	Left	0.00	0	0	0.000		E/W 1:	0.430 *
	Right	0.00	0	0	0.000		E/W 2:	0.392
Westbound	Through	2.00	2,560	1,003	0.392			
	Left	1.00	1,280	94	0.073	*	V/C Ratio:	0.478
	Right	0.50	991	48	0.012		Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000		ITS:	0.000
	Left	0.50	289	14	0.048	*		
	Right	0.50	0	40	0.000		ICU:	0.478
Eastbound	Through	1.50	2,560	873	0.357	*		
	Left	0.00	0	0	0.000		LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

4. GOULD AVE & FOOTHILL BLVD

Through Lane Capacity:	1600 vph	North/South Split Phase:	Y
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:	S		

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	1.00	1,600	161	0.001		N/S 1:	0.210	*
Southbound	Through	0.50	399	72	0.180	*	N/S 2:	0.000	
	Left	1.50	2,801	505	0.180		E/W 1:	0.253	
	Right	1.00	1,600	455	0.194	*	E/W 2:	0.293	*
Westbound	Through	2.00	3,200	603	0.188				
	Left	1.00	1,600	72	0.045		V/C Ratio:	0.503	
	Right	0.33	0	7	0.000		Loss Time:	0.100	
Northbound	Through	0.34	1,600	28	0.030	*	ITS:	0.000	
	Left	0.33	1,600	13	0.008				
	Right	0.50	0	52	0.000		ICU:	0.603	
Eastbound	Through	1.50	3,200	613	0.208				
	Left	1.00	1,600	159	0.099	*	LOS:	B	

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	1.00	1,600	229	0.097		N/S 1:	0.195	*
Southbound	Through	0.50	210	33	0.157	*	N/S 2:	0.000	
	Left	1.50	2,990	470	0.157		E/W 1:	0.268	
	Right	1.00	1,600	398	0.170		E/W 2:	0.317	*
Westbound	Through	2.00	3,200	720	0.225	*			
	Left	1.00	1,600	79	0.049		V/C Ratio:	0.512	
	Right	0.33	0	5	0.000		Loss Time:	0.100	
Northbound	Through	0.34	1,600	47	0.038	*	ITS:	0.000	
	Left	0.33	1,600	8	0.005				
	Right	0.50	0	42	0.000		ICU:	0.612	
Eastbound	Through	1.50	3,200	660	0.219				
	Left	1.00	1,600	147	0.092	*	LOS:	B	

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

1. OAKWOOD AVE & FOOTHILL BLVD

Through Lane Capacity:	1600 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	1.00	1,600	56	0.013		N/S 1:	0.070	*
Southbound	Through	0.50	1,600	11	0.046		N/S 2:	0.056	
	Left	0.50	1,600	62	0.039	*	E/W 1:	0.222	
	Right	0.50	0	61	0.000		E/W 2:	0.235	*
Westbound	Through	1.50	3,200	552	0.192	*			
	Left	1.00	1,600	22	0.014		V/C Ratio:	0.305	
	Right	0.33	0	19	0.000		Loss Time:	0.100	
Northbound	Through	0.34	1,600	14	0.031	*	ITS:	0.000	
	Left	0.33	1,600	16	0.010				
	Right	0.50	0	20	0.000		ICU:	0.405	
Eastbound	Through	1.50	3,200	644	0.208				
	Left	1.00	1,600	69	0.043	*	LOS:	A	

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	1.00	1,600	160	0.037		N/S 1:	0.148	*
Southbound	Through	0.50	1,600	25	0.108		N/S 2:	0.132	
	Left	0.50	1,600	147	0.092	*	E/W 1:	0.255	
	Right	0.50	0	133	0.000		E/W 2:	0.380	*
Westbound	Through	1.50	3,200	680	0.254	*			
	Left	1.00	1,600	49	0.031		V/C Ratio:	0.528	
	Right	0.33	0	28	0.000		Loss Time:	0.100	
Northbound	Through	0.34	1,600	23	0.056	*	ITS:	0.000	
	Left	0.33	1,600	39	0.024				
	Right	0.50	0	27	0.000		ICU:	0.628	
Eastbound	Through	1.50	3,200	689	0.224				
	Left	1.00	1,600	202	0.126	*	LOS:	B	

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

2. RINETTI LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	20	0.000	N/S 1:	0.029 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	37	0.029 *	E/W 1:	0.272
	Right	0.50	0	133	0.000	E/W 2:	0.319 *
Westbound	Through	1.50	2,560	607	0.289 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.348
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.348
Eastbound	Through	2.00	2,560	697	0.272		
	Left	1.00	1,280	39	0.030 *	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	31	0.000	N/S 1:	0.030 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	39	0.030 *	E/W 1:	0.343
	Right	0.50	0	163	0.000	E/W 2:	0.446 *
Westbound	Through	1.50	2,560	857	0.398 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.476
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.476
Eastbound	Through	2.00	2,560	879	0.343		
	Left	1.00	1,280	61	0.048 *	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

3. WOODLEIGH LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.020
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.063 *
	Left	0.00	0	0	0.000	E/W 1:	0.369 *
	Right	0.00	0	0	0.000	E/W 2:	0.279
Westbound	Through	2.00	2,560	714	0.279		
	Left	1.00	1,280	108	0.084 *	V/C Ratio:	0.432
	Right	0.50	848	53	0.020	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	432	27	0.063 *		
	Right	0.50	0	38	0.000	ICU:	0.432
Eastbound	Through	1.50	2,560	691	0.285 *		
	Left	0.00	0	0	0.000	LOS:	A

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.017
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.056 *
	Left	0.00	0	0	0.000	E/W 1:	0.435 *
	Right	0.00	0	0	0.000	E/W 2:	0.392
Westbound	Through	2.00	2,560	1,003	0.392		
	Left	1.00	1,280	100	0.078 *	V/C Ratio:	0.491
	Right	0.50	996	56	0.017	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	284	16	0.056 *		
	Right	0.50	0	42	0.000	ICU:	0.491
Eastbound	Through	1.50	2,560	873	0.357 *		
	Left	0.00	0	0	0.000	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

4. GOULD AVE & FOOTHILL BLVD

Through Lane Capacity:	1600 vph	North/South Split Phase:	Y
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:	S		

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	1.00	1,600	163	0.001		N/S 1:	0.210	*
Southbound	Through	0.50	399	72	0.180	*	N/S 2:	0.000	
	Left	1.50	2,801	505	0.180		E/W 1:	0.255	
	Right	1.00	1,600	455	0.194	*	E/W 2:	0.295	*
Westbound	Through	2.00	3,200	609	0.190				
	Left	1.00	1,600	72	0.045		V/C Ratio:	0.505	
	Right	0.33	0	7	0.000		Loss Time:	0.100	
Northbound	Through	0.34	1,600	28	0.030	*	ITS:	0.000	
	Left	0.33	1,600	13	0.008				
	Right	0.50	0	52	0.000		ICU:	0.605	
Eastbound	Through	1.50	3,200	619	0.210				
	Left	1.00	1,600	161	0.101	*	LOS:	B	

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	1.00	1,600	231	0.098		N/S 1:	0.195	*
Southbound	Through	0.50	210	33	0.157	*	N/S 2:	0.000	
	Left	1.50	2,990	470	0.157		E/W 1:	0.270	
	Right	1.00	1,600	398	0.170		E/W 2:	0.319	*
Westbound	Through	2.00	3,200	724	0.226	*			
	Left	1.00	1,600	79	0.049		V/C Ratio:	0.514	
	Right	0.33	0	5	0.000		Loss Time:	0.100	
Northbound	Through	0.34	1,600	47	0.038	*	ITS:	0.000	
	Left	0.33	1,600	8	0.005				
	Right	0.50	0	42	0.000		ICU:	0.614	
Eastbound	Through	1.50	3,200	666	0.221				
	Left	1.00	1,600	149	0.093	*	LOS:	B	

* Critical Movement

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	91	902	892	113	19	38
Future Vol, veh/h	91	902	892	113	19	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	980	970	123	21	41

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1093	0	-	0	1720	547
Stage 1	-	-	-	-	1032	-
Stage 2	-	-	-	-	688	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	634	-	-	-	80	481
Stage 1	-	-	-	-	304	-
Stage 2	-	-	-	-	460	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	634	-	-	-	68	481
Mov Cap-2 Maneuver	-	-	-	-	68	-
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	460	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	35.3
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	634	-	-	-	68	481
HCM Lane V/C Ratio	0.156	-	-	-	0.304	0.086
HCM Control Delay (s)	11.7	-	-	-	79.5	13.2
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.6	-	-	-	1.1	0.3

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	872	41	110	992	27	74
Future Vol, veh/h	872	41	110	992	27	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	948	45	120	1078	29	80

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	993	0	1750	497
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	779	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	692	-	77	519
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	413	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	692	-	64	519
Mov Cap-2 Maneuver	-	-	-	-	64	-
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	342	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	52.7
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	179	-	-	692	-
HCM Lane V/C Ratio	0.613	-	-	0.173	-
HCM Control Delay (s)	52.7	-	-	11.3	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	3.4	-	-	0.6	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	91	905	894	113	19	38
Future Vol, veh/h	91	905	894	113	19	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	984	972	123	21	41

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1095	0	-	0	1724	548
Stage 1	-	-	-	-	1034	-
Stage 2	-	-	-	-	690	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	633	-	-	-	80	480
Stage 1	-	-	-	-	304	-
Stage 2	-	-	-	-	459	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	633	-	-	-	68	480
Mov Cap-2 Maneuver	-	-	-	-	68	-
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	459	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	35.3
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	633	-	-	-	68	480
HCM Lane V/C Ratio	0.156	-	-	-	0.304	0.086
HCM Control Delay (s)	11.7	-	-	-	79.5	13.2
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.6	-	-	-	1.1	0.3

Intersection	
Int Delay, s/veh	3.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	872	44	121	992	29	80
Future Vol, veh/h	872	44	121	992	29	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	948	48	132	1078	32	87

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	996	0	1775	498
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	803	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	690	-	74	518
Stage 1	-	-	-	-	327	-
Stage 2	-	-	-	-	401	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	690	-	60	518
Mov Cap-2 Maneuver	-	-	-	-	60	-
Stage 1	-	-	-	-	327	-
Stage 2	-	-	-	-	324	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	63.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	171	-	-	690	-
HCM Lane V/C Ratio	0.693	-	-	0.191	-
HCM Control Delay (s)	63.4	-	-	11.4	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	4.1	-	-	0.7	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	0	1	3	0	6	2	93	0	0	88	16
Future Vol, veh/h	9	0	1	3	0	6	2	93	0	0	88	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	0	1	3	0	7	2	101	0	0	96	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	214	210	105	210	218	101	113	0	0	101	0	0
Stage 1	105	105	-	105	105	-	-	-	-	-	-	-
Stage 2	109	105	-	105	113	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	743	687	949	747	680	954	1476	-	-	1491	-	-
Stage 1	901	808	-	901	808	-	-	-	-	-	-	-
Stage 2	896	808	-	901	802	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	737	686	949	746	679	954	1476	-	-	1491	-	-
Mov Cap-2 Maneuver	737	686	-	746	679	-	-	-	-	-	-	-
Stage 1	900	808	-	900	807	-	-	-	-	-	-	-
Stage 2	889	807	-	900	802	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	9.2	0.2	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1476	-	-	754	873	1491	-	-
HCM Lane V/C Ratio	0.001	-	-	0.014	0.011	-	-	-
HCM Control Delay (s)	7.4	0	-	9.8	9.2	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	52	670	750	87	26	19
Future Vol, veh/h	52	670	750	87	26	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	728	815	95	28	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	910	0	-	0	1341	455
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	478	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	744	-	-	-	144	552
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	590	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	744	-	-	-	133	552
Mov Cap-2 Maneuver	-	-	-	-	133	-
Stage 1	-	-	-	-	344	-
Stage 2	-	-	-	-	590	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	27.6
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	744	-	-	-	133	552
HCM Lane V/C Ratio	0.076	-	-	-	0.212	0.037
HCM Control Delay (s)	10.2	-	-	-	39.2	11.8
HCM Lane LOS	B	-	-	-	E	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8	0.1

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	667	28	80	808	33	72
Future Vol, veh/h	667	28	80	808	33	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	725	30	87	878	36	78

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	755	0	1353	378
Stage 1	-	-	-	-	740	-
Stage 2	-	-	-	-	613	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	851	-	141	620
Stage 1	-	-	-	-	433	-
Stage 2	-	-	-	-	503	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	851	-	127	620
Mov Cap-2 Maneuver	-	-	-	-	127	-
Stage 1	-	-	-	-	433	-
Stage 2	-	-	-	-	452	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	26.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	279	-	-	851	-
HCM Lane V/C Ratio	0.409	-	-	0.102	-
HCM Control Delay (s)	26.6	-	-	9.7	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	1.9	-	-	0.3	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	52	673	749	87	26	19
Future Vol, veh/h	52	673	749	87	26	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	80	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	732	814	95	28	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	909	0	-	0	1342	455
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	480	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	745	-	-	-	143	552
Stage 1	-	-	-	-	374	-
Stage 2	-	-	-	-	588	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	745	-	-	-	132	552
Mov Cap-2 Maneuver	-	-	-	-	132	-
Stage 1	-	-	-	-	345	-
Stage 2	-	-	-	-	588	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	27.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	745	-	-	-	132	552
HCM Lane V/C Ratio	0.076	-	-	-	0.214	0.037
HCM Control Delay (s)	10.2	-	-	-	39.6	11.8
HCM Lane LOS	B	-	-	-	E	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8	0.1

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	667	31	92	808	32	68
Future Vol, veh/h	667	31	92	808	32	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	725	34	100	878	35	74

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	759	0	1381	380
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	639	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	848	-	135	618
Stage 1	-	-	-	-	432	-
Stage 2	-	-	-	-	488	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	848	-	119	618
Mov Cap-2 Maneuver	-	-	-	-	119	-
Stage 1	-	-	-	-	432	-
Stage 2	-	-	-	-	430	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	27.9
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	264	-	-	848	-
HCM Lane V/C Ratio	0.412	-	-	0.118	-
HCM Control Delay (s)	27.9	-	-	9.8	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	1.9	-	-	0.4	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	0	1	3	0	1	2	110	0	0	61	16
Future Vol, veh/h	9	0	1	3	0	1	2	110	0	0	61	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	0	1	3	0	1	2	120	0	0	66	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	200	199	75	199	207	120	83	0	0	120	0	0
Stage 1	75	75	-	124	124	-	-	-	-	-	-	-
Stage 2	125	124	-	75	83	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	759	697	986	760	690	931	1514	-	-	1468	-	-
Stage 1	934	833	-	880	793	-	-	-	-	-	-	-
Stage 2	879	793	-	934	826	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	757	696	986	758	689	931	1514	-	-	1468	-	-
Mov Cap-2 Maneuver	757	696	-	758	689	-	-	-	-	-	-	-
Stage 1	933	833	-	879	792	-	-	-	-	-	-	-
Stage 2	877	792	-	933	826	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	9.6	0.1	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1514	-	-	775	795	1468	-	-
HCM Lane V/C Ratio	0.001	-	-	0.014	0.005	-	-	-
HCM Control Delay (s)	7.4	0	-	9.7	9.6	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

2. RINETTI LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

SATURDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	38	0.000	N/S 1:	0.015 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	19	0.015 *	E/W 1:	0.352
	Right	0.50	0	113	0.000	E/W 2:	0.464 *
Westbound	Through	1.50	2,560	892	0.393 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.479
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.479
Eastbound	Through	2.00	2,560	902	0.352		
	Left	1.00	1,280	91	0.071 *	LOS:	A

SUNDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	19	0.000	N/S 1:	0.020 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	26	0.020 *	E/W 1:	0.262
	Right	0.50	0	87	0.000	E/W 2:	0.368 *
Westbound	Through	1.50	2,560	750	0.327 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.388
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.388
Eastbound	Through	2.00	2,560	670	0.262		
	Left	1.00	1,280	52	0.041 *	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

3. WOODLEIGH LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

SATURDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.036
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.079 *
	Left	0.00	0	0	0.000	E/W 1:	0.443 *
	Right	0.00	0	0	0.000	E/W 2:	0.388
Westbound	Through	2.00	2,560	992	0.388		
	Left	1.00	1,280	110	0.086 *	V/C Ratio:	0.522
	Right	0.50	938	74	0.036	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	342	27	0.079 *		
	Right	0.50	0	41	0.000	ICU:	0.522
Eastbound	Through	1.50	2,560	872	0.357 *		
	Left	0.00	0	0	0.000	LOS:	A

SUNDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.051
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.082 *
	Left	0.00	0	0	0.000	E/W 1:	0.334 *
	Right	0.00	0	0	0.000	E/W 2:	0.316
Westbound	Through	2.00	2,560	808	0.316		
	Left	1.00	1,280	80	0.063 *	V/C Ratio:	0.416
	Right	0.50	878	72	0.051	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	0.50	402	33	0.082 *		
	Right	0.50	0	28	0.000	ICU:	0.416
Eastbound	Through	1.50	2,560	667	0.271 *		
	Left	0.00	0	0	0.000	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

2. RINETTI LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

SATURDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	38	0.000	N/S 1:	0.015 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	19	0.015 *	E/W 1:	0.354
	Right	0.50	0	113	0.000	E/W 2:	0.464 *
Westbound	Through	1.50	2,560	894	0.393 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.479
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.479
Eastbound	Through	2.00	2,560	905	0.354		
	Left	1.00	1,280	91	0.071 *	LOS:	A

SUNDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	1.00	1,280	19	0.000	N/S 1:	0.020 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.000
	Left	1.00	1,280	26	0.020 *	E/W 1:	0.263
	Right	0.50	0	87	0.000	E/W 2:	0.368 *
Westbound	Through	1.50	2,560	749	0.327 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.388
	Right	0.00	0	0	0.000	Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.388
Eastbound	Through	2.00	2,560	673	0.263		
	Left	1.00	1,280	52	0.041 *	LOS:	A

* Critical Movement

600 FOOTHILL BOULEVARD

Intersection Capacity Utilization Analysis

3. WOODLEIGH LN & FOOTHILL BLVD

Through Lane Capacity:	1280 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1280 vph	East/West Split Phase:	N
Double-Left Penalty:	0 %	Loss Time % per Cycle:	0%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

SATURDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis	
	Right	0.00	0	0	0.000		N/S 1:	0.038
Southbound	Through	0.00	0	0	0.000	*	N/S 2:	0.085 *
	Left	0.00	0	0	0.000		E/W 1:	0.453 *
	Right	0.00	0	0	0.000		E/W 2:	0.388
Westbound	Through	2.00	2,560	992	0.388			
	Left	1.00	1,280	121	0.095	*	V/C Ratio:	0.538
	Right	0.50	939	80	0.038		Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000		ITS:	0.000
	Left	0.50	341	29	0.085	*		
	Right	0.50	0	44	0.000		ICU:	0.538
Eastbound	Through	1.50	2,560	872	0.358	*		
	Left	0.00	0	0	0.000		LOS:	A

SUNDAY MIDDAY PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis	
	Right	0.00	0	0	0.000		N/S 1:	0.042
Southbound	Through	0.00	0	0	0.000	*	N/S 2:	0.078 *
	Left	0.00	0	0	0.000		E/W 1:	0.345 *
	Right	0.00	0	0	0.000		E/W 2:	0.316
Westbound	Through	2.00	2,560	808	0.316			
	Left	1.00	1,280	92	0.072	*	V/C Ratio:	0.423
	Right	0.50	870	68	0.042		Loss Time:	0.000
Northbound	Through	0.00	0	0	0.000		ITS:	0.000
	Left	0.50	410	32	0.078	*		
	Right	0.50	0	31	0.000		ICU:	0.423
Eastbound	Through	1.50	2,560	667	0.273	*		
	Left	0.00	0	0	0.000		LOS:	A

* Critical Movement