

## **RESPONSE TO COMMENTS**

A period for public comments on the Draft Supplemental Environmental Impact Report (DSEIR) for the Chinese Bible Church took place from August 24, 2017 to October 29, 2017. All comments received during this period, and the County's responses to those comments are provided in this section. The section has three parts: (1) a List of Persons, Organizations and Public Agencies That Commented on the Draft EIR; (2) four general responses on the subjects of land use and planning, biology, traffic, parking and queuing, and visual effects; and (3) the comments and responses texts.

The focus of the responses to comments is on the disposition of significant environmental issues raised in the comments, as specified by Section 15088(c) of the CEQA Guidelines. Detailed responses are not required to be provided to comments on the merits of the Proposed Project.

The County's responses to comments on the DSEIR represent a good-faith, reasoned effort to address the environmental issues identified by the comments. The County is required to respond to those comments on the DSEIR that raise environmental issues. In accordance with CEQA Guidelines 15088 and 15204(a), the County has independently evaluated the comments and prepared the attached written responses describing the disposition of any significant environmental issues raised.

**LIST OF PERSONS, ORGANIZATIONS, AND PUBLIC AGENCIES THAT COMMENTED ON THE DRAFT SEIR**

<b>LETTER DESIGNATION</b>	<b>COMMENTATOR</b>	<b>ADDRESS</b>
	<b>FEDERAL AGENCIES</b>	
No letters were received from federal agencies		
	<b>STATE AGENCIES</b>	
No letters were received from federal agencies		
	<b>COUNTY, CITY, AND OTHER LOCAL AGENCIES</b>	
A-1	City of San Diego	1010 Second Ave. 1200 E Tower, MS413 San Diego, CA 92101
	<b>ORGANIZATIONS</b>	
O-1	Coast Law Group, LLP	1140 South Coast Highway 101 Encinitas, CA 92024
O-2	Endangered Habitats League	8424 Santa Monica Blvd, Suite A592 Los Angeles, CA 90069-4267
O-3	San Diego County Archaeological Society, Inc.	PO Box 81106 San Diego, CA 92138-1106
O-4	4S Santa Fe Valley Mega Project Abatement Coalition	jerrykent@cox.net
O-5	Gerald I. Kent letter and Power Point for 4S Santa Fe Valley Mega Project Abatement Coalition	jerrykent@cox.net
O-6	San Dieguito Planning Group	c/o Doug Dill, theddills@att.net
	<b>INDIVIDUALS</b>	
I-1	Robert and Patty Anders	rpanders@cox.net
I-2	Jason Hightower	16942 Silver Crest Ln. San Diego, CA 92127
I-3	Shamim, Habib, and Jasmin Husain	Silver Crest Drive San Diego CA 92127
I-4	Arne Johanson	17269 Silver Gum Way
I-5	Bruno Leone	bruleone@cox.net

## **GENERAL RESPONSES TO COMMENTS**

This section presents General Responses to the Comments. For cases where public comments were of a general nature, or where the intent of the comment was unclear, general responses were generated to provide a comprehensive response to points raised. The general responses focus on the issues raised and are not intended to be a full discussion of the subject areas. The reader is referred to the DSEIR for a full discussion of the subject areas.

### **General Response 1: Planning and Land Use**

#### **Planning**

The Specific Plan designates the area as Low Density Residential with a density of 1 dwelling unit per 1.9 acres. This would allow up to four residences on the site. A Specific Plan Amendment is required because the environmental document prepared for the original Santa Fe Valley Specific Plan (SFVSP) did not cover some of the issues raised by the proposed Project and because a MUP is being requested.

A Major Use Permit (MUP) is allowed by current zoning and is proposed to regulate the proposed uses on the site. The need for a MUP does not indicate the Project is proposing an incompatible use for the site. Instead, it allows for discretionary review of the Project, including the need for specific findings and environmental review. A comprehensive discussion of findings is included in General Response 5.

The Project does not propose a rezoning of the site.

#### **Land Use Plans**

Comments state the project is not consistent with any land use plans. The General Plan (GP), the San Dieguito Community Plan (SDCP), and the Santa Fe Valley Specific Plan (SFVSP) were reviewed and analyzed in the land use study (Appendix O) and the DSEIR (Section 3.1.4). General Plan consistency is analyzed in the DSEIR, Section 3.1.4.3. Two tables, 3.1-17, and 3.1-18, detail consistency issues with the GP guiding principles and the goals and policies. Conformance with the SDCP/SFVSP is provided in Appendix O, Sections 4.2 through 4.4 and in the DEIR, Section 3.1.4.3, page 3-72+. These analyses found that the project, with proposed design measures, is consistent with the plans. Consistency was generally based on the following factors. The project:

1. Meets the Guiding Principles of the General Plan (GP)
2. Provides a community resource, a church, that can serve community needs in a number of ways
3. Reduces vehicle trips through planning, design, and operational limits
4. Mitigates all impacts
5. Is compatible with topographic limits of the site
6. Proposes a design, materials, and landscaping that are of high quality and reflective of design standards in the area and that promote sustainability

## 7. Preserves and protects natural resources

### Physical Land Use

The project's impact on physical land use was extensively analyzed in the DSEIR. The land use assessment determined that land use impacts were not significant. The DSEIR is clear that there are a range of uses in the area, and DSEIR Figure S-3, Aerial Photograph, provides a clear representation of these uses. All uses, including open space, residential, commercial, civic, as well as buildings, sidewalks and trails, are included in the analysis to provide an accurate representation of the site's current setting. This includes uses immediately adjacent to the site such as single- and multi-family residences to the east and south, civic uses to the southeast and west, and open space. It also includes uses that surround the site at a greater distance but are connected to the site by visual effects, transportation links, and community resources that interconnect with the site and adjacent uses, such as schools, major shopping areas, and key residential uses. This includes the single-family residences to the north, a park to the east, Black Mountain Village North, a high school and middle school to the south. This inclusion is appropriate to provide a full picture of the uses as they have evolved in the area. A focus on immediately adjacent uses reveals the area as a developed suburban setting with some natural areas preserved in open space. Inclusion of surrounding uses confirms this conclusion.

The inclusion of surrounding uses is not used to justify the project, but to provide an objective assessment of the existing conditions on and surrounding the site, and in the vicinity. This conclusion does not disparage the previous work done in writing the Specific Plan, which was approved in 1995, and evaluated a different set of circumstances. The DSEIR found that, given the existing situation in the area, and the project with its proposed design measures, there would not be a significant effect on land use in the area.

### Height Exception Request

A height exception processed through the Major Use Permit is requested to allow one tower to be 43 feet and two towers to be 41.5 and 39.5 feet respectively. The scale of uses in the area is in part determined by intended uses compared to existing uses or resources present. The adjacent residential apartment complex, for example, is 40 feet in height and supports three stories. The fire station to the west supports a 44-foot tower. Table 10 of the land use analysis (Appendix O) notes other buildings where building heights are similar to those proposed by the Project. When considered together with other surrounding uses, however, the height exception is seen to be in keeping with uses in the area.

A number of additional factors serve to diminish the effects of the height exception. Building in will be built approximately 5 to 10 feet below grade on the south, so a 35 foot building will have an apparent height of 25 feet from this perspective. Buildings will appear shorter from the east in part because of this grade differential. Homes on the east are

built at an elevation 20 feet higher than the site. The altered angle of the view prevents most of the buildings from rising above the current horizon line as shown in DSEIR Figure 2.1-10, Key View 8. And they will be lower than the apparent height of the apartments to the south. While the sanctuary and towers will appear slightly above the horizon line, they will block less of the view to the west than the existing trees on the site. Landscaping will diminish the verticals of the buildings because the lower reaches of the buildings will be screened.

### Open Space

Protected open space exists on two sides of the project, to the north and the west. The northern area will not be directly impacted by the project and will remain as currently configured. Some indirect could occur as a result of intrusion into the site so a buffer is incorporated between building and the open space boundary. The open space will therefore remain as a community amenity.

### Operations

The operational impacts of the project are evaluated in the land use analysis (DSEIR Appendix O, Chapter 2.0). The visual report (DSEIR Appendix C) evaluates effects of nighttime lighting. The noise report (DSEIR Appendix D) examines the effects of traffic noise, the bell system, and outdoor events. Traffic volumes during the weekday and weekend are examined (DSEIR Appendix B). Dust and other operational effects are evaluated in the air quality report (DSEIR Appendix K, Section 4.2.2).

The DSEIR determined that there are significant operational impacts to the surrounding community from hazards and noise. Measures are proposed that mitigate all project impacts. In addition, specific conditions will be imposed on the Major Use Permit (MUP) to limit effects on the community. These include limits on operational hour (8 AM to 10 PM, with gates locked at 10), number of services in a week, nighttime restrictions on use of the overflow parking lot, and limits on special events. A listing of these limits is found in the DSEIR, Section 3.1.4.3, Operations, page 3-81 and in Chapter 7.2 of the DSEIR. The specific limitations on noise, lighting, and transportation will avoid significant impacts to the surrounding community.

The project operations will also be mediated by the nature of the proposed use, a church and related activities. During the week these will be of low intensity consisting of administrative activities, fellowship, Bible study and similar activities. During this time, activities will generally be indoors. The more intensive use will occur one day a week, on Sunday, when church services will be held. Limitations noted above will diminish this effect.

Design features will also limit operational effects. Excess parking is provided to minimize the possibility of off-street parking. It will only be used when needed in order to minimize noise and lighting effects. Extensive landscaping will compliment buildings, screen parking areas and outdoor plazas. Below grade construction will help diminish visibility of outdoor uses and parking from the south.

Density is reflected in how uses are distributed over a site. The project proposes a loose cluster of buildings toward the center of the site to allow buffers between the project and surrounding uses. Architectural and landscape planning designs are used to diminish a sense of density. This includes features like articulated building facades, covered walks, and large courtyards to separate building masses. Landscaping will provide an overall “cover” for the site, reinforcing a campus-like setting. The DESIR states that the project provides a lower intensity civic use that is adjacent to higher density residential and commercial village uses, thereby serving as an appropriate transitional land use (DSEIR, Section 3.1.4.2, page 3-72).

Intensity of use is determined by a range of factors such as the scope of the project, traffic, operating hours, noise, and lighting, which are analyzed in the above-cited chapter. A contrast can be drawn between the commercial center 580 feet from the site (Black Mountain Ranch North Village) and the project. The commercial center has an intense use pattern due to its large size, approximately 634,000 sf of buildings, and intense traffic patterns from shoppers, employees, and delivery vehicles, as well as long operating hours seven days a week. It employs bright lighting for commercial purposes and generates noise from deliveries and substantial traffic. The project in contrast will generally be a low intensity use as noted in the operational discussion. It will have a very light traffic pattern six days a week. Evening activities, lighting, signage, and noise will be minimal and noise at outdoor activities will be evaluated to conform to the County’s noise ordinance.

### Community Character

Overall, the proposed use will complement the community by bringing a valued publicly-oriented use to the area. Addition of a church to the area will add to the breadth of uses already present. The church will be welcoming of visitors and new members alike. It can also provide a community resource for meetings and gatherings. The project would be located in an area with mixed-density residential uses, nearby commercial centers and other civic facilities, including a fire and police station. The design would not change the dense suburban character of the area because it would bring the same high quality design features and landscaping already characteristic of the community. Proximity to existing infrastructure promotes alternatives to automobile use. Operation of the proposed church, at buildout, would not alter the community character significantly due to its low intensity, design features, and the controls placed on it by the MUP. The immediate existing built uses (multi- and single family residential, sheriff’s station and fire station) surround the site and adjoining northern open space, generally at higher elevations. The open space is at the center of this area and will be preserved by the project. Thus the sense of openness now a part of the community will be preserved in those areas.

The project is a joint effort of three already existing churches in the region: one is at Maranatha Christian School a mile west of the site. A second is located in Rancho Bernardo, approximately 3.0 miles east. A third is located at a commercial center 1.5 miles from the site.

These sites will be closed when the project is operational. Rather than being from outside the community, the project draws together people who are already using community worship services in the area.

## **General Response 2: Biology and the Resource Protection Ordinance**

Open space occurs north and west of the project. The northern open space, some of which is on-site, extends to Campania Drive to the north. It runs the length of the project's northern boundary and its width varies from 620 feet on the west to 185 feet on the east. The project has no direct impacts to this open space. The open space to the west is a narrow strip approximately 220 feet wide that runs the length of the project's western boundary and ends at the project's southwest corner. The project will impact 0.17 acres of this area for its entrance, the proposed Grace Way. It mitigates this impact by proposing to provide off-site mitigation equal to the area impacted. Additionally the project design has minimized impacts to this open space by locating the entrance as close to the end of the open space as possible to limit biological impacts associated with biological "dead ends."

Indirect effects are analyzed in the DSEIR on pages 2-47 and 2-48 in Section 2.2. Project design measures are used to minimize indirect impacts and include wetland buffers, as discussed below. Installation of a retaining wall and fence separating the developed area from existing onsite open space easement area would serve as a barrier to increased human access. The landscape plan would also stipulate that project landscaping would not include exotic plant species listed on the California Invasive Plant Council's (Cal-IPC) "Invasive Plant Inventory" list. Predation from domestic animals is not expected since residential uses that could result in the introduction of domestic pets are not proposed. Good housekeeping practices incorporated into project design such as the proposed secure garbage area would minimize nuisance animals such as crows that could affect raptor usage of the open space. Therefore, no adverse impact to sensitive species would occur.

The northern wetland supports an area of Emergent Wetland (EW). There are no direct impacts to this area, as noted, but indirect impacts are possible. In accordance with the Resource Protection Ordinance (RPO), Section 86.802(r), a 50 foot no-build wetland buffer is used to minimize these impacts. No uses or activities will be allowed within this area. For example, this area will not require additional fuel modification and vegetation management. To accommodate this buffer, minor design changes were made to the project. The retaining wall was moved south five to ten feet. Parking areas were rearranged although the proposed number of parking spaces was maintained at 417. A volleyball court was moved approximately 45 feet to the southwest. An additional 100 foot buffer from the edge of the no-build buffer was put into place to ensure a fire-safe setting is maintained. Buildings, landscaping, hardscape, and the volleyball court will occur within the buffer. All fuel management and landscaping shall be in conformance with Section 4704.4 of the Consolidated Fire Code and District Ordinance 2014-01A in order to maintain a fire-safe setting. The Rancho Santa Fe Fire Protection District has reviewed and approved the buffer design. Easements will be placed over these areas to ensure these limitations are enforceable.

This buffer arrangement has been made in response to comments about the EW and RPO. The DSEIR has been modified to reflect these changes. The above noted changes represent minor modifications to the project design and clarify or strengthen measures already in place and presented in the DSEIR. Determinations about the significance of impacts do not change and mitigation measures identified in the DSEIR still apply and. As a result, the conclusions of the DSEIR do not change. These minor revisions to the project design will further diminish effects of noise, lighting, and potential intrusions on the open space because uses will be farther away from the EW. The volleyball court will be slightly farther away from the eastern boundary, so no additional noise or visual effect would occur. The volleyball court, as before, will not be lighted. The proposed changes do not therefore constitute significant new information that might deprive the public of meaningful comment and recirculation of the DSEIR is not required.

### **General Response 3: Traffic, Parking, and Queuing**

Comments assert that the traffic study for the project does not use appropriate methodologies. The traffic analysis for the project uses methodologies from San Diego Area Government (SANDAG)'s "(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region" (2002) for weekday trips and on Institute of Transportation Engineers trip generation rates from the 8th edition for weekend trips. These methodologies provide widely accepted standards for analyzing traffic impacts. Alternative methodologies are available and have been offered as a more accurate indication of traffic impacts. These were analyzed by the project's traffic engineers and it was found that they result in similar conclusions about traffic impacts. See Letter C attachment from Coast Law Group and the County's responses.

Comments assert that extensive off-site parking will result because not enough parking has been provided on-site. Parking requirements are determined using the County's Zoning Ordinance. Section 6764 is specific to the civic use proposed by the project, calling for 0.25 parking spaces per person. Assuming a maximum capacity of 1,500 seats, this amounts to 375 parking spaces. The project provides 417 spaces, 37 more than required. An overflow parking area is also provided. This approximately 650 by 60 foot area could accommodate over a 100 additional parking spaces if needed. Parking requirements will also be reduced because the church will operate a shuttle from points in the community to the Church. Church members will also be asked not to use off-site parking. Due to the excess parking capacity provided and operational measures, off-site parking will be minimal.

Comments assert queuing on public streets will impact the fire station operations and clog public streets. Queueing and traffic operations were considered as part of the traffic impact analysis. As detailed on pages 3-104 and 3-105 of the DSEIR, an operational analysis to evaluate the vehicular queue was performed at the Project Driveway/Four Gee Road and Four Gee Road/Camino Del Sur intersections. The proposed improvements at the intersection of Four Gee Road and Camino Del Sur (as part of the Camino Del Sur widening projects) are accounted for in the operational analysis. The operations analysis is based on vehicle queuing for high demand movements at these intersections.



The 95th percentile queue was reported. This analysis provided a basis for estimating the future storage requirements at these intersections. The future queue estimates were provided in Table 3.1-28, Future Queue Analysis, of the DSEIR.

The operations analysis indicates that the estimated maximum vehicle queue for the southbound leg at the intersection of Four Gee Road and Camino Del Sur would not exceed the capacity. The estimated maximum vehicle queue for the southbound leg at the intersection of Four Gee Road and Camino Del Sur would, at times, exceed the capacity prior to traffic signal installation. To ensure that fire station operations will not be impeded, the project will be required to implement mitigation measures M-HZ-1 as a condition of project approval. This mitigation measures ensures unimpeded fire service response by requiring the intersection of Four Gee Road and Grace Way shall be signalized. This signal shall be capable of being controlled from Fire Station No. 2, which is located directly across from Grace Way. The purpose is to allow fire station personnel to control traffic so that emergency vehicles can safely exit the fire station unimpeded in an emergency. The signal at the intersection of Camino Del Sur and Four Gee Road shall be connected to this control system so that fire personnel can coordinate signal changes between the two intersections, which are in close proximity to one another. The ability to coordinate the intersection signals will prevent delays in response time as a result of church-related activities. Additionally, road striping "Do Not Block" shall be painted in front of the Fire Station entrance. These measures will be completed prior to occupancy of the facilities.

Access to the La Viña community is located south of the Project site and is accessed via Tallus Glen. Tallus Glen intersects Four Gee Road north of Camino Del Sur. As discussed above, the future signal at the Project driveway on Four Gee Road will interconnect with the signal at Four Gee Road and Camino Del Sur to ensure coordinated operation. The intersection of Four Gee Road and Camino Del Sur will operate at an adequate level of service. Excessive queuing along Four Gee Road was not identified during the analysis. Project design locates a circular drop-off drive over 450 feet from the project entrance, allowing a substantial area for on-site queuing. The drive is 26 feet at its most narrow, which will allow two lanes for passenger drop-off. Cross traffic at the entrance will be minimized because the roadway for the project forms a loop around the buildings. As a result of these design features, ingress and egress issues at the La Viña community are not anticipated. Impacts would be less than significant.

#### **General Response 4: Visual Resources**

The major visual change on the site would be a transition from a widespread groupings of tall trees to a lower profile of buildings and trees. The project would result in the construction of elements within the landscape that would be compatible with the existing visual character of the community in terms of architecture, materials, color, and landscaping. The landscape plan provides a unified and attractive design because it is consistent throughout the site, provides both a unifying and a screening function, and

“shelters” the site with an attractive canopy of native and non-native trees found in the area. Muted roof and building colors would also help with a blending effect. The visual experience would shift from one of a sparsely developed site with semi-rural features to one of a fully developed site with positive visual amenities consistent with the existing suburban community. The key natural resource in the area, the biological open space to the north, is not directly impacted by the project and will continue to serve as a valuable biological, visual, and community character element. The visual pattern would change but would not be visually adverse.

In the past the house with caretaker’s residence and a small agricultural field was a distinctive island of rural development in an otherwise undeveloped area of open land. Over the years the visual character of the area changed. The 4S Ranch Specific Plan brought a major suburban overlay to the region, currently providing residences for 13,052 households and numerous supporting uses, including commercial centers, schools, and churches. For example, the houses to the east of the site were built when the site was still a farming operation, thereby introducing land use changes to the area that have continued through the present. The development of Salviati Homes in 2003 brought further suburban development to the area to the north. The suburbanizing effect of 4S Ranch brought development along Rancho Bernardo Road, which passes near the site on the southeast. More recently, the development of Black Mountain Ranch North Village to the southwest has been built in support of the residential influx from the south, east and along Camino Del Sol to the west. Public services naturally followed, one of which is the Santa Fe Fire Department training station on Four Gee Road across from the site. Another is the Sheriff’s substation on Rancho Bernardo Road near the southeast corner of the site. The purchase of land by the Poway Unified School District for a future school site north and west of the site represents another step in that transition. Meanwhile open space was created on the north and west, precluding expansion of the farm and further isolating the rural use of the site. In the process of change all around it, the farm site began to appear less and less visually consistent. The project preserves the open space to the north and has a minor impact to open space on the west. Buffers and design considerations have been employed to minimize indirect effects.

**PUBLIC COMMENTS AND RESPONSES**

Comments Letter

A-1-



October 9, 2017

County of San Diego, Planning & Development Services  
Marisa Smith, Land Use and Environmental Planner  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

**SUBJECT: COMMENTS ON CHINESE BIBLE CHURCH DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT**

Dear Ms. Smith:

The City of San Diego ("City") Planning Department has received the Draft Supplemental Environmental Impact Report (Draft SEIR) for the Chinese Bible Church Specific Plan Amendment, Major Use Permit, and Open Space Vacation prepared by the County of San Diego (County) and distributed it to applicable City departments for review. The City, as a Responsible Agency under CEQA, has reviewed the Draft SEIR and appreciates this opportunity to provide comments to the County.

A-1-1

The City's Transportation and Storm Water and Developmental Services Departments provided comments to the County on the Draft SEIR for this project, as further detailed below.

A-1-2

**Transportation & Storm Water – Mark G. Stephens, Associate Planner – MGStephens@sandiego.gov, 858-541-4361**

Appendix M – CEQA Drainage Study: Attachment B - Hydrology Maps; Existing Condition Hydrology Map (Attachment B-1) and Proposed Condition Hydrology Map (Attachment B-2). These two maps do not clearly depict the storm drain conveyance system after the ultimate discharge point for pre-project runoff or post-project runoff for the natural drainage channel or wash, and relative to the proposed Grace Way project access from Four Gee Road. Grace Way should be depicted in overall drainage maps.

A-1-3

**Development Services – Leo Alo RTE, Associate Traffic Engineer – LAlo@sandiego.gov, 619-446-5033**

Regarding the DSEIR:

1. Section 3.1.6.3, page 3-101: The DSEIR should provide expected weekday trip generation based on the actual existing weekday trips at the three existing church sites and on the projected programs to be provided at the proposed site.

A-1-4

Response to Comments Letter

A-1-

**A-1-1** The County of San Diego (County) appreciates the review of the Draft Supplemental Environmental Impact Report (DSEIR) by the City of San Diego (CSD). The comment asserts the CSD is a Responsible Agency under the California Environmental Quality Act (CEQA). The County concurs with the comment because CSD approval would be required for some work taking place in areas under its jurisdiction. The DSEIR Table 1.5.1 (Matrix of Project Approvals of DSEIR) has been modified to reflect this.

**A-1-2** The comment relates to the department in the CSD commenting on the DSEIR. The County appreciates the comment. Comments by the City's Transportation Storm Water and Developmental Services Department have been reviewed and a full response to the comments is provided below.

**A-1-3** The comment states that the hydrology maps included in Appendix M - CEQA Drainage Study: Attachment B - Hydrology Maps; Existing Condition Hydrology Map (Attachment B-1) and Proposed Condition Hydrology Map (Attachment B-2) do not clearly depict the storm water drain conveyance system. The maps portray the existing and proposed drainage systems, as noted. Attachment B-1 is the Existing Condition Hydrology Map. As such, it would not include proposed improvements like the Grace Way street construction, although the entry would be within Sub Area A-43 as shown on the map. Attachment B-1 calls out and depicts the existing 18-inch storm drain that crosses under the existing driveway into the project. This provides illustration of the existing storm drain conveyance system for pre-project runoff. The existing runoff downstream of the project in the wash north of the site flows to the west under Four Gee Road in an existing box culvert.

Attachment B-2 is the proposed or developed condition Hydrology Map and shows the proposed Grace Way as being within Sub Area B-8 adjacent to Four Gee Road. Conveyance from the southwest is shown flowing to the west under Grace Way. Northern flows toward riprap and retention ponds are also depicted.

Please refer to Section 5.01.5 of the CEQA Drainage Study for a discussion of 100-year inundation limits near Four Gee Road. The analysis shows that the grading for Grace Way is not within or close to this area of inundation of a 100 year flood. The CEQA Drainage Study was included as Appendix M of the DSEIR. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

## Comments Letter

A-1-

2. The 45,734 SF of accessory uses exceeds that of the primary church use (43,500 SF) at full buildout. The DSEIR should demonstrate how this will not cause an increase in project trips, both for weekdays and Sundays.
3. The DSEIR states that the project will interconnect the proposed signal at Four Gee Road/project driveway with the existing City traffic signal at Camino Del Sur/Four Gee Road. The project applicant should consult with the appropriate City of San Diego Traffic Engineering Operations staff in regards to coordinating the proposed traffic signal with the signal at the intersection of Camino Del Sur/Four Gee Road. Please note that due to the higher volumes on Camino Del Sur, cross streets may not be given as much green time as projected or expected in the DSEIR.
4. Section 3.1.6.3, page 3-104: The project proposes to signalize the intersection of project driveway at Four Gee Road as a project feature. However, Impact No. HZ-1 is proposing the traffic signal as mitigation M-HZ-1. This discrepancy should be corrected.
5. Section 3.1.6.3, page 3-105: The DSEIR states that interconnecting the proposed traffic signal with the signal at Camino Del Sur/Four Gee Road would avoid excessive queues. However, Table 3.1-2B Future Queue Analysis shows that queues are still in excess of the storage capacity in several cases. This should be addressed, especially as it relates to the potential for northbound queues backing up past Tallus Glen and southbound queues backing up into Camino Del Sur.
6. Section 3.1.6.3, page 3-105: The DSEIR states that the Project contributes less than 50 freeway segment trips in the peak direction. However, the number of freeway segment trips is not stated in the DSEIR or the Traffic Impact Study. This omission should be corrected.

A-1-5

A-1-6

A-1-7

A-1-8

A-1-9

### Regarding the Traffic Impact Study (TIS), Appendix B to the DSEIR:

1. The TIS mentions a proposed daycare facility which is not explicitly discussed. The TIS should provide expected weekday trip generation based on the actual existing weekday trips at the three existing church sites and on the projected programs to be provided at the proposed site.
2. Section 3.5.2 of the TIS evaluates Near Term Without Project conditions, but appears to show in Table 9 that no additional trips over existing were added to represent further development of Black Mountain Ranch North Village, where construction is ongoing. There trips should be included in the Near Term analysis and assumptions regarding level of development should be clearly described in this section. This section should also clearly state what, if any, roadway network improvements were assumed over Existing.
3. Section 3.7 should describe any specific network improvements assumed within the study area for 2050 conditions.
4. Section 3.8.3 "Special Events" of the TIS states all anticipated special events will be performed during off peak hours, i.e. not Monday through Friday 7-9 AM or 4-6 PM. Since the document does not evaluate the impact of special events during these peak hours, it is recommended that this statement be made a project permit condition.

A-1-10

A-1-11

A-1-12

A-1-13

A-1-14

## Response to Comments Letter

A-1-

- A-1-4** This comment states that the DSEIR should provide expected weekday trip generation based on the actual existing weekday trips at the existing church sites. The weekday trip generation estimates were provided in Table 3.1-24 of the DSEIR and were based on standard rates established in the (*Not So*) *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* (SANDAG 2002). This manual provides standards and recommendations for the probable traffic generation of various land uses based upon local, regional and nationwide studies of existing developments in comparable settings. The activity and trip generation at the existing church sites is not pertinent since published trip generation rates are used, as dictated by the methodology used in the traffic analysis. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.
- A-1-5** This comment states that the DSEIR should demonstrate how the proposed accessory uses on the project site at full buildout will affect project trips. The sanctuary building capacity is the driving factor for trip generation because church attendance drives all other activities on the site. Attachment A Supplemental Traffic Memorandum response 1.b. states, "The 43,500 s.f. amount is for the sanctuary building. In discussions between the project team and the County it was concluded that the driving factor for trip estimation is the square footage we used for sanctuary and administrative use rather than the ancillary buildings that are in the proposed plan. For the supplemental analysis we have used all of the square footage for the project for calculating weekday trips with the SANDAG rate." No further response is necessary.
- A-1-6** This comment requests that the project applicant coordinate with the City of San Diego Traffic Engineering Operations staff for signal timing coordination for Camino del Sur/Four Gee Road. The County concurs with the comment. Coordination has already taken place between the County and City of San Diego staff and that will continue.
- A-1-7** This comment states that there is a discrepancy between identifying the signalization of the intersection of Four Gee Road as a project feature, and as mitigation measure M-HZ-1. The signalization of this intersection is proposed as

**A-1-7** part of the project design; however, additional requirements for this intersection are also included in mitigation measures M-HZ-1 to mitigate for potential delays to emergency vehicle response from the fire station. This includes the requirements for the signal to be strobe controlled, to be interconnected to the signal at Camino del Sur/Four Gee Road, and the provision of road striping of “Do Not Block” to be painted in front of the church entrance. The additional requirements will allow fire station personnel to control traffic so that emergency vehicles can safely exit the fire station unimpeded in an emergency.

**A-1-8** This comment addresses queues and storage capacity related to the intersection of Camino del Sur/Four Gee Road. The inter-connection of the proposed signal with the Camino Del Sur/Four Gee Road intersection will assist in clearing traffic as it exits the site. The traffic study (Appendix B, page 64) states:

The estimated maximum vehicle queue for the south bound leg at 4 (sic) Gee Road and Camino Del Sur would at times exceed the capacity. However, once the intersections are interconnected, any queue that accumulates would be mitigated. Having both signals coordinated allows the controller to respond to sudden surges/variations in traffic demand in order to steal time from phases that don’t need it and give times to phases that do need it to decrease the amount of queue and delay.

It is anticipated that at the design stage pavement markings will be introduced as appropriate to advise and restrict motorists from blocking nearby intersections. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**A-1-9** This comment states that the specific number of freeway segment trips is not stated in the DSEIR or Traffic Impact Study. The commenter is correct that the DSEIR states that the Project contributes less than 50 freeway segment trips in the peak direction. The February 14, 2018 Tech Memo by KOA, which contains the latest available traffic counts, provides the following information. The first attachment in the tech memo shows the project trip generation as a total of 392 daily trips. Of these, 20 two-way trips occur in the AM, of which the greater amount of 12 are inbound in the AM. The remainder are outbound. In the PM there are 31 two-way trips, of which 16 are outbound in the PM peak hour. As had previously been shown in the full Traffic Impact Analysis, roughly half of these trips are directed to and from the vicinity of the I-15 freeway. This indicates that the AM has about 10 two-way trips, of which 6 are inbound from the freeway. In addition, 16 two-way trips occur in the PM peak hours, of which about eight are outbound towards the freeway.

- A-1-9** The County's publication "Report Format and Content Requirements: Transportation & Traffic" dated Aug. 24, 2011 provides guidance on when freeway segments should be included in traffic analyses. As shown in Table 1 on page 2, projects with 200-500 daily trips would typically, at most, require only an Issue Specific TIS, and that does not include freeway analysis. Since the interchange between I-15 and Camino Del Norte is in the City of San Diego, we can turn to their guidelines for some further assistance. The City of San Diego "Traffic Impact Study Manual" on page 6 describes that "mainline freeway locations where the project will add 150 or more peak hour trips in either direction" should be included in the scope of a traffic study. As discussed, this project, at most, would add eight trips in or outbound to the freeway directionally, which is below the 150 trip threshold. Therefore, given the limited amount of project trips that are even directed towards the freeway, and the various guidelines for including a freeway analysis, it is logical that they are not included in this traffic study.
- A-1-10** The comment states that the TIS mentioned a proposed daycare facility. A daycare facility is not proposed as part of the project. A previous version for the project included a daycare facility; however, the project was revised to remove this use. An errata to the Traffic Impact Study has been prepared and included in Appendix B of the DSEIR removing reference to a day care facility in Section 1.2 on page 2 of the Traffic Impact Study.
- A-1-11** This comment addresses the Near Term traffic analysis, specifically relating to assumptions for the Black Mountain Ranch North Village. The comment states that additional trips over existing for Black Mountain Ranch North Village should be included in the Near Term analysis. Section 3.5.1, page 39, of the Traffic Impact Study (Appendix B of the DSEIR) discusses the development of cumulative volumes in the area, which include specific projects and SANDAG's growth assumptions in Series 12. Series 12 includes allowance for the Black Mountain Ranch project that combined with the explicit projects listed in Table 9, results in a 27 percent increase in traffic volumes in the area. No changes to the DSEIR or Traffic Impact Study are required. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

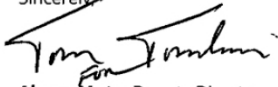
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Thank you for the opportunity to provide comments on the Draft SEIR. Please contact me directly if there are any questions regarding the contents of this letter or if the County would like to meet with City staff to discuss our comments. Please feel free to contact Kurtis Steinert, Associate Planner, directly via email at [KSteinert@sandiego.gov](mailto:KSteinert@sandiego.gov) or by phone at 619-235-5206.

A-1-15

Sincerely,



**Alyssa Muto**, Deputy Director  
Planning Department

AUTHOR'S INITIALS (UPPER CASE)/typist initials (lower case)

cc: Reviewing Departments (via email)  
Review and Comment online file

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**A-1-12** This comment states that roadway network improvements for Black Mountain Ranch North Village should be stated in the Traffic Impact Study. During the course of the traffic report preparation, the connection of Black Mountain Road to Camino Ruiz at 4 Gee was completed. This was updated in the traffic report prior to inclusion in the DSEIR. No other improvements were assumed in the Existing in the Near Term analysis. No changes to the DSEIR or Traffic Impact Study are required. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**A-1-13** This comment states that Section 3.7 of the Traffic Impact Study should describe network improvements assumed for 2050 conditions. All of the study area segments considered in the 2050 analysis have already been built out to their capacity with no additional improvements. No changes to the DSEIR or Traffic Impact Study are required. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**A-1-14** This comment states that the timing of special events should be included as a project condition. As noted on page 3-75 of the DSEIR, any special events, other than typical church holidays, including non-church community events, would take place during off peak hours and outside typical church daily operation schedules. The hours of operations for special events will be specified in the Major Use Permit conditions.

**A-1-15** This comment provides closing remarks and does not raise any additional environmental issues and, therefore, no further response is required.



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October 9, 2017

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By Email

Re: Comments Re Draft SEIR for Chinese Bible Church of San Diego  
PDS2014-SPA-14-001, PDS2010-3300-10-032(MUP), PDS2012-3940-12-  
002(VAC), PDS2010-2910-9509007L(ER), SCH#214011018

Dear Ms. Smith:

This letter is submitted on behalf of 4S Santa Fe Valley Mega-Project Abatement Coalition (the "Coalition") to provide comments on the Draft Subsequent Environmental Impact Report ("DEIR") prepared for the Chinese Bible Church Project. As discussed below, the DEIR fails to adequately address, among other things, the preschool and kindergarten that was initially proposed by the project applicant; the project's traffic, land use and community character impacts; impacts to biological resources (including the onsite wetland and wetland buffer); and impacts of the project's greenhouse gas emissions. The DEIR should be amended to address these deficiencies and recirculated for further comment.

A. Introduction

The applicant proposes to develop and operate a massive campus consisting of five buildings and 89,234 sf of usable interior space. The project site is located in the Santa Fe Valley Specific Plan ("Specific Plan") and, as a result of the significant planning efforts undertaken in connection with the Specific Plan, has been designated for low-medium density residential uses (1 unit per 1-1.9 acres). In addition, the General Plan regional category for the site is "semi-rural," and the site is virtually surrounded by open space, wetland habitat and residential uses. The project is thus poorly suited for the site, incompatible with surrounding uses, and inconsistent with all applicable land use plans, and its approval will relatedly (and predictably) result in

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**O-1-1** The comment states the letter is written on behalf of the 4S Santa Fe Valley Mega-Project Abatement Coalition, and also states the DSEIR fails to adequately address the preschool, traffic, land use and community character, biological, and greenhouse gas emissions impacts. The County of San Diego appreciates the comments. The comment summarizes points that will be raised in the letter but no specific comments are made, so a detailed response is not possible. Each of these issues is discussed in more detail below.

**O-1-2** The comment states the square footage of the project's buildings and describes the planning characteristics of the site and surrounding uses. The comment concludes that the project is poorly suited for the site, incompatible with surrounding uses, and inconsistent with all applicable land use plans. The site is bordered on the north and west by open space, on the east by residential uses, and on the south by civic and residential uses. The land use study (DSEIR Appendix O) considers immediate uses as well as nearby uses in its analysis. This is appropriate in order to provide a complete picture of the uses and character of the area as it exists today. No additional specific issues were raised about the DSEIR so an additional response is not possible. A general response to land use is provided in Chapter 8.2.1, General Response 1 "Planning and Land Use."

**O-1-3** The comment states that approval of the project will result in environmental impacts, including traffic, community character, and open space, and that these issues are not addressed in the DSEIR so the DSEIR will need to be recirculated. It also asserts findings for the project cannot be made. Impacts to biology, traffic, and community character are analyzed in detail in DSEIR Chapters 2.2, 3.1.6, and 3.1.4, respectively. The DSEIR determines that impact to biology are significant but can be mitigated to a level below significance through implementation measures MM-BI-1 and MM-BI-2, which will be required as a condition of project approval. Traffic and community character impacts are analyzed and the DSEIR (Sections 3.1.6 and 3.1.2) and determined that these impacts will not be significant when design features of the project are adopted. Proposed design features were summarized in Chapter 7 of the DSEIR. The comment that these subjects were not analyzed as so the DSEIR should be recirculated is therefore without foundation. The comment on findings is a

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numerous environmental impacts (including to traffic, community character, and the surrounding open space and wetland habitat). The DEIR, however, does not adequately address these or other environmental issues. As a result, while the project should ultimately be denied in any event (including because findings of approval cannot be made), the DEIR must be amended and recirculated to comply with CEQA.

B. The DEIR Improperly Ignores Impacts of the Preschool and Kindergarten

CEQA requires that an EIR analyze environmental effects of future expansion or other action if: "(1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change ... [the project's] environmental effects." (*Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 395-396). This rule is intended to, among other things, (i) ensure that "environmental considerations do not become submerged by chopping up a large project into many little ones – each with a minimal impact on the environment – which cumulatively may have disastrous consequences" (*Id.* at 396); (ii) promote the basic CEQA tenet that "an environmental analysis should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design ..." (*Id.*, citing 14 CCR § 15004); and (iii) account for the concern that delay in reviewing reasonably foreseeable actions can result in "bureaucratic and financial momentum" for a project, which in turn can "provid[e] a strong incentive to ignore environmental concerns that could be dealt with more easily at an early stage of the project." (*Laurel Heights, supra*, at p.395).

Here, the applicant initially proposed that onsite buildings and facilities would be used to operate a preschool and kindergarten for up to 150 children. Indeed, one of the stated and primary objectives of the project was to "furnish kindergarten/preschool facilities for up to 150 students to provide a strong spiritual foundation to the children of the church and surrounding community." (Emphasis added) (*See, e.g., Recon's Land Use Analysis*, p.19, Section 1.5). The project was accordingly described by one of the applicant's consultants as being a "church and preschool/kindergarten." (*Id.* at p.53).

While the DEIR was being prepared, however, the preschool/kindergarten was removed from the project description in order to support a finding that - due to the resulting reduction in project-related vehicle miles traveled ("VMTs") (i.e., in the amount of VMTs attributable to operating the school) - the project would no longer exceed the 900 metric ton screening limit for greenhouse gas emissions. (*See, e.g., Recon's Dec. 30, 2016 Addendum to Land Use and Planning Analysis*).

Significantly, however, no relevant physical changes to the project are contemplated, such that the very same buildings and facilities that were to be used for

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O-1-3 general opinion, so a detailed response is not possible. A general response to the issue of findings is provided in EIR Section 3.1.4.3 "Physical Compatibility with Surrounding Areas/Community Character", starting on page 3-76. No changes to the DSEIR are needed as a result of the comment.

O-1-4 The comment cites case law related to fragmenting projects. As the comment does not raise an issue with the analysis within the DSEIR, no further response is warranted.

O-1-5 The comment states that a kindergarten/preschool was a prior goal of the project and that, although it was eliminated from the project, the project was not physically altered as a result. After evaluation, the project applicants determined that the preschool and kindergarten were no longer necessary to meet the underlying objectives of the proposed project. The applicant has planned multiple uses for the proposed facilities, so reduction in building square footage would hamper other planned activities. The applicant has identified a range of uses that will take place on the site, including worship, fellowship, Bible study, and Christian education, café and bookstore, as well as administrative activities. These activities will make full use of the planned facilities; therefore, no excess capacity that might be used for a kindergarten/preschool at a later date is being created.

O-1-6 The comment states it is probable that the school will be re-introduced to the project, and so should be analyzed by this DEIR. Project operations have been laid out in detail in the DSEIR and they exclude the school use. Details of proposed uses are provided in DSEIR Section 1.2.2.7, page 1-6, and Table 4, page 36 of the land use study (Appendix O). A change of those operations as extensive as the addition of a school would trigger a revision of the MUP conditions, so discretionary approval would be triggered. This would involve a new application, additional environmental review which at a minimum would require a new traffic analysis, a public notice, and a public hearing. The school could not be added as a minor deviation because this change would be an operational change.

The CEQA process is intended to disclose environmental impacts and does not preclude project applicants from modifying projects during the process to avoid significant impacts on the environment. As previously detailed, the

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the preschool and kindergarten are still proposed as part of the project. (*Compare, e.g., Recon's Land Use Analysis, pp.19-22 and DEIR, Figure 1.2.*)

Under these circumstances, it is likely (and at the very least "reasonably foreseeable") that, after obtaining its initial approval through the pending administrative process, the applicant will seek to reintroduce the onsite preschool and kindergarten. This is particularly true given that one of the very reasons the applicant proposed the project in the first place was to "furnish kindergarten/preschool facilities...."

In addition, under the rule stated in *Laurel Heights*, the kindergarten/preschool is "significant" in that it will change the project's environmental consequences, including, for example, as they relate to traffic and GHG emissions. Indeed, the sole reason the school was excluded was to justify a finding of "no significant impact" under the 900 MT screening limit for greenhouse gas emissions, which cannot be met when the school is taken into account.

The kindergarten/preschool thus remains a reasonably foreseeable consequence of the project, and the decision to remove it from the project description reflects an impermissible effort to "chop[] up" the project to avoid addressing the full scope of foreseeable environmental consequences. The DEIR must therefore be revised and recirculated to consider, and to allow the public to comment upon, the environmental effects of the proposed preschool and kindergarten.

C. The DEIR's Discussion of Traffic Impacts Is Inadequate.

Relying on the traffic impact study prepared ("TIS") for the project by KOA Corporation ("KOA"), the DEIR concludes the project's traffic impacts will be less than significant. (DEIR, pp.3-92 to 3-112). However, as detailed in the attached expert comments of Urban Systems Associates, Inc. ("USAI") (a licensed civil and traffic engineering firm), the TIS includes numerous analytical errors that render it inaccurate and unreliable, and that further caused the significance of the project's traffic impacts to be drastically understated. In addition, as discussed in comments submitted by Dr. Gerald Kent, the project includes insufficient parking, such that congregants and other visitors will be forced to search for offsite parking, and will as a result cause further impacts to area traffic conditions that have not been considered in the DEIR. For these reasons, the conclusion that the project will cause no significant traffic impacts is not supported by substantial evidence, and the DEIR's traffic analysis (including the TIS) must be revised and recirculated.

D. The DEIR's Discussion of Land Use & Community Character Is Inadequate

The DEIR concludes the project's impacts related to land use and community character will be less than significant. This conclusion is based on the Land Use & Planning Analysis prepared by the applicant's consultant RECON Environmental, Inc.,

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O-1-6 preschool/kindergarten component was removed from the proposed project and it is speculative to assume that the project would incorporate the component at a later date. Any attempt to expand the project to include the kindergarten/preschool as some future date would involve a Specific Plan Amendment, and MUP, as well as environmental analysis at least as rigorous as this five-year process has been. The DSEIR appropriately evaluates the entire project and has considered the full range of impacts resulting from it. No changes to the DSEIR are required as a result of the comment.

O-1-7 This comment provides introductory remarks about the traffic study prepared for the project and references a traffic memorandum prepared by a traffic consultant. In order to fully respond to as many of the comments comprehensively, KOA, the firm that prepared the traffic study for the project, conducted a supplemental traffic analysis. The supplemental analysis and response to the other traffic consultant's memo are provided as Attachment A at the end of the responses to the Coast Law Group letter. The supplemental analysis concluded that no new significant impacts would occur that were not already identified in the DSEIR.

O-1-8 This comment states that the project does not provide enough parking, and that the search for off-site parking will result in traffic impacts. The County disagrees with the contentions raised within this comment for several reasons. As detailed within Section 3.1.6.3 of the DSEIR, Section 6764 of the County of San Diego Zoning Ordinance identifies the parking requirements for civic uses, including public assembly/religious assembly uses. Per the Zoning Ordinance, 0.25 parking spaces per person, based on total occupancy of the largest assembly room, are required. Since the Project would have an ultimate buildout of a 1,500-seat sanctuary, a total of 375 off-street parking spaces will be required for the Project. The project is providing 417 parking spaces, which is in excess of County requirements by 42 spaces. It also proposes an "overflow" parking area to accommodate cars during special events (DSEIR Section 1.2.2.3, page 1-5). The project's operational requirements also include the use of two shuttle buses on Sunday when services are held. This service is already in use at existing church locations so it will be a familiar service that will reduce parking pressures from the start of church operations at this new location. As the project would provide exceed zoning ordinance requirements, impacts would be less than significant. No changes were made the DSEIR based upon this comment.

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which in large part is dedicated to substantiating the project's purported compatibility with the community and surrounding area, as well as its alleged consistency with applicable land use plans and regulations. However, residents in the area have submitted detailed comments, based on their personal experiences, observations and knowledge about the area, that directly refute Recon's analysis and the conclusions in the DEIR. As established by these comments (including those submitted by Dr. Kent and the Coalition): (i) findings necessary to grant a Major Use Permit and to otherwise approve the project cannot be made, and (ii) the DEIR's conclusion that the project will have no significant land use impacts or effects on community character are not supported by substantial evidence.

E. The DEIR's Discussion of the Wetland and the County's RPO Is Inadequate.

Under the County's Resource Protection Ordinance ("RPO"), discretionary project applications require preparation of Resource Protection Studies in order to determine compliance with, among other things, the 50-200 ft. wetland buffer standard set forth in RPO § 86.602(r). (RPO § 86.603).

Here, while the DEIR acknowledges that "high value" emergent wetland habitat is present in the northern portion of the site, it concludes the RPO and its wetland buffer requirements are inapplicable to the project, and that, as a result, there will be no relevant impacts for purposes of CEQA. (E.g., DEIR, pp.2-41 to 2-42).

The bases for these conclusions are not clear. They apparently rest, however, on: (i) RPO § 86.603(a), which, as discussed, provides that Resource Protection Studies must be completed prior to approval of certain discretionary projects, (ii) the DEIR's claim that this project lacks a discretionary application that would "trigger" §86.603, and (iii) the wetland's location in an existing open-space easement, which the DEIR claims was created in 1998 in connection with TPM 20340. (See, e.g., DEIR, pp. 2-41 to 2-42; See also, DEIR Appendix E, Biological Letter Report, p.8).

The DEIR's analysis, however, is flawed for several reasons.

First, the assertion that "there is no trigger" for RPO § 86.603 is simply incorrect. That section provides: "Prior to approval of ... [certain discretionary applications], a Resource Protection Study must be completed and the approving authority shall make a finding that the use or development permitted by the application is consistent with the provisions of this chapter." (RPO § 86.603). It further specifies that applications for Major Use Permits require § 86.603 compliance. The MUP application for the project in this case thus "triggered" RPO §86.603, and the DEIR's contrary assertion is unsubstantiated and incorrect.

Second, the DEIR's assumption that the existing open space easement somehow obviates the wetland buffer and other requirements of the RPO is unfounded.

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**O-1-9** This comment provides summary remarks regarding the project's traffic impact analysis. As detailed in responses O-1-8, the project adequately analyzed the project's potential traffic and parking impacts consistent with County requirements and adopted thresholds. Traffic impacts will be less than significant.

**O-1-10** The comment describes aspects of the land use study (Appendix O of the DSEIR). The study provides detailed analyses of the existing uses in the area (Chapter 1.0) and its compatibility in terms of the physical characteristics of the project (Chapter 2.1) and land use (Chapter 2.2). It also evaluates relevant planning documents (Chapter 4.0). No changes are needed to the DSEIR as a result of the comment.

**O-1-11** The comment states that other comments about land use have been made by community members. Several public comment letters were received from community members. These include Rob and Patty Anders (letter F), Jason Hightower (letter G), Shamim, Habib, and Jasmin Husain (letter H), Arne Johnson (letter I), Gerald Kent (comment letter J), and Bruno Leone (letter K). A letter was also received from the 4S Santa Fe Valley Mega-Project Abatement Coalition (letter B). Full responses have been made to these comments and are included in the FEIR. A comment was made that the MUP findings could not be made for bulk, scale, and community character. The County disagrees. The project has been designed with differences in the height of the buildings, several different exterior shades and textures, and breaks between buildings to eliminate "massing" and give visual interest. Attachment B of Appendix C in the DEIR notes the tallest existing buildings within one mile of the project site, which demonstrates how the proposed height of the Church is in harmony with the community. And the design of the Church will have landscaping throughout the property with special attention to the perimeter, which will buffer and screen the Church from various vantage points. No change to the DSEIR are warranted as a result of the comment.

**O-1-12** This comment provides general comments about the County's Resources Protection Ordinance (RPO) wetland buffer standards for discretionary projects. Further comments on this item are expanded in General Response 2, Biology and Resource Protection Ordinance, Section 8.2.1 of the DSEIR. Please also see response O-1-13, below.

**O-1-13** This comment relates to statements in the DSEIR about the RPO. The DSEIR adequately addresses the RPO issue, but the DSEIR text is being modified in order to clarify the buffer discussion and reflect a conservative approach to

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There is nothing in the RPO that would support such a conclusion, and the DEIR's cursory analysis of the issue (which is virtually incomprehensible) does not suggest otherwise.

And third, even if the DEIR were correct in its assumption that the RPO is inapplicable (which is not the case), this would not – in the absence of further environmental analysis (e.g., of the type normally required by the RPO) – support the determination that the project will have no impacts related to the wetland or the wetland buffer for purposes of CEQA.

Further analysis of the project and the wetland is therefore required under both CEQA and the RPO. This is particularly true given that the project contemplates a buffer of as little as 16 ft. between the development footprint and the edge of the easement in which the wetland is located. (DEIR, p.2-51). In addition, the DEIR itself acknowledges that an increased buffer would reduce the project's impacts to biological resources. (DEIR, p.4-9 ("An increased open space buffer along the northern boundary [would] reduce impacts in several ways.")). It is thus clear, even in the absence of the review required by RPO § 86.603, that the project will impermissibly encroach on the mandated 50-200 ft. buffer, and in doing so will cause significant impacts to biological resources. (See, e.g., County of San Diego Guidelines for Determining Significance, Biological Resources, Fourth Revision, pp.7, 16-17<sup>1</sup>). Under these circumstances, the DEIR's relevant "no impact" conclusions (see, e.g., DEIR at pp.2-51, 2-53, and 3-83) are not supported by substantial evidence, and the applicant's failure to comply with the RPO precludes project approval.

F. The DEIR's Discussion of Greenhouse Gas Emissions Is Inadequate.

The DEIR concludes the project will cause no significant impacts related to greenhouse gas emissions. However, these conclusions (and the analyses that support them) are deficient for reasons previously discussed. For example, the DEIR's GHG analysis rests in part on trip rates obtained from the KOA Traffic Impact Study (see, e.g., DEIR Appendix L, p.30), but that study, for reasons detailed in Mr. Schlaefli's comments, is unreliable and likely significantly underreports project-related trips.

Further, the DEIR, as discussed, impermissibly fails to account for reasonably foreseeable trips and miles traveled associated with the preschool/kindergarten. These errors directly affect the DEIR's GHG analysis, and they render it deficient as well.

In addition to these previously-discussed issues, DEIR's analysis is also inadequate for the following reasons:

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**O-1-13** biological protection. A 50 foot buffer from the resource to the edge of development has been defined. No development will take place within this buffer. A further one hundred foot buffer has been declared beyond that, in which occur some building elements, parking spaces, hardscape, turf, and landscaping, and a volleyball court. In addition, a retaining wall, fencing, and landscaping are used to protect the open space from intrusions. The revisions are shown on Figure 2.2-1. The DEIR text has been modified on pages 2-42, -50, -51 - 53, and -55. Further details are provided in EIR Section 3.1.4.3 "Physical Compatibility with Surrounding Areas/Community Character", starting on page 3-76.

**O-1-14** This comment addresses the greenhouse gas (GHG) analysis prepared for the project. The traffic analysis was based on industry standard trip generation for religious land uses. It was reviewed by County traffic engineers and determined to be adequate. The alternative analysis referred to in the comment was reviewed by the traffic engineers for the project. The scenarios suggested were run using appropriate computer programs to determine if the alternate analysis would make a significant difference in the traffic impact analysis outcomes. No significant differences were found. Please also see Response O-1-16 below for a discussion of Vehicle Miles Traveled (VMT). No changes are warranted as a result of the comment.

**O-1-15** This comment addresses reasonably foreseeable vehicular trips associated with the school. No school is proposed so the addition of school trips would not be accurate. Please see Response O-1-5 and O-1-6 above.

**O-1-16** The comment states that the GHG analysis does not take into account growth factors such as an increase in the number of congregants. The commenter states that the assumed 17.8 percent reduction in vehicle miles traveled is based on the conclusory statement that the proposed use is more central than existing churches it is replacing, and that the supporting survey of congregants is undisclosed. An analysis of the existing congregation and the attendance at each of the current sites was conducted as part of the GHG analysis. Based on the analysis, it was determined the congregants are spread throughout coastal and inland portions of the County, which is similar to where future congregants would come from. The distance that each family travels to the current facility of attendance was calculated based on the origin and destination assuming the shortest route. These same origin locations were then used to calculate the distance all current congregants attending the disparate facilities would have to travel to attend the new facility. This difference was calculated to be a 17.8

<sup>1</sup> Available here: [http://www.sandiegocounty.gov/content/dam/sdc/pds/ProjectPlanning/docs/Biological\\_Guidelines.pdf](http://www.sandiegocounty.gov/content/dam/sdc/pds/ProjectPlanning/docs/Biological_Guidelines.pdf)

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1. *The DEIR Improperly Relies on a 17.8% reduction in VMTs.*

The DEIR's GHG analysis relies on the CAPCOA screening threshold of 900 metric tons of CO<sub>2e</sub> to determine that the Project's contribution to GHG emissions will not result in significant impacts. (DEIR, p. 3-34). To make this determination, the DEIR relies, in significant part, on a purported 17.8 percent reduction in vehicle miles traveled attributable to the project, which it contends is justified based on (i) its conclusory assertion that the proposed project is "more centrally located than existing facilities" (DEIR, p.3-39), and (ii) the results of undisclosed "surveys" of congregation families.<sup>2</sup> (DEIR, Appendix L, p. 30). However, even assuming these bases for the reduction were adequately disclosed in the DEIR (and they are not), the analysis does not purport to account for the project's increased intensity relative to existing facilities. For example, one the expressed objectives of the project is to "[p]rovide a new church-owned campus of appropriate size and ancillary services to fulfill the religious mission of the church...for an existing and growing population of congregants." (DEIR, p. 1-1, emphasis added). The DEIR accordingly describes the "ability to accommodate growth" as "essential to [the applicant's] mission," such that any reduction in the project's size would prevent attainment of project objectives. (DEIR, p.4-10). Yet nothing in the DEIR's GHG analysis suggests it accounts in any way for additional VMTs associated with the anticipated "growing population of congregants." Similarly, the VMT analysis fails to account for trips and miles traveled associated with events, employees, pastors and visitors, as well as with many of the project's ancillary services/facilities (including, for example, the education building, meeting building, learning center and administration building). The DEIR thus assumes the project will result in a 17.8% reduction in VMTs, but its analysis improperly fails to account for aspects of the project that will result in additional trips and miles traveled. In addition, the DEIR's traffic analysis (on which the mobile emissions analysis was based) acknowledges the project will increase intensity relative to the existing facilities, and further suggests diverted trips will not create an across-the-board decrease in traffic volume, all of which undermines the VMT reduction rate applied in the GHG analysis. (See, e.g., DEIR, Appendix B, p.24). Under these circumstances, the DEIR's application of a 17.8 percent reduction in VMT is inappropriate, and its determination that there will be no significant GHG-related impacts is not supported by substantial evidence.

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<sup>2</sup> "Argument, speculation, unsubstantiated opinion or narrative" does not constitute substantial evidence. (CEQA Guideline § 15384(a)). Rather, substantial evidence includes facts, reasonable assumptions predicated on facts, and expert opinion supported by facts. (CEQA Guideline § 15384(b)).

O-1-16

O-1-16

percent reduction in travel distance. To account for this reduction in VMT, the standard trip lengths included in the computer model were reduced by 17.8 percent. Details are provided in the greenhouse gas analysis, Appendix L. The statement is therefore not conclusory but rather is based on a detailed analysis of the travel distances with and without the new church. The survey data used to calculate travel distances are confidential as disclosing these data would disclose the physical addresses of congregants.

The comment also states increased intensity such as growth in the congregation was not taken into account. The DEIR and the traffic analysis do take into account growth in the congregations because they analyze the project at full buildout. There are two phases of the project, and the first phase calls for a sanctuary with 1000 seats. The second phase adds 500 seats, which accounts for a 50 percent increase in church attendees. The traffic analysis was based on this 1500 seat capacity, so it accurately takes into account increased intensity of use of the site. The GHG analysis prepared for the DSEIR is based on industry standard methodologies and relies on traffic data that are also based on industry standard methodologies. Therefore, the GHG analysis is adequate in identifying GHG impacts associated with the project.

O-1-17

**O-1-17** The comment states the traffic analysis fails to account for traffic associated with events, employees, pastors, visitors, and ancillary uses. The traffic analysis was based on industry standard trip generation rates for religious land uses and was reviewed by County traffic engineers and determined to be adequate. Trip generation accounts for the total use of a facility including the size of the land use. For a church, it is based on the number of seats as supported by studies of various churches across the country conducted by the Institute of Traffic Engineers (ITE). ITE provides guidance on calculating the total trips generated by church uses based on the number of seats, which includes the congregants, the people who work at the church, the people who visit the church, deliveries, and ancillary trips in and out of the church for various unrelated activities. Therefore, as the project is based on the size of the church as needed to accommodate the number of new congregants as well as the existing congregants, the GHG analysis does analyze the growth associated with the future congregation. The use of the reduced trip distance is appropriate, as it is assessing the emissions reductions throughout the County associated with the change in location of the facility including the changes that would occur over time as the congregation grows. For a discussion of uses associated with increased intensity, please see Response 16 above. The project's reliance on the 17.8 reduction in VMT is based on a detailed analysis using established methodologies, and its use in the greenhouse gas analysis is appropriate and accurate.

This comment states the project was not evaluated in relation to the County Draft Climate Action Plan (CAP)'s Consistency Review Checklist. The project used a screening level threshold to determine if further analysis of greenhouse gases generated by the project is warranted. The analysis (Appendix L, and as summarized in DSEIR Section 3.1.2) determined the project did not exceed this threshold and therefore the project did not require further analysis. Analyzing the project against the CAP checklist is therefore not required. The County Climate Action Plan is a draft, as noted, and subject to change. Use of this list to determine the adequacy of the greenhouse gas analysis would therefore be premature and speculative. For a discussion of specific CAP provisions, please see Response 20 below. The greenhouse gas analysis (Table 10) also provided an extensive analysis of the County's adopted General Plan and found the project was consistent with it.

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### 2. The DEIR Does not Assess Consistency with the County's Draft CAP.

The County's draft Climate Action Plan (CAP)<sup>3</sup> is intended to mitigate the impacts of the 2011 General Plan and future county-wide impacts from individual projects. The CAP is therefore to serve as the County's qualified greenhouse gas reduction plan pursuant to 14 CCR §15183.5. To implement the CAP, the County has further developed a CEQA checklist to assess individual projects' consistency with the CAP.<sup>4</sup> Here, however, the DEIR does not disclose the County's CAP or consistency checklist (which were recently released for public review), and it accordingly fails to measure the project's impacts under them. This is particularly problematic given that: (i) the CAPCOA 900 MT threshold relied upon in the DEIR is (as discussed below) is outdated and unreliable, and (ii) the draft CAP reflects the County's best and most updated effort to establish an appropriate significance threshold. Moreover, the project is *not* consistent with the proposed CAP. For example, Checklist Item 4.a. requires non-residential construction to achieve a 10% greater building energy efficiency than required by 2016 Title 4 standards. (Checklist A-7), but the project does not incorporate this reduction. (Appendix L, p. 31) Similarly, Checklist Item 6.a. requires non-residential projects to provide 100% of the project's annual electricity through rooftop solar or to procure 100% renewable energy from a utility purveyor (Checklist A-8), but the project proposes rooftop solar to offset only 10% of its energy demand. (DEIR, Appendix L, p.1). The project should therefore be reviewed for compliance with, and found to have a significant impact under, the CAP and its implementing checklist.

### 3. The DEIR's Reliance on the CAPCOA Threshold Is Improper.

In drafting the CAP, the County compiled County-specific data to establish regional targets and a County-specific checklist. The DEIR nevertheless ignores the CAP and instead uses the 900 MT threshold from a decade-old CAPCOA guidance document. However, the CAPCOA document itself cautions that, because data from only 4 cities was compiled, more information is required for full-scale application of its threshold. (See, CAPCOA, CEQA and Climate Change, Jan. 2008, p. 43 ("If this threshold is preferred, it is suggested that a more robust data set be examined to increase the representativeness of the selected thresholds. At a minimum, a diverse set of at least 20 cities and/or counties from throughout the state should be examined in order to support the market capture goals of this threshold. Further, an investigation of market capture may need to be conducted for different commercial project types and for industrial projects in order to examine whether multiple quantitative emissions

<sup>3</sup> Available at: [http://www.sandiegocounty.gov/content/sd/cpl/pds/ceqa/Climate\\_Action\\_Plan\\_Public\\_Review.html](http://www.sandiegocounty.gov/content/sd/cpl/pds/ceqa/Climate_Action_Plan_Public_Review.html)

<sup>4</sup> Available at <http://www.sandiegocounty.gov/content/dam/sdc/pds/advance/cap/publicreviewdocuments/CAPfilespublicreview/Draft%20CAP%20Consistency%20Review%20Checklist.pdf>

O-1-18

O-1-18

The comment states the CAPCOA 900 metric ton (MT) threshold is outdated and that the CAP represents the County's best effort to establish a significance threshold. The greenhouse gas analysis (Appendix L), Section 4.4 states:

The screening level used in this analysis is not based on the future County CAP and not based upon a threshold adopted by a public hearing process, but rather it is considered to be appropriate based on the nature of the proposed project. The screening level used in this analysis represents a good faith effort to evaluate whether GHG impacts from the proposed project may be significant, taking into account the type and location of the proposed development, the best available scientific data regarding GHG emissions, and the current state reduction targets and strategies for reduction of GHG emissions.

As stated in the DSEIR, the 900 MT CO<sub>2</sub>e threshold is a screening threshold used to determine if a project's emissions are low enough to have no cumulative effect on statewide emissions. Project size-based screening levels have been published by the California Air Pollution Control Officers Association (CAPCOA) for determining the need for additional analysis and mitigation for GHG-related impacts under CEQA. The annual 900 MTCO<sub>2</sub>e screening level referenced in the CAPCOA white paper is used as a conservative screening criterion for determining which projects may require further analysis (CAPCOA 2010). The white paper also provides guidance on the identification of project design features and potential mitigation measures regarding GHG emissions. The CAPCOA white paper reports that the 900 MTCO<sub>2</sub>e per year screening level would capture more than 90 percent of development projects, allowing for mitigation towards achieving the State GHG reduction goals. CAPCOA has recommended screening thresholds based on various land use densities and project types. Using CAPCOA guidance, land use projects that meet or fall below the screening thresholds are expected to result in 900 MTCO<sub>2</sub>e per year of GHG emissions or less and would not require additional analysis; therefore, the climate change impacts would be considered less than significant. See also Section 4.0 of the Global Climate Change Analysis, which was included as Appendix L of the DSEIR. For a discussion of the CAP, please see Response O-1-17 above.

O-1-19

O-1-20

O-1-21

O-1-19

This comment states the project does not comply with the County's draft CAP. For a response to the issue of using the CAP, please see Response O-1-17 and O-1-18 above.

O-1-20

This comment questions the use of the CAPCOA screening threshold over that of the CAP. Please see Responses O-1-17 and O-1-18 for a response.



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Response to Comments Letter

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October 9, 2017  
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thresholds or different thresholds should be developed..."). Because the Project does not fit squarely in the residential, commercial or industrial categories examined by CAPCOA, application of its threshold is particularly inappropriate.

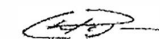
4. *The DEIR's Analysis of GHG Reduction Targets Beyond 2020 is Deficient.*

Relying on its conclusion that the project falls below the 900 MT screening threshold, the DEIR assumes the Project will not frustrate attainment of the State's GHG reduction targets beyond 2020. However, the CAPCOA screening threshold was established almost a decade ago, before the State adopted its interim 2030 goal.<sup>5</sup> Despite the uncertainties associated with the CAPCOA threshold, the DEIR summarily claims that the threshold would be consistent with AB 32 reduction targets, and that, "[b]ased on currently available models and regulatory forecasting, project emissions would continue to decline from 2020 through at least 2050." (DEIR, Appendix L, p. 37). However, the DEIR does not explain how the project will reduce emissions beyond 2020 in line with the State's quantitative 2030 and 2050 targets. (*Id.*) This is inappropriate, especially in light of the Project's presumed 30-year life span.<sup>6</sup> In addition, while the County's CAP was developed to meet the 2020 and 2030 reduction targets county-wide, the project, as discussed, does not satisfy the CAP's project-level requirements, reflecting that it will impede attainment of GHG reduction targets beyond 2020. The DEIR's analysis is therefore deficient, and its conclusion that the project will not cause significant GHG-related impacts is not supported by substantial evidence.

G. Conclusion

For the reasons discussed above - as well as those discussed in the comments submitted by USAI, the Coalition and other members of the community - the DEIR cannot be certified under CEQA. It should accordingly amended to address the identified deficiencies and recirculated for further comment.

Sincerely,  
**COAST LAW GROUP, LLP**



Chris Polychron  
cpolychron@coastlawgroup.com

Enc: Comments by Urban Systems Associates, Inc., dated October 9, 2017

<sup>5</sup> Even at the time of its original publication the CAPCOA guidance acknowledged uncertainties with the 900 MT threshold. It states, for example, that: "Approach 2 thresholds with lower quantitative (2.1 and 2.2) or qualitative (2.5) thresholds will have uncertainties associated with the ability to achieve GHG reductions from small to medium projects." (CAPCOA, CEQA and Climate Change, Jan. 2008, pp.54-55).

<sup>6</sup> DEIR, Appendix L, p. 29 [construction emissions amortized over 30 years]

O-1-21

O-1-21

This comment questions the use of the CAPCOA screening threshold over that of the CAP. Please see Response O-1-18 for a response.

O-1-22

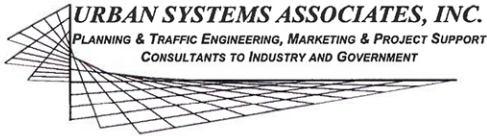
O-1-22

This comment states the DEIR assumes the project will not frustrate attainment of the State of California's GHG reduction targets beyond 2020. The 900 MT CO<sub>2</sub>E screening level is conservative and represents a 90 percent capture rate. Projects that do not exceed this screening level would not conflict with the state reduction targets and would therefore be less than cumulatively considerable. CAPCOA guidance indicates that projects that emit less than 900 MT CO<sub>2</sub>E annually would be consistent with state reduction targets identified by Assembly Bill (AB) 32. Further, emissions are generally highest during the first year the project is fully operational and continue to decline in the future as a result of continued implementation of federal and state reduction measures, such as increased federal and state vehicle efficiency standards and utility renewables generation requirements. As a result, operational emissions associated with vehicles, energy use, and water consumption would reduce beyond those estimated for the first operational year. Thus, the project would not conflict with the achievement of state reduction goals identified and codified by Executive Order B-30-15 and Senate Bill (SB) 32.

O-1-23

O-1-23

The comment presents a closing statement. Recirculation of the DSEIR is not required for the reasons expressed in the foregoing responses. Community character, traffic, and land use were included in the DSEIR and we extensively evaluated. The DEIR's exclusion of the pre-school/kindergarten is appropriate because this use is no longer proposed. The RPO analysis was reviewed and changes were made as a result of the comment, but these changes clarified the existing conclusion that the project does not have direct biological impacts. The traffic analysis was carried out using industry-standard methodologies and the recommended alternative methodologies did not significantly alter the traffic analysis conclusions. Vehicle trips were accurately assessed and the greenhouse gas analysis appropriately used the CAPCOA screening level threshold.



**MEMO**

**ATTN:** Chris Polychron  
Coast Law Group, LLP  
*E-Mail:* ▼  
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**FROM:** Justin P. Schlaefli, PE TE PTOE  
*TOTAL PAGES (Including Cover):*

**DATE:** October 9, 2017  
*TIME:* 11:12:58 AM  
*JOB NUMBER:* N/A

**SUBJECT:** Santa Fe Valley Chinese Bible Church TIS- Comments

Confidential Communications

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As requested, we have reviewed the Traffic Impact Study for the Santa Fe Valley Chinese Bible Church. The study comprises Appendix B to the Environmental Impact Report. It was prepared by KOA Corporation and is dated March 2017. Our comments are below:

1. The Trip Generation for the proposed project does not appear to meet standards. Specifically, the trip generation uses multiple sources without explanation. Table 5 (weekday project trip generation) in the TIS uses SANDAG trip rates while Table 6 utilizes ITE Trip Generation, 8th Edition. In general, the recommended practice based on ITE, Trip Generation Handbook, 2nd Edition is to use local data when there are five or fewer data points or when an independent variable does not fall within the range of data. This is the case with the trip rate utilized for Daily trips on Sunday in Table 6. According to notes in the publication, the rate should be treated with "caution" and should be used carefully due to small sample sizes. As mentioned, in addition to the small sample size, the 1,500 seat intensity is significantly higher than any other studied site with respect to the daily rate.
  - a. In addition to the primary issue described above, the proportion of Sunday peak hour traffic appears to be miscalculated. 33% of 2,775 is 916 peak hour trips (not 925 as reported in Table 6).
  - b. The intensity reported in Table 5 does not match the project description. Table 5 shows an intensity of 43,500 square feet while the project description in the EIR notes the project will consist of five buildings totaling 89,234 square feet. This would more than double the projected weekday trip generation once corrected. It should be noted that common ITE descriptions of church uses include ancillary facilities such as assembly halls, meeting rooms, classrooms and other facilities such that it is inappropriate to discount such space unless it legitimately serves an alternative use. If such ancillary facilities serve an alternative use (i.e. daycare), they should be evaluated separately for weekday trip generation purposes and as part of a church facility on weekends during services.
  - c. The TIS references ITE, Trip Generation, 8th Edition as the source for data in Table 6. This reference is outdated. The correct data source at the time of the preparation of the TIS (March 2017) was the 9th Edition of Trip Generation.

Comment 1

Memo

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MONTEREY PARK ORANGE ONTARIO SAN DIEGO



**TECHNICAL MEMORANDUM**

From: J. Arnold Torma, California RTE # 1143  
To: Ron Harper and Howard Cooper

Date: February 14, 2018

**SUBJECT: RESPONSE TO USA COMMENTS OF 2-5-18 ON SANTA FE VALLEY CHINESE BIBLE CHURCH TIS – JB42038**

In order to fully respond to as many of the comments comprehensively we have conducted a supplemental analysis of the project impacts that make use of revised assumptions for many of the specific issues discussed individually below. The conclusion of this supplemental analysis as shown in the attached materials is that no new significant impact is created as the result of project.

1. Two sources of trip generation rates are recognized as noted in the comments. One of the differences between the locally published rates (SANDAG) and the nationally recognized ones (ITE) is how the Sunday traffic is estimated. The national rates from ITE apply a rate per seat of the sanctuary while the local rates from SANDAG simply multiply the weekday rate by four to obtain a Sunday rate. Since we had the number of seats available for the proposed sanctuary to use with the ITE rates we were able to obtain a Sunday trip estimate. In addition, the SANDAG rates do not offer an appropriate peak hour percentage of traffic for making calculations whereas the ITE rates do. So, to be consistent between the daily rate and the peak hour calculation the ITE rates were exclusively used for Sunday traffic estimates in the original analysis. For this supplemental analysis we have employed SANDAG's method of calculating Sunday trips (4x the weekday amount), but in order to obtain the peak hour ratios we have used the peaking factor derived from ITE by comparing daily to peak hour rates.
  - 1a. The difference in the calculation is 9 trips, and the correct amount was used in the supplemental analysis.
  - 1b. The 43,500 s.f. amount is for the sanctuary building. In discussions between the project team and the County it was concluded that the driving factor for trip estimation is the square footage we used for sanctuary and administrative use rather than the ancillary buildings that are in the proposed plan. For the supplemental analysis we have used all of the square footage for the project for calculating weekday trips with the SANDAG rate.
  - 1c. For the supplemental analysis we have employed the SANDAG rates for Sunday with peaking factors derived from the ITE rates since SANDAG doesn't specifically provide unique peaking factors for maximum hour on a worship day.
  - 1d. While the material referenced is not included in the appendix, it is incorporated by reference to the appropriate sources.
2. The geometry as it exists at the time of this response has been verified and incorporated into the supplemental analysis.
3. For the supplemental analysis we have made use of Synchro Version 9 software which incorporates the HCM 2010 standards.
4. Peak hour factors from the latest available counts at intersections as used in the 2016 addendum for the project have been incorporated into this supplemental analysis of existing conditions.

- d. The TIS references Appendix D in the development of project trips. In reviewing Appendix D, no SANDAG trip generation rates or other information is provided to support the findings in the TIS. Instead, survey data apparently supporting the distribution of trips is presented. This appendix should be updated with corrected information supporting the trip generation assumptions.
2. There are multiple flaws in the analysis of intersections. Most significantly, the lane configurations shown in the report (Figure 2-1 and Figure 3-17) do not match field conditions. For example, a field check of the I-15 NB ramps at Camino Del Norte shows a shared left turn in the NB direction not shown on the graphics. Another example is the NB leg of the intersection of Camino Del Norte and 4S Ranch Parkway which field checks show a left turn lane, a thru lane and a right turn lane while Figure 3-17 shows a shared lane. Several other intersections do not match field conditions and some of the appendices do not match the figures in the report. This should be rectified and the level of service results should be updated based on the revised analysis.
  3. According to the TIS appendices, the analysis tool, Traffix 8.0 was utilized for the analysis with the HCM2000 methodology. At the time of the analysis, the HCM 6th Edition methodology was current. This methodology is two generations newer and is the current industry standard. The analysis should be revised consistent with this methodology where possible consistent with the current state of the practice.
  4. The analysis appears to assume a uniform Peak Hour Factor of 0.95 for all intersections. According to count data provided in appendix B, this assumption is improper for multiple locations. A notable example is at the intersection of Dove Canyon and Lone Quail where existing counts show an intersection peak hour factor of 0.776 in the AM peak hour while the analysis in Appendix C and elsewhere. The proper peak hour factor should be utilized at all locations and the revised analysis results reported.
  5. Figure 3-18 does not show any cumulative traffic on multiple side streets including 4 Gee Road. It appears the volume on 4 Gee Road was whited out. This figure should be corrected.
  6. The analysis of 4 Gee Road assumes a consistent capacity across jurisdictional boundaries. As noted in the TIS, the capacities and level of service criteria differ between the City of San Diego and the County of San Diego. 4 Gee Road and any other applicable segments should be divided at jurisdictional boundaries to illustrate the change in level of service criteria.
  7. Based on the revised trip generation, the intersections of Camino Del Norte at the I-15 Interchange should be re-evaluated for potential queuing impacts. Additional ramp meter analysis should also be provided as the proposed project generates more than 20 peak hour trips at ramps with a meter in the City of San Diego.
  8. The proposed project feature of a traffic signal at 4 Gee Road and the project driveway/fire station driveway is not supported by documentation. A signal warrant should be prepared and provided in an appendix to the TIS to support the installation of a signal. In addition, the operations study referenced should be provided in an appendix. Coordination across jurisdictional boundaries for traffic signal operation is notoriously difficult. Documentation from the City of San Diego, Traffic Operations should be provided indicating acceptance of the proposed signal and agreement with the proposed signal timing, interconnect and coordination scheme. Likewise, documentation regarding coordination and acceptance by the fire department should be provided to ensure proper access for emergency services and ensure that the proposed project does not impact fire station access. The List of Preparers and Persons and Organizations Contacted does not include contacts with the City of San Diego or the Fire Department. It is noteworthy that the conceptual signal design appears to show only a single detection zone for trucks leaving the fire station. This is not adequate as there are three separate exit lanes from the fire station which must be taken into account. In addition, the conceptual design of the proposed signal should take into account all proposed lanes. The design concept only shows a single outbound

Comment 2

Memo



5. As part of the development of cumulative growth in the area a factor was applied to account for general background growth and various other sources of traffic growth. This resulted in some growth to 4G Road in the traffic study as well as on the other facilities studied.
  6. The roadway capacity value that has been used for 4G Road in the analysis is the County's value of 16,000 ADT which is applicable on the County's side of the jurisdictional line. Had the City's capacity value been used for the short stretch south of that boundary (whether 8,000 ADT or 15,000 ADT depending on the defined cross section) no impact would result since the project plus background volumes are substantially lower and between three and four thousand ADT depending on the scenario.
  7. The ramp metering analysis would normally be expected for volumes on an operating, metered ramp that exceeds 20 vehicles per hour. The project volumes in the original study and the supplemental analysis are well below that amount, and the metering is only actuated during the peak hour in one direction, not both, at the freeway and the project's contribution to the peak direction on the ramps is negligible.
  8. The requirement for a traffic signal at the driveway/fire station location is a requirement initiated by the Fire District who worked in cooperation with the County staff. Coordination and input was received from the City of San Diego traffic operations staff that control and maintain the adjacent signal 4G at Camino Del Sur. Once the actual City permits and design for the public improvements associated with this requirement is undertaken issues such as loop detector placement, emergency preemption, lane allocation from the fire station driveway, etc. will be finalized. The project applicant recognizes this.
  9. The current signal timing sheets are attached to this memorandum regarding the supplemental analysis.
  10. The referenced turning movement numbers at the Camino Del Norte at the SB I-15 ramp are from an earlier version of the project that had also contained a school. The school has been removed from the project description, and the respective project right turns in the AM and PM for eastbound traffic to the SB I-15 ramp are actually 5 and 9 trips per hour respectively. The ramp intersections are in the City of San Diego although they are understandably maintained and operated by Caltrans. The County's guidelines for traffic studies contains a discussion of critical movements at ramp signals and allowable additional vehicles in poor operating conditions and on critical movements, notably when the intersection is operating at LOS=F. As the original and supplemental analysis shows, this intersection is operating at better than LOS=F conditions in the scenarios studied.
  11. This comment is being addressed by others.
  12. That incorrect reference is noted, and the appropriate California Traffic Engineer Registration number is 1143 for Mr. Torma.
- Attachments:
- Project trip generation table
  - Segment LOS tables
  - Intersection delay/LOS tables
  - Calculation output sheets
  - Signal timing sheets

- lane while the report analysis and Figure 3-17 show two lanes outbound (one right and one left). These inconsistencies must be reconciled to provide an adequate intersection analysis. Additionally, if provided and incorporated as a project feature, the conceptual design should be prepared by a licensed Civil Engineer showing proper pole locations, cabinet locations and detection zones.
9. The signal timing sheets for all intersections should be provided in an appendix to verify signal timing inputs and cycle lengths utilized in the analysis. Timing inputs could not be verified based on information currently available.
  10. The intersection of Camino Del Norte and I-15 SB ramps shows a deficient level of service on the EB right turn movement, WB thru movement and SB movements. Each of these movements has an excessive queue. In particular, the project contributes a minimum of 21 AM peak trips to the EB right turn and 38 AM peak trips to the WB thru movement. Utilizing County of San Diego Impact thresholds, impacts to this intersection would result. This analysis should be revisited using significance criteria approved by the County of San Diego as well as significance criteria from the City of San Diego.
  11. The TIS notes that 375 off-street parking spaces are required and that the church will provide 42 additional parking spaces over Code requirements. However, the TIS also notes that the parking will be assessed by County staff during the review and approval process of the site plan. It is unclear how the 375 space requirement was calculated. County Code Section 6764 notes that 0.25 parking spaces per person (based on total occupancy of the largest assembly room permitted by the County Building Code) is required. This requirement differs from the calculation in the site plan which notes a 1,500 seating capacity. The seating capacity of a facility is often less than the total occupancy. This is particularly true of churches where the person capacity of an assembly room exceeds the seating capacity allowing for additional personnel necessary for the church service including the pastor, ushers, musicians, performers and other persons also occupying the assembly room. Parking for these additional personnel should be provided and planned for. As the parking requirement will undoubtedly exceed what is shown on the site plan and in the TIS, a corrected number should be provided. Additional parking may be necessary.
  12. The List of Preparers and Persons and Organizations Contacted (Chapter 5.0) of the TIS records an incorrect license number for the Principal Engineer. According to the Board of Professional Engineers and Land Surveyors, the Principal Engineer is not a registered Civil Engineer but is indeed a licensed Traffic Engineer. This should be corrected for the record.

Supporting documentation for these responses follows.



## **PROJECT TRIP GENERATION TABLE**

Land Use	Intensity	Units	Rate/Trips	Daily	AM Peak Hour			PM Peak Hour		
					Total	In	Out	Total	In	Out
Weekday Trip Generation										
Church (House of Worship)	43.5	ksf	Rate Trips	9 392	5% 20	60% 12	40% 8	8% 31	50% 16	50% 16
<b>TOTAL</b>				392	20	12	8	31	16	16

Source: SANDAG Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (April 2002).



## **SEGMENT LOS TABLES**

Roadway Segment	Lanes/ Class	LOS E Capacity	Existing				Existing + Project			Δ V/C	Significant?	
			ADT	LOS	V/C	Project Added Traffic	ADT	LOS	V/C			
<b>Weekday</b>												
4 Gee Rd between Camino Del Norte and the Project Driveway	2LC	16,200	3,088	B	0.191	390	3,478	B	0.215	0.02	No	
Camino Del Norte between 4 Gee Rd and Rancho Bernardo Rd	4MR	40,000	25,523	C	0.638	356	25,879	C	0.647	0.01	No	
Camino Del Norte between Rancho Bernardo Rd and 4S Ranch Pkwy	4MR	37,000	20,071	B	0.542	301	20,372	B	0.551	0.01	No	
Camino Del Norte between 4S Ranch Rd and Dove Canyon Rd	4MR	37,000	20,839	B	0.563	296	21,135	B	0.571	0.01	No	
Camino Del Norte between Dove Canyon Rd and Bernardo Center Dr	6PA	60,000	26,816	B	0.447	202	27,018	B	0.450	0.00	No	
Camino Del Norte between Bernardo Center Dr and Paseo Montanoso	6PA	60,000	49,587	D	0.826	198	49,785	D	0.830	0.00	No	
Camino Del Norte between Paseo Montanosos and I-15 Ramps	6PA	60,000	51,471	E	0.858	196	51,667	E	0.861	0.00	No	
Dove Canyon Rd between Camino Del Norte and Lone Quail Rd	4MR	37,000	13,355	A	0.361	94	13,449	A	0.363	0.00	No	
<b>Weekend</b>												
4 Gee Rd between Camino Del Norte and the Project Driveway	2LC	16,200	2,306	B	0.142	2,758	5,064	C	0.313	0.17	No	
Camino Del Norte between 4 Gee Rd and Rancho Bernardo Rd	4MR	40,000	14,661	A	0.367	2,520	17,181	B	0.430	0.06	No	
Camino Del Norte between Rancho Bernardo Rd and 4S Ranch Pkwy	4MR	37,000	12,740	A	0.344	2,131	14,871	B	0.402	0.06	No	
Camino Del Norte between 4S Ranch Rd and Dove Canyon Rd	4MR	37,000	13,402	A	0.362	2,098	15,500	B	0.419	0.06	No	
Camino Del Norte between Dove Canyon Rd and Bernardo Center Dr	6PA	60,000	19,134	A	0.319	1,429	20,563	A	0.343	0.02	No	
Camino Del Norte between Bernardo Center Dr and Paseo Montanoso	6PA	60,000	29,855	B	0.498	1,399	31,254	B	0.521	0.02	No	
Camino Del Norte between Paseo Montanosos and I-15 Ramps	6PA	60,000	32,566	B	0.543	1,385	33,951	B	0.566	0.02	No	
Dove Canyon Rd between Camino Del Norte and Lone Quail Rd	4MR	37,000	8,978	A	0.243	669	9,647	A	0.261	0.02	No	

Abbreviations: 2LC is a 2 lane Light Collector. 4MR is a 4 lane Major Road. 6PA is a 6 lane Prime Arterial.



Roadway Segment	Lanes/ Class	LOS E Capacity	Near Term				Near Term + Project					
			ADT	LOS	V/C	Project Added Traffic	ADT	LOS	V/C	$\Delta$ V/C	Significant?	
<b>Weekday</b>												
4 Gee Rd between Camino Del Norte and the Project Driveway	2LC	16,200	3,212	B	0.1982	390	3,601	B	0.2223	0.02	No	
Camino Del Norte between 4 Gee Rd and Rancho Bernardo Rd	4MR	40,000	26,544	C	0.6636	1,037	27,581	C	0.6895	0.03	No	
Camino Del Norte between Rancho Bernardo Rd and 4S Ranch Pkwy	4MR	37,000	20,874	B	0.5642	301	21,175	B	0.5723	0.01	No	
Camino Del Norte between 4S Ranch Rd and Dove Canyon Rd	4MR	37,000	21,673	B	0.5857	296	21,969	B	0.5938	0.01	No	
Camino Del Norte between Dove Canyon Rd and Bernardo Center Dr	6PA	60,000	27,889	B	0.4648	202	28,091	B	0.4682	0.00	No	
Camino Del Norte between Bernardo Center Dr and Paseo Montanoso	6PA	60,000	54,098	E	0.9016	198	54,296	E	0.9049	0.00	No	
Camino Del Norte between Paseo Montanosos and I-15 Ramps	6PA	60,000	55,289	E	0.9215	196	55,484	E	0.9247	0.00	No	
Dove Canyon Rd between Camino Del Norte and Lone Quail Rd	4MR	37,000	14,079	A	0.3805	94	14,174	A	0.3831	0.00	No	
<b>Weekend</b>												
4 Gee Rd between Camino Del Norte and the Project Driveway	2LC	16,200	2,467	B	0.1523	2,758	5,226	C	0.3226	0.17	No	
Camino Del Norte between 4 Gee Rd and Rancho Bernardo Rd	4MR	40,000	15,687	B	0.3922	2,520	18,207	B	0.4552	0.06	No	
Camino Del Norte between Rancho Bernardo Rd and 4S Ranch Pkwy	4MR	37,000	13,632	A	0.3684	2,131	15,763	B	0.4260	0.06	No	
Camino Del Norte between 4S Ranch Rd and Dove Canyon Rd	4MR	37,000	14,340	A	0.3876	2,098	16,438	B	0.4443	0.06	No	
Camino Del Norte between Dove Canyon Rd and Bernardo Center Dr	6PA	60,000	20,473	A	0.3412	1,429	21,903	A	0.3650	0.02	No	
Camino Del Norte between Bernardo Center Dr and Paseo Montanoso	6PA	60,000	31,945	B	0.5324	1,399	33,343	B	0.5557	0.02	No	
Camino Del Norte between Paseo Montanosos and I-15 Ramps	6PA	60,000	34,846	B	0.5808	1,385	36,230	B	0.6038	0.02	No	
Dove Canyon Rd between Camino Del Norte and Lone Quail Rd	4MR	37,000	9,606	A	0.2596	669	10,275	A	0.2777	0.02	No	

Abbreviations: 2LC is a 2 lane Light Collector. 4MR is a 4 lane Major Road. 6PA is a 6 lane Prime Arterial.



## **INTERSECTION DELAY/LOS TABLES**

## Existing + Project Intersection Level of Service

Intersection	Existing Condition		Existing + Project Condition		Δ Delay	Significant?
	Delay	LOS	Delay	LOS		
<b>AM Peak Hour</b>						
1. Project Driveway & 4 Gee Rd	0.7	A	0.7	A	0.0	No
2. Camino Del Sur & 4 Gee Rd	22.3	C	22.4	C	0.1	No
3. Camino Del Sur & Rancho Bernardo Rd/Lone Quail Rd	43.3	D	43.5	D	0.2	No
4. Camino Del Norte & 4S Ranch Pkwy	18.1	B	18.1	B	0.0	No
5. Camino Del Norte & Dove Canyon Rd	29.0	C	29.1	C	0.1	No
6. Camino Del Norte & Bernardo Center Dr	57.7	E	57.8	E	0.1	No
7. Camino Del Norte & Paseo Montanoso	9.5	A	9.5	A	0.0	No
8. Camino Del Norte & I-15 SB Ramps	52.3	D	52.5	D	0.2	No
9. Camino Del Norte & I-15 NB Ramps	32.8	C	33.0	C	0.2	No
10. Dove Canyon Rd & Lone Quail Rd	21.8	C	21.9	C	0.1	No
<b>PM Peak Hour</b>						
1. Project Driveway & 4 Gee Rd	0.6	A	0.6	A	0.0	No
2. Camino Del Sur & 4 Gee Rd	18.6	B	19.3	B	0.7	No
3. Camino Del Sur & Rancho Bernardo Rd/Lone Quail Rd	35.1	D	35.6	D	0.5	No
4. Camino Del Norte & 4S Ranch Pkwy	19.9	B	19.9	B	0.0	No
5. Camino Del Norte & Dove Canyon Rd	45.2	D	45.4	D	0.2	No
6. Camino Del Norte & Bernardo Center Dr	113.5	F	113.4	F	-0.1	No
7. Camino Del Norte & Paseo Montanoso	13.9	B	13.9	B	0.0	No
8. Camino Del Norte & I-15 SB Ramps	30.1	C	30.4	C	0.3	No
9. Camino Del Norte & I-15 NB Ramps	25.9	C	26.0	C	0.1	No
10. Dove Canyon Rd & Lone Quail Rd	21.9	C	22.0	C	0.1	No

## Near Term + Project Intersection Level of Service

Intersection	Near Term Condition		Near Term + Project Condition		Δ Delay	Significant?
	Delay	LOS	Delay	LOS		
<b>AM Peak Hour</b>						
1. Project Driveway & 4 Gee Rd	0.7	A	0.7	A	0.0	No
2. Camino Del Sur & 4 Gee Rd	23.5	C	23.6	C	0.1	No
3. Camino Del Sur & Rancho Bernardo Rd/Lone Quail Rd	46.3	D	46.5	D	0.2	No
4. Camino Del Norte & 4S Ranch Pkwy	18.5	B	18.5	B	0.0	No
5. Camino Del Norte & Dove Canyon Rd	34.3	C	34.7	C	0.4	No
6. Camino Del Norte & Bernardo Center Dr	88.3	F	88.3	F	0.0	No
7. Camino Del Norte & Paseo Montanoso	10.6	B	10.6	B	0.0	No
8. Camino Del Norte & I-15 SB Ramps	56.6	E	56.9	E	0.3	No
9. Camino Del Norte & I-15 NB Ramps	54.2	D	54.6	D	0.4	No
10. Dove Canyon Rd & Lone Quail Rd	22.7	C	22.7	C	0.0	No
<b>PM Peak Hour</b>						
1. Project Driveway & 4 Gee Rd	0.6	A	0.7	A	0.1	No
2. Camino Del Sur & 4 Gee Rd	18.6	B	19.3	B	0.7	No
3. Camino Del Sur & Rancho Bernardo Rd/Lone Quail Rd	38.0	D	38.8	D	0.8	No
4. Camino Del Norte & 4S Ranch Pkwy	20.5	C	20.5	C	0.0	No
5. Camino Del Norte & Dove Canyon Rd	56.3	E	56.6	E	0.3	No
6. Camino Del Norte & Bernardo Center Dr	73.8	E	74.2	E	0.4	No
7. Camino Del Norte & Paseo Montanoso	16.6	B	16.8	B	0.2	No
8. Camino Del Norte & I-15 SB Ramps	43.2	D	43.5	D	0.3	No
9. Camino Del Norte & I-15 NB Ramps	33.4	C	33.6	C	0.2	No
10. Dove Canyon Rd & Lone Quail Rd	23.0	C	23.0	C	0.0	No

\* SANTEC Significance Threshold test applied to determine if any appreciable difference exists between the two studies. This does not represent a project incremental increase that causes a significant

Existing Weekend & Near Term Peak Hours + Project Intersection Level of Service

Intersection	Existing Condition		Existing + Project Condition		Δ Delay	Significant?
	Delay	LOS	Delay	LOS		
<b>Peak Hour</b>						
1. Project Driveway & 4 Gee Rd	0.5	A	1.7	A	1.2	No
2. Camino Del Sur & 4 Gee Rd	18.4	B	41.5	D	23.1	No
3. Camino Del Sur & Rancho Bernardo Rd/Lone Quail Rd	22.9	C	26.0	C	3.1	No
4. Camino Del Norte & 4S Ranch Pkwy	17.0	B	17.0	B	0.0	No
5. Camino Del Norte & Dove Canyon Rd	35.9	D	38.8	D	2.9	No
6. Camino Del Norte & Bernardo Center Dr	35.2	D	36.0	D	0.8	No
7. Camino Del Norte & Paseo Montanoso	8.6	A	8.4	A	-0.2	No
8. Camino Del Norte & I-15 SB Ramps	18.5	B	17.9	B	-0.6	No
9. Camino Del Norte & I-15 NB Ramps	14.7	B	16.0	B	1.3	No
10. Dove Canyon Rd & Lone Quail Rd	19.6	B	21.7	C	2.1	No
Intersection	Near Term Condition		Near Term + Project Condition		Δ Delay	Significant?
	Delay	LOS	Delay	LOS		
<b>Peak Hour</b>						
1. Project Driveway & 4 Gee Rd	0.5	A	1.7	A	1.2	No
2. Camino Del Sur & 4 Gee Rd	16.1	B	42.6	D	26.5	No
3. Camino Del Sur & Rancho Bernardo Rd/Lone Quail Rd	22.4	C	27.4	C	5.0	No
4. Camino Del Norte & 4S Ranch Pkwy	17.3	B	17.6	B	0.3	No
5. Camino Del Norte & Dove Canyon Rd	38.5	D	51.4	D	12.9	No
6. Camino Del Norte & Bernardo Center Dr	36.3	D	37.7	D	1.4	No
7. Camino Del Norte & Paseo Montanoso	8.7	A	8.7	A	0.0	No
8. Camino Del Norte & I-15 SB Ramps	24.0	C	23.0	C	-1.0	No
9. Camino Del Norte & I-15 NB Ramps	20.2	C	21.8	C	1.6	No
10. Dove Canyon Rd & Lone Quail Rd	19.5	B	21.6	C	2.1	No

\* SANTEC Significance Threshold test applied to determine if any appreciable difference exists between the two studies. This does not represent a project incremental increase that causes a significant



## **CALCULATION OUTPUT SHEETS**

# HCM 2010 Signalized Intersection Summary

## 601: 4 Gee Rd & Project Driveway





















02/15/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	1	0	104	1	0	236		
Future Volume (veh/h)	1	0	104	1	0	236		
Number	7	14	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	0	1863	1900	1900	1863		
Adj Flow Rate, veh/h	1	0	109	1	0	248		
Adj No. of Lanes	1	0	1	0	0	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	0	2	2	2	2		
Cap, veh/h	0	0	1474	14	0	1490		
Arrive On Green	0.00	0.00	0.80	0.80	0.00	0.80		
Sat Flow, veh/h	0	0	1843	17	0	1863		
Grp Volume(v), veh/h	0	0	0	110	0	248		
Grp Sat Flow(s),veh/h/ln	0	0	0	1860	0	1863		
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.7		
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.3	0.0	0.7		
Prop In Lane	0.00	0.00		0.01	0.00			
Lane Grp Cap(c), veh/h	0	0	0	1488	0	1490		
V/C Ratio(X)	0.00	0.00	0.00	0.07	0.00	0.17		
Avail Cap(c_a), veh/h	0	0	0	1488	0	1490		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.5	0.0	0.5		
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.2	0.0	0.4		
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.6	0.0	0.8		
LnGrp LOS				A		A		
Approach Vol, veh/h	0		110			248		
Approach Delay, s/veh	0.0		0.6			0.8		
Approach LOS			A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.5		0.0		22.5		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		2.3		0.0		2.7		
Green Ext Time (p_c), s		1.7		0.0		1.7		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			0.7					
HCM 2010 LOS			A					





















HCM 2010 Signalized Intersection Summary  
 602: Paseo Del Sur/4 Gee Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1059	48	156	979	35	108	50	85	60	54	116
Future Volume (veh/h)	50	1059	48	156	979	35	108	50	85	60	54	116
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	53	1115	51	164	1031	37	114	53	89	63	57	122
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	1681	77	199	1912	69	239	140	235	271	118	254
Arrive On Green	0.05	0.49	0.49	0.11	0.55	0.55	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1774	3447	158	1774	3485	125	1200	626	1051	1241	529	1133
Grp Volume(v), veh/h	53	572	594	164	523	545	114	0	142	63	0	179
Grp Sat Flow(s),veh/h/ln	1774	1770	1835	1774	1770	1841	1200	0	1677	1241	0	1663
Q Serve(g_s), s	2.5	21.4	21.4	7.9	16.6	16.6	8.0	0.0	6.3	4.0	0.0	8.2
Cycle Q Clear(g_c), s	2.5	21.4	21.4	7.9	16.6	16.6	16.1	0.0	6.3	10.2	0.0	8.2
Prop In Lane	1.00		0.09	1.00		0.07	1.00		0.63	1.00		0.68
Lane Grp Cap(c), veh/h	93	863	895	199	971	1010	239	0	375	271	0	372
V/C Ratio(X)	0.57	0.66	0.66	0.83	0.54	0.54	0.48	0.00	0.38	0.23	0.00	0.48
Avail Cap(c_a), veh/h	370	863	895	282	971	1010	425	0	636	464	0	630
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.4	16.9	16.9	37.9	12.6	12.6	36.5	0.0	28.7	33.1	0.0	29.5
Incr Delay (d2), s/veh	2.0	4.0	3.9	8.8	2.1	2.1	0.6	0.0	0.2	0.2	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(50%),veh/ln	1.3	11.3	11.7	4.4	8.6	8.9	2.7	0.0	2.9	1.4	0.0	3.8
LnGrp Delay(d),s/veh	42.4	20.9	20.8	46.7	14.8	14.7	37.1	0.0	29.0	33.2	0.0	29.8
LnGrp LOS	D	C	C	D	B	B	D		C	C		C
Approach Vol, veh/h		1219			1232			256			242	
Approach Delay, s/veh		21.8			19.0			32.6			30.7	
Approach LOS		C			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.3	48.6		24.4	9.0	53.9		24.4				
Change Period (Y+Rc), s	4.5	6.0		4.9	4.4	6.0		4.9				
Max Green Setting (Gmax), s	13.9	42.6		33.1	18.2	38.4		33.1				
Max Q Clear Time (g_c+I1), s	9.9	23.4		12.2	4.5	18.6		18.1				
Green Ext Time (p_c), s	0.1	18.6		1.5	0.0	19.2		1.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				22.3								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary  
 603: Lone Quail Rd/Rancho Bernardo Rd & Camino Del Norte
























02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	282	818	50	66	662	21	76	145	79	66	257	444
Future Volume (veh/h)	282	818	50	66	662	21	76	145	79	66	257	444
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	297	861	53	69	697	22	80	153	83	69	271	467
Adj No. of Lanes	1	2	0	2	2	0	1	1	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	330	1475	91	115	991	31	102	357	194	88	543	486
Arrive On Green	0.19	0.44	0.44	0.03	0.28	0.28	0.06	0.31	0.31	0.05	0.31	0.31
Sat Flow, veh/h	1774	3387	208	3442	3502	111	1774	1137	617	1774	1770	1583
Grp Volume(v), veh/h	297	450	464	69	352	367	80	0	236	69	271	467
Grp Sat Flow(s),veh/h/ln	1774	1770	1826	1721	1770	1843	1774	0	1754	1774	1770	1583
Q Serve(g_s), s	18.1	21.3	21.3	2.2	19.7	19.8	4.9	0.0	11.8	4.3	13.9	32.2
Cycle Q Clear(g_c), s	18.1	21.3	21.3	2.2	19.7	19.8	4.9	0.0	11.8	4.3	13.9	32.2
Prop In Lane	1.00		0.11	1.00		0.06	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	330	771	795	115	501	522	102	0	551	88	543	486
V/C Ratio(X)	0.90	0.58	0.58	0.60	0.70	0.70	0.79	0.00	0.43	0.78	0.50	0.96
Avail Cap(c_a), veh/h	400	771	795	177	501	522	136	0	554	120	543	486
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	23.7	23.7	52.9	35.6	35.6	51.6	0.0	30.1	52.1	31.5	37.8
Incr Delay (d2), s/veh	20.8	3.2	3.1	5.9	3.7	3.6	20.8	0.0	0.5	21.9	0.7	31.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	11.1	11.4	1.1	10.1	10.6	3.0	0.0	5.8	2.6	6.9	18.2
LnGrp Delay(d),s/veh	64.9	26.9	26.8	58.7	39.3	39.2	72.4	0.0	30.7	74.0	32.2	69.0
LnGrp LOS	E	C	C	E	D	D	E		C	E	C	E
Approach Vol, veh/h		1211			788			316			807	
Approach Delay, s/veh		36.2			41.0			41.2			57.1	
Approach LOS		D			D			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	54.3	9.9	39.0	24.6	37.4	9.0	39.8				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	5.7	48.3	8.5	34.0	25.0	29.0	7.5	35.0				
Max Q Clear Time (g_c+I1), s	4.2	23.3	6.9	34.2	20.1	21.8	6.3	13.8				
Green Ext Time (p_c), s	0.0	6.1	0.0	0.0	0.5	3.5	0.0	5.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			43.3									
HCM 2010 LOS			D									


























HCM 2010 Signalized Intersection Summary  
 604: 4S Ranch Pkwy & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	864	33	36	664	102	41	95	73	112	95	70
Future Volume (veh/h)	83	864	33	36	664	102	41	95	73	112	95	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	87	909	35	38	699	107	43	100	77	118	100	74
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	2	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	1715	66	67	1626	727	73	251	213	197	150	111
Arrive On Green	0.07	0.49	0.49	0.04	0.46	0.46	0.04	0.13	0.13	0.06	0.15	0.15
Sat Flow, veh/h	1774	3475	134	1774	3539	1583	1774	1863	1583	3442	996	737
Grp Volume(v), veh/h	87	463	481	38	699	107	43	100	77	118	0	174
Grp Sat Flow(s),veh/h/ln	1774	1770	1839	1774	1770	1583	1774	1863	1583	1721	0	1733
Q Serve(g_s), s	3.2	12.0	12.0	1.4	8.9	2.6	1.6	3.3	3.0	2.2	0.0	6.3
Cycle Q Clear(g_c), s	3.2	12.0	12.0	1.4	8.9	2.6	1.6	3.3	3.0	2.2	0.0	6.3
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	128	873	908	67	1626	727	73	251	213	197	0	261
V/C Ratio(X)	0.68	0.53	0.53	0.57	0.43	0.15	0.59	0.40	0.36	0.60	0.00	0.67
Avail Cap(c_a), veh/h	263	873	908	159	1626	727	175	864	734	335	0	801
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.3	11.6	11.6	31.6	12.2	10.5	31.5	26.4	26.3	30.8	0.0	26.8
Incr Delay (d2), s/veh	6.3	2.3	2.2	7.3	0.1	0.0	7.4	1.0	1.0	2.9	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	6.3	6.6	0.8	4.3	1.1	0.9	1.8	1.3	1.1	0.0	3.3
LnGrp Delay(d),s/veh	36.6	13.9	13.8	38.9	12.2	10.5	38.9	27.5	27.3	33.7	0.0	29.7
LnGrp LOS	D	B	B	D	B	B	D	C	C	C		C
Approach Vol, veh/h		1031			844			220			292	
Approach Delay, s/veh		15.8			13.2			29.6			31.3	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	39.0	6.3	15.1	8.8	36.7	7.3	14.0				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	6.0	33.0	6.6	30.9	9.9	29.1	6.5	31.0				
Max Q Clear Time (g_c+I1), s	3.4	14.0	3.6	8.3	5.2	10.9	4.2	5.3				
Green Ext Time (p_c), s	0.0	4.7	0.0	1.7	0.1	4.6	0.1	1.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			18.1									
HCM 2010 LOS			B									

























HCM 2010 Signalized Intersection Summary  
 605: Dove Canyon Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	790	166	121	620	149	145	295	235	208	271	25
Future Volume (veh/h)	72	790	166	121	620	149	145	295	235	208	271	25
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	76	832	175	127	653	157	153	311	247	219	285	26
Adj No. of Lanes	1	3	0	2	3	1	1	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	1654	346	196	2003	624	187	817	366	249	650	59
Arrive On Green	0.06	0.39	0.39	0.06	0.39	0.39	0.11	0.23	0.23	0.07	0.20	0.20
Sat Flow, veh/h	1774	4216	881	3442	5085	1583	1774	3539	1583	3442	3283	297
Grp Volume(v), veh/h	76	668	339	127	653	157	153	311	247	219	153	158
Grp Sat Flow(s),veh/h/ln	1774	1695	1707	1721	1695	1583	1774	1770	1583	1721	1770	1810
Q Serve(g_s), s	3.5	12.4	12.5	3.0	7.4	5.5	7.0	6.1	11.8	5.2	6.3	6.4
Cycle Q Clear(g_c), s	3.5	12.4	12.5	3.0	7.4	5.5	7.0	6.1	11.8	5.2	6.3	6.4
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	98	1330	670	196	2003	624	187	817	366	249	350	358
V/C Ratio(X)	0.77	0.50	0.51	0.65	0.33	0.25	0.82	0.38	0.68	0.88	0.44	0.44
Avail Cap(c_a), veh/h	212	1330	670	208	2003	624	191	1538	688	249	707	723
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	19.1	19.1	38.2	17.5	16.9	36.3	26.9	29.0	38.1	29.2	29.2
Incr Delay (d2), s/veh	14.2	1.4	2.7	6.8	0.4	1.0	23.3	0.4	2.6	28.0	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	6.0	6.3	1.6	3.5	2.6	4.7	3.0	5.4	3.4	3.2	3.3
LnGrp Delay(d),s/veh	52.9	20.4	21.8	45.1	17.9	17.9	59.6	27.2	31.7	66.1	30.2	30.2
LnGrp LOS	D	C	C	D	B	B	E	C	C	E	C	C
Approach Vol, veh/h		1083			937			711			530	
Approach Delay, s/veh		23.1			21.6			35.7			45.0	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	39.0	12.7	21.9	9.1	39.1	10.0	24.6				
Change Period (Y+Rc), s	4.5	6.5	4.0	5.5	4.5	6.5	4.0	5.5				
Max Green Setting (Gmax), s	5.0	32.5	8.9	33.1	9.9	27.6	6.0	36.0				
Max Q Clear Time (g_c+I1), s	5.0	14.5	9.0	8.4	5.5	9.4	7.2	13.8				
Green Ext Time (p_c), s	0.0	6.8	0.0	5.5	0.1	6.9	0.0	5.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			29.0									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary  
 606: Bernardo Center Dr & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	377	1164	50	307	1594	524	55	517	456	216	427	297
Future Volume (veh/h)	377	1164	50	307	1594	524	55	517	456	216	427	297
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	397	1225	53	323	1678	552	58	544	480	227	449	313
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	444	1969	613	372	1863	580	106	994	445	273	1165	521
Arrive On Green	0.13	0.39	0.39	0.11	0.37	0.37	0.03	0.28	0.28	0.08	0.33	0.33
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	397	1225	53	323	1678	552	58	544	480	227	449	313
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	16.7	28.5	3.1	13.6	45.8	49.7	2.4	19.2	41.2	9.5	14.3	24.2
Cycle Q Clear(g_c), s	16.7	28.5	3.1	13.6	45.8	49.7	2.4	19.2	41.2	9.5	14.3	24.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	444	1969	613	372	1863	580	106	994	445	273	1165	521
V/C Ratio(X)	0.89	0.62	0.09	0.87	0.90	0.95	0.55	0.55	1.08	0.83	0.39	0.60
Avail Cap(c_a), veh/h	507	1969	613	495	1896	590	120	994	445	300	1165	521
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.9	36.3	28.5	64.4	43.9	45.2	70.1	44.8	52.7	66.6	37.8	41.1
Incr Delay (d2), s/veh	15.6	0.8	0.1	9.9	6.6	25.8	4.3	2.2	65.7	16.5	1.0	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	13.5	1.4	7.0	22.6	25.9	1.2	9.7	26.1	5.2	7.1	11.3
LnGrp Delay(d),s/veh	78.5	37.1	28.6	74.3	50.6	71.0	74.4	47.0	118.4	83.1	38.8	46.2
LnGrp LOS	E	D	C	E	D	E	E	D	F	F	D	D
Approach Vol, veh/h		1675			2553			1082			989	
Approach Delay, s/veh		46.7			58.0			80.1			51.3	
Approach LOS		D			E			F			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	47.2	20.3	63.2	8.9	54.3	23.3	60.1				
Change Period (Y+Rc), s	4.4	6.0	4.4	6.4	4.4	* 6	4.4	* 6.4				
Max Green Setting (Gmax), s	12.8	39.8	21.1	55.1	5.1	* 48	21.6	* 55				
Max Q Clear Time (g_c+I1), s	11.5	43.2	15.6	30.5	4.4	26.2	18.7	51.7				
Green Ext Time (p_c), s	0.1	0.0	0.3	24.1	0.0	17.3	0.3	2.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			57.7									
HCM 2010 LOS			E									
<b>Notes</b>												

# HCM 2010 Signalized Intersection Summary













## 607: Paseo Montanoso & Camino Del Norte

02/15/2018

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↘	↑↑↑	↘	↗		
Traffic Volume (veh/h)	1775	49	58	2353	80	159		
Future Volume (veh/h)	1775	49	58	2353	80	159		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1868	52	61	2477	84	167		
Adj No. of Lanes	3	0	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	3400	95	78	3852	229	204		
Arrive On Green	0.67	0.67	0.04	0.76	0.13	0.13		
Sat Flow, veh/h	5254	141	1774	5253	1774	1583		
Grp Volume(v), veh/h	1244	676	61	2477	84	167		
Grp Sat Flow(s),veh/h/ln	1695	1838	1774	1695	1774	1583		
Q Serve(g_s), s	17.1	17.2	3.0	20.5	3.9	9.1		
Cycle Q Clear(g_c), s	17.1	17.2	3.0	20.5	3.9	9.1		
Prop In Lane		0.08	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2266	1228	78	3852	229	204		
V/C Ratio(X)	0.55	0.55	0.78	0.64	0.37	0.82		
Avail Cap(c_a), veh/h	2266	1228	185	3852	648	578		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	7.7	7.7	42.1	5.1	35.4	37.7		
Incr Delay (d2), s/veh	1.0	1.8	6.1	0.8	0.4	3.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	8.3	9.2	1.6	9.7	1.9	4.2		
LnGrp Delay(d),s/veh	8.7	9.5	48.2	5.9	35.8	40.8		
LnGrp LOS	A	A	D	A	D	D		
Approach Vol, veh/h	1920			2538	251			
Approach Delay, s/veh	9.0			7.0	39.1			
Approach LOS	A			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.9	65.6				73.5		15.5
Change Period (Y+Rc), s	4.0	6.1				6.1		4.0
Max Green Setting (Gmax), s	9.3	54.1				67.4		32.5
Max Q Clear Time (g_c+I1), s	5.0	19.2				22.5		11.1
Green Ext Time (p_c), s	0.0	34.9				44.8		0.4
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			9.5					
HCM 2010 LOS			A					



















HCM 2010 Signalized Intersection Summary  
608: I-15 SB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗↗	↘↘	↑↑↑					↖↖		↗↗
Traffic Volume (veh/h)	0	907	1067	378	2258	0	0	0	0	1077	0	78
Future Volume (veh/h)	0	907	1067	378	2258	0	0	0	0	1077	0	78
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1863	0	1863
Adj Flow Rate, veh/h	0	955	1123	398	2377	0				1134	0	82
Adj No. of Lanes	0	4	2	2	3	0				2	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	2103	915	469	2626	0				1196	0	969
Arrive On Green	0.00	0.33	0.33	0.14	0.52	0.00				0.35	0.00	0.35
Sat Flow, veh/h	0	6669	2787	3442	5253	0				3442	0	2787
Grp Volume(v), veh/h	0	955	1123	398	2377	0				1134	0	82
Grp Sat Flow(s),veh/h/ln	0	1602	1393	1721	1695	0				1721	0	1393
Q Serve(g_s), s	0.0	11.8	32.8	11.3	42.4	0.0				32.1	0.0	2.0
Cycle Q Clear(g_c), s	0.0	11.8	32.8	11.3	42.4	0.0				32.1	0.0	2.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2103	915	469	2626	0				1196	0	969
V/C Ratio(X)	0.00	0.45	1.23	0.85	0.91	0.00				0.95	0.00	0.08
Avail Cap(c_a), veh/h	0	2103	915	595	2626	0				1236	0	1000
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.81	0.81	0.37	0.37	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.5	33.6	42.2	22.0	0.0				31.7	0.0	21.9
Incr Delay (d2), s/veh	0.0	0.6	110.5	3.0	2.3	0.0				14.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.3	26.6	5.6	20.4	0.0				17.5	0.0	0.8
LnGrp Delay(d),s/veh	0.0	27.1	144.1	45.2	24.3	0.0				46.1	0.0	21.9
LnGrp LOS		C	F	D	C					D		C
Approach Vol, veh/h		2078			2775						1216	
Approach Delay, s/veh		90.3			27.3						44.5	
Approach LOS		F			C						D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	18.8	40.3		40.9		59.1						
Change Period (Y+Rc), s	* 5.2	7.5		6.1		7.5						
Max Green Setting (Gmax), s	* 17	28.0		35.9		50.5						
Max Q Clear Time (g_c+I1), s	13.3	34.8		34.1		44.4						
Green Ext Time (p_c), s	0.3	0.0		0.7		5.8						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			52.3									
HCM 2010 LOS			D									
<b>Notes</b>												




















HCM 2010 Signalized Intersection Summary  
 609: I-15 NB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	1839	0	0	1242	610	1514	0	195	0	0	0
Future Volume (veh/h)	127	1839	0	0	1242	610	1514	0	195	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	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			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	134	1936	0	0	1307	642	1594	0	205			
Adj No. of Lanes	2	3	0	0	4	2	2	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	193	2009	0	0	1838	799	1614	0	1307			
Arrive On Green	0.11	0.79	0.00	0.00	0.29	0.29	0.47	0.00	0.47			
Sat Flow, veh/h	3442	5253	0	0	6669	2787	3442	0	2787			
Grp Volume(v), veh/h	134	1936	0	0	1307	642	1594	0	205			
Grp Sat Flow(s),veh/h/ln	1721	1695	0	0	1602	1393	1721	0	1393			
Q Serve(g_s), s	3.7	33.5	0.0	0.0	18.3	21.3	45.8	0.0	4.2			
Cycle Q Clear(g_c), s	3.7	33.5	0.0	0.0	18.3	21.3	45.8	0.0	4.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	193	2009	0	0	1838	799	1614	0	1307			
V/C Ratio(X)	0.69	0.96	0.00	0.00	0.71	0.80	0.99	0.00	0.16			
Avail Cap(c_a), veh/h	213	2009	0	0	1838	799	1614	0	1307			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.61	0.61	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	43.6	9.9	0.0	0.0	31.9	33.0	26.3	0.0	15.2			
Incr Delay (d2), s/veh	3.9	9.2	0.0	0.0	2.4	8.4	19.4	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.9	16.1	0.0	0.0	8.4	9.1	26.0	0.0	1.6			
LnGrp Delay(d),s/veh	47.5	19.1	0.0	0.0	34.3	41.4	45.6	0.0	15.2			
LnGrp LOS	D	B			C	D	D		B			
Approach Vol, veh/h		2070			1949			1799				
Approach Delay, s/veh		20.9			36.7			42.2				
Approach LOS		C			D			D				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		47.0			10.8	36.2		53.0				
Change Period (Y+Rc), s		7.5			* 5.2	7.5		6.1				
Max Green Setting (Gmax), s		39.5			* 6.2	28.1		46.9				
Max Q Clear Time (g_c+I1), s		35.5			5.7	23.3		47.8				
Green Ext Time (p_c), s		3.8			0.0	4.4		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				32.8								
HCM 2010 LOS				C								
<b>Notes</b>												










HCM 2010 Signalized Intersection Summary  
 610: Dove Canyon Rd & Lone Quail Rd

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	34	135	39	23	194	67	331	83	163	345	62
Future Volume (veh/h)	129	34	135	39	23	194	67	331	83	163	345	62
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	136	36	142	41	24	204	71	348	87	172	363	65
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	320	102	282	452	245	700	302	480	118	299	507	90
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	543	230	638	817	554	1583	1774	2815	695	1774	3005	533
Grp Volume(v), veh/h	314	0	0	65	0	204	71	217	218	172	212	216
Grp Sat Flow(s),veh/h/ln	1412	0	0	1372	0	1583	1774	1770	1740	1774	1770	1769
Q Serve(g_s), s	7.2	0.0	0.0	0.0	0.0	5.4	2.2	7.5	7.7	5.8	7.4	7.5
Cycle Q Clear(g_c), s	9.8	0.0	0.0	1.4	0.0	5.4	2.2	7.5	7.7	5.8	7.4	7.5
Prop In Lane	0.43		0.45	0.63		1.00	1.00		0.40	1.00		0.30
Lane Grp Cap(c), veh/h	704	0	0	697	0	700	302	302	296	299	299	298
V/C Ratio(X)	0.45	0.00	0.00	0.09	0.00	0.29	0.23	0.72	0.73	0.57	0.71	0.72
Avail Cap(c_a), veh/h	704	0	0	697	0	700	765	763	751	795	793	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	0.0	0.0	10.5	0.0	11.6	23.3	25.5	25.5	24.8	25.5	25.5
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.0	0.0	0.1	0.1	1.2	1.3	0.6	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	0.0	0.7	0.0	2.3	1.1	3.8	3.8	2.9	3.7	3.8
LnGrp Delay(d),s/veh	14.7	0.0	0.0	10.5	0.0	11.7	23.4	26.7	26.9	25.5	26.7	26.8
LnGrp LOS	B			B		B	C	C	C	C	C	C
Approach Vol, veh/h		314			269			506			600	
Approach Delay, s/veh		14.7			11.4			26.3			26.4	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.7		15.6		33.7		15.7				
Change Period (Y+Rc), s		5.0		4.6		5.0		4.6				
Max Green Setting (Gmax), s		28.7		29.1		28.7		28.0				
Max Q Clear Time (g_c+I1), s		11.8		9.5		7.4		9.7				
Green Ext Time (p_c), s		1.6		1.5		1.7		1.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				21.8								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary  
 601: 4 Gee Rd & Project Driveway





















02/15/2018

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	9	0	104	13	0	236		
Future Volume (veh/h)	9	0	104	13	0	236		
Number	7	14	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	0	1863	1900	1900	1863		
Adj Flow Rate, veh/h	9	0	109	14	0	248		
Adj No. of Lanes	1	0	1	0	0	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	0	2	2	2	2		
Cap, veh/h	0	0	1295	166	0	1490		
Arrive On Green	0.00	0.00	0.80	0.80	0.00	0.80		
Sat Flow, veh/h	0	0	1618	208	0	1863		
Grp Volume(v), veh/h	0	0	0	123	0	248		
Grp Sat Flow(s),veh/h/ln	0	0	0	1826	0	1863		
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.7		
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.3	0.0	0.7		
Prop In Lane	0.00	0.00		0.11	0.00			
Lane Grp Cap(c), veh/h	0	0	0	1461	0	1490		
V/C Ratio(X)	0.00	0.00	0.00	0.08	0.00	0.17		
Avail Cap(c_a), veh/h	0	0	0	1461	0	1490		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.5	0.0	0.5		
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.2	0.0	0.4		
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.6	0.0	0.8		
LnGrp LOS				A		A		
Approach Vol, veh/h	0		123			248		
Approach Delay, s/veh	0.0		0.6			0.8		
Approach LOS			A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.5		0.0		22.5		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		2.3		0.0		2.7		
Green Ext Time (p_c), s		1.8		0.0		1.8		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			0.7					
HCM 2010 LOS			A					























HCM 2010 Signalized Intersection Summary  
 602: Paseo Del Sur/4 Gee Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1059	48	156	979	46	108	50	85	67	54	117
Future Volume (veh/h)	51	1059	48	156	979	46	108	50	85	67	54	117
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	54	1115	51	164	1031	48	114	53	89	71	57	123
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	1680	77	199	1885	88	239	141	236	272	118	255
Arrive On Green	0.05	0.49	0.49	0.11	0.55	0.55	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1774	3447	158	1774	3444	160	1199	626	1051	1241	526	1136
Grp Volume(v), veh/h	54	572	594	164	530	549	114	0	142	71	0	180
Grp Sat Flow(s),veh/h/ln	1774	1770	1835	1774	1770	1834	1199	0	1677	1241	0	1662
Q Serve(g_s), s	2.6	21.4	21.4	7.9	16.9	16.9	8.0	0.0	6.3	4.5	0.0	8.2
Cycle Q Clear(g_c), s	2.6	21.4	21.4	7.9	16.9	16.9	16.2	0.0	6.3	10.8	0.0	8.2
Prop In Lane	1.00		0.09	1.00		0.09	1.00		0.63	1.00		0.68
Lane Grp Cap(c), veh/h	94	862	894	199	969	1004	239	0	377	272	0	373
V/C Ratio(X)	0.57	0.66	0.66	0.83	0.55	0.55	0.48	0.00	0.38	0.26	0.00	0.48
Avail Cap(c_a), veh/h	369	862	894	282	969	1004	423	0	635	463	0	629
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.4	17.0	17.0	38.0	12.8	12.8	36.5	0.0	28.7	33.3	0.0	29.5
Incr Delay (d2), s/veh	2.1	4.0	3.9	8.8	2.2	2.1	0.6	0.0	0.2	0.2	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(50%),veh/ln	1.3	11.3	11.7	4.4	8.8	9.1	2.7	0.0	2.9	1.6	0.0	3.8
LnGrp Delay(d),s/veh	42.5	21.0	20.9	46.8	15.0	14.9	37.1	0.0	28.9	33.5	0.0	29.8
LnGrp LOS	D	C	C	D	B	B	D		C	C		C
Approach Vol, veh/h		1220			1243			256			251	
Approach Delay, s/veh		21.9			19.2			32.6			30.9	
Approach LOS		C			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.3	48.6		24.5	9.0	53.9		24.5				
Change Period (Y+Rc), s	4.5	6.0		4.9	4.4	6.0		4.9				
Max Green Setting (Gmax), s	13.9	42.6		33.1	18.2	38.4		33.1				
Max Q Clear Time (g_c+I1), s	9.9	23.4		12.8	4.6	18.9		18.2				
Green Ext Time (p_c), s	0.1	18.6		1.5	0.0	18.9		1.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				22.4								
HCM 2010 LOS				C								
























HCM 2010 Signalized Intersection Summary  
 603: Lone Quail Rd/Rancho Bernardo Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	824	50	66	671	21	76	145	79	66	257	445
Future Volume (veh/h)	283	824	50	66	671	21	76	145	79	66	257	445
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	298	867	53	69	706	22	80	153	83	69	271	468
Adj No. of Lanes	1	2	0	2	2	0	1	1	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	331	1476	90	115	990	31	102	357	194	88	543	486
Arrive On Green	0.19	0.44	0.44	0.03	0.28	0.28	0.06	0.31	0.31	0.05	0.31	0.31
Sat Flow, veh/h	1774	3389	207	3442	3504	109	1774	1137	617	1774	1770	1583
Grp Volume(v), veh/h	298	453	467	69	356	372	80	0	236	69	271	468
Grp Sat Flow(s),veh/h/ln	1774	1770	1826	1721	1770	1843	1774	0	1754	1774	1770	1583
Q Serve(g_s), s	18.2	21.5	21.5	2.2	20.1	20.1	4.9	0.0	11.8	4.3	13.9	32.3
Cycle Q Clear(g_c), s	18.2	21.5	21.5	2.2	20.1	20.1	4.9	0.0	11.8	4.3	13.9	32.3
Prop In Lane	1.00		0.11	1.00		0.06	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	331	771	796	115	500	521	102	0	551	88	543	486
V/C Ratio(X)	0.90	0.59	0.59	0.60	0.71	0.71	0.79	0.00	0.43	0.78	0.50	0.96
Avail Cap(c_a), veh/h	400	771	796	177	500	521	136	0	554	120	543	486
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	23.7	23.7	52.9	35.7	35.7	51.6	0.0	30.1	52.1	31.5	37.8
Incr Delay (d2), s/veh	20.9	3.3	3.2	5.9	4.1	3.9	20.8	0.0	0.5	21.9	0.7	31.7
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(50%),veh/ln	10.9	11.1	11.5	1.1	10.4	10.8	3.0	0.0	5.8	2.6	6.9	18.3
LnGrp Delay(d),s/veh	65.0	27.0	26.9	58.7	39.8	39.7	72.4	0.0	30.7	74.0	32.2	69.5
LnGrp LOS	E	C	C	E	D	D	E		C	E	C	E
Approach Vol, veh/h		1218			797			316			808	
Approach Delay, s/veh		36.3			41.4			41.2			57.4	
Approach LOS		D			D			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	54.3	9.9	39.0	24.7	37.3	9.0	39.8				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	5.7	48.3	8.5	34.0	25.0	29.0	7.5	35.0				
Max Q Clear Time (g_c+I1), s	4.2	23.5	6.9	34.3	20.2	22.1	6.3	13.8				
Green Ext Time (p_c), s	0.0	6.2	0.0	0.0	0.5	3.5	0.0	5.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			43.5									
HCM 2010 LOS			D									
























HCM 2010 Signalized Intersection Summary  
604: 4S Ranch Pkwy & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	870	33	36	673	102	41	95	73	112	95	70
Future Volume (veh/h)	83	870	33	36	673	102	41	95	73	112	95	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	87	916	35	38	708	107	43	100	77	118	100	74
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	2	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	1716	66	67	1626	727	73	251	213	197	150	111
Arrive On Green	0.07	0.49	0.49	0.04	0.46	0.46	0.04	0.13	0.13	0.06	0.15	0.15
Sat Flow, veh/h	1774	3476	133	1774	3539	1583	1774	1863	1583	3442	996	737
Grp Volume(v), veh/h	87	466	485	38	708	107	43	100	77	118	0	174
Grp Sat Flow(s),veh/h/ln	1774	1770	1839	1774	1770	1583	1774	1863	1583	1721	0	1733
Q Serve(g_s), s	3.2	12.1	12.1	1.4	9.0	2.6	1.6	3.3	3.0	2.2	0.0	6.3
Cycle Q Clear(g_c), s	3.2	12.1	12.1	1.4	9.0	2.6	1.6	3.3	3.0	2.2	0.0	6.3
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	128	873	908	67	1626	727	73	251	213	197	0	261
V/C Ratio(X)	0.68	0.53	0.53	0.57	0.44	0.15	0.59	0.40	0.36	0.60	0.00	0.67
Avail Cap(c_a), veh/h	263	873	908	159	1626	727	175	864	734	335	0	801
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.3	11.6	11.6	31.6	12.2	10.5	31.5	26.4	26.3	30.8	0.0	26.8
Incr Delay (d2), s/veh	6.3	2.3	2.2	7.3	0.1	0.0	7.4	1.0	1.0	2.9	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	6.4	6.6	0.8	4.4	1.1	0.9	1.8	1.3	1.1	0.0	3.3
LnGrp Delay(d),s/veh	36.6	14.0	13.9	38.9	12.3	10.5	38.9	27.5	27.3	33.7	0.0	29.7
LnGrp LOS	D	B	B	D	B	B	D	C	C	C		C
Approach Vol, veh/h		1038			853			220			292	
Approach Delay, s/veh		15.8			13.2			29.6			31.3	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	39.0	6.3	15.1	8.8	36.7	7.3	14.0				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	6.0	33.0	6.6	30.9	9.9	29.1	6.5	31.0				
Max Q Clear Time (g_c+I1), s	3.4	14.1	3.6	8.3	5.2	11.0	4.2	5.3				
Green Ext Time (p_c), s	0.0	4.7	0.0	1.7	0.1	4.7	0.1	1.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			18.1									
HCM 2010 LOS			B									

























HCM 2010 Signalized Intersection Summary  
605: Dove Canyon Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	794	168	121	626	149	148	295	235	208	271	25
Future Volume (veh/h)	72	794	168	121	626	149	148	295	235	208	271	25
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	76	836	177	127	659	157	156	311	247	219	285	26
Adj No. of Lanes	1	3	0	2	3	1	1	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	1651	347	196	2003	624	190	817	366	249	644	58
Arrive On Green	0.06	0.39	0.39	0.06	0.39	0.39	0.11	0.23	0.23	0.07	0.20	0.20
Sat Flow, veh/h	1774	4211	886	3442	5085	1583	1774	3539	1583	3442	3283	297
Grp Volume(v), veh/h	76	672	341	127	659	157	156	311	247	219	153	158
Grp Sat Flow(s),veh/h/ln	1774	1695	1706	1721	1695	1583	1774	1770	1583	1721	1770	1810
Q Serve(g_s), s	3.5	12.5	12.6	3.0	7.5	5.5	7.1	6.1	11.8	5.2	6.3	6.4
Cycle Q Clear(g_c), s	3.5	12.5	12.6	3.0	7.5	5.5	7.1	6.1	11.8	5.2	6.3	6.4
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	98	1330	669	196	2003	624	190	817	366	249	347	355
V/C Ratio(X)	0.77	0.51	0.51	0.65	0.33	0.25	0.82	0.38	0.68	0.88	0.44	0.45
Avail Cap(c_a), veh/h	212	1330	669	208	2003	624	191	1538	688	249	707	723
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	19.1	19.1	38.2	17.5	16.9	36.2	26.9	29.0	38.1	29.3	29.3
Incr Delay (d2), s/veh	14.2	1.4	2.8	6.8	0.4	1.0	23.9	0.4	2.6	28.0	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	6.0	6.4	1.6	3.6	2.6	4.8	3.0	5.4	3.4	3.2	3.3
LnGrp Delay(d),s/veh	52.9	20.5	21.9	45.1	17.9	17.9	60.1	27.2	31.7	66.1	30.4	30.4
LnGrp LOS	D	C	C	D	B	B	E	C	C	E	C	C
Approach Vol, veh/h		1089			943			714			530	
Approach Delay, s/veh		23.2			21.6			35.9			45.1	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	39.0	12.9	21.8	9.1	39.1	10.0	24.6				
Change Period (Y+Rc), s	4.5	6.5	4.0	5.5	4.5	6.5	4.0	5.5				
Max Green Setting (Gmax), s	5.0	32.5	8.9	33.1	9.9	27.6	6.0	36.0				
Max Q Clear Time (g_c+I1), s	5.0	14.6	9.1	8.4	5.5	9.5	7.2	13.8				
Green Ext Time (p_c), s	0.0	6.9	0.0	5.5	0.1	6.9	0.0	5.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				29.1								
HCM 2010 LOS				C								







HCM 2010 Signalized Intersection Summary  
606: Bernardo Center Dr & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	377	1168	50	307	1600	524	55	517	456	216	427	297
Future Volume (veh/h)	377	1168	50	307	1600	524	55	517	456	216	427	297
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	397	1229	53	323	1684	552	58	544	480	227	449	313
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	444	1969	613	372	1863	580	106	994	445	273	1165	521
Arrive On Green	0.13	0.39	0.39	0.11	0.37	0.37	0.03	0.28	0.28	0.08	0.33	0.33
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	397	1229	53	323	1684	552	58	544	480	227	449	313
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	16.7	28.6	3.1	13.6	46.0	49.7	2.4	19.2	41.2	9.5	14.3	24.2
Cycle Q Clear(g_c), s	16.7	28.6	3.1	13.6	46.0	49.7	2.4	19.2	41.2	9.5	14.3	24.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	444	1969	613	372	1863	580	106	994	445	273	1165	521
V/C Ratio(X)	0.89	0.62	0.09	0.87	0.90	0.95	0.55	0.55	1.08	0.83	0.39	0.60
Avail Cap(c_a), veh/h	507	1969	613	495	1896	590	120	994	445	300	1165	521
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.9	36.3	28.5	64.4	44.0	45.2	70.1	44.8	52.7	66.6	37.8	41.1
Incr Delay (d2), s/veh	15.6	0.9	0.1	9.9	6.9	25.8	4.3	2.2	65.7	16.5	1.0	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	13.6	1.4	7.0	22.7	25.9	1.2	9.7	26.1	5.2	7.1	11.3
LnGrp Delay(d),s/veh	78.5	37.2	28.6	74.3	50.9	71.0	74.4	47.0	118.4	83.1	38.8	46.2
LnGrp LOS	E	D	C	E	D	E	E	D	F	F	D	D
Approach Vol, veh/h		1679			2559			1082			989	
Approach Delay, s/veh		46.7			58.2			80.1			51.3	
Approach LOS		D			E			F			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	47.2	20.3	63.2	8.9	54.3	23.3	60.1				
Change Period (Y+Rc), s	4.4	6.0	4.4	6.4	4.4	* 6	4.4	* 6.4				
Max Green Setting (Gmax), s	12.8	39.8	21.1	55.1	5.1	* 48	21.6	* 55				
Max Q Clear Time (g_c+I1), s	11.5	43.2	15.6	30.6	4.4	26.2	18.7	51.7				
Green Ext Time (p_c), s	0.1	0.0	0.3	24.0	0.0	17.3	0.3	2.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			57.8									
HCM 2010 LOS			E									
<b>Notes</b>												













HCM 2010 Signalized Intersection Summary  
607: Paseo Montanoso & Camino Del Norte

02/15/2018

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↑	↑↑↑	↑	↑		
Traffic Volume (veh/h)	1779	49	58	2359	80	159		
Future Volume (veh/h)	1779	49	58	2359	80	159		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1873	52	61	2483	84	167		
Adj No. of Lanes	3	0	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	3400	94	78	3852	229	204		
Arrive On Green	0.67	0.67	0.04	0.76	0.13	0.13		
Sat Flow, veh/h	5255	141	1774	5253	1774	1583		
Grp Volume(v), veh/h	1248	677	61	2483	84	167		
Grp Sat Flow(s),veh/h/ln	1695	1838	1774	1695	1774	1583		
Q Serve(g_s), s	17.2	17.2	3.0	20.6	3.9	9.1		
Cycle Q Clear(g_c), s	17.2	17.2	3.0	20.6	3.9	9.1		
Prop In Lane		0.08	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2266	1228	78	3852	229	204		
V/C Ratio(X)	0.55	0.55	0.78	0.64	0.37	0.82		
Avail Cap(c_a), veh/h	2266	1228	185	3852	648	578		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	7.7	7.7	42.1	5.1	35.4	37.7		
Incr Delay (d2), s/veh	1.0	1.8	6.1	0.8	0.4	3.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	8.3	9.3	1.6	9.7	1.9	4.2		
LnGrp Delay(d),s/veh	8.7	9.5	48.2	6.0	35.8	40.8		
LnGrp LOS	A	A	D	A	D	D		
Approach Vol, veh/h	1925			2544	251			
Approach Delay, s/veh	9.0			7.0	39.1			
Approach LOS	A			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.9	65.6				73.5		15.5
Change Period (Y+Rc), s	4.0	6.1				6.1		4.0
Max Green Setting (Gmax), s	9.3	54.1				67.4		32.5
Max Q Clear Time (g_c+I1), s	5.0	19.2				22.6		11.1
Green Ext Time (p_c), s	0.0	34.8				44.7		0.4
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			9.5					
HCM 2010 LOS			A					



























HCM 2010 Signalized Intersection Summary  
 608: I-15 SB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗↗	↘↘	↑↑↑					↗↗		↗↗
Traffic Volume (veh/h)	0	909	1069	378	2264	0	0	0	0	1077	0	78
Future Volume (veh/h)	0	909	1069	378	2264	0	0	0	0	1077	0	78
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1863	0	1863
Adj Flow Rate, veh/h	0	957	1125	398	2383	0				1134	0	82
Adj No. of Lanes	0	4	2	2	3	0				2	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	2103	915	469	2626	0				1196	0	969
Arrive On Green	0.00	0.33	0.33	0.14	0.52	0.00				0.35	0.00	0.35
Sat Flow, veh/h	0	6669	2787	3442	5253	0				3442	0	2787
Grp Volume(v), veh/h	0	957	1125	398	2383	0				1134	0	82
Grp Sat Flow(s),veh/h/ln	0	1602	1393	1721	1695	0				1721	0	1393
Q Serve(g_s), s	0.0	11.8	32.8	11.3	42.6	0.0				32.1	0.0	2.0
Cycle Q Clear(g_c), s	0.0	11.8	32.8	11.3	42.6	0.0				32.1	0.0	2.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2103	915	469	2626	0				1196	0	969
V/C Ratio(X)	0.00	0.46	1.23	0.85	0.91	0.00				0.95	0.00	0.08
Avail Cap(c_a), veh/h	0	2103	915	595	2626	0				1236	0	1000
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.81	0.81	0.37	0.37	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.5	33.6	42.2	22.0	0.0				31.7	0.0	21.9
Incr Delay (d2), s/veh	0.0	0.6	111.4	3.0	2.3	0.0				14.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.3	26.7	5.6	20.4	0.0				17.5	0.0	0.8
LnGrp Delay(d),s/veh	0.0	27.1	145.0	45.2	24.4	0.0				46.1	0.0	21.9
LnGrp LOS		C	F	D	C					D		C
Approach Vol, veh/h		2082			2781						1216	
Approach Delay, s/veh		90.8			27.3						44.5	
Approach LOS		F			C						D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	18.8	40.3		40.9		59.1						
Change Period (Y+Rc), s	* 5.2	7.5		6.1		7.5						
Max Green Setting (Gmax), s	* 17	28.0		35.9		50.5						
Max Q Clear Time (g_c+I1), s	13.3	34.8		34.1		44.6						
Green Ext Time (p_c), s	0.3	0.0		0.7		5.6						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			52.5									
HCM 2010 LOS			D									
<b>Notes</b>												

HCM 2010 Signalized Intersection Summary  
 609: I-15 NB Ramps & Camino Del Norte




















02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  	 	 		 			
Traffic Volume (veh/h)	127	1841	0	0	1245	610	1517	0	195	0	0	0
Future Volume (veh/h)	127	1841	0	0	1245	610	1517	0	195	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	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			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	134	1938	0	0	1311	642	1597	0	205			
Adj No. of Lanes	2	3	0	0	4	2	2	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	193	2009	0	0	1838	799	1614	0	1307			
Arrive On Green	0.11	0.79	0.00	0.00	0.29	0.29	0.47	0.00	0.47			
Sat Flow, veh/h	3442	5253	0	0	6669	2787	3442	0	2787			
Grp Volume(v), veh/h	134	1938	0	0	1311	642	1597	0	205			
Grp Sat Flow(s),veh/h/ln	1721	1695	0	0	1602	1393	1721	0	1393			
Q Serve(g_s), s	3.7	33.7	0.0	0.0	18.3	21.3	46.0	0.0	4.2			
Cycle Q Clear(g_c), s	3.7	33.7	0.0	0.0	18.3	21.3	46.0	0.0	4.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	193	2009	0	0	1838	799	1614	0	1307			
V/C Ratio(X)	0.69	0.96	0.00	0.00	0.71	0.80	0.99	0.00	0.16			
Avail Cap(c_a), veh/h	213	2009	0	0	1838	799	1614	0	1307			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.61	0.61	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	43.6	9.9	0.0	0.0	32.0	33.0	26.3	0.0	15.2			
Incr Delay (d2), s/veh	3.9	9.4	0.0	0.0	2.4	8.4	19.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.9	16.1	0.0	0.0	8.4	9.1	26.2	0.0	1.6			
LnGrp Delay(d),s/veh	47.5	19.2	0.0	0.0	34.4	41.4	46.1	0.0	15.2			
LnGrp LOS	D	B			C	D	D		B			
Approach Vol, veh/h		2072			1953			1802				
Approach Delay, s/veh		21.1			36.7			42.6				
Approach LOS		C			D			D				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		47.0			10.8	36.2		53.0				
Change Period (Y+Rc), s		7.5			* 5.2	7.5		6.1				
Max Green Setting (Gmax), s		39.5			* 6.2	28.1		46.9				
Max Q Clear Time (g_c+I1), s		35.7			5.7	23.3		48.0				
Green Ext Time (p_c), s		3.6			0.0	4.4		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			33.0									
HCM 2010 LOS			C									
<b>Notes</b>												












HCM 2010 Signalized Intersection Summary  
 610: Dove Canyon Rd & Lone Quail Rd

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	34	135	39	23	194	67	334	83	163	347	62
Future Volume (veh/h)	129	34	135	39	23	194	67	334	83	163	347	62
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	136	36	142	41	24	204	71	352	87	172	365	65
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	319	101	282	451	244	698	304	484	118	300	509	90
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	543	230	638	817	554	1583	1774	2822	689	1774	3008	531
Grp Volume(v), veh/h	314	0	0	65	0	204	71	219	220	172	213	217
Grp Sat Flow(s),veh/h/ln	1412	0	0	1371	0	1583	1774	1770	1741	1774	1770	1769
Q Serve(g_s), s	7.2	0.0	0.0	0.0	0.0	5.4	2.2	7.6	7.8	5.8	7.4	7.5
Cycle Q Clear(g_c), s	9.9	0.0	0.0	1.4	0.0	5.4	2.2	7.6	7.8	5.8	7.4	7.5
Prop In Lane	0.43		0.45	0.63		1.00	1.00		0.40	1.00		0.30
Lane Grp Cap(c), veh/h	702	0	0	695	0	698	304	303	299	300	299	299
V/C Ratio(X)	0.45	0.00	0.00	0.09	0.00	0.29	0.23	0.72	0.74	0.57	0.71	0.72
Avail Cap(c_a), veh/h	702	0	0	695	0	698	763	762	749	793	791	791
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	0.0	0.0	10.5	0.0	11.7	23.3	25.5	25.6	24.9	25.5	25.6
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.0	0.0	0.1	0.1	1.2	1.3	0.6	1.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	0.0	0.7	0.0	2.3	1.1	3.8	3.8	2.9	3.7	3.8
LnGrp Delay(d),s/veh	14.8	0.0	0.0	10.6	0.0	11.8	23.4	26.7	26.9	25.5	26.7	26.8
LnGrp LOS	B			B		B	C	C	C	C	C	C
Approach Vol, veh/h		314			269			510			602	
Approach Delay, s/veh		14.8			11.5			26.3			26.4	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.7		15.6		33.7		15.8				
Change Period (Y+Rc), s		5.0		4.6		5.0		4.6				
Max Green Setting (Gmax), s		28.7		29.1		28.7		28.0				
Max Q Clear Time (g_c+I1), s		11.9		9.5		7.4		9.8				
Green Ext Time (p_c), s		1.6		1.5		1.7		1.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				21.9								
HCM 2010 LOS				C								





















HCM 2010 Signalized Intersection Summary  
601: 4 Gee Rd & Project Driveway

02/15/2018

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	0	0	170	0	0	78		
Future Volume (veh/h)	0	0	170	0	0	78		
Number	7	14	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	0	1863	1900	1900	1863		
Adj Flow Rate, veh/h	0	0	179	0	0	82		
Adj No. of Lanes	1	0	1	0	0	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	0	2	2	2	2		
Cap, veh/h	0	0	1490	0	0	1490		
Arrive On Green	0.00	0.00	0.80	0.00	0.00	0.80		
Sat Flow, veh/h	0	0	1863	0	0	1863		
Grp Volume(v), veh/h	0	0	179	0	0	82		
Grp Sat Flow(s),veh/h/ln	0	0	1863	0	0	1863		
Q Serve(g_s), s	0.0	0.0	0.5	0.0	0.0	0.2		
Cycle Q Clear(g_c), s	0.0	0.0	0.5	0.0	0.0	0.2		
Prop In Lane	0.00	0.00		0.00	0.00			
Lane Grp Cap(c), veh/h	0	0	1490	0	0	1490		
V/C Ratio(X)	0.00	0.00	0.12	0.00	0.00	0.06		
Avail Cap(c_a), veh/h	0	0	1490	0	0	1490		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.00	1.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	0.5	0.0	0.0	0.5		
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.0	0.0	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.3	0.0	0.0	0.1		
LnGrp Delay(d),s/veh	0.0	0.0	0.7	0.0	0.0	0.5		
LnGrp LOS			A			A		
Approach Vol, veh/h	0		179			82		
Approach Delay, s/veh	0.0		0.7			0.5		
Approach LOS			A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.5		0.0		22.5		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		2.5		0.0		2.2		
Green Ext Time (p_c), s		1.2		0.0		1.2		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			0.6					
HCM 2010 LOS			A					





















HCM 2010 Signalized Intersection Summary  
 602: Paseo Del Sur/4 Gee Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	1011	43	199	848	65	39	43	74	44	32	25
Future Volume (veh/h)	86	1011	43	199	848	65	39	43	74	44	32	25
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	91	1064	45	209	893	68	41	45	78	46	34	26
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	1837	78	247	1987	151	232	84	146	177	135	103
Arrive On Green	0.08	0.53	0.53	0.14	0.60	0.60	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1774	3460	146	1774	3334	254	1337	613	1062	1263	981	750
Grp Volume(v), veh/h	91	544	565	209	474	487	41	0	123	46	0	60
Grp Sat Flow(s),veh/h/ln	1774	1770	1837	1774	1770	1818	1337	0	1675	1263	0	1730
Q Serve(g_s), s	4.0	16.7	16.7	9.2	11.9	11.9	2.3	0.0	5.5	2.8	0.0	2.5
Cycle Q Clear(g_c), s	4.0	16.7	16.7	9.2	11.9	11.9	4.8	0.0	5.5	8.3	0.0	2.5
Prop In Lane	1.00		0.08	1.00		0.14	1.00		0.63	1.00		0.43
Lane Grp Cap(c), veh/h	134	940	975	247	1055	1083	232	0	231	177	0	238
V/C Ratio(X)	0.68	0.58	0.58	0.84	0.45	0.45	0.18	0.00	0.53	0.26	0.00	0.25
Avail Cap(c_a), veh/h	402	940	975	307	1055	1083	600	0	691	525	0	714
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.1	12.7	12.7	33.7	8.9	8.9	33.0	0.0	32.2	36.1	0.0	30.9
Incr Delay (d2), s/veh	2.2	2.6	2.5	13.6	1.4	1.3	0.1	0.0	0.7	0.3	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(50%),veh/ln	2.1	8.7	9.0	5.5	6.2	6.4	0.8	0.0	2.6	1.0	0.0	1.2
LnGrp Delay(d),s/veh	38.3	15.3	15.2	47.3	10.3	10.3	33.2	0.0	32.9	36.3	0.0	31.1
LnGrp LOS	D	B	B	D	B	B	C		C	D		C
Approach Vol, veh/h		1200			1170			164			106	
Approach Delay, s/veh		17.0			16.9			33.0			33.4	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.7	48.6		15.9	10.5	53.8		15.9				
Change Period (Y+Rc), s	4.5	6.0		4.9	4.4	6.0		4.9				
Max Green Setting (Gmax), s	13.9	42.6		33.1	18.2	38.4		33.1				
Max Q Clear Time (g_c+I1), s	11.2	18.7		10.3	6.0	13.9		7.5				
Green Ext Time (p_c), s	0.1	22.6		0.8	0.1	23.2		0.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				18.6								
HCM 2010 LOS				B								
























HCM 2010 Signalized Intersection Summary  
 603: Lone Quail Rd/Rancho Bernardo Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	369	787	38	91	792	52	20	81	46	50	132	299
Future Volume (veh/h)	369	787	38	91	792	52	20	81	46	50	132	299
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	388	828	40	96	834	55	21	85	48	53	139	315
Adj No. of Lanes	1	2	0	2	2	0	1	1	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	423	1736	84	154	1050	69	32	244	138	68	422	378
Arrive On Green	0.24	0.51	0.51	0.04	0.31	0.31	0.02	0.22	0.22	0.04	0.24	0.24
Sat Flow, veh/h	1774	3437	166	3442	3371	222	1774	1119	632	1774	1770	1583
Grp Volume(v), veh/h	388	426	442	96	438	451	21	0	133	53	139	315
Grp Sat Flow(s),veh/h/ln	1774	1770	1833	1721	1770	1824	1774	0	1751	1774	1770	1583
Q Serve(g_s), s	20.4	15.0	15.0	2.6	21.6	21.6	1.1	0.0	6.1	2.8	6.2	18.1
Cycle Q Clear(g_c), s	20.4	15.0	15.0	2.6	21.6	21.6	1.1	0.0	6.1	2.8	6.2	18.1
Prop In Lane	1.00		0.09	1.00		0.12	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	423	894	926	154	551	568	32	0	382	68	422	378
V/C Ratio(X)	0.92	0.48	0.48	0.62	0.79	0.79	0.66	0.00	0.35	0.78	0.33	0.83
Avail Cap(c_a), veh/h	464	894	926	205	551	568	158	0	641	139	629	563
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	15.4	15.4	44.9	30.1	30.1	46.7	0.0	31.6	45.6	30.1	34.6
Incr Delay (d2), s/veh	22.3	1.8	1.8	4.9	7.3	7.1	24.9	0.0	0.5	20.3	0.5	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	7.8	8.1	1.3	11.7	12.0	0.8	0.0	3.0	1.8	3.1	8.6
LnGrp Delay(d),s/veh	57.8	17.2	17.2	49.8	37.4	37.2	71.6	0.0	32.2	65.8	30.5	41.3
LnGrp LOS	E	B	B	D	D	D	E		C	E	C	D
Approach Vol, veh/h		1256			985			154			507	
Approach Delay, s/veh		29.8			38.5			37.5			40.9	
Approach LOS		C			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	54.3	5.2	27.8	26.8	35.8	7.2	25.9				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	5.7	48.3	8.5	34.0	25.0	29.0	7.5	35.0				
Max Q Clear Time (g_c+I1), s	4.6	17.0	3.1	20.1	22.4	23.6	4.8	8.1				
Green Ext Time (p_c), s	0.0	7.0	0.0	2.8	0.4	3.0	0.0	3.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			35.1									
HCM 2010 LOS			D									
























HCM 2010 Signalized Intersection Summary  
604: 4S Ranch Pkwy & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	705	36	33	790	208	25	104	26	77	93	148
Future Volume (veh/h)	128	705	36	33	790	208	25	104	26	77	93	148
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	135	742	38	35	832	219	26	109	27	81	98	156
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	2	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	1615	83	63	1452	649	50	342	291	156	130	207
Arrive On Green	0.10	0.47	0.47	0.04	0.41	0.41	0.03	0.18	0.18	0.05	0.20	0.20
Sat Flow, veh/h	1774	3426	175	1774	3539	1583	1774	1863	1583	3442	648	1032
Grp Volume(v), veh/h	135	383	397	35	832	219	26	109	27	81	0	254
Grp Sat Flow(s),veh/h/ln	1774	1770	1832	1774	1770	1583	1774	1863	1583	1721	0	1681
Q Serve(g_s), s	5.2	10.2	10.2	1.4	12.7	6.6	1.0	3.6	1.0	1.6	0.0	10.0
Cycle Q Clear(g_c), s	5.2	10.2	10.2	1.4	12.7	6.6	1.0	3.6	1.0	1.6	0.0	10.0
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	171	834	864	63	1452	649	50	342	291	156	0	337
V/C Ratio(X)	0.79	0.46	0.46	0.56	0.57	0.34	0.52	0.32	0.09	0.52	0.00	0.75
Avail Cap(c_a), veh/h	251	834	864	152	1471	658	167	825	701	320	0	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.9	12.5	12.5	33.2	15.9	14.1	33.5	24.8	23.7	32.7	0.0	26.3
Incr Delay (d2), s/veh	9.8	1.8	1.8	7.6	0.3	0.1	8.0	0.5	0.1	2.7	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	5.3	5.5	0.8	6.2	2.9	0.6	1.9	0.4	0.8	0.0	4.9
LnGrp Delay(d),s/veh	40.7	14.3	14.2	40.8	16.3	14.2	41.5	25.3	23.9	35.3	0.0	29.8
LnGrp LOS	D	B	B	D	B	B	D	C	C	D		C
Approach Vol, veh/h		915			1086			162			335	
Approach Delay, s/veh		18.2			16.6			27.7			31.1	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	39.0	5.5	19.0	10.8	34.7	6.7	17.9				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	6.0	33.0	6.6	30.9	9.9	29.1	6.5	31.0				
Max Q Clear Time (g_c+I1), s	3.4	12.2	3.0	12.0	7.2	14.7	3.6	5.6				
Green Ext Time (p_c), s	0.0	4.9	0.0	2.1	0.1	4.4	0.0	2.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			19.9									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary  
 605: Dove Canyon Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	594	90	208	840	311	110	336	163	318	286	65
Future Volume (veh/h)	95	594	90	208	840	311	110	336	163	318	286	65
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	100	625	95	219	884	327	116	354	172	335	301	68
Adj No. of Lanes	1	3	0	2	3	1	1	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	1809	272	215	2009	626	147	715	320	257	558	124
Arrive On Green	0.07	0.41	0.41	0.06	0.40	0.40	0.08	0.20	0.20	0.07	0.19	0.19
Sat Flow, veh/h	1774	4464	670	3442	5085	1583	1774	3539	1583	3442	2878	641
Grp Volume(v), veh/h	100	473	247	219	884	327	116	354	172	335	183	186
Grp Sat Flow(s),veh/h/ln	1774	1695	1744	1721	1695	1583	1774	1770	1583	1721	1770	1750
Q Serve(g_s), s	4.4	7.7	7.9	5.0	10.2	12.6	5.1	7.1	7.8	6.0	7.5	7.7
Cycle Q Clear(g_c), s	4.4	7.7	7.9	5.0	10.2	12.6	5.1	7.1	7.8	6.0	7.5	7.7
Prop In Lane	1.00		0.38	1.00		1.00	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	129	1374	707	215	2009	626	147	715	320	257	343	339
V/C Ratio(X)	0.78	0.34	0.35	1.02	0.44	0.52	0.79	0.50	0.54	1.30	0.53	0.55
Avail Cap(c_a), veh/h	219	1374	707	215	2009	626	197	1589	711	257	730	722
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	16.5	16.5	37.6	17.8	18.5	36.1	28.4	28.6	37.1	29.1	29.1
Incr Delay (d2), s/veh	11.4	0.7	1.4	66.9	0.7	3.1	14.2	0.6	1.7	160.9	1.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.7	4.0	4.3	4.9	6.0	3.1	3.6	3.5	8.6	3.8	3.9
LnGrp Delay(d),s/veh	48.0	17.2	17.9	104.7	18.5	21.6	50.3	29.0	30.3	198.0	30.6	30.8
LnGrp LOS	D	B	B	F	B	C	D	C	C	F	C	C
Approach Vol, veh/h		820			1430			642			704	
Approach Delay, s/veh		21.1			32.4			33.2			110.3	
Approach LOS		C			C			C			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	39.0	10.6	21.1	10.3	38.2	10.0	21.7				
Change Period (Y+Rc), s	4.5	6.5	4.0	5.5	4.5	6.5	4.0	5.5				
Max Green Setting (Gmax), s	5.0	32.5	8.9	33.1	9.9	27.6	6.0	36.0				
Max Q Clear Time (g_c+I1), s	7.0	9.9	7.1	9.7	6.4	14.6	8.0	9.8				
Green Ext Time (p_c), s	0.0	7.6	0.0	5.9	0.1	6.0	0.0	6.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			45.2									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary  
 606: Bernardo Center Dr & Camino Del Norte

02/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	1382	69	329	1367	244	51	355	271	657	443	269
Future Volume (veh/h)	265	1382	69	329	1367	244	51	355	271	657	443	269
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	279	1455	73	346	1439	257	54	374	285	692	466	283
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	330	1885	587	396	1982	617	106	983	440	306	1189	532
Arrive On Green	0.10	0.37	0.37	0.11	0.39	0.39	0.03	0.28	0.28	0.09	0.34	0.34
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	279	1455	73	346	1439	257	54	374	285	692	466	283
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	11.5	36.2	4.4	14.2	34.6	17.0	2.2	12.3	22.8	12.8	14.5	20.8
Cycle Q Clear(g_c), s	11.5	36.2	4.4	14.2	34.6	17.0	2.2	12.3	22.8	12.8	14.5	20.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	330	1885	587	396	1982	617	106	983	440	306	1189	532
V/C Ratio(X)	0.85	0.77	0.12	0.87	0.73	0.42	0.51	0.38	0.65	2.26	0.39	0.53
Avail Cap(c_a), veh/h	517	1949	607	505	1982	617	122	983	440	306	1189	532
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.9	39.9	29.8	62.6	37.3	31.9	68.6	41.9	45.7	65.5	36.5	38.6
Incr Delay (d2), s/veh	4.3	2.2	0.2	11.1	1.6	0.9	3.8	1.1	7.2	576.3	1.0	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	17.4	1.9	7.4	16.6	7.6	1.1	6.2	10.8	30.6	7.2	9.6
LnGrp Delay(d),s/veh	68.2	42.1	30.0	73.7	39.0	32.9	72.3	43.0	52.9	641.8	37.5	42.4
LnGrp LOS	E	D	C	E	D	C	E	D	D	F	D	D
Approach Vol, veh/h		1807			2042			713			1441	
Approach Delay, s/veh		45.6			44.1			49.2			328.6	
Approach LOS		D			D			D			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.2	45.9	20.9	59.7	8.8	54.3	18.2	62.4				
Change Period (Y+Rc), s	4.4	6.0	4.4	6.4	4.4	* 6	4.4	* 6.4				
Max Green Setting (Gmax), s	12.8	39.8	21.1	55.1	5.1	* 48	21.6	* 55				
Max Q Clear Time (g_c+I1), s	14.8	24.8	16.2	38.2	4.2	22.8	13.5	36.6				
Green Ext Time (p_c), s	0.0	10.8	0.3	15.0	0.0	16.0	0.3	17.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			113.5									
HCM 2010 LOS			F									
<b>Notes</b>												

# HCM 2010 Signalized Intersection Summary

## 607: Paseo Montanoso & Camino Del Norte













02/15/2018

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↖	↑↑↑	↖	↗		
Traffic Volume (veh/h)	2301	32	192	1923	33	93		
Future Volume (veh/h)	2301	32	192	1923	33	93		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	2422	34	202	2024	35	98		
Adj No. of Lanes	3	0	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	3309	46	195	4057	147	131		
Arrive On Green	0.64	0.64	0.11	0.80	0.08	0.08		
Sat Flow, veh/h	5335	72	1774	5253	1774	1583		
Grp Volume(v), veh/h	1587	869	202	2024	35	98		
Grp Sat Flow(s),veh/h/ln	1695	1850	1774	1695	1774	1583		
Q Serve(g_s), s	26.7	26.9	9.3	11.3	1.6	5.1		
Cycle Q Clear(g_c), s	26.7	26.9	9.3	11.3	1.6	5.1		
Prop In Lane		0.04	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2171	1185	195	4057	147	131		
V/C Ratio(X)	0.73	0.73	1.03	0.50	0.24	0.75		
Avail Cap(c_a), veh/h	2171	1185	195	4057	683	609		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	10.3	10.3	37.6	2.9	36.3	37.9		
Incr Delay (d2), s/veh	2.2	4.0	73.7	0.4	0.3	3.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.1	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	13.0	14.8	8.5	5.2	0.8	2.4		
LnGrp Delay(d),s/veh	12.5	14.3	111.4	3.3	36.6	41.1		
LnGrp LOS	B	B	F	A	D	D		
Approach Vol, veh/h	2456			2226	133			
Approach Delay, s/veh	13.1			13.1	39.9			
Approach LOS	B			B	D			
<b>Timer</b>	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.3	60.2				73.5		11.0
Change Period (Y+Rc), s	4.0	6.1				6.1		4.0
Max Green Setting (Gmax), s	9.3	54.1				67.4		32.5
Max Q Clear Time (g_c+I1), s	11.3	28.9				13.3		7.1
Green Ext Time (p_c), s	0.0	25.2				53.9		0.2
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			13.9					
HCM 2010 LOS			B					





















HCM 2010 Signalized Intersection Summary  
608: I-15 SB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗↗	↘↘	↑↑↑					↗↗		↗↗
Traffic Volume (veh/h)	0	1192	1222	218	2003	0	0	0	0	813	0	82
Future Volume (veh/h)	0	1192	1222	218	2003	0	0	0	0	813	0	82
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1863	0	1863
Adj Flow Rate, veh/h	0	1255	1286	229	2108	0				856	0	86
Adj No. of Lanes	0	4	2	2	3	0				2	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	2876	1251	301	2992	0				948	0	768
Arrive On Green	0.00	0.45	0.45	0.09	0.59	0.00				0.28	0.00	0.28
Sat Flow, veh/h	0	6669	2787	3442	5253	0				3442	0	2787
Grp Volume(v), veh/h	0	1255	1286	229	2108	0				856	0	86
Grp Sat Flow(s),veh/h/ln	0	1602	1393	1721	1695	0				1721	0	1393
Q Serve(g_s), s	0.0	13.4	44.9	6.5	29.1	0.0				24.0	0.0	2.3
Cycle Q Clear(g_c), s	0.0	13.4	44.9	6.5	29.1	0.0				24.0	0.0	2.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2876	1251	301	2992	0				948	0	768
V/C Ratio(X)	0.00	0.44	1.03	0.76	0.70	0.00				0.90	0.00	0.11
Avail Cap(c_a), veh/h	0	2876	1251	595	2992	0				1270	0	1028
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.62	0.62	0.59	0.59	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.9	27.6	44.6	14.5	0.0				34.9	0.0	27.1
Incr Delay (d2), s/veh	0.0	0.3	27.6	0.9	0.8	0.0				6.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.0	22.0	3.1	13.7	0.0				12.2	0.0	0.9
LnGrp Delay(d),s/veh	0.0	19.2	55.2	45.5	15.3	0.0				41.1	0.0	27.1
LnGrp LOS		B	F	D	B					D		C
Approach Vol, veh/h		2541			2337						942	
Approach Delay, s/veh		37.4			18.3						39.8	
Approach LOS		D			B						D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.0	52.4		33.7		66.3						
Change Period (Y+Rc), s	* 5.2	7.5		6.1		7.5						
Max Green Setting (Gmax), s	* 17	27.0		36.9		49.5						
Max Q Clear Time (g_c+I1), s	8.5	46.9		26.0		31.1						
Green Ext Time (p_c), s	0.3	0.0		1.6		16.5						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			30.1									
HCM 2010 LOS			C									
<b>Notes</b>												




















HCM 2010 Signalized Intersection Summary  
 609: I-15 NB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	1860	0	0	1034	792	1277	0	270	0	0	0
Future Volume (veh/h)	152	1860	0	0	1034	792	1277	0	270	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	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			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	160	1958	0	0	1088	834	1344	0	284			
Adj No. of Lanes	2	3	0	0	4	2	2	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	213	2265	0	0	2124	924	1440	0	1166			
Arrive On Green	0.12	0.89	0.00	0.00	0.33	0.33	0.42	0.00	0.42			
Sat Flow, veh/h	3442	5253	0	0	6669	2787	3442	0	2787			
Grp Volume(v), veh/h	160	1958	0	0	1088	834	1344	0	284			
Grp Sat Flow(s),veh/h/ln	1721	1695	0	0	1602	1393	1721	0	1393			
Q Serve(g_s), s	4.5	18.3	0.0	0.0	13.7	28.6	37.3	0.0	6.6			
Cycle Q Clear(g_c), s	4.5	18.3	0.0	0.0	13.7	28.6	37.3	0.0	6.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	213	2265	0	0	2124	924	1440	0	1166			
V/C Ratio(X)	0.75	0.86	0.00	0.00	0.51	0.90	0.93	0.00	0.24			
Avail Cap(c_a), veh/h	213	2265	0	0	2124	924	1614	0	1307			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.74	0.74	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	43.1	4.0	0.0	0.0	26.9	31.9	27.7	0.0	18.8			
Incr Delay (d2), s/veh	9.3	3.5	0.0	0.0	0.9	13.8	9.2	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.4	8.0	0.0	0.0	6.2	12.8	19.4	0.0	2.5			
LnGrp Delay(d),s/veh	52.4	7.6	0.0	0.0	27.8	45.7	37.0	0.0	18.9			
LnGrp LOS	D	A			C	D	D		B			
Approach Vol, veh/h		2118			1922			1628				
Approach Delay, s/veh		10.9			35.6			33.8				
Approach LOS		B			D			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		52.0			11.4	40.6		48.0				
Change Period (Y+Rc), s		7.5			* 5.2	7.5		6.1				
Max Green Setting (Gmax), s		39.5			* 6.2	28.1		46.9				
Max Q Clear Time (g_c+I1), s		20.3			6.5	30.6		39.3				
Green Ext Time (p_c), s		15.6			0.0	0.0		2.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				25.9								
HCM 2010 LOS				C								
<b>Notes</b>												










HCM 2010 Signalized Intersection Summary  
 610: Dove Canyon Rd & Lone Quail Rd

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	31	31	62	42	215	32	321	84	211	273	99
Future Volume (veh/h)	54	31	31	62	42	215	32	321	84	211	273	99
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	57	33	33	65	44	226	34	338	88	222	287	104
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	338	195	166	471	298	701	297	466	120	304	439	156
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	581	442	375	864	672	1583	1774	2790	716	1774	2563	909
Grp Volume(v), veh/h	123	0	0	109	0	226	34	213	213	222	196	195
Grp Sat Flow(s),veh/h/ln	1398	0	0	1536	0	1583	1774	1770	1736	1774	1770	1702
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	6.0	1.1	7.4	7.6	7.7	6.7	6.9
Cycle Q Clear(g_c), s	2.8	0.0	0.0	2.3	0.0	6.0	1.1	7.4	7.6	7.7	6.7	6.9
Prop In Lane	0.46		0.27	0.60		1.00	1.00		0.41	1.00		0.53
Lane Grp Cap(c), veh/h	700	0	0	768	0	701	297	296	290	304	303	292
V/C Ratio(X)	0.18	0.00	0.00	0.14	0.00	0.32	0.11	0.72	0.73	0.73	0.65	0.67
Avail Cap(c_a), veh/h	700	0	0	768	0	701	766	764	750	796	794	764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.8	0.0	0.0	10.7	0.0	11.8	22.9	25.6	25.6	25.5	25.0	25.1
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.1	0.1	1.2	1.4	1.3	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	1.2	0.0	2.7	0.5	3.7	3.7	3.9	3.3	3.3
LnGrp Delay(d),s/veh	11.4	0.0	0.0	10.7	0.0	11.9	23.0	26.8	27.0	26.7	25.9	26.1
LnGrp LOS	B			B		B	C	C	C	C	C	C
Approach Vol, veh/h		123			335			460			613	
Approach Delay, s/veh		11.4			11.5			26.6			26.3	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.7		15.7		33.7		15.4				
Change Period (Y+Rc), s		5.0		4.6		5.0		4.6				
Max Green Setting (Gmax), s		28.7		29.1		28.7		28.0				
Max Q Clear Time (g_c+I1), s		4.8		9.7		8.0		9.6				
Green Ext Time (p_c), s		1.1		1.4		1.1		1.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				21.9								
HCM 2010 LOS				C								





















HCM 2010 Signalized Intersection Summary  
601: 4 Gee Rd & Project Driveway

02/15/2018

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	16	0	170	16	0	78		
Future Volume (veh/h)	16	0	170	16	0	78		
Number	7	14	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	0	1863	1900	1900	1863		
Adj Flow Rate, veh/h	17	0	179	17	0	82		
Adj No. of Lanes	1	0	1	0	0	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	0	2	2	2	2		
Cap, veh/h	0	0	1340	127	0	1490		
Arrive On Green	0.00	0.00	0.80	0.80	0.00	0.80		
Sat Flow, veh/h	0	0	1676	159	0	1863		
Grp Volume(v), veh/h	0	0	0	196	0	82		
Grp Sat Flow(s),veh/h/ln	0	0	0	1835	0	1863		
Q Serve(g_s), s	0.0	0.0	0.0	0.5	0.0	0.2		
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.5	0.0	0.2		
Prop In Lane	0.00	0.00		0.09	0.00			
Lane Grp Cap(c), veh/h	0	0	0	1468	0	1490		
V/C Ratio(X)	0.00	0.00	0.00	0.13	0.00	0.06		
Avail Cap(c_a), veh/h	0	0	0	1468	0	1490		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.5	0.0	0.5		
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.3	0.0	0.1		
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.7	0.0	0.5		
LnGrp LOS				A		A		
Approach Vol, veh/h	0		196			82		
Approach Delay, s/veh	0.0		0.7			0.5		
Approach LOS			A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.5		0.0		22.5		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		2.5		0.0		2.2		
Green Ext Time (p_c), s		1.3		0.0		1.3		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			0.6					
HCM 2010 LOS			A					





















HCM 2010 Signalized Intersection Summary  
 602: Paseo Del Sur/4 Gee Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	1011	43	199	848	79	39	43	74	58	32	26
Future Volume (veh/h)	87	1011	43	199	848	79	39	43	74	58	32	26
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	92	1064	45	209	893	83	41	45	78	61	34	27
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	1811	77	247	1925	179	245	91	157	190	143	113
Arrive On Green	0.08	0.52	0.52	0.14	0.59	0.59	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1774	3460	146	1774	3274	304	1336	613	1062	1263	963	765
Grp Volume(v), veh/h	92	544	565	209	483	493	41	0	123	61	0	61
Grp Sat Flow(s),veh/h/ln	1774	1770	1837	1774	1770	1809	1336	0	1675	1263	0	1728
Q Serve(g_s), s	4.1	17.2	17.2	9.4	12.6	12.6	2.3	0.0	5.5	3.8	0.0	2.5
Cycle Q Clear(g_c), s	4.1	17.2	17.2	9.4	12.6	12.6	4.8	0.0	5.5	9.3	0.0	2.5
Prop In Lane	1.00		0.08	1.00		0.17	1.00		0.63	1.00		0.44
Lane Grp Cap(c), veh/h	135	926	962	247	1040	1064	245	0	248	190	0	256
V/C Ratio(X)	0.68	0.59	0.59	0.85	0.46	0.46	0.17	0.00	0.50	0.32	0.00	0.24
Avail Cap(c_a), veh/h	397	926	962	303	1040	1064	590	0	681	517	0	703
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.6	13.3	13.3	34.2	9.5	9.5	32.7	0.0	31.9	36.1	0.0	30.6
Incr Delay (d2), s/veh	2.3	2.7	2.6	14.3	1.5	1.5	0.1	0.0	0.6	0.4	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(50%),veh/ln	2.1	9.0	9.3	5.6	6.5	6.6	0.9	0.0	2.6	1.3	0.0	1.2
LnGrp Delay(d),s/veh	38.9	16.1	16.0	48.5	11.0	11.0	32.9	0.0	32.4	36.5	0.0	30.8
LnGrp LOS	D	B	B	D	B	B	C		C	D		C
Approach Vol, veh/h		1201			1185			164			122	
Approach Delay, s/veh		17.8			17.6			32.5			33.6	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.8	48.6		17.0	10.6	53.8		17.0				
Change Period (Y+Rc), s	4.5	6.0		4.9	4.4	6.0		4.9				
Max Green Setting (Gmax), s	13.9	42.6		33.1	18.2	38.4		33.1				
Max Q Clear Time (g_c+I1), s	11.4	19.2		11.3	6.1	14.6		7.5				
Green Ext Time (p_c), s	0.1	22.1		0.8	0.1	22.6		0.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				19.3								
HCM 2010 LOS				B								
























HCM 2010 Signalized Intersection Summary  
 603: Lone Quail Rd/Rancho Bernardo Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	371	799	38	91	804	52	20	81	46	50	132	301
Future Volume (veh/h)	371	799	38	91	804	52	20	81	46	50	132	301
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	391	841	40	96	846	55	21	85	48	53	139	317
Adj No. of Lanes	1	2	0	2	2	0	1	1	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	426	1735	83	154	1043	68	32	246	139	68	424	380
Arrive On Green	0.24	0.50	0.50	0.04	0.31	0.31	0.02	0.22	0.22	0.04	0.24	0.24
Sat Flow, veh/h	1774	3440	164	3442	3374	219	1774	1119	632	1774	1770	1583
Grp Volume(v), veh/h	391	433	448	96	444	457	21	0	133	53	139	317
Grp Sat Flow(s),veh/h/ln	1774	1770	1834	1721	1770	1824	1774	0	1751	1774	1770	1583
Q Serve(g_s), s	20.6	15.4	15.4	2.6	22.1	22.1	1.1	0.0	6.1	2.8	6.2	18.2
Cycle Q Clear(g_c), s	20.6	15.4	15.4	2.6	22.1	22.1	1.1	0.0	6.1	2.8	6.2	18.2
Prop In Lane	1.00		0.09	1.00		0.12	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	426	892	925	154	547	564	32	0	384	68	424	380
V/C Ratio(X)	0.92	0.48	0.48	0.62	0.81	0.81	0.66	0.00	0.35	0.78	0.33	0.83
Avail Cap(c_a), veh/h	463	892	925	205	547	564	157	0	640	139	628	562
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	15.6	15.6	44.9	30.5	30.5	46.7	0.0	31.6	45.7	30.0	34.6
Incr Delay (d2), s/veh	22.7	1.9	1.8	4.9	8.4	8.1	24.9	0.0	0.5	20.3	0.4	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	7.9	8.2	1.4	12.1	12.5	0.8	0.0	3.0	1.8	3.1	8.7
LnGrp Delay(d),s/veh	58.2	17.5	17.4	49.8	38.9	38.6	71.7	0.0	32.1	65.9	30.5	41.5
LnGrp LOS	E	B	B	D	D	D	E		C	E	C	D
Approach Vol, veh/h		1272			997			154			509	
Approach Delay, s/veh		30.0			39.8			37.5			41.0	
Approach LOS		C			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	54.3	5.2	28.0	27.0	35.6	7.2	26.0				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	5.7	48.3	8.5	34.0	25.0	29.0	7.5	35.0				
Max Q Clear Time (g_c+I1), s	4.6	17.4	3.1	20.2	22.6	24.1	4.8	8.1				
Green Ext Time (p_c), s	0.0	7.2	0.0	2.7	0.4	2.9	0.0	3.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			35.6									
HCM 2010 LOS			D									
























HCM 2010 Signalized Intersection Summary  
 604: 4S Ranch Pkwy & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	717	36	33	802	208	25	104	26	77	93	148
Future Volume (veh/h)	128	717	36	33	802	208	25	104	26	77	93	148
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	135	755	38	35	844	219	26	109	27	81	98	156
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	2	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	1617	81	63	1452	649	50	342	291	156	130	207
Arrive On Green	0.10	0.47	0.47	0.04	0.41	0.41	0.03	0.18	0.18	0.05	0.20	0.20
Sat Flow, veh/h	1774	3429	173	1774	3539	1583	1774	1863	1583	3442	648	1032
Grp Volume(v), veh/h	135	389	404	35	844	219	26	109	27	81	0	254
Grp Sat Flow(s),veh/h/ln	1774	1770	1832	1774	1770	1583	1774	1863	1583	1721	0	1681
Q Serve(g_s), s	5.2	10.4	10.4	1.4	12.9	6.6	1.0	3.6	1.0	1.6	0.0	10.0
Cycle Q Clear(g_c), s	5.2	10.4	10.4	1.4	12.9	6.6	1.0	3.6	1.0	1.6	0.0	10.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	171	834	864	63	1452	649	50	342	291	156	0	337
V/C Ratio(X)	0.79	0.47	0.47	0.56	0.58	0.34	0.52	0.32	0.09	0.52	0.00	0.75
Avail Cap(c_a), veh/h	251	834	864	152	1471	658	167	825	701	320	0	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.9	12.5	12.5	33.2	16.0	14.1	33.5	24.8	23.7	32.7	0.0	26.3
Incr Delay (d2), s/veh	9.8	1.9	1.8	7.6	0.4	0.1	8.0	0.5	0.1	2.7	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	5.5	5.7	0.8	6.3	2.9	0.6	1.9	0.4	0.8	0.0	4.9
LnGrp Delay(d),s/veh	40.7	14.4	14.4	40.8	16.4	14.2	41.5	25.3	23.9	35.3	0.0	29.8
LnGrp LOS	D	B	B	D	B	B	D	C	C	D		C
Approach Vol, veh/h		928			1098			162				335
Approach Delay, s/veh		18.2			16.7			27.7				31.1
Approach LOS		B			B			C				C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	39.0	5.5	19.0	10.8	34.7	6.7	17.9				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	6.0	33.0	6.6	30.9	9.9	29.1	6.5	31.0				
Max Q Clear Time (g_c+I1), s	3.4	12.4	3.0	12.0	7.2	14.9	3.6	5.6				
Green Ext Time (p_c), s	0.0	5.0	0.0	2.1	0.1	4.5	0.0	2.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			19.9									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary  
605: Dove Canyon Rd & Camino Del Norte

























02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	602	94	208	848	311	114	336	163	318	286	65
Future Volume (veh/h)	95	602	94	208	848	311	114	336	163	318	286	65
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	100	634	99	219	893	327	120	354	172	335	301	68
Adj No. of Lanes	1	3	0	2	3	1	1	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	1796	277	214	2002	623	152	724	324	257	557	124
Arrive On Green	0.07	0.40	0.40	0.06	0.39	0.39	0.09	0.20	0.20	0.07	0.19	0.19
Sat Flow, veh/h	1774	4446	686	3442	5085	1583	1774	3539	1583	3442	2878	641
Grp Volume(v), veh/h	100	482	251	219	893	327	120	354	172	335	183	186
Grp Sat Flow(s),veh/h/ln	1774	1695	1742	1721	1695	1583	1774	1770	1583	1721	1770	1750
Q Serve(g_s), s	4.5	7.9	8.1	5.0	10.4	12.7	5.3	7.1	7.8	6.0	7.5	7.7
Cycle Q Clear(g_c), s	4.5	7.9	8.1	5.0	10.4	12.7	5.3	7.1	7.8	6.0	7.5	7.7
Prop In Lane	1.00		0.39	1.00		1.00	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	129	1370	704	214	2002	623	152	724	324	257	343	339
V/C Ratio(X)	0.78	0.35	0.36	1.02	0.45	0.52	0.79	0.49	0.53	1.31	0.54	0.55
Avail Cap(c_a), veh/h	218	1370	704	214	2002	623	196	1584	708	257	728	720
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	16.7	16.7	37.7	17.9	18.6	36.1	28.3	28.6	37.2	29.2	29.3
Incr Delay (d2), s/veh	11.5	0.7	1.4	67.9	0.7	3.1	15.2	0.6	1.6	162.6	1.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.8	4.1	4.4	4.9	6.1	3.2	3.6	3.5	8.6	3.8	3.9
LnGrp Delay(d),s/veh	48.1	17.4	18.1	105.8	18.7	21.8	51.3	28.9	30.2	199.9	30.7	30.9
LnGrp LOS	D	B	B	F	B	C	D	C	C	F	C	C
Approach Vol, veh/h		833			1439			646			704	
Approach Delay, s/veh		21.3			32.6			33.4			111.3	
Approach LOS		C			C			C			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	39.0	10.9	21.1	10.3	38.2	10.0	22.0				
Change Period (Y+Rc), s	4.5	6.5	4.0	5.5	4.5	6.5	4.0	5.5				
Max Green Setting (Gmax), s	5.0	32.5	8.9	33.1	9.9	27.6	6.0	36.0				
Max Q Clear Time (g_c+I1), s	7.0	10.1	7.3	9.7	6.5	14.7	8.0	9.8				
Green Ext Time (p_c), s	0.0	7.7	0.0	5.9	0.1	6.1	0.0	6.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			45.4									
HCM 2010 LOS			D									









HCM 2010 Signalized Intersection Summary  
606: Bernardo Center Dr & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	1390	69	329	1375	244	51	355	271	657	443	269
Future Volume (veh/h)	265	1390	69	329	1375	244	51	355	271	657	443	269
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	279	1463	73	346	1447	257	54	374	285	692	466	283
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	330	1885	587	396	1983	617	106	983	440	306	1189	532
Arrive On Green	0.10	0.37	0.37	0.11	0.39	0.39	0.03	0.28	0.28	0.09	0.34	0.34
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	279	1463	73	346	1447	257	54	374	285	692	466	283
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	11.5	36.5	4.4	14.2	34.9	17.0	2.2	12.3	22.8	12.8	14.5	20.8
Cycle Q Clear(g_c), s	11.5	36.5	4.4	14.2	34.9	17.0	2.2	12.3	22.8	12.8	14.5	20.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	330	1885	587	396	1983	617	106	983	440	306	1189	532
V/C Ratio(X)	0.85	0.78	0.12	0.87	0.73	0.42	0.51	0.38	0.65	2.26	0.39	0.53
Avail Cap(c_a), veh/h	517	1949	607	505	1983	617	122	983	440	306	1189	532
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.9	39.9	29.8	62.6	37.4	31.9	68.6	41.9	45.7	65.5	36.5	38.6
Incr Delay (d2), s/veh	4.3	2.3	0.2	11.1	1.7	0.9	3.8	1.1	7.2	576.4	1.0	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	17.5	1.9	7.4	16.7	7.6	1.1	6.2	10.8	30.6	7.2	9.6
LnGrp Delay(d),s/veh	68.2	42.2	30.0	73.7	39.1	32.9	72.4	43.0	52.9	641.9	37.5	42.4
LnGrp LOS	E	D	C	E	D	C	E	D	D	F	D	D
Approach Vol, veh/h		1815			2050			713			1441	
Approach Delay, s/veh		45.8			44.1			49.2			328.7	
Approach LOS		D			D			D			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.2	45.9	20.9	59.7	8.8	54.3	18.2	62.4				
Change Period (Y+Rc), s	4.4	6.0	4.4	6.4	4.4	* 6	4.4	* 6.4				
Max Green Setting (Gmax), s	12.8	39.8	21.1	55.1	5.1	* 48	21.6	* 55				
Max Q Clear Time (g_c+I1), s	14.8	24.8	16.2	38.5	4.2	22.8	13.5	36.9				
Green Ext Time (p_c), s	0.0	10.8	0.3	14.8	0.0	16.0	0.3	17.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			113.4									
HCM 2010 LOS			F									
<b>Notes</b>												













HCM 2010 Signalized Intersection Summary  
607: Paseo Montanoso & Camino Del Norte

02/15/2018

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↵	↑↑↑	↵	↵		
Traffic Volume (veh/h)	2309	32	192	1931	33	93		
Future Volume (veh/h)	2309	32	192	1931	33	93		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	2431	34	202	2033	35	98		
Adj No. of Lanes	3	0	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	3310	46	195	4057	147	131		
Arrive On Green	0.64	0.64	0.11	0.80	0.08	0.08		
Sat Flow, veh/h	5336	72	1774	5253	1774	1583		
Grp Volume(v), veh/h	1593	872	202	2033	35	98		
Grp Sat Flow(s),veh/h/ln	1695	1850	1774	1695	1774	1583		
Q Serve(g_s), s	26.9	27.1	9.3	11.4	1.6	5.1		
Cycle Q Clear(g_c), s	26.9	27.1	9.3	11.4	1.6	5.1		
Prop In Lane		0.04	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2171	1185	195	4057	147	131		
V/C Ratio(X)	0.73	0.74	1.03	0.50	0.24	0.75		
Avail Cap(c_a), veh/h	2171	1185	195	4057	683	609		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	10.3	10.3	37.6	2.9	36.3	37.9		
Incr Delay (d2), s/veh	2.2	4.1	73.7	0.4	0.3	3.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.1	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	13.1	14.9	8.5	5.2	0.8	2.4		
LnGrp Delay(d),s/veh	12.5	14.4	111.4	3.3	36.6	41.1		
LnGrp LOS	B	B	F	A	D	D		
Approach Vol, veh/h	2465			2235	133			
Approach Delay, s/veh	13.2			13.1	39.9			
Approach LOS	B			B	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.3	60.2				73.5		11.0
Change Period (Y+Rc), s	4.0	6.1				6.1		4.0
Max Green Setting (Gmax), s	9.3	54.1				67.4		32.5
Max Q Clear Time (g_c+I1), s	11.3	29.1				13.4		7.1
Green Ext Time (p_c), s	0.0	25.0				53.8		0.2
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			13.9					
HCM 2010 LOS			B					



























HCM 2010 Signalized Intersection Summary  
608: I-15 SB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗↗	↘↘	↑↑↑					↗↗		↗↗
Traffic Volume (veh/h)	0	1195	1227	218	2011	0	0	0	0	813	0	82
Future Volume (veh/h)	0	1195	1227	218	2011	0	0	0	0	813	0	82
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1863	0	1863
Adj Flow Rate, veh/h	0	1258	1292	229	2117	0				856	0	86
Adj No. of Lanes	0	4	2	2	3	0				2	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	2876	1251	301	2992	0				948	0	768
Arrive On Green	0.00	0.45	0.45	0.09	0.59	0.00				0.28	0.00	0.28
Sat Flow, veh/h	0	6669	2787	3442	5253	0				3442	0	2787
Grp Volume(v), veh/h	0	1258	1292	229	2117	0				856	0	86
Grp Sat Flow(s),veh/h/ln	0	1602	1393	1721	1695	0				1721	0	1393
Q Serve(g_s), s	0.0	13.5	44.9	6.5	29.4	0.0				24.0	0.0	2.3
Cycle Q Clear(g_c), s	0.0	13.5	44.9	6.5	29.4	0.0				24.0	0.0	2.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2876	1251	301	2992	0				948	0	768
V/C Ratio(X)	0.00	0.44	1.03	0.76	0.71	0.00				0.90	0.00	0.11
Avail Cap(c_a), veh/h	0	2876	1251	595	2992	0				1270	0	1028
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.62	0.62	0.58	0.58	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.9	27.6	44.6	14.5	0.0				34.9	0.0	27.1
Incr Delay (d2), s/veh	0.0	0.3	29.0	0.9	0.8	0.0				6.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.0	22.2	3.1	13.8	0.0				12.2	0.0	0.9
LnGrp Delay(d),s/veh	0.0	19.2	56.6	45.5	15.4	0.0				41.1	0.0	27.1
LnGrp LOS		B	F	D	B					D		C
Approach Vol, veh/h		2550			2346						942	
Approach Delay, s/veh		38.1			18.3						39.8	
Approach LOS		D			B						D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.0	52.4		33.7		66.3						
Change Period (Y+Rc), s	* 5.2	7.5		6.1		7.5						
Max Green Setting (Gmax), s	* 17	27.0		36.9		49.5						
Max Q Clear Time (g_c+I1), s	8.5	46.9		26.0		31.4						
Green Ext Time (p_c), s	0.3	0.0		1.6		16.3						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			30.4									
HCM 2010 LOS			C									
<b>Notes</b>												




















HCM 2010 Signalized Intersection Summary  
 609: I-15 NB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  	 	 		 			
Traffic Volume (veh/h)	152	1863	0	0	1037	792	1282	0	270	0	0	0
Future Volume (veh/h)	152	1863	0	0	1037	792	1282	0	270	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	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			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	160	1961	0	0	1092	834	1349	0	284			
Adj No. of Lanes	2	3	0	0	4	2	2	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	213	2259	0	0	2116	920	1445	0	1170			
Arrive On Green	0.12	0.89	0.00	0.00	0.33	0.33	0.42	0.00	0.42			
Sat Flow, veh/h	3442	5253	0	0	6669	2787	3442	0	2787			
Grp Volume(v), veh/h	160	1961	0	0	1092	834	1349	0	284			
Grp Sat Flow(s),veh/h/ln	1721	1695	0	0	1602	1393	1721	0	1393			
Q Serve(g_s), s	4.5	18.8	0.0	0.0	13.8	28.6	37.4	0.0	6.6			
Cycle Q Clear(g_c), s	4.5	18.8	0.0	0.0	13.8	28.6	37.4	0.0	6.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	213	2259	0	0	2116	920	1445	0	1170			
V/C Ratio(X)	0.75	0.87	0.00	0.00	0.52	0.91	0.93	0.00	0.24			
Avail Cap(c_a), veh/h	213	2259	0	0	2116	920	1614	0	1307			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.74	0.74	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	43.1	4.2	0.0	0.0	27.0	32.0	27.7	0.0	18.7			
Incr Delay (d2), s/veh	9.3	3.6	0.0	0.0	0.9	14.2	9.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.4	8.4	0.0	0.0	6.2	12.8	19.5	0.0	2.5			
LnGrp Delay(d),s/veh	52.4	7.8	0.0	0.0	27.9	46.2	37.0	0.0	18.8			
LnGrp LOS	D	A			C	D	D		B			
Approach Vol, veh/h		2121			1926			1633				
Approach Delay, s/veh		11.2			35.8			33.8				
Approach LOS		B			D			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		51.9			11.4	40.5		48.1				
Change Period (Y+Rc), s		7.5			* 5.2	7.5		6.1				
Max Green Setting (Gmax), s		39.5			* 6.2	28.1		46.9				
Max Q Clear Time (g_c+I1), s		20.8			6.5	30.6		39.4				
Green Ext Time (p_c), s		15.3			0.0	0.0		2.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				26.0								
HCM 2010 LOS				C								
<b>Notes</b>												

HCM 2010 Signalized Intersection Summary  
 610: Dove Canyon Rd & Lone Quail Rd










02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	31	31	62	42	215	32	325	84	211	277	99
Future Volume (veh/h)	54	31	31	62	42	215	32	325	84	211	277	99
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	57	33	33	65	44	226	34	342	88	222	292	104
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	338	195	166	470	297	699	299	471	120	304	442	154
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	581	442	375	864	672	1583	1774	2797	710	1774	2575	898
Grp Volume(v), veh/h	123	0	0	109	0	226	34	215	215	222	199	197
Grp Sat Flow(s),veh/h/ln	1398	0	0	1536	0	1583	1774	1770	1737	1774	1770	1704
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	6.0	1.1	7.5	7.6	7.7	6.8	7.0
Cycle Q Clear(g_c), s	2.8	0.0	0.0	2.3	0.0	6.0	1.1	7.5	7.6	7.7	6.8	7.0
Prop In Lane	0.46		0.27	0.60		1.00	1.00		0.41	1.00		0.53
Lane Grp Cap(c), veh/h	698	0	0	767	0	699	299	298	292	304	303	292
V/C Ratio(X)	0.18	0.00	0.00	0.14	0.00	0.32	0.11	0.72	0.74	0.73	0.65	0.68
Avail Cap(c_a), veh/h	698	0	0	767	0	699	764	763	749	795	793	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.9	0.0	0.0	10.8	0.0	11.8	22.9	25.6	25.7	25.5	25.1	25.2
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.0	0.0	0.1	0.1	1.2	1.4	1.3	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	1.2	0.0	2.7	0.5	3.7	3.8	3.9	3.4	3.4
LnGrp Delay(d),s/veh	11.4	0.0	0.0	10.8	0.0	11.9	23.0	26.8	27.0	26.8	26.0	26.2
LnGrp LOS	B			B		B	C	C	C	C	C	C
Approach Vol, veh/h		123			335			464			618	
Approach Delay, s/veh		11.4			11.5			26.6			26.4	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.7		15.7		33.7		15.5				
Change Period (Y+Rc), s		5.0		4.6		5.0		4.6				
Max Green Setting (Gmax), s		28.7		29.1		28.7		28.0				
Max Q Clear Time (g_c+I1), s		4.8		9.7		8.0		9.6				
Green Ext Time (p_c), s		1.1		1.4		1.1		1.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				22.0								
HCM 2010 LOS				C								

# HCM 2010 Signalized Intersection Summary





















## 601: 4 Gee Rd & Project Driveway

02/15/2018

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	2	0	91	2	0	59		
Future Volume (veh/h)	2	0	91	2	0	59		
Number	7	14	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	0	1863	1900	1900	1863		
Adj Flow Rate, veh/h	2	0	96	2	0	62		
Adj No. of Lanes	1	0	1	0	0	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	0	2	2	2	2		
Cap, veh/h	0	0	1455	30	0	1490		
Arrive On Green	0.00	0.00	0.80	0.80	0.00	0.80		
Sat Flow, veh/h	0	0	1818	38	0	1863		
Grp Volume(v), veh/h	0	0	0	98	0	62		
Grp Sat Flow(s),veh/h/ln	0	0	0	1856	0	1863		
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.2		
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.3	0.0	0.2		
Prop In Lane	0.00	0.00		0.02	0.00			
Lane Grp Cap(c), veh/h	0	0	0	1485	0	1490		
V/C Ratio(X)	0.00	0.00	0.00	0.07	0.00	0.04		
Avail Cap(c_a), veh/h	0	0	0	1485	0	1490		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.5	0.0	0.5		
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.1	0.0	0.1		
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.6	0.0	0.5		
LnGrp LOS				A		A		
Approach Vol, veh/h	0		98			62		
Approach Delay, s/veh	0.0		0.6			0.5		
Approach LOS			A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.5		0.0		22.5		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		2.3		0.0		2.2		
Green Ext Time (p_c), s		0.6		0.0		0.6		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			0.5					
HCM 2010 LOS			A					





















HCM 2010 Signalized Intersection Summary  
 602: Paseo Del Sur/4 Gee Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	648	45	209	548	31	31	17	98	21	23	28
Future Volume (veh/h)	70	648	45	209	548	31	31	17	98	21	23	28
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	74	682	47	220	577	33	33	18	103	22	24	29
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	118	1809	125	259	2107	120	216	29	167	154	93	113
Arrive On Green	0.07	0.54	0.54	0.15	0.62	0.62	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	1774	3360	231	1774	3404	194	1346	241	1379	1265	769	929
Grp Volume(v), veh/h	74	359	370	220	300	310	33	0	121	22	0	53
Grp Sat Flow(s),veh/h/ln	1774	1770	1822	1774	1770	1828	1346	0	1619	1265	0	1699
Q Serve(g_s), s	3.2	9.3	9.3	9.6	6.1	6.2	1.8	0.0	5.6	1.3	0.0	2.2
Cycle Q Clear(g_c), s	3.2	9.3	9.3	9.6	6.1	6.2	4.0	0.0	5.6	6.9	0.0	2.2
Prop In Lane	1.00		0.13	1.00		0.11	1.00		0.85	1.00		0.55
Lane Grp Cap(c), veh/h	118	953	981	259	1095	1132	216	0	196	154	0	206
V/C Ratio(X)	0.63	0.38	0.38	0.85	0.27	0.27	0.15	0.00	0.62	0.14	0.00	0.26
Avail Cap(c_a), veh/h	408	953	981	312	1095	1132	616	0	677	530	0	711
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.0	10.6	10.6	32.9	6.9	6.9	33.4	0.0	33.0	36.3	0.0	31.5
Incr Delay (d2), s/veh	2.0	1.1	1.1	14.8	0.6	0.6	0.1	0.0	1.2	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(50%),veh/ln	1.6	4.8	4.9	5.8	3.2	3.3	0.7	0.0	2.6	0.5	0.0	1.1
LnGrp Delay(d),s/veh	38.0	11.7	11.7	47.8	7.5	7.5	33.5	0.0	34.2	36.5	0.0	31.8
LnGrp LOS	D	B	B	D	A	A	C		C	D		C
Approach Vol, veh/h		803			830			154			75	
Approach Delay, s/veh		14.1			18.2			34.1			33.2	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	48.6		14.5	9.7	55.0		14.5				
Change Period (Y+Rc), s	4.5	6.0		4.9	4.4	6.0		4.9				
Max Green Setting (Gmax), s	13.9	42.6		33.1	18.2	38.4		33.1				
Max Q Clear Time (g_c+I1), s	11.6	11.3		8.9	5.2	8.2		7.6				
Green Ext Time (p_c), s	0.1	22.5		0.7	0.1	22.0		0.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			18.4									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary  
 603: Lone Quail Rd/Rancho Bernardo Rd & Camino Del Norte
























02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	578	33	14	557	46	31	37	26	86	34	215
Future Volume (veh/h)	150	578	33	14	557	46	31	37	26	86	34	215
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	158	608	35	15	586	48	33	39	27	91	36	226
Adj No. of Lanes	1	2	0	2	2	0	1	1	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	1921	110	48	1545	126	45	143	99	116	318	284
Arrive On Green	0.11	0.56	0.56	0.01	0.47	0.47	0.03	0.14	0.14	0.07	0.18	0.18
Sat Flow, veh/h	1774	3402	196	3442	3314	271	1774	1027	711	1774	1770	1583
Grp Volume(v), veh/h	158	316	327	15	312	322	33	0	66	91	36	226
Grp Sat Flow(s),veh/h/ln	1774	1770	1828	1721	1770	1815	1774	0	1737	1774	1770	1583
Q Serve(g_s), s	7.4	8.1	8.1	0.4	9.8	9.8	1.6	0.0	2.9	4.3	1.5	11.7
Cycle Q Clear(g_c), s	7.4	8.1	8.1	0.4	9.8	9.8	1.6	0.0	2.9	4.3	1.5	11.7
Prop In Lane	1.00		0.11	1.00		0.15	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	199	999	1032	48	825	846	45	0	242	116	318	284
V/C Ratio(X)	0.79	0.32	0.32	0.31	0.38	0.38	0.73	0.00	0.27	0.78	0.11	0.79
Avail Cap(c_a), veh/h	519	999	1032	229	825	846	176	0	711	156	703	629
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	9.9	9.9	41.8	14.8	14.8	41.4	0.0	32.9	39.4	29.4	33.6
Incr Delay (d2), s/veh	8.2	0.8	0.8	4.3	0.1	0.1	23.8	0.0	0.6	18.1	0.2	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	4.2	4.3	0.2	4.8	4.9	1.1	0.0	1.4	2.7	0.7	5.5
LnGrp Delay(d),s/veh	45.2	10.7	10.7	46.1	14.9	14.9	65.1	0.0	33.5	57.4	29.5	38.6
LnGrp LOS	D	B	B	D	B	B	E		C	E	C	D
Approach Vol, veh/h		801			649			99			353	
Approach Delay, s/veh		17.5			15.6			44.1			42.5	
Approach LOS		B			B			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	54.3	5.7	20.4	13.6	45.9	9.1	16.9				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	5.7	48.3	8.5	34.0	25.0	29.0	7.5	35.0				
Max Q Clear Time (g_c+I1), s	2.4	10.1	3.6	13.7	9.4	11.8	6.3	4.9				
Green Ext Time (p_c), s	0.0	4.5	0.0	1.7	0.4	4.1	0.0	1.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				22.9								
HCM 2010 LOS				C								

























HCM 2010 Signalized Intersection Summary  
604: 4S Ranch Pkwy & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	568	15	27	498	127	16	65	34	95	50	113
Future Volume (veh/h)	115	568	15	27	498	127	16	65	34	95	50	113
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	121	598	16	28	524	134	17	68	36	100	53	119
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	2	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	156	1800	48	54	1607	719	36	223	190	178	77	174
Arrive On Green	0.09	0.51	0.51	0.03	0.45	0.45	0.02	0.12	0.12	0.05	0.15	0.15
Sat Flow, veh/h	1774	3522	94	1774	3539	1583	1774	1863	1583	3442	512	1149
Grp Volume(v), veh/h	121	300	314	28	524	134	17	68	36	100	0	172
Grp Sat Flow(s),veh/h/ln	1774	1770	1846	1774	1770	1583	1774	1863	1583	1721	0	1660
Q Serve(g_s), s	4.3	6.4	6.5	1.0	6.1	3.3	0.6	2.2	1.3	1.8	0.0	6.3
Cycle Q Clear(g_c), s	4.3	6.4	6.5	1.0	6.1	3.3	0.6	2.2	1.3	1.8	0.0	6.3
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	156	905	944	54	1607	719	36	223	190	178	0	251
V/C Ratio(X)	0.78	0.33	0.33	0.52	0.33	0.19	0.47	0.30	0.19	0.56	0.00	0.69
Avail Cap(c_a), veh/h	272	905	944	165	1607	719	181	895	760	347	0	795
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.8	9.3	9.3	30.8	11.3	10.5	31.3	25.9	25.6	29.9	0.0	25.9
Incr Delay (d2), s/veh	8.1	1.0	0.9	7.4	0.0	0.0	9.2	0.8	0.5	2.8	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.3	3.5	0.6	3.0	1.4	0.4	1.2	0.6	0.9	0.0	3.1
LnGrp Delay(d),s/veh	36.9	10.3	10.2	38.2	11.3	10.6	40.5	26.7	26.1	32.7	0.0	29.2
LnGrp LOS	D	B	B	D	B	B	D	C	C	C		C
Approach Vol, veh/h		735			686			121			272	
Approach Delay, s/veh		14.6			12.3			28.5			30.5	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	39.0	4.8	14.8	9.7	35.3	6.8	12.7				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	6.0	33.0	6.6	30.9	9.9	29.1	6.5	31.0				
Max Q Clear Time (g_c+I1), s	3.0	8.5	2.6	8.3	6.3	8.1	3.8	4.2				
Green Ext Time (p_c), s	0.0	3.1	0.0	1.4	0.1	3.1	0.1	1.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			17.0									
HCM 2010 LOS			B									

























HCM 2010 Signalized Intersection Summary  
605: Dove Canyon Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	503	109	162	461	317	91	251	104	298	158	41
Future Volume (veh/h)	96	503	109	162	461	317	91	251	104	298	158	41
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	101	529	115	171	485	334	96	264	109	314	166	43
Adj No. of Lanes	1	3	0	2	3	1	1	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	1821	387	230	2170	676	124	518	232	275	439	111
Arrive On Green	0.07	0.43	0.43	0.07	0.43	0.43	0.07	0.15	0.15	0.08	0.16	0.16
Sat Flow, veh/h	1774	4201	894	3442	5085	1583	1774	3539	1583	3442	2801	707
Grp Volume(v), veh/h	101	425	219	171	485	334	96	264	109	314	103	106
Grp Sat Flow(s),veh/h/ln	1774	1695	1705	1721	1695	1583	1774	1770	1583	1721	1770	1738
Q Serve(g_s), s	4.2	6.1	6.3	3.7	4.5	11.5	4.0	5.2	4.7	6.0	3.9	4.1
Cycle Q Clear(g_c), s	4.2	6.1	6.3	3.7	4.5	11.5	4.0	5.2	4.7	6.0	3.9	4.1
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	130	1469	739	230	2170	676	124	518	232	275	278	273
V/C Ratio(X)	0.78	0.29	0.30	0.75	0.22	0.49	0.78	0.51	0.47	1.14	0.37	0.39
Avail Cap(c_a), veh/h	234	1469	739	230	2170	676	211	1699	760	275	781	767
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	13.8	13.8	34.4	13.6	15.6	34.3	29.5	29.3	34.5	28.3	28.4
Incr Delay (d2), s/veh	11.2	0.5	1.0	12.8	0.2	2.6	10.0	0.9	1.8	97.5	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	2.9	3.1	2.1	2.2	5.5	2.3	2.6	2.2	6.6	2.0	2.1
LnGrp Delay(d),s/veh	45.3	14.3	14.8	47.2	13.9	18.2	44.3	30.5	31.1	132.0	29.3	29.5
LnGrp LOS	D	B	B	D	B	B	D	C	C	F	C	C
Approach Vol, veh/h		745			990			469			523	
Approach Delay, s/veh		18.6			21.1			33.4			91.0	
Approach LOS		B			C			C			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	39.0	9.2	17.3	10.0	38.5	10.0	16.5				
Change Period (Y+Rc), s	4.5	6.5	4.0	5.5	4.5	6.5	4.0	5.5				
Max Green Setting (Gmax), s	5.0	32.5	8.9	33.1	9.9	27.6	6.0	36.0				
Max Q Clear Time (g_c+I1), s	5.7	8.3	6.0	6.1	6.2	13.5	8.0	7.2				
Green Ext Time (p_c), s	0.0	5.1	0.0	3.8	0.1	4.4	0.0	3.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			35.9									
HCM 2010 LOS			D									







HCM 2010 Signalized Intersection Summary  
 606: Bernardo Center Dr & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	1113	26	180	792	93	21	222	265	106	339	116
Future Volume (veh/h)	94	1113	26	180	792	93	21	222	265	106	339	116
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	99	1172	27	189	834	98	22	234	279	112	357	122
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	1938	603	244	2079	647	72	1203	538	163	1296	580
Arrive On Green	0.04	0.38	0.38	0.07	0.41	0.41	0.02	0.34	0.34	0.05	0.37	0.37
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	99	1172	27	189	834	98	22	234	279	112	357	122
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	3.7	24.4	1.4	7.1	15.3	5.1	0.8	6.2	18.6	4.2	9.4	7.0
Cycle Q Clear(g_c), s	3.7	24.4	1.4	7.1	15.3	5.1	0.8	6.2	18.6	4.2	9.4	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	1938	603	244	2079	647	72	1203	538	163	1296	580
V/C Ratio(X)	0.67	0.60	0.04	0.78	0.40	0.15	0.30	0.19	0.52	0.69	0.28	0.21
Avail Cap(c_a), veh/h	564	2125	662	551	2109	657	133	1203	538	334	1296	580
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.2	32.8	25.7	60.2	27.6	24.6	63.6	30.8	34.9	61.8	29.5	28.7
Incr Delay (d2), s/veh	1.9	0.7	0.1	2.0	0.3	0.2	2.3	0.4	3.5	5.0	0.5	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(50%),veh/ln	1.8	11.5	0.6	3.5	7.2	2.3	0.4	3.1	8.7	2.1	4.7	3.2
LnGrp Delay(d),s/veh	64.1	33.5	25.7	62.2	27.8	24.8	65.9	31.1	38.4	66.9	30.0	29.5
LnGrp LOS	E	C	C	E	C	C	E	C	D	E	C	C
Approach Vol, veh/h		1298			1121			535			591	
Approach Delay, s/veh		35.7			33.4			36.4			36.9	
Approach LOS		D			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	50.8	13.7	56.7	7.2	54.3	10.1	60.3				
Change Period (Y+Rc), s	4.4	6.0	4.4	6.4	4.4	* 6	4.4	* 6.4				
Max Green Setting (Gmax), s	12.8	39.8	21.1	55.1	5.1	* 48	21.6	* 55				
Max Q Clear Time (g_c+I1), s	6.2	20.6	9.1	26.4	2.8	11.4	5.7	17.3				
Green Ext Time (p_c), s	0.1	9.6	0.2	23.8	0.0	13.2	0.1	29.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			35.2									
HCM 2010 LOS			D									
<b>Notes</b>												

HCM 2010 Signalized Intersection Summary  
607: Paseo Montanoso & Camino Del Norte













02/15/2018

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↑	↑↑↑	↑	↑		
Traffic Volume (veh/h)	1526	12	106	1112	15	104		
Future Volume (veh/h)	1526	12	106	1112	15	104		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1606	13	112	1171	16	109		
Adj No. of Lanes	3	0	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	3467	28	141	4033	156	140		
Arrive On Green	0.67	0.67	0.08	0.79	0.09	0.09		
Sat Flow, veh/h	5371	42	1774	5253	1774	1583		
Grp Volume(v), veh/h	1046	573	112	1171	16	109		
Grp Sat Flow(s),veh/h/ln	1695	1855	1774	1695	1774	1583		
Q Serve(g_s), s	12.7	12.7	5.3	5.3	0.7	5.7		
Cycle Q Clear(g_c), s	12.7	12.7	5.3	5.3	0.7	5.7		
Prop In Lane		0.02	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2259	1236	141	4033	156	140		
V/C Ratio(X)	0.46	0.46	0.79	0.29	0.10	0.78		
Avail Cap(c_a), veh/h	2259	1236	194	4033	678	605		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	6.8	6.8	38.4	2.4	35.7	37.9		
Incr Delay (d2), s/veh	0.7	1.3	9.7	0.2	0.1	3.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.0	6.8	3.0	2.5	0.4	2.6		
LnGrp Delay(d),s/veh	7.5	8.1	48.2	2.5	35.8	41.5		
LnGrp LOS	A	A	D	A	D	D		
Approach Vol, veh/h	1619			1283	125			
Approach Delay, s/veh	7.7			6.5	40.8			
Approach LOS	A			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.8	62.7				73.5		11.5
Change Period (Y+Rc), s	4.0	6.1				6.1		4.0
Max Green Setting (Gmax), s	9.3	54.1				67.4		32.5
Max Q Clear Time (g_c+I1), s	7.3	14.7				7.3		7.7
Green Ext Time (p_c), s	0.0	37.3				55.4		0.2
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			8.6					
HCM 2010 LOS			A					

# HCM 2010 Signalized Intersection Summary



















## 608: I-15 SB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗↗	↘↘	↑↑↑					↖↖		↗↗
Traffic Volume (veh/h)	0	1015	586	186	1157	0	0	0	0	580	0	63
Future Volume (veh/h)	0	1015	586	186	1157	0	0	0	0	580	0	63
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1863	0	1863
Adj Flow Rate, veh/h	0	1068	617	196	1218	0				611	0	66
Adj No. of Lanes	0	4	2	2	3	0				2	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	3401	1479	269	3361	0				699	0	566
Arrive On Green	0.00	0.53	0.53	0.08	0.66	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	6669	2787	3442	5253	0				3442	0	2787
Grp Volume(v), veh/h	0	1068	617	196	1218	0				611	0	66
Grp Sat Flow(s),veh/h/ln	0	1602	1393	1721	1695	0				1721	0	1393
Q Serve(g_s), s	0.0	9.4	13.3	5.6	10.7	0.0				17.2	0.0	1.9
Cycle Q Clear(g_c), s	0.0	9.4	13.3	5.6	10.7	0.0				17.2	0.0	1.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3401	1479	269	3361	0				699	0	566
V/C Ratio(X)	0.00	0.31	0.42	0.73	0.36	0.00				0.87	0.00	0.12
Avail Cap(c_a), veh/h	0	3401	1479	681	3361	0				1098	0	889
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.87	0.87	0.89	0.89	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.2	14.1	45.1	7.6	0.0				38.6	0.0	32.5
Incr Delay (d2), s/veh	0.0	0.2	0.8	1.3	0.3	0.0				3.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.2	5.3	2.7	5.0	0.0				8.4	0.0	0.7
LnGrp Delay(d),s/veh	0.0	13.4	14.9	46.3	7.8	0.0				41.7	0.0	32.6
LnGrp LOS		B	B	D	A					D		C
Approach Vol, veh/h		1685			1414						677	
Approach Delay, s/veh		14.0			13.2						40.8	
Approach LOS		B			B						D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	13.0	60.6		26.4		73.6						
Change Period (Y+Rc), s	* 5.2	7.5		6.1		7.5						
Max Green Setting (Gmax), s	* 20	29.5		31.9		54.5						
Max Q Clear Time (g_c+I1), s	7.6	15.3		19.2		12.7						
Green Ext Time (p_c), s	0.2	9.7		1.1		17.6						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			18.5									
HCM 2010 LOS			B									
<b>Notes</b>												

HCM 2010 Signalized Intersection Summary  
 609: I-15 NB Ramps & Camino Del Norte






















02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	1476	0	0	696	584	630	5	186	0	0	0
Future Volume (veh/h)	118	1476	0	0	696	584	630	5	186	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	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			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	1900	1863			
Adj Flow Rate, veh/h	124	1554	0	0	733	615	663	5	196			
Adj No. of Lanes	2	3	0	0	4	2	2	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	184	3270	0	0	3444	1498	761	0	616			
Arrive On Green	0.11	1.00	0.00	0.00	0.54	0.54	0.22	0.22	0.22			
Sat Flow, veh/h	3442	5253	0	0	6669	2787	3442	0	2787			
Grp Volume(v), veh/h	124	1554	0	0	733	615	663	0	196			
Grp Sat Flow(s),veh/h/ln	1721	1695	0	0	1602	1393	1721	0	1393			
Q Serve(g_s), s	3.5	0.0	0.0	0.0	6.0	13.1	18.6	0.0	5.9			
Cycle Q Clear(g_c), s	3.5	0.0	0.0	0.0	6.0	13.1	18.6	0.0	5.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	184	3270	0	0	3444	1498	761	0	616			
V/C Ratio(X)	0.67	0.48	0.00	0.00	0.21	0.41	0.87	0.00	0.32			
Avail Cap(c_a), veh/h	337	3270	0	0	3444	1498	1201	0	973			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.85	0.85	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	43.8	0.0	0.0	0.0	12.1	13.7	37.6	0.0	32.6			
Incr Delay (d2), s/veh	1.4	0.4	0.0	0.0	0.1	0.8	2.7	0.0	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.7	0.1	0.0	0.0	2.7	5.2	9.1	0.0	2.3			
LnGrp Delay(d),s/veh	45.2	0.4	0.0	0.0	12.2	14.6	40.3	0.0	32.7			
LnGrp LOS	D	A			B	B	D		C			
Approach Vol, veh/h		1678			1348			859				
Approach Delay, s/veh		3.7			13.3			38.6				
Approach LOS		A			B			D				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		71.8			10.6	61.2		28.2				
Change Period (Y+Rc), s		7.5			* 5.2	7.5		6.1				
Max Green Setting (Gmax), s		51.5			* 9.8	36.5		34.9				
Max Q Clear Time (g_c+I1), s		2.0			5.5	15.1		20.6				
Green Ext Time (p_c), s		18.9			0.1	12.9		1.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				14.7								
HCM 2010 LOS				B								
<b>Notes</b>												

# HCM 2010 Signalized Intersection Summary










## 610: Dove Canyon Rd & Lone Quail Rd

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	26	19	41	13	172	29	200	77	162	182	65
Future Volume (veh/h)	77	26	19	41	13	172	29	200	77	162	182	65
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	81	27	20	43	14	181	31	211	81	171	192	68
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	496	162	103	637	193	771	231	329	122	251	366	126
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.13	0.13	0.13	0.14	0.14	0.14
Sat Flow, veh/h	813	333	212	1088	397	1583	1774	2526	940	1774	2588	888
Grp Volume(v), veh/h	128	0	0	57	0	181	31	146	146	171	129	131
Grp Sat Flow(s),veh/h/ln	1358	0	0	1485	0	1583	1774	1770	1697	1774	1770	1706
Q Serve(g_s), s	1.6	0.0	0.0	0.0	0.0	3.9	0.9	4.6	4.8	5.4	4.0	4.2
Cycle Q Clear(g_c), s	2.7	0.0	0.0	1.0	0.0	3.9	0.9	4.6	4.8	5.4	4.0	4.2
Prop In Lane	0.63		0.16	0.75		1.00	1.00		0.55	1.00		0.52
Lane Grp Cap(c), veh/h	761	0	0	831	0	771	231	230	221	251	250	241
V/C Ratio(X)	0.17	0.00	0.00	0.07	0.00	0.23	0.13	0.63	0.66	0.68	0.52	0.54
Avail Cap(c_a), veh/h	761	0	0	831	0	771	843	841	807	876	874	843
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.4	0.0	0.0	8.0	0.0	8.7	22.7	24.3	24.4	24.0	23.4	23.5
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.1	0.1	1.1	1.3	1.2	0.6	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(50%),veh/ln	1.2	0.0	0.0	0.5	0.0	1.7	0.5	2.3	2.4	2.7	2.0	2.0
LnGrp Delay(d),s/veh	8.9	0.0	0.0	8.0	0.0	8.8	22.8	25.4	25.6	25.2	24.0	24.2
LnGrp LOS	A			A		A	C	C	C	C	C	C
Approach Vol, veh/h		128			238			323			431	
Approach Delay, s/veh		8.9			8.6			25.2			24.6	
Approach LOS		A			A			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.7		12.9		33.7		12.3				
Change Period (Y+Rc), s		5.0		4.6		5.0		4.6				
Max Green Setting (Gmax), s		28.7		29.1		28.7		28.0				
Max Q Clear Time (g_c+I1), s		4.7		7.4		5.9		6.8				
Green Ext Time (p_c), s		0.9		0.9		0.9		0.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				19.6								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary  
601: 4 Gee Rd & Project Driveway





















02/15/2018

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	456	9	87	456	9	55		
Future Volume (veh/h)	456	9	87	456	9	55		
Number	7	14	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1900	1863		
Adj Flow Rate, veh/h	480	9	92	480	9	58		
Adj No. of Lanes	1	0	1	0	0	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	0	2	2	2	2		
Cap, veh/h	0	0	209	1089	264	1307		
Arrive On Green	0.00	0.00	0.80	0.80	0.80	0.80		
Sat Flow, veh/h	0	0	261	1362	103	1633		
Grp Volume(v), veh/h	0	0	0	572	67	0		
Grp Sat Flow(s),veh/h/ln	0	0	0	1622	1736	0		
Q Serve(g_s), s	0.0	0.0	0.0	2.5	0.0	0.0		
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.5	0.2	0.0		
Prop In Lane	0.00	0.00		0.84	0.13			
Lane Grp Cap(c), veh/h	0	0	0	1298	1571	0		
V/C Ratio(X)	0.00	0.00	0.00	0.44	0.04	0.00		
Avail Cap(c_a), veh/h	0	0	0	1298	1571	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.00	0.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.7	0.5	0.0		
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.1	0.1	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.3	0.1	0.0		
LnGrp Delay(d),s/veh	0.0	0.0	0.0	1.8	0.5	0.0		
LnGrp LOS				A	A			
Approach Vol, veh/h	0		572			67		
Approach Delay, s/veh	0.0		1.8			0.5		
Approach LOS			A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.5		0.0		22.5		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		4.5		0.0		2.2		
Green Ext Time (p_c), s		3.7		0.0		4.0		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			1.7					
HCM 2010 LOS			A					



























HCM 2010 Signalized Intersection Summary  
 602: Paseo Del Sur/4 Gee Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	641	45	209	541	444	31	17	98	434	23	65
Future Volume (veh/h)	107	641	45	209	541	444	31	17	98	434	23	65
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	113	675	47	220	569	467	33	18	103	457	24	68
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	1054	73	251	691	567	535	95	542	506	169	479
Arrive On Green	0.08	0.31	0.31	0.14	0.37	0.37	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1774	3358	234	1774	1849	1516	1299	241	1379	1265	430	1218
Grp Volume(v), veh/h	113	356	366	220	545	491	33	0	121	457	0	92
Grp Sat Flow(s),veh/h/ln	1774	1770	1822	1774	1770	1595	1299	0	1619	1265	0	1648
Q Serve(g_s), s	6.4	17.6	17.6	12.4	28.4	28.4	1.7	0.0	5.0	35.1	0.0	3.7
Cycle Q Clear(g_c), s	6.4	17.6	17.6	12.4	28.4	28.4	5.4	0.0	5.0	40.1	0.0	3.7
Prop In Lane	1.00		0.13	1.00		0.95	1.00		0.85	1.00		0.74
Lane Grp Cap(c), veh/h	147	555	572	251	661	596	535	0	637	506	0	648
V/C Ratio(X)	0.77	0.64	0.64	0.87	0.82	0.82	0.06	0.00	0.19	0.90	0.00	0.14
Avail Cap(c_a), veh/h	317	555	572	305	661	596	535	0	637	506	0	648
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.8	30.0	30.0	42.9	28.9	28.9	21.6	0.0	20.3	34.2	0.0	19.9
Incr Delay (d2), s/veh	3.2	5.6	5.4	18.5	11.1	12.2	0.0	0.0	0.1	18.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	9.5	9.7	7.3	15.8	14.4	0.6	0.0	2.2	15.5	0.0	1.7
LnGrp Delay(d),s/veh	49.0	35.6	35.5	61.3	40.0	41.1	21.6	0.0	20.3	53.1	0.0	19.9
LnGrp LOS	D	D	D	E	D	D	C		C	D		B
Approach Vol, veh/h		835			1256			154			549	
Approach Delay, s/veh		37.4			44.2			20.6			47.6	
Approach LOS		D			D			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.9	38.0		45.0	12.8	44.1		45.0				
Change Period (Y+Rc), s	4.5	6.0		4.9	4.4	6.0		4.9				
Max Green Setting (Gmax), s	17.5	32.0		40.1	18.2	31.4		40.1				
Max Q Clear Time (g_c+I1), s	14.4	19.6		42.1	8.4	30.4		7.4				
Green Ext Time (p_c), s	0.1	11.6		0.0	0.1	1.0		1.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				41.5								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary  
 603: Lone Quail Rd/Rancho Bernardo Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 						 	
Traffic Volume (veh/h)	201	928	38	12	907	46	36	37	24	86	34	266
Future Volume (veh/h)	201	928	38	12	907	46	36	37	24	86	34	266
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	212	977	40	13	955	48	38	39	25	91	36	280
Adj No. of Lanes	1	2	0	2	2	0	1	1	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	1873	77	42	1402	70	48	185	119	116	376	337
Arrive On Green	0.14	0.54	0.54	0.01	0.41	0.41	0.03	0.17	0.17	0.07	0.21	0.21
Sat Flow, veh/h	1774	3465	142	3442	3430	172	1774	1062	681	1774	1770	1583
Grp Volume(v), veh/h	212	499	518	13	493	510	38	0	64	91	36	280
Grp Sat Flow(s),veh/h/ln	1774	1770	1838	1721	1770	1832	1774	0	1743	1774	1770	1583
Q Serve(g_s), s	10.4	16.1	16.1	0.3	20.4	20.4	1.9	0.0	2.8	4.5	1.5	15.1
Cycle Q Clear(g_c), s	10.4	16.1	16.1	0.3	20.4	20.4	1.9	0.0	2.8	4.5	1.5	15.1
Prop In Lane	1.00		0.08	1.00		0.09	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	256	957	993	42	723	749	48	0	304	116	376	337
V/C Ratio(X)	0.83	0.52	0.52	0.31	0.68	0.68	0.78	0.00	0.21	0.78	0.10	0.83
Avail Cap(c_a), veh/h	496	957	993	220	723	749	169	0	683	149	673	603
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	13.1	13.1	43.7	21.6	21.6	43.2	0.0	31.6	41.1	28.3	33.6
Incr Delay (d2), s/veh	8.1	2.0	2.0	4.8	2.2	2.1	27.4	0.0	0.3	19.8	0.1	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	8.3	8.6	0.2	10.3	10.6	1.3	0.0	1.4	2.8	0.7	7.1
LnGrp Delay(d),s/veh	45.2	15.2	15.1	48.5	23.8	23.7	70.6	0.0	31.9	60.9	28.4	39.0
LnGrp LOS	D	B	B	D	C	C	E		C	E	C	D
Approach Vol, veh/h		1229			1016			102			407	
Approach Delay, s/veh		20.3			24.1			46.3			42.9	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	54.3	5.9	24.0	16.9	42.5	9.4	20.6				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	5.7	48.3	8.5	34.0	25.0	29.0	7.5	35.0				
Max Q Clear Time (g_c+I1), s	2.3	18.1	3.9	17.1	12.4	22.4	6.5	4.8				
Green Ext Time (p_c), s	0.0	8.6	0.0	1.9	0.6	4.0	0.0	2.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				26.0								
HCM 2010 LOS				C								

# HCM 2010 Signalized Intersection Summary

## 604: 4S Ranch Pkwy & Camino Del Norte
























02/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	911	21	25	841	127	22	65	32	95	50	113
Future Volume (veh/h)	115	911	21	25	841	127	22	65	32	95	50	113
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	121	959	22	26	885	134	23	68	34	100	53	119
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	2	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	156	1800	41	51	1593	713	46	234	199	177	77	173
Arrive On Green	0.09	0.51	0.51	0.03	0.45	0.45	0.03	0.13	0.13	0.05	0.15	0.15
Sat Flow, veh/h	1774	3537	81	1774	3539	1583	1774	1863	1583	3442	512	1149
Grp Volume(v), veh/h	121	480	501	26	885	134	23	68	34	100	0	172
Grp Sat Flow(s),veh/h/ln	1774	1770	1848	1774	1770	1583	1774	1863	1583	1721	0	1660
Q Serve(g_s), s	4.3	11.8	11.8	0.9	11.9	3.3	0.8	2.1	1.2	1.8	0.0	6.4
Cycle Q Clear(g_c), s	4.3	11.8	11.8	0.9	11.9	3.3	0.8	2.1	1.2	1.8	0.0	6.4
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	156	900	941	51	1593	713	46	234	199	177	0	251
V/C Ratio(X)	0.78	0.53	0.53	0.51	0.56	0.19	0.50	0.29	0.17	0.56	0.00	0.69
Avail Cap(c_a), veh/h	271	900	941	164	1593	713	181	890	757	345	0	791
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.0	10.7	10.7	31.0	13.1	10.7	31.2	25.7	25.3	30.0	0.0	26.1
Incr Delay (d2), s/veh	8.1	2.3	2.2	7.6	0.3	0.0	8.0	0.7	0.4	2.8	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	6.3	6.6	0.6	5.8	1.4	0.5	1.1	0.6	0.9	0.0	3.1
LnGrp Delay(d),s/veh	37.1	13.0	12.9	38.6	13.3	10.8	39.1	26.4	25.7	32.8	0.0	29.4
LnGrp LOS	D	B	B	D	B	B	D	C	C	C		C
Approach Vol, veh/h		1102			1045			125			272	
Approach Delay, s/veh		15.6			13.6			28.6			30.7	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	39.0	5.2	14.8	9.7	35.2	6.8	13.1				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	6.0	33.0	6.6	30.9	9.9	29.1	6.5	31.0				
Max Q Clear Time (g_c+I1), s	2.9	13.8	2.8	8.4	6.3	13.9	3.8	4.1				
Green Ext Time (p_c), s	0.0	5.6	0.0	1.4	0.1	5.2	0.1	1.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				17.0								
HCM 2010 LOS				B								

# HCM 2010 Signalized Intersection Summary

## 605: Dove Canyon Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	732	221	160	690	314	203	251	102	295	158	41
Future Volume (veh/h)	96	732	221	160	690	314	203	251	102	295	158	41
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	101	771	233	168	726	331	214	264	107	311	166	43
Adj No. of Lanes	1	3	0	2	3	1	1	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	1640	491	224	2104	655	205	597	267	268	367	93
Arrive On Green	0.07	0.42	0.42	0.06	0.41	0.41	0.12	0.17	0.17	0.08	0.13	0.13
Sat Flow, veh/h	1774	3885	1163	3442	5085	1583	1774	3539	1583	3442	2801	707
Grp Volume(v), veh/h	101	672	332	168	726	331	214	264	107	311	103	106
Grp Sat Flow(s),veh/h/ln	1774	1695	1658	1721	1695	1583	1774	1770	1583	1721	1770	1738
Q Serve(g_s), s	4.3	11.0	11.1	3.7	7.5	11.9	8.9	5.2	4.6	6.0	4.1	4.3
Cycle Q Clear(g_c), s	4.3	11.0	11.1	3.7	7.5	11.9	8.9	5.2	4.6	6.0	4.1	4.3
Prop In Lane	1.00		0.70	1.00		1.00	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	130	1431	700	224	2104	655	205	597	267	268	232	228
V/C Ratio(X)	0.78	0.47	0.47	0.75	0.35	0.51	1.04	0.44	0.40	1.16	0.45	0.46
Avail Cap(c_a), veh/h	228	1431	700	224	2104	655	205	1655	740	268	761	747
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	16.0	16.1	35.4	15.4	16.7	34.0	28.7	28.5	35.5	30.9	30.9
Incr Delay (d2), s/veh	11.2	1.1	2.3	13.7	0.5	2.8	74.7	0.6	1.2	105.1	1.6	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.4	5.5	2.2	3.6	5.7	8.6	2.6	2.1	6.7	2.1	2.2
LnGrp Delay(d),s/veh	46.3	17.1	18.4	49.1	15.9	19.5	108.8	29.4	29.7	140.6	32.5	32.7
LnGrp LOS	D	B	B	D	B	B	F	C	C	F	C	C
Approach Vol, veh/h		1105			1225			585			520	
Approach Delay, s/veh		20.2			21.4			58.5			97.2	
Approach LOS		C			C			E			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	39.0	12.9	15.6	10.1	38.4	10.0	18.5				
Change Period (Y+Rc), s	4.5	6.5	4.0	5.5	4.5	6.5	4.0	5.5				
Max Green Setting (Gmax), s	5.0	32.5	8.9	33.1	9.9	27.6	6.0	36.0				
Max Q Clear Time (g_c+I1), s	5.7	13.1	10.9	6.3	6.3	13.9	8.0	7.2				
Green Ext Time (p_c), s	0.0	7.8	0.0	3.8	0.1	6.6	0.0	3.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			38.8									
HCM 2010 LOS			D									

# HCM 2010 Signalized Intersection Summary

## 606: Bernardo Center Dr & Camino Del Norte

02/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	1331	28	163	1010	92	23	222	248	105	339	119
Future Volume (veh/h)	97	1331	28	163	1010	92	23	222	248	105	339	119
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	102	1401	29	172	1063	97	24	234	261	111	357	125
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	2003	624	226	2113	658	76	1187	531	162	1275	571
Arrive On Green	0.04	0.39	0.39	0.07	0.42	0.42	0.02	0.34	0.34	0.05	0.36	0.36
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	102	1401	29	172	1063	97	24	234	261	111	357	125
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	3.9	30.9	1.5	6.6	20.7	5.1	0.9	6.3	17.6	4.3	9.6	7.3
Cycle Q Clear(g_c), s	3.9	30.9	1.5	6.6	20.7	5.1	0.9	6.3	17.6	4.3	9.6	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	151	2003	624	226	2113	658	76	1187	531	162	1275	571
V/C Ratio(X)	0.67	0.70	0.05	0.76	0.50	0.15	0.32	0.20	0.49	0.69	0.28	0.22
Avail Cap(c_a), veh/h	555	2090	651	542	2113	658	131	1187	531	329	1275	571
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.1	34.0	25.1	61.6	29.0	24.4	64.5	31.7	35.4	62.9	30.5	29.8
Incr Delay (d2), s/veh	1.9	1.3	0.1	2.0	0.4	0.2	2.4	0.4	3.2	5.1	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	14.6	0.7	3.2	9.7	2.3	0.5	3.1	8.2	2.1	4.8	3.4
LnGrp Delay(d),s/veh	65.1	35.3	25.1	63.6	29.3	24.6	66.9	32.1	38.7	68.0	31.0	30.7
LnGrp LOS	E	D	C	E	C	C	E	C	D	E	C	C
Approach Vol, veh/h		1532			1332			519			593	
Approach Delay, s/veh		37.1			33.4			37.0			37.9	
Approach LOS		D			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	51.0	13.2	59.2	7.4	54.3	10.3	62.1				
Change Period (Y+Rc), s	4.4	6.0	4.4	6.4	4.4	* 6	4.4	* 6.4				
Max Green Setting (Gmax), s	12.8	39.8	21.1	55.1	5.1	* 48	21.6	* 55				
Max Q Clear Time (g_c+I1), s	6.3	19.6	8.6	32.9	2.9	11.6	5.9	22.7				
Green Ext Time (p_c), s	0.1	9.8	0.2	19.9	0.0	13.0	0.1	29.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			36.0									
HCM 2010 LOS			D									
<b>Notes</b>												

HCM 2010 Signalized Intersection Summary  
607: Paseo Montanoso & Camino Del Norte













02/15/2018

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↖	↑↑↑	↖	↗		
Traffic Volume (veh/h)	1723	14	104	1309	17	102		
Future Volume (veh/h)	1723	14	104	1309	17	102		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1814	15	109	1378	18	107		
Adj No. of Lanes	3	0	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	3481	29	138	4038	154	138		
Arrive On Green	0.67	0.67	0.08	0.79	0.09	0.09		
Sat Flow, veh/h	5370	43	1774	5253	1774	1583		
Grp Volume(v), veh/h	1182	647	109	1378	18	107		
Grp Sat Flow(s),veh/h/ln	1695	1855	1774	1695	1774	1583		
Q Serve(g_s), s	15.0	15.0	5.1	6.5	0.8	5.6		
Cycle Q Clear(g_c), s	15.0	15.0	5.1	6.5	0.8	5.6		
Prop In Lane		0.02	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2269	1241	138	4038	154	138		
V/C Ratio(X)	0.52	0.52	0.79	0.34	0.12	0.78		
Avail Cap(c_a), veh/h	2269	1241	194	4038	679	606		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	7.1	7.1	38.5	2.5	35.7	37.9		
Incr Delay (d2), s/veh	0.9	1.6	8.6	0.2	0.1	3.5		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	7.2	8.1	2.8	3.0	0.4	2.6		
LnGrp Delay(d),s/veh	8.0	8.7	47.1	2.7	35.9	41.5		
LnGrp LOS	A	A	D	A	D	D		
Approach Vol, veh/h	1829			1487	125			
Approach Delay, s/veh	8.2			6.0	40.7			
Approach LOS	A			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.6	62.9				73.5		11.4
Change Period (Y+Rc), s	4.0	6.1				6.1		4.0
Max Green Setting (Gmax), s	9.3	54.1				67.4		32.5
Max Q Clear Time (g_c+I1), s	7.1	17.0				8.5		7.6
Green Ext Time (p_c), s	0.0	36.2				56.8		0.2
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			8.4					
HCM 2010 LOS			A					

# HCM 2010 Signalized Intersection Summary



























## 608: I-15 SB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗↗	↘↘	↑↑↑					↗↗		↗↗
Traffic Volume (veh/h)	0	1079	717	180	1352	0	0	0	0	564	0	64
Future Volume (veh/h)	0	1079	717	180	1352	0	0	0	0	564	0	64
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1863	0	1863
Adj Flow Rate, veh/h	0	1136	755	189	1423	0				594	0	67
Adj No. of Lanes	0	4	2	2	3	0				2	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	3449	1500	261	3388	0				681	0	551
Arrive On Green	0.00	0.54	0.54	0.08	0.67	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	6669	2787	3442	5253	0				3442	0	2787
Grp Volume(v), veh/h	0	1136	755	189	1423	0				594	0	67
Grp Sat Flow(s),veh/h/ln	0	1602	1393	1721	1695	0				1721	0	1393
Q Serve(g_s), s	0.0	9.9	17.2	5.4	13.0	0.0				16.7	0.0	2.0
Cycle Q Clear(g_c), s	0.0	9.9	17.2	5.4	13.0	0.0				16.7	0.0	2.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3449	1500	261	3388	0				681	0	551
V/C Ratio(X)	0.00	0.33	0.50	0.72	0.42	0.00				0.87	0.00	0.12
Avail Cap(c_a), veh/h	0	3449	1500	647	3388	0				1029	0	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.82	0.82	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.0	14.6	45.2	7.7	0.0				38.9	0.0	33.0
Incr Delay (d2), s/veh	0.0	0.2	1.0	1.2	0.3	0.0				3.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.4	6.7	2.6	6.0	0.0				8.3	0.0	0.8
LnGrp Delay(d),s/veh	0.0	13.2	15.6	46.3	8.0	0.0				42.7	0.0	33.0
LnGrp LOS		B	B	D	A					D		C
Approach Vol, veh/h		1891			1612						661	
Approach Delay, s/veh		14.2			12.5						41.7	
Approach LOS		B			B						D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	12.8	61.3		25.9		74.1						
Change Period (Y+Rc), s	* 5.2	7.5		6.1		7.5						
Max Green Setting (Gmax), s	* 19	32.5		29.9		56.5						
Max Q Clear Time (g_c+I1), s	7.4	19.2		18.7		15.0						
Green Ext Time (p_c), s	0.2	10.3		1.0		21.6						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				17.9								
HCM 2010 LOS				B								
<b>Notes</b>												

HCM 2010 Signalized Intersection Summary  
609: I-15 NB Ramps & Camino Del Norte

02/15/2018




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  	 	 		 			
Traffic Volume (veh/h)	118	1523	0	0	754	568	761	0	180	0	0	0
Future Volume (veh/h)	118	1523	0	0	754	568	761	0	180	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	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			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	124	1603	0	0	794	598	801	0	189			
Adj No. of Lanes	2	3	0	0	4	2	2	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	184	3063	0	0	3184	1385	900	0	729			
Arrive On Green	0.11	1.00	0.00	0.00	0.50	0.50	0.26	0.00	0.26			
Sat Flow, veh/h	3442	5253	0	0	6669	2787	3442	0	2787			
Grp Volume(v), veh/h	124	1603	0	0	794	598	801	0	189			
Grp Sat Flow(s),veh/h/ln	1721	1695	0	0	1602	1393	1721	0	1393			
Q Serve(g_s), s	3.5	0.0	0.0	0.0	7.1	13.7	22.4	0.0	5.4			
Cycle Q Clear(g_c), s	3.5	0.0	0.0	0.0	7.1	13.7	22.4	0.0	5.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	184	3063	0	0	3184	1385	900	0	729			
V/C Ratio(X)	0.67	0.52	0.00	0.00	0.25	0.43	0.89	0.00	0.26			
Avail Cap(c_a), veh/h	303	3063	0	0	3184	1385	1304	0	1056			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.85	0.85	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	43.8	0.0	0.0	0.0	14.4	16.1	35.5	0.0	29.2			
Incr Delay (d2), s/veh	1.4	0.5	0.0	0.0	0.2	1.0	4.3	0.0	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.7	0.2	0.0	0.0	3.2	5.4	11.2	0.0	2.1			
LnGrp Delay(d),s/veh	45.2	0.5	0.0	0.0	14.6	17.1	39.8	0.0	29.3			
LnGrp LOS	D	A			B	B	D		C			
Approach Vol, veh/h		1727			1392			990				
Approach Delay, s/veh		3.8			15.7			37.8				
Approach LOS		A			B			D				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		67.7			10.5	57.2		32.3				
Change Period (Y+Rc), s		7.5			* 5.2	7.5		6.1				
Max Green Setting (Gmax), s		48.5			* 8.8	34.5		37.9				
Max Q Clear Time (g_c+I1), s		2.0			5.5	15.7		24.4				
Green Ext Time (p_c), s		19.7			0.1	12.3		1.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				16.0								
HCM 2010 LOS				B								
<b>Notes</b>												



# HCM 2010 Signalized Intersection Summary

## 610: Dove Canyon Rd & Lone Quail Rd

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	26	16	39	13	175	26	306	75	165	288	65
Future Volume (veh/h)	77	26	16	39	13	175	26	306	75	165	288	65
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	81	27	17	41	14	184	27	322	79	174	303	68
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	476	154	84	597	190	726	285	454	110	273	443	98
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.16	0.16	0.16	0.15	0.15	0.15
Sat Flow, veh/h	830	336	184	1082	414	1583	1774	2828	684	1774	2882	638
Grp Volume(v), veh/h	125	0	0	55	0	184	27	200	201	174	184	187
Grp Sat Flow(s),veh/h/ln	1350	0	0	1495	0	1583	1774	1770	1742	1774	1770	1750
Q Serve(g_s), s	2.0	0.0	0.0	0.0	0.0	4.5	0.8	6.7	6.9	5.8	6.2	6.3
Cycle Q Clear(g_c), s	3.1	0.0	0.0	1.0	0.0	4.5	0.8	6.7	6.9	5.8	6.2	6.3
Prop In Lane	0.65		0.14	0.75		1.00	1.00		0.39	1.00		0.36
Lane Grp Cap(c), veh/h	714	0	0	786	0	726	285	284	280	273	272	269
V/C Ratio(X)	0.18	0.00	0.00	0.07	0.00	0.25	0.09	0.70	0.72	0.64	0.68	0.69
Avail Cap(c_a), veh/h	714	0	0	786	0	726	794	792	780	825	823	814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.9	0.0	0.0	9.4	0.0	10.4	22.4	24.8	24.9	24.8	25.0	25.1
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.1	0.1	1.2	1.3	0.9	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	0.5	0.0	2.0	0.4	3.4	3.4	2.9	3.1	3.1
LnGrp Delay(d),s/veh	10.5	0.0	0.0	9.5	0.0	10.4	22.4	26.0	26.2	25.8	26.1	26.3
LnGrp LOS	B			A		B	C	C	C	C	C	C
Approach Vol, veh/h		125			239			428			545	
Approach Delay, s/veh		10.5			10.2			25.9			26.1	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.7		14.2		33.7		14.7				
Change Period (Y+Rc), s		5.0		4.6		5.0		4.6				
Max Green Setting (Gmax), s		28.7		29.1		28.7		28.0				
Max Q Clear Time (g_c+I1), s		5.1		8.3		6.5		8.9				
Green Ext Time (p_c), s		0.8		1.3		0.8		1.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				21.7								
HCM 2010 LOS				C								

# HCM 2010 Signalized Intersection Summary

## 601: 4 Gee Rd & Project Driveway























02/15/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	1	0	108	1	0	245		
Future Volume (veh/h)	1	0	108	1	0	245		
Number	7	14	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	0	1863	1900	1900	1863		
Adj Flow Rate, veh/h	1	0	114	1	0	258		
Adj No. of Lanes	1	0	1	0	0	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	0	2	2	2	2		
Cap, veh/h	0	0	1475	13	0	1490		
Arrive On Green	0.00	0.00	0.80	0.80	0.00	0.80		
Sat Flow, veh/h	0	0	1844	16	0	1863		
Grp Volume(v), veh/h	0	0	0	115	0	258		
Grp Sat Flow(s),veh/h/ln	0	0	0	1860	0	1863		
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.7		
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.3	0.0	0.7		
Prop In Lane	0.00	0.00		0.01	0.00			
Lane Grp Cap(c), veh/h	0	0	0	1488	0	1490		
V/C Ratio(X)	0.00	0.00	0.00	0.08	0.00	0.17		
Avail Cap(c_a), veh/h	0	0	0	1488	0	1490		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.5	0.0	0.5		
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.2	0.0	0.5		
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.6	0.0	0.8		
LnGrp LOS				A		A		
Approach Vol, veh/h	0		115			258		
Approach Delay, s/veh	0.0		0.6			0.8		
Approach LOS			A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.5		0.0		22.5		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		2.3		0.0		2.7		
Green Ext Time (p_c), s		1.8		0.0		1.8		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			0.7					
HCM 2010 LOS			A					





















HCM 2010 Signalized Intersection Summary  
 602: Paseo Del Sur/4 Gee Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (veh/h)	52	1101	50	162	1021	36	112	52	88	62	56	121
Future Volume (veh/h)	52	1101	50	162	1021	36	112	52	88	62	56	121
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	55	1159	53	171	1075	38	118	55	93	65	59	127
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	1647	75	206	1888	67	242	144	243	275	122	262
Arrive On Green	0.05	0.48	0.48	0.12	0.54	0.54	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1774	3447	158	1774	3487	123	1193	623	1054	1235	527	1135
Grp Volume(v), veh/h	55	595	617	171	545	568	118	0	148	65	0	186
Grp Sat Flow(s),veh/h/ln	1774	1770	1835	1774	1770	1841	1193	0	1677	1235	0	1662
Q Serve(g_s), s	2.7	23.2	23.3	8.3	18.0	18.0	8.4	0.0	6.5	4.1	0.0	8.5
Cycle Q Clear(g_c), s	2.7	23.2	23.3	8.3	18.0	18.0	16.9	0.0	6.5	10.7	0.0	8.5
Prop In Lane	1.00		0.09	1.00		0.07	1.00		0.63	1.00		0.68
Lane Grp Cap(c), veh/h	95	845	877	206	958	997	242	0	387	275	0	384
V/C Ratio(X)	0.58	0.70	0.70	0.83	0.57	0.57	0.49	0.00	0.38	0.24	0.00	0.48
Avail Cap(c_a), veh/h	367	845	877	293	958	997	415	0	631	455	0	626
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.7	18.1	18.1	38.0	13.4	13.4	36.6	0.0	28.5	33.0	0.0	29.3
Incr Delay (d2), s/veh	2.1	4.9	4.7	9.0	2.5	2.4	0.6	0.0	0.2	0.2	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(50%),veh/ln	1.4	12.4	12.8	4.6	9.3	9.6	2.8	0.0	3.1	1.4	0.0	4.0
LnGrp Delay(d),s/veh	42.7	22.9	22.8	47.0	15.8	15.7	37.1	0.0	28.7	33.2	0.0	29.6
LnGrp LOS	D	C	C	D	B	B	D		C	C		C
Approach Vol, veh/h		1267			1284			266			251	
Approach Delay, s/veh		23.7			19.9			32.5			30.5	
Approach LOS		C			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.7	48.0		25.2	9.1	53.6		25.2				
Change Period (Y+Rc), s	4.5	6.0		4.9	4.4	6.0		4.9				
Max Green Setting (Gmax), s	14.5	42.0		33.1	18.2	38.4		33.1				
Max Q Clear Time (g_c+I1), s	10.3	25.3		12.7	4.7	20.0		18.9				
Green Ext Time (p_c), s	0.1	16.3		1.6	0.0	18.0		1.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			23.5									
HCM 2010 LOS			C									
























HCM 2010 Signalized Intersection Summary  
 603: Lone Quail Rd/Rancho Bernardo Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	293	851	52	69	691	22	79	151	82	69	267	462
Future Volume (veh/h)	293	851	52	69	691	22	79	151	82	69	267	462
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	308	896	55	73	727	23	83	159	86	73	281	486
Adj No. of Lanes	1	2	0	2	2	0	1	1	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	340	1470	90	120	971	31	105	355	192	93	541	484
Arrive On Green	0.19	0.43	0.43	0.03	0.28	0.28	0.06	0.31	0.31	0.05	0.31	0.31
Sat Flow, veh/h	1774	3388	208	3442	3502	111	1774	1138	616	1774	1770	1583
Grp Volume(v), veh/h	308	468	483	73	367	383	83	0	245	73	281	486
Grp Sat Flow(s),veh/h/ln	1774	1770	1826	1721	1770	1843	1774	0	1754	1774	1770	1583
Q Serve(g_s), s	18.9	22.7	22.7	2.3	21.1	21.1	5.1	0.0	12.4	4.5	14.6	34.0
Cycle Q Clear(g_c), s	18.9	22.7	22.7	2.3	21.1	21.1	5.1	0.0	12.4	4.5	14.6	34.0
Prop In Lane	1.00		0.11	1.00		0.06	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	340	768	792	120	491	511	105	0	548	93	541	484
V/C Ratio(X)	0.91	0.61	0.61	0.61	0.75	0.75	0.79	0.00	0.45	0.78	0.52	1.00
Avail Cap(c_a), veh/h	398	768	792	176	491	511	135	0	552	120	541	484
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	24.2	24.2	52.9	36.7	36.7	51.7	0.0	30.6	52.1	31.9	38.7
Incr Delay (d2), s/veh	22.2	3.6	3.5	5.8	5.6	5.4	22.0	0.0	0.6	23.7	0.9	42.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	11.8	12.2	1.2	11.1	11.5	3.2	0.0	6.1	2.8	7.2	20.4
LnGrp Delay(d),s/veh	66.2	27.8	27.7	58.8	42.3	42.1	73.7	0.0	31.2	75.8	32.8	80.8
LnGrp LOS	E	C	C	E	D	D	E		C	E	C	F
Approach Vol, veh/h		1259			823			328			840	
Approach Delay, s/veh		37.2			43.7			41.9			64.3	
Approach LOS		D			D			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	54.3	10.1	39.0	25.3	36.9	9.4	39.8				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	5.7	48.3	8.5	34.0	25.0	29.0	7.5	35.0				
Max Q Clear Time (g_c+I1), s	4.3	24.7	7.1	36.0	20.9	23.1	6.5	14.4				
Green Ext Time (p_c), s	0.0	6.4	0.0	0.0	0.4	3.2	0.0	5.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				46.3								
HCM 2010 LOS				D								
























HCM 2010 Signalized Intersection Summary  
 604: 4S Ranch Pkwy & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	899	34	37	694	106	43	99	76	116	99	73
Future Volume (veh/h)	86	899	34	37	694	106	43	99	76	116	99	73
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	91	946	36	39	731	112	45	104	80	122	104	77
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	2	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	1702	65	68	1611	721	75	259	220	202	155	114
Arrive On Green	0.07	0.49	0.49	0.04	0.46	0.46	0.04	0.14	0.14	0.06	0.16	0.16
Sat Flow, veh/h	1774	3477	132	1774	3539	1583	1774	1863	1583	3442	996	737
Grp Volume(v), veh/h	91	482	500	39	731	112	45	104	80	122	0	181
Grp Sat Flow(s),veh/h/ln	1774	1770	1839	1774	1770	1583	1774	1863	1583	1721	0	1733
Q Serve(g_s), s	3.4	12.9	12.9	1.5	9.6	2.8	1.7	3.4	3.1	2.3	0.0	6.6
Cycle Q Clear(g_c), s	3.4	12.9	12.9	1.5	9.6	2.8	1.7	3.4	3.1	2.3	0.0	6.6
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	129	866	901	68	1611	721	75	259	220	202	0	269
V/C Ratio(X)	0.70	0.56	0.56	0.57	0.45	0.16	0.60	0.40	0.36	0.61	0.00	0.67
Avail Cap(c_a), veh/h	263	866	901	158	1611	721	176	857	728	332	0	792
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	12.1	12.1	31.9	12.6	10.8	31.7	26.5	26.3	31.0	0.0	26.9
Incr Delay (d2), s/veh	6.8	2.6	2.5	7.3	0.1	0.0	7.5	1.0	1.0	2.9	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	6.8	7.0	0.9	4.7	1.2	1.0	1.8	1.4	1.2	0.0	3.4
LnGrp Delay(d),s/veh	37.4	14.6	14.5	39.2	12.7	10.8	39.2	27.5	27.3	33.9	0.0	29.8
LnGrp LOS	D	B	B	D	B	B	D	C	C	C		C
Approach Vol, veh/h		1073			882			229			303	
Approach Delay, s/veh		16.5			13.6			29.7			31.4	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.6	39.0	6.3	15.5	8.9	36.7	7.4	14.4				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	6.0	33.0	6.7	30.8	10.0	29.0	6.5	31.0				
Max Q Clear Time (g_c+I1), s	3.5	14.9	3.7	8.6	5.4	11.6	4.3	5.4				
Green Ext Time (p_c), s	0.0	4.9	0.0	1.8	0.1	4.8	0.1	1.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			18.5									
HCM 2010 LOS			B									

























HCM 2010 Signalized Intersection Summary  
 605: Dove Canyon Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	822	173	126	645	155	154	346	249	216	286	26
Future Volume (veh/h)	75	822	173	126	645	155	154	346	249	216	286	26
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	79	865	182	133	679	163	162	364	262	227	301	27
Adj No. of Lanes	1	3	0	2	3	1	1	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	1620	339	202	1960	610	147	862	386	244	762	68
Arrive On Green	0.06	0.38	0.38	0.06	0.39	0.39	0.08	0.24	0.24	0.07	0.23	0.23
Sat Flow, veh/h	1774	4215	882	3442	5085	1583	1774	3539	1583	3442	3288	293
Grp Volume(v), veh/h	79	695	352	133	679	163	162	364	262	227	161	167
Grp Sat Flow(s),veh/h/ln	1774	1695	1707	1721	1695	1583	1774	1770	1583	1721	1770	1811
Q Serve(g_s), s	3.7	13.4	13.5	3.2	8.0	6.0	7.0	7.3	12.7	5.5	6.5	6.6
Cycle Q Clear(g_c), s	3.7	13.4	13.5	3.2	8.0	6.0	7.0	7.3	12.7	5.5	6.5	6.6
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	102	1303	656	202	1960	610	147	862	386	244	410	420
V/C Ratio(X)	0.77	0.53	0.54	0.66	0.35	0.27	1.10	0.42	0.68	0.93	0.39	0.40
Avail Cap(c_a), veh/h	210	1303	656	203	1960	610	147	1507	674	244	732	749
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	20.2	20.2	39.0	18.4	17.8	38.8	27.0	29.0	39.1	27.5	27.5
Incr Delay (d2), s/veh	13.8	1.6	3.1	7.9	0.5	1.1	104.6	0.4	2.5	38.9	0.7	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(50%),veh/ln	2.2	6.6	6.9	1.7	3.8	2.8	7.7	3.6	5.8	3.9	3.3	3.4
LnGrp Delay(d),s/veh	53.1	21.7	23.3	46.9	18.9	18.9	143.4	27.4	31.5	78.0	28.2	28.2
LnGrp LOS	D	C	C	D	B	B	F	C	C	E	C	C
Approach Vol, veh/h		1126			975			788			555	
Approach Delay, s/veh		24.4			22.7			52.6			48.6	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	39.0	11.0	25.1	9.4	39.1	10.0	26.1				
Change Period (Y+Rc), s	4.5	6.5	4.0	5.5	4.5	6.5	4.0	5.5				
Max Green Setting (Gmax), s	5.0	32.5	7.0	35.0	10.0	27.5	6.0	36.0				
Max Q Clear Time (g_c+I1), s	5.2	15.5	9.0	8.6	5.7	10.0	7.5	14.7				
Green Ext Time (p_c), s	0.0	7.0	0.0	6.3	0.1	7.1	0.0	5.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				34.3								
HCM 2010 LOS				C								







HCM 2010 Signalized Intersection Summary  
 606: Bernardo Center Dr & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	392	1216	52	319	1658	857	57	754	474	260	468	309
Future Volume (veh/h)	392	1216	52	319	1658	857	57	754	474	260	468	309
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	413	1280	55	336	1745	902	60	794	499	274	493	325
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	2047	637	384	2120	660	105	915	409	297	1113	498
Arrive On Green	0.10	0.40	0.40	0.11	0.42	0.42	0.03	0.26	0.26	0.09	0.31	0.31
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	413	1280	55	336	1745	902	60	794	499	274	493	325
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	14.6	30.2	3.2	14.5	45.8	62.7	2.6	32.2	38.9	11.9	16.7	26.6
Cycle Q Clear(g_c), s	14.6	30.2	3.2	14.5	45.8	62.7	2.6	32.2	38.9	11.9	16.7	26.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	334	2047	637	384	2120	660	105	915	409	297	1113	498
V/C Ratio(X)	1.24	0.63	0.09	0.88	0.82	1.37	0.57	0.87	1.22	0.92	0.44	0.65
Avail Cap(c_a), veh/h	334	2047	637	501	2120	660	117	915	409	297	1113	498
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.9	35.9	27.8	65.8	38.9	43.8	71.9	53.3	55.7	68.2	41.1	44.5
Incr Delay (d2), s/veh	129.4	0.8	0.1	10.9	3.1	174.5	5.3	10.9	118.7	32.4	1.3	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	14.3	1.4	7.5	21.9	59.3	1.3	17.2	30.5	7.0	8.3	12.6
LnGrp Delay(d),s/veh	197.3	36.7	27.9	76.6	42.0	218.4	77.2	64.2	174.5	100.5	42.3	51.0
LnGrp LOS	F	D	C	E	D	F	E	E	F	F	D	D
Approach Vol, veh/h		1748			2983			1353			1092	
Approach Delay, s/veh		74.4			99.2			105.4			59.5	
Approach LOS		E			F			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.4	44.9	21.2	66.9	9.0	53.3	19.0	69.1				
Change Period (Y+Rc), s	4.4	6.0	4.4	6.4	4.4	* 6	4.4	* 6.4				
Max Green Setting (Gmax), s	13.0	38.6	21.9	55.3	5.1	* 47	14.6	* 63				
Max Q Clear Time (g_c+I1), s	13.9	40.9	16.5	32.2	4.6	28.6	16.6	64.7				
Green Ext Time (p_c), s	0.0	0.0	0.3	22.9	0.0	16.5	0.0	0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			88.3									
HCM 2010 LOS			F									
<b>Notes</b>												

HCM 2010 Signalized Intersection Summary  
607: Paseo Montanoso & Camino Del Norte













02/15/2018

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↵	↑↑↑	↵	↵		
Traffic Volume (veh/h)	1886	51	60	2759	83	165		
Future Volume (veh/h)	1886	51	60	2759	83	165		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1985	54	63	2904	87	174		
Adj No. of Lanes	3	0	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	3377	92	81	3832	237	211		
Arrive On Green	0.66	0.66	0.05	0.75	0.13	0.13		
Sat Flow, veh/h	5258	138	1774	5253	1774	1583		
Grp Volume(v), veh/h	1321	718	63	2904	87	174		
Grp Sat Flow(s),veh/h/ln	1695	1838	1774	1695	1774	1583		
Q Serve(g_s), s	19.2	19.3	3.1	29.3	4.0	9.6		
Cycle Q Clear(g_c), s	19.2	19.3	3.1	29.3	4.0	9.6		
Prop In Lane		0.08	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2249	1219	81	3832	237	211		
V/C Ratio(X)	0.59	0.59	0.78	0.76	0.37	0.82		
Avail Cap(c_a), veh/h	2249	1219	135	3832	645	575		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	8.3	8.3	42.2	6.3	35.3	37.7		
Incr Delay (d2), s/veh	1.1	2.1	6.0	1.4	0.4	3.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	9.2	10.3	1.7	14.0	2.0	4.4		
LnGrp Delay(d),s/veh	9.4	10.4	48.2	7.8	35.7	40.8		
LnGrp LOS	A	B	D	A	D	D		
Approach Vol, veh/h	2039			2967	261			
Approach Delay, s/veh	9.8			8.6	39.1			
Approach LOS	A			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.1	65.4				73.5		15.9
Change Period (Y+Rc), s	4.0	6.1				6.1		4.0
Max Green Setting (Gmax), s	6.8	56.6				67.4		32.5
Max Q Clear Time (g_c+I1), s	5.1	21.3				31.3		11.6
Green Ext Time (p_c), s	0.0	35.2				36.0		0.4
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			10.6					
HCM 2010 LOS			B					



HCM 2010 Signalized Intersection Summary  
608: I-15 SB Ramps & Camino Del Norte



















02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗↗	↘↘	↑↑↑					↖↖		↗↗
Traffic Volume (veh/h)	0	956	1137	393	2660	0	0	0	0	1120	0	81
Future Volume (veh/h)	0	956	1137	393	2660	0	0	0	0	1120	0	81
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1863	0	1863
Adj Flow Rate, veh/h	0	1006	1197	414	2800	0				1179	0	85
Adj No. of Lanes	0	4	2	2	3	0				2	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	2488	1082	463	2835	0				1211	0	980
Arrive On Green	0.00	0.39	0.39	0.13	0.56	0.00				0.35	0.00	0.35
Sat Flow, veh/h	0	6669	2787	3442	5253	0				3442	0	2787
Grp Volume(v), veh/h	0	1006	1197	414	2800	0				1179	0	85
Grp Sat Flow(s),veh/h/ln	0	1602	1393	1721	1695	0				1721	0	1393
Q Serve(g_s), s	0.0	17.1	58.2	17.7	81.3	0.0				50.7	0.0	3.1
Cycle Q Clear(g_c), s	0.0	17.1	58.2	17.7	81.3	0.0				50.7	0.0	3.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2488	1082	463	2835	0				1211	0	980
V/C Ratio(X)	0.00	0.40	1.11	0.89	0.99	0.00				0.97	0.00	0.09
Avail Cap(c_a), veh/h	0	2488	1082	594	2835	0				1214	0	983
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.77	0.77	0.26	0.26	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	33.3	45.9	63.8	32.7	0.0				47.9	0.0	32.5
Incr Delay (d2), s/veh	0.0	0.4	58.8	3.4	6.1	0.0				19.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.6	31.2	8.7	39.5	0.0				27.4	0.0	1.2
LnGrp Delay(d),s/veh	0.0	33.7	104.7	67.3	38.8	0.0				67.6	0.0	32.5
LnGrp LOS		C	F	E	D					E		C
Approach Vol, veh/h		2203			3214						1264	
Approach Delay, s/veh		72.3			42.5						65.2	
Approach LOS		E			D						E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	25.4	65.7		58.9		91.1						
Change Period (Y+Rc), s	* 5.2	7.5		6.1		7.5						
Max Green Setting (Gmax), s	* 26	52.4		52.9		83.5						
Max Q Clear Time (g_c+I1), s	19.7	60.2		52.7		83.3						
Green Ext Time (p_c), s	0.4	0.0		0.1		0.2						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			56.6									
HCM 2010 LOS			E									
<b>Notes</b>												

# HCM 2010 Signalized Intersection Summary





















## 609: I-15 NB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	1926	0	0	1391	634	1788	0	203	0	0	0
Future Volume (veh/h)	132	1926	0	0	1391	634	1788	0	203	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	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			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	139	2027	0	0	1464	667	1882	0	214			
Adj No. of Lanes	2	3	0	0	4	2	2	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	181	1949	0	0	1897	825	1810	0	1466			
Arrive On Green	0.11	0.77	0.00	0.00	0.30	0.30	0.53	0.00	0.53			
Sat Flow, veh/h	3442	5253	0	0	6669	2787	3442	0	2787			
Grp Volume(v), veh/h	139	2027	0	0	1464	667	1882	0	214			
Grp Sat Flow(s),veh/h/ln	1721	1695	0	0	1602	1393	1721	0	1393			
Q Serve(g_s), s	5.9	57.5	0.0	0.0	31.3	33.2	78.9	0.0	5.9			
Cycle Q Clear(g_c), s	5.9	57.5	0.0	0.0	31.3	33.2	78.9	0.0	5.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	181	1949	0	0	1897	825	1810	0	1466			
V/C Ratio(X)	0.77	1.04	0.00	0.00	0.77	0.81	1.04	0.00	0.15			
Avail Cap(c_a), veh/h	197	1949	0	0	1897	825	1810	0	1466			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.62	0.62	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	66.2	17.5	0.0	0.0	48.2	48.9	35.5	0.0	18.3			
Incr Delay (d2), s/veh	8.6	27.6	0.0	0.0	3.1	8.4	32.2	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.0	30.6	0.0	0.0	14.2	13.7	45.3	0.0	2.3			
LnGrp Delay(d),s/veh	74.8	45.1	0.0	0.0	51.3	57.2	67.8	0.0	18.3			
LnGrp LOS	E	F			D	E	F		B			
Approach Vol, veh/h		2166			2131			2096				
Approach Delay, s/veh		47.0			53.1			62.7				
Approach LOS		D			D			E				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		65.0			13.1	51.9		85.0				
Change Period (Y+Rc), s		7.5			* 5.2	7.5		6.1				
Max Green Setting (Gmax), s		57.5			* 8.6	43.7		78.9				
Max Q Clear Time (g_c+I1), s		59.5			7.9	35.2		80.9				
Green Ext Time (p_c), s		0.0			0.0	7.8		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				54.2								
HCM 2010 LOS				D								
<b>Notes</b>												










HCM 2010 Signalized Intersection Summary  
 610: Dove Canyon Rd & Lone Quail Rd

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	35	140	46	24	213	70	380	86	170	363	64
Future Volume (veh/h)	134	35	140	46	24	213	70	380	86	170	363	64
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	141	37	147	48	25	224	74	400	91	179	382	67
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	308	97	271	444	214	679	329	533	120	308	524	91
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.19	0.19	0.19	0.17	0.17	0.17
Sat Flow, veh/h	539	227	633	827	498	1583	1774	2871	647	1774	3015	524
Grp Volume(v), veh/h	325	0	0	73	0	224	74	245	246	179	223	226
Grp Sat Flow(s),veh/h/ln	1399	0	0	1325	0	1583	1774	1770	1749	1774	1770	1770
Q Serve(g_s), s	8.5	0.0	0.0	0.0	0.0	6.3	2.4	8.8	8.9	6.2	8.0	8.1
Cycle Q Clear(g_c), s	11.1	0.0	0.0	1.9	0.0	6.3	2.4	8.8	8.9	6.2	8.0	8.1
Prop In Lane	0.43		0.45	0.66		1.00	1.00		0.37	1.00		0.30
Lane Grp Cap(c), veh/h	677	0	0	658	0	679	329	329	325	308	307	307
V/C Ratio(X)	0.48	0.00	0.00	0.11	0.00	0.33	0.22	0.75	0.76	0.58	0.73	0.74
Avail Cap(c_a), veh/h	677	0	0	658	0	679	740	738	729	767	765	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	0.0	0.0	11.4	0.0	12.7	23.2	25.8	25.9	25.5	26.2	26.3
Incr Delay (d2), s/veh	2.4	0.0	0.0	0.0	0.0	0.1	0.1	1.3	1.4	0.6	1.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	0.0	0.8	0.0	2.8	1.2	4.4	4.4	3.1	4.0	4.1
LnGrp Delay(d),s/veh	16.3	0.0	0.0	11.4	0.0	12.8	23.3	27.1	27.3	26.1	27.4	27.6
LnGrp LOS	B			B		B	C	C	C	C	C	C
Approach Vol, veh/h		325			297			565			628	
Approach Delay, s/veh		16.3			12.5			26.7			27.1	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.8		16.3		33.8		17.1				
Change Period (Y+Rc), s		5.0		4.6		5.0		4.6				
Max Green Setting (Gmax), s		28.8		29.0		28.8		28.0				
Max Q Clear Time (g_c+I1), s		13.1		10.1		8.3		10.9				
Green Ext Time (p_c), s		1.7		1.5		1.8		1.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				22.7								
HCM 2010 LOS				C								





















HCM 2010 Signalized Intersection Summary  
 601: 4 Gee Rd & Project Driveway

02/15/2018

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	9	0	108	13	0	245		
Future Volume (veh/h)	9	0	108	13	0	245		
Number	7	14	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	0	1863	1900	1900	1863		
Adj Flow Rate, veh/h	9	0	114	14	0	258		
Adj No. of Lanes	1	0	1	0	0	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	0	2	2	2	2		
Cap, veh/h	0	0	1302	160	0	1490		
Arrive On Green	0.00	0.00	0.80	0.80	0.00	0.80		
Sat Flow, veh/h	0	0	1628	200	0	1863		
Grp Volume(v), veh/h	0	0	0	128	0	258		
Grp Sat Flow(s),veh/h/ln	0	0	0	1827	0	1863		
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.7		
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.3	0.0	0.7		
Prop In Lane	0.00	0.00		0.11	0.00			
Lane Grp Cap(c), veh/h	0	0	0	1462	0	1490		
V/C Ratio(X)	0.00	0.00	0.00	0.09	0.00	0.17		
Avail Cap(c_a), veh/h	0	0	0	1462	0	1490		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.5	0.0	0.5		
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.2	0.0	0.5		
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.6	0.0	0.8		
LnGrp LOS				A		A		
Approach Vol, veh/h	0		128			258		
Approach Delay, s/veh	0.0		0.6			0.8		
Approach LOS			A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.5		0.0		22.5		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		2.3		0.0		2.7		
Green Ext Time (p_c), s		1.9		0.0		1.9		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			0.7					
HCM 2010 LOS			A					





















HCM 2010 Signalized Intersection Summary  
 602: Paseo Del Sur/4 Gee Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	1101	50	162	1021	47	112	52	88	69	56	122
Future Volume (veh/h)	53	1101	50	162	1021	47	112	52	88	69	56	122
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	56	1159	53	171	1075	49	118	55	93	73	59	128
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	1647	75	206	1866	85	242	144	244	276	121	264
Arrive On Green	0.05	0.48	0.48	0.12	0.54	0.54	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1774	3447	158	1774	3448	157	1192	623	1054	1235	524	1138
Grp Volume(v), veh/h	56	595	617	171	552	572	118	0	148	73	0	187
Grp Sat Flow(s),veh/h/ln	1774	1770	1835	1774	1770	1835	1192	0	1677	1235	0	1662
Q Serve(g_s), s	2.7	23.3	23.4	8.3	18.4	18.4	8.4	0.0	6.6	4.7	0.0	8.6
Cycle Q Clear(g_c), s	2.7	23.3	23.4	8.3	18.4	18.4	17.0	0.0	6.6	11.2	0.0	8.6
Prop In Lane	1.00		0.09	1.00		0.09	1.00		0.63	1.00		0.68
Lane Grp Cap(c), veh/h	96	846	877	206	958	993	242	0	388	276	0	385
V/C Ratio(X)	0.59	0.70	0.70	0.83	0.58	0.58	0.49	0.00	0.38	0.26	0.00	0.49
Avail Cap(c_a), veh/h	366	846	877	287	958	993	412	0	629	453	0	623
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.8	18.1	18.1	38.2	13.5	13.5	36.7	0.0	28.6	33.3	0.0	29.4
Incr Delay (d2), s/veh	2.1	4.9	4.7	9.7	2.5	2.4	0.6	0.0	0.2	0.2	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(50%),veh/ln	1.4	12.5	13.0	4.6	9.6	9.9	2.8	0.0	3.1	1.6	0.0	4.0
LnGrp Delay(d),s/veh	42.9	23.0	22.8	47.9	16.0	15.9	37.3	0.0	28.8	33.5	0.0	29.7
LnGrp LOS	D	C	C	D	B	B	D		C	C		C
Approach Vol, veh/h		1268			1295			266			260	
Approach Delay, s/veh		23.8			20.2			32.6			30.8	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.7	48.2		25.4	9.2	53.8		25.4				
Change Period (Y+Rc), s	4.5	6.0		4.9	4.4	6.0		4.9				
Max Green Setting (Gmax), s	14.3	42.2		33.1	18.2	38.4		33.1				
Max Q Clear Time (g_c+I1), s	10.3	25.4		13.2	4.7	20.4		19.0				
Green Ext Time (p_c), s	0.1	16.4		1.6	0.0	17.6		1.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				23.6								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary  
 603: Lone Quail Rd/Rancho Bernardo Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	857	52	69	700	22	79	151	82	69	267	463
Future Volume (veh/h)	294	857	52	69	700	22	79	151	82	69	267	463
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	309	902	55	73	737	23	83	159	86	73	281	487
Adj No. of Lanes	1	2	0	2	2	0	1	1	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	341	1469	90	120	968	30	105	356	192	93	541	484
Arrive On Green	0.19	0.43	0.43	0.04	0.28	0.28	0.06	0.31	0.31	0.05	0.31	0.31
Sat Flow, veh/h	1774	3389	207	3442	3504	109	1774	1138	616	1774	1770	1583
Grp Volume(v), veh/h	309	471	486	73	372	388	83	0	245	73	281	487
Grp Sat Flow(s),veh/h/ln	1774	1770	1826	1721	1770	1843	1774	0	1754	1774	1770	1583
Q Serve(g_s), s	18.9	22.8	22.8	2.3	21.4	21.4	5.1	0.0	12.4	4.5	14.6	34.0
Cycle Q Clear(g_c), s	18.9	22.8	22.8	2.3	21.4	21.4	5.1	0.0	12.4	4.5	14.6	34.0
Prop In Lane	1.00		0.11	1.00		0.06	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	341	767	792	120	489	509	105	0	548	93	541	484
V/C Ratio(X)	0.91	0.61	0.61	0.61	0.76	0.76	0.79	0.00	0.45	0.78	0.52	1.01
Avail Cap(c_a), veh/h	399	767	792	180	489	509	136	0	552	120	541	484
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	24.3	24.3	52.9	36.9	36.9	51.6	0.0	30.5	52.0	31.9	38.6
Incr Delay (d2), s/veh	22.2	3.7	3.5	5.8	6.2	6.0	22.0	0.0	0.6	23.6	0.9	42.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	11.9	12.3	1.2	11.3	11.7	3.2	0.0	6.1	2.8	7.2	20.5
LnGrp Delay(d),s/veh	66.1	28.0	27.9	58.7	43.1	42.9	73.6	0.0	31.1	75.7	32.7	81.0
LnGrp LOS	E	C	C	E	D	D	E		C	E	C	F
Approach Vol, veh/h		1266			833			328			841	
Approach Delay, s/veh		37.2			44.4			41.9			64.4	
Approach LOS		D			D			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	54.2	10.1	39.0	25.4	36.7	9.3	39.8				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	5.8	48.2	8.5	34.0	25.0	29.0	7.5	35.0				
Max Q Clear Time (g_c+I1), s	4.3	24.8	7.1	36.0	20.9	23.4	6.5	14.4				
Green Ext Time (p_c), s	0.0	6.4	0.0	0.0	0.4	3.1	0.0	6.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			46.5									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary  
 604: 4S Ranch Pkwy & Camino Del Norte

02/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	905	34	37	703	106	43	99	76	116	99	73
Future Volume (veh/h)	86	905	34	37	703	106	43	99	76	116	99	73
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	91	953	36	39	740	112	45	104	80	122	104	77
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	2	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	1703	64	68	1611	721	75	259	220	202	155	114
Arrive On Green	0.07	0.49	0.49	0.04	0.46	0.46	0.04	0.14	0.14	0.06	0.16	0.16
Sat Flow, veh/h	1774	3478	131	1774	3539	1583	1774	1863	1583	3442	996	737
Grp Volume(v), veh/h	91	485	504	39	740	112	45	104	80	122	0	181
Grp Sat Flow(s),veh/h/ln	1774	1770	1840	1774	1770	1583	1774	1863	1583	1721	0	1733
Q Serve(g_s), s	3.4	13.0	13.0	1.5	9.7	2.8	1.7	3.4	3.1	2.3	0.0	6.6
Cycle Q Clear(g_c), s	3.4	13.0	13.0	1.5	9.7	2.8	1.7	3.4	3.1	2.3	0.0	6.6
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	129	866	901	68	1611	721	75	259	220	202	0	269
V/C Ratio(X)	0.70	0.56	0.56	0.57	0.46	0.16	0.60	0.40	0.36	0.61	0.00	0.67
Avail Cap(c_a), veh/h	237	866	901	158	1611	721	176	857	728	332	0	792
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	12.1	12.1	31.9	12.6	10.8	31.7	26.5	26.3	31.0	0.0	26.9
Incr Delay (d2), s/veh	6.8	2.6	2.5	7.3	0.1	0.0	7.5	1.0	1.0	2.9	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	7.0	7.2	0.9	4.7	1.2	1.0	1.8	1.4	1.2	0.0	3.4
LnGrp Delay(d),s/veh	37.4	14.7	14.6	39.2	12.7	10.8	39.2	27.5	27.3	33.9	0.0	29.8
LnGrp LOS	D	B	B	D	B	B	D	C	C	C		C
Approach Vol, veh/h		1080			891			229				303
Approach Delay, s/veh		16.6			13.6			29.7				31.4
Approach LOS		B			B			C				C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.6	39.0	6.3	15.5	8.9	36.7	7.4	14.4				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	6.0	33.0	6.7	30.8	9.0	30.0	6.5	31.0				
Max Q Clear Time (g_c+I1), s	3.5	15.0	3.7	8.6	5.4	11.7	4.3	5.4				
Green Ext Time (p_c), s	0.0	4.9	0.0	1.8	0.1	4.9	0.1	1.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			18.5									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary  
 605: Dove Canyon Rd & Camino Del Norte

























02/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	826	175	126	651	155	157	346	249	216	286	26
Future Volume (veh/h)	75	826	175	126	651	155	157	346	249	216	286	26
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	79	869	184	133	685	163	165	364	262	227	301	27
Adj No. of Lanes	1	3	0	2	3	1	1	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	1618	341	202	1960	610	147	862	386	244	762	68
Arrive On Green	0.06	0.38	0.38	0.06	0.39	0.39	0.08	0.24	0.24	0.07	0.23	0.23
Sat Flow, veh/h	1774	4210	887	3442	5085	1583	1774	3539	1583	3442	3288	293
Grp Volume(v), veh/h	79	699	354	133	685	163	165	364	262	227	161	167
Grp Sat Flow(s),veh/h/ln	1774	1695	1706	1721	1695	1583	1774	1770	1583	1721	1770	1811
Q Serve(g_s), s	3.7	13.5	13.6	3.2	8.1	6.0	7.0	7.3	12.7	5.5	6.5	6.6
Cycle Q Clear(g_c), s	3.7	13.5	13.6	3.2	8.1	6.0	7.0	7.3	12.7	5.5	6.5	6.6
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	102	1303	656	202	1960	610	147	862	386	244	410	420
V/C Ratio(X)	0.77	0.54	0.54	0.66	0.35	0.27	1.12	0.42	0.68	0.93	0.39	0.40
Avail Cap(c_a), veh/h	210	1303	656	203	1960	610	147	1507	674	244	732	749
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	20.2	20.2	39.0	18.5	17.8	38.8	27.0	29.0	39.1	27.5	27.5
Incr Delay (d2), s/veh	13.8	1.6	3.2	7.9	0.5	1.1	111.3	0.4	2.5	38.9	0.7	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(50%),veh/ln	2.2	6.6	7.0	1.7	3.8	2.8	7.9	3.6	5.8	3.9	3.3	3.4
LnGrp Delay(d),s/veh	53.1	21.8	23.4	46.9	18.9	18.9	150.1	27.4	31.5	78.0	28.2	28.2
LnGrp LOS	D	C	C	D	B	B	F	C	C	E	C	C
Approach Vol, veh/h		1132			981			791			555	
Approach Delay, s/veh		24.5			22.7			54.4			48.6	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	39.0	11.0	25.1	9.4	39.1	10.0	26.1				
Change Period (Y+Rc), s	4.5	6.5	4.0	5.5	4.5	6.5	4.0	5.5				
Max Green Setting (Gmax), s	5.0	32.5	7.0	35.0	10.0	27.5	6.0	36.0				
Max Q Clear Time (g_c+I1), s	5.2	15.6	9.0	8.6	5.7	10.1	7.5	14.7				
Green Ext Time (p_c), s	0.0	7.0	0.0	6.3	0.1	7.1	0.0	5.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			34.7									
HCM 2010 LOS			C									









HCM 2010 Signalized Intersection Summary  
 606: Bernardo Center Dr & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	392	1220	52	319	1664	857	57	754	474	260	468	309
Future Volume (veh/h)	392	1220	52	319	1664	857	57	754	474	260	468	309
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	413	1284	55	336	1752	902	60	794	499	274	493	325
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	2047	637	384	2120	660	105	915	409	297	1113	498
Arrive On Green	0.10	0.40	0.40	0.11	0.42	0.42	0.03	0.26	0.26	0.09	0.31	0.31
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	413	1284	55	336	1752	902	60	794	499	274	493	325
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	14.6	30.4	3.2	14.5	46.1	62.7	2.6	32.2	38.9	11.9	16.7	26.6
Cycle Q Clear(g_c), s	14.6	30.4	3.2	14.5	46.1	62.7	2.6	32.2	38.9	11.9	16.7	26.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	334	2047	637	384	2120	660	105	915	409	297	1113	498
V/C Ratio(X)	1.24	0.63	0.09	0.88	0.83	1.37	0.57	0.87	1.22	0.92	0.44	0.65
Avail Cap(c_a), veh/h	334	2047	637	501	2120	660	117	915	409	297	1113	498
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.9	35.9	27.8	65.8	39.0	43.8	71.9	53.3	55.7	68.2	41.1	44.5
Incr Delay (d2), s/veh	129.4	0.8	0.1	10.9	3.1	174.5	5.3	10.9	118.7	32.4	1.3	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	14.3	1.4	7.5	22.2	59.3	1.3	17.2	30.5	7.0	8.3	12.6
LnGrp Delay(d),s/veh	197.3	36.8	27.9	76.6	42.1	218.4	77.2	64.2	174.5	100.5	42.3	51.0
LnGrp LOS	F	D	C	E	D	F	E	E	F	F	D	D
Approach Vol, veh/h		1752			2990			1353			1092	
Approach Delay, s/veh		74.3			99.2			105.4			59.5	
Approach LOS		E			F			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.4	44.9	21.2	66.9	9.0	53.3	19.0	69.1				
Change Period (Y+Rc), s	4.4	6.0	4.4	6.4	4.4	* 6	4.4	* 6.4				
Max Green Setting (Gmax), s	13.0	38.6	21.9	55.3	5.1	* 47	14.6	* 63				
Max Q Clear Time (g_c+I1), s	13.9	40.9	16.5	32.4	4.6	28.6	16.6	64.7				
Green Ext Time (p_c), s	0.0	0.0	0.3	22.8	0.0	16.5	0.0	0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			88.3									
HCM 2010 LOS			F									
<b>Notes</b>												













HCM 2010 Signalized Intersection Summary  
607: Paseo Montanoso & Camino Del Norte

02/15/2018

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↵	↑↑↑	↵	↵		
Traffic Volume (veh/h)	1889	51	60	2765	83	165		
Future Volume (veh/h)	1889	51	60	2765	83	165		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1988	54	63	2911	87	174		
Adj No. of Lanes	3	0	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	3377	92	81	3832	237	211		
Arrive On Green	0.66	0.66	0.05	0.75	0.13	0.13		
Sat Flow, veh/h	5258	138	1774	5253	1774	1583		
Grp Volume(v), veh/h	1323	719	63	2911	87	174		
Grp Sat Flow(s),veh/h/ln	1695	1838	1774	1695	1774	1583		
Q Serve(g_s), s	19.3	19.3	3.1	29.5	4.0	9.6		
Cycle Q Clear(g_c), s	19.3	19.3	3.1	29.5	4.0	9.6		
Prop In Lane		0.08	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2249	1220	81	3832	237	211		
V/C Ratio(X)	0.59	0.59	0.78	0.76	0.37	0.82		
Avail Cap(c_a), veh/h	2249	1220	135	3832	645	575		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	8.3	8.3	42.2	6.3	35.3	37.7		
Incr Delay (d2), s/veh	1.1	2.1	6.0	1.5	0.4	3.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	9.2	10.3	1.7	14.0	2.0	4.4		
LnGrp Delay(d),s/veh	9.4	10.4	48.2	7.8	35.7	40.8		
LnGrp LOS	A	B	D	A	D	D		
Approach Vol, veh/h	2042			2974	261			
Approach Delay, s/veh	9.8			8.7	39.1			
Approach LOS	A			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.1	65.4				73.5		15.9
Change Period (Y+Rc), s	4.0	6.1				6.1		4.0
Max Green Setting (Gmax), s	6.8	56.6				67.4		32.5
Max Q Clear Time (g_c+I1), s	5.1	21.3				31.5		11.6
Green Ext Time (p_c), s	0.0	35.2				35.8		0.4
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			10.6					
HCM 2010 LOS			B					



















HCM 2010 Signalized Intersection Summary  
608: I-15 SB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗↗	↘↘	↑↑↑					↖↖		↗↗
Traffic Volume (veh/h)	0	958	1139	393	2666	0	0	0	0	1120	0	81
Future Volume (veh/h)	0	958	1139	393	2666	0	0	0	0	1120	0	81
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1863	0	1863
Adj Flow Rate, veh/h	0	1008	1199	414	2806	0				1179	0	85
Adj No. of Lanes	0	4	2	2	3	0				2	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	2488	1082	463	2835	0				1211	0	980
Arrive On Green	0.00	0.39	0.39	0.13	0.56	0.00				0.35	0.00	0.35
Sat Flow, veh/h	0	6669	2787	3442	5253	0				3442	0	2787
Grp Volume(v), veh/h	0	1008	1199	414	2806	0				1179	0	85
Grp Sat Flow(s),veh/h/ln	0	1602	1393	1721	1695	0				1721	0	1393
Q Serve(g_s), s	0.0	17.1	58.2	17.7	81.7	0.0				50.7	0.0	3.1
Cycle Q Clear(g_c), s	0.0	17.1	58.2	17.7	81.7	0.0				50.7	0.0	3.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2488	1082	463	2835	0				1211	0	980
V/C Ratio(X)	0.00	0.41	1.11	0.89	0.99	0.00				0.97	0.00	0.09
Avail Cap(c_a), veh/h	0	2488	1082	594	2835	0				1214	0	983
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.77	0.77	0.25	0.25	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	33.3	45.9	63.8	32.8	0.0				47.9	0.0	32.5
Incr Delay (d2), s/veh	0.0	0.4	59.5	3.4	6.4	0.0				19.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.6	31.3	8.7	39.6	0.0				27.4	0.0	1.2
LnGrp Delay(d),s/veh	0.0	33.7	105.4	67.2	39.2	0.0				67.6	0.0	32.5
LnGrp LOS		C	F	E	D					E		C
Approach Vol, veh/h		2207			3220						1264	
Approach Delay, s/veh		72.7			42.8						65.2	
Approach LOS		E			D						E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	25.4	65.7		58.9		91.1						
Change Period (Y+Rc), s	* 5.2	7.5		6.1		7.5						
Max Green Setting (Gmax), s	* 26	52.4		52.9		83.5						
Max Q Clear Time (g_c+I1), s	19.7	60.2		52.7		83.7						
Green Ext Time (p_c), s	0.4	0.0		0.1		0.0						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			56.9									
HCM 2010 LOS			E									
<b>Notes</b>												




















HCM 2010 Signalized Intersection Summary  
 609: I-15 NB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	1928	0	0	1394	634	1792	0	203	0	0	0
Future Volume (veh/h)	132	1928	0	0	1394	634	1792	0	203	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	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			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	139	2029	0	0	1467	667	1886	0	214			
Adj No. of Lanes	2	3	0	0	4	2	2	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	181	1949	0	0	1897	825	1810	0	1466			
Arrive On Green	0.11	0.77	0.00	0.00	0.30	0.30	0.53	0.00	0.53			
Sat Flow, veh/h	3442	5253	0	0	6669	2787	3442	0	2787			
Grp Volume(v), veh/h	139	2029	0	0	1467	667	1886	0	214			
Grp Sat Flow(s),veh/h/ln	1721	1695	0	0	1602	1393	1721	0	1393			
Q Serve(g_s), s	5.9	57.5	0.0	0.0	31.4	33.2	78.9	0.0	5.9			
Cycle Q Clear(g_c), s	5.9	57.5	0.0	0.0	31.4	33.2	78.9	0.0	5.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	181	1949	0	0	1897	825	1810	0	1466			
V/C Ratio(X)	0.77	1.04	0.00	0.00	0.77	0.81	1.04	0.00	0.15			
Avail Cap(c_a), veh/h	197	1949	0	0	1897	825	1810	0	1466			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.62	0.62	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	66.2	17.5	0.0	0.0	48.2	48.9	35.5	0.0	18.3			
Incr Delay (d2), s/veh	8.6	28.0	0.0	0.0	3.1	8.4	33.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.0	30.7	0.0	0.0	14.3	13.7	45.5	0.0	2.3			
LnGrp Delay(d),s/veh	74.8	45.5	0.0	0.0	51.3	57.2	68.5	0.0	18.3			
LnGrp LOS	E	F			D	E	F		B			
Approach Vol, veh/h		2168			2134			2100				
Approach Delay, s/veh		47.4			53.2			63.4				
Approach LOS		D			D			E				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		65.0			13.1	51.9		85.0				
Change Period (Y+Rc), s		7.5			* 5.2	7.5		6.1				
Max Green Setting (Gmax), s		57.5			* 8.6	43.7		78.9				
Max Q Clear Time (g_c+I1), s		59.5			7.9	35.2		80.9				
Green Ext Time (p_c), s		0.0			0.0	7.8		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				54.6								
HCM 2010 LOS				D								
<b>Notes</b>												

HCM 2010 Signalized Intersection Summary  
 610: Dove Canyon Rd & Lone Quail Rd

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	35	140	46	24	213	70	383	86	170	365	64
Future Volume (veh/h)	134	35	140	46	24	213	70	383	86	170	365	64
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	141	37	147	48	25	224	74	403	91	179	384	67
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	308	97	271	443	213	678	331	536	120	309	525	91
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.19	0.19	0.19	0.17	0.17	0.17
Sat Flow, veh/h	539	227	633	827	498	1583	1774	2875	643	1774	3018	522
Grp Volume(v), veh/h	325	0	0	73	0	224	74	247	247	179	224	227
Grp Sat Flow(s),veh/h/ln	1399	0	0	1324	0	1583	1774	1770	1749	1774	1770	1771
Q Serve(g_s), s	8.5	0.0	0.0	0.0	0.0	6.3	2.4	8.9	9.0	6.2	8.0	8.2
Cycle Q Clear(g_c), s	11.1	0.0	0.0	1.9	0.0	6.3	2.4	8.9	9.0	6.2	8.0	8.2
Prop In Lane	0.43		0.45	0.66		1.00	1.00		0.37	1.00		0.29
Lane Grp Cap(c), veh/h	676	0	0	656	0	678	331	330	326	309	308	308
V/C Ratio(X)	0.48	0.00	0.00	0.11	0.00	0.33	0.22	0.75	0.76	0.58	0.73	0.74
Avail Cap(c_a), veh/h	676	0	0	656	0	678	739	737	728	765	763	764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.0	0.0	0.0	11.5	0.0	12.8	23.2	25.9	25.9	25.5	26.3	26.3
Incr Delay (d2), s/veh	2.4	0.0	0.0	0.0	0.0	0.1	0.1	1.3	1.4	0.6	1.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	0.0	0.8	0.0	2.8	1.2	4.4	4.5	3.1	4.0	4.1
LnGrp Delay(d),s/veh	16.4	0.0	0.0	11.5	0.0	12.9	23.3	27.1	27.3	26.2	27.5	27.6
LnGrp LOS	B			B		B	C	C	C	C	C	C
Approach Vol, veh/h		325			297			568			630	
Approach Delay, s/veh		16.4			12.6			26.7			27.2	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.8		16.3		33.8		17.1				
Change Period (Y+Rc), s		5.0		4.6		5.0		4.6				
Max Green Setting (Gmax), s		28.8		29.0		28.8		28.0				
Max Q Clear Time (g_c+I1), s		13.1		10.2		8.3		11.0				
Green Ext Time (p_c), s		1.7		1.5		1.8		1.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				22.7								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary  
 601: 4 Gee Rd & Project Driveway

02/15/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	0	0	177	0	0	81		
Future Volume (veh/h)	0	0	177	0	0	81		
Number	7	14	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	0	1863	1900	1900	1863		
Adj Flow Rate, veh/h	0	0	186	0	0	85		
Adj No. of Lanes	1	0	1	0	0	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	0	2	2	2	2		
Cap, veh/h	0	0	1490	0	0	1490		
Arrive On Green	0.00	0.00	0.80	0.00	0.00	0.80		
Sat Flow, veh/h	0	0	1863	0	0	1863		
Grp Volume(v), veh/h	0	0	186	0	0	85		
Grp Sat Flow(s),veh/h/ln	0	0	1863	0	0	1863		
Q Serve(g_s), s	0.0	0.0	0.5	0.0	0.0	0.2		
Cycle Q Clear(g_c), s	0.0	0.0	0.5	0.0	0.0	0.2		
Prop In Lane	0.00	0.00		0.00	0.00			
Lane Grp Cap(c), veh/h	0	0	1490	0	0	1490		
V/C Ratio(X)	0.00	0.00	0.12	0.00	0.00	0.06		
Avail Cap(c_a), veh/h	0	0	1490	0	0	1490		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.00	1.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	0.5	0.0	0.0	0.5		
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.0	0.0	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.3	0.0	0.0	0.1		
LnGrp Delay(d),s/veh	0.0	0.0	0.7	0.0	0.0	0.5		
LnGrp LOS			A			A		
Approach Vol, veh/h	0		186			85		
Approach Delay, s/veh	0.0		0.7			0.5		
Approach LOS			A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.5		0.0		22.5		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		2.5		0.0		2.2		
Green Ext Time (p_c), s		1.2		0.0		1.2		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			0.6					
HCM 2010 LOS			A					

# HCM 2010 Signalized Intersection Summary





















## 602: Paseo Del Sur/4 Gee Rd & Camino Del Norte

02/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	1070	45	207	889	68	41	45	77	46	33	26
Future Volume (veh/h)	89	1070	45	207	889	68	41	45	77	46	33	26
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	94	1126	47	218	936	72	43	47	81	48	35	27
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	1765	74	259	1928	148	243	88	152	185	140	108
Arrive On Green	0.08	0.51	0.51	0.15	0.58	0.58	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1774	3462	144	1774	3331	256	1335	615	1060	1257	977	753
Grp Volume(v), veh/h	94	575	598	218	497	511	43	0	128	48	0	62
Grp Sat Flow(s),veh/h/ln	1774	1770	1837	1774	1770	1818	1335	0	1676	1257	0	1730
Q Serve(g_s), s	4.0	18.2	18.2	9.2	12.7	12.7	2.3	0.0	5.4	2.8	0.0	2.4
Cycle Q Clear(g_c), s	4.0	18.2	18.2	9.2	12.7	12.7	4.7	0.0	5.4	8.3	0.0	2.4
Prop In Lane	1.00		0.08	1.00		0.14	1.00		0.63	1.00		0.44
Lane Grp Cap(c), veh/h	139	902	937	259	1024	1052	243	0	241	185	0	249
V/C Ratio(X)	0.68	0.64	0.64	0.84	0.49	0.49	0.18	0.00	0.53	0.26	0.00	0.25
Avail Cap(c_a), veh/h	420	902	937	399	1024	1052	626	0	721	546	0	745
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.5	13.7	13.7	32.0	9.5	9.5	31.3	0.0	30.5	34.4	0.0	29.2
Incr Delay (d2), s/veh	2.1	3.4	3.3	5.6	1.6	1.6	0.1	0.0	0.7	0.3	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(50%),veh/ln	2.0	9.7	10.0	4.9	6.5	6.7	0.8	0.0	2.6	1.0	0.0	1.2
LnGrp Delay(d),s/veh	36.6	17.1	17.0	37.6	11.1	11.1	31.5	0.0	31.2	34.6	0.0	29.4
LnGrp LOS	D	B	B	D	B	B	C		C	C		C
Approach Vol, veh/h		1267			1226			171			110	
Approach Delay, s/veh		18.5			15.8			31.3			31.7	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.7	45.2		15.9	10.4	50.5		15.9				
Change Period (Y+Rc), s	4.5	6.0		4.9	4.4	6.0		4.9				
Max Green Setting (Gmax), s	17.3	39.2		33.1	18.2	38.4		33.1				
Max Q Clear Time (g_c+I1), s	11.2	20.2		10.3	6.0	14.7		7.4				
Green Ext Time (p_c), s	0.1	18.3		0.8	0.1	22.7		0.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				18.6								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary  
603: Lone Quail Rd/Rancho Bernardo Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	384	837	40	95	831	54	21	84	48	52	137	311
Future Volume (veh/h)	384	837	40	95	831	54	21	84	48	52	137	311
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	404	881	42	100	875	57	22	88	51	55	144	327
Adj No. of Lanes	1	2	0	2	2	0	1	1	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	437	1727	82	159	1019	66	33	248	144	71	433	388
Arrive On Green	0.25	0.50	0.50	0.05	0.30	0.30	0.02	0.22	0.22	0.04	0.24	0.24
Sat Flow, veh/h	1774	3439	164	3442	3374	220	1774	1108	642	1774	1770	1583
Grp Volume(v), veh/h	404	453	470	100	459	473	22	0	139	55	144	327
Grp Sat Flow(s),veh/h/ln	1774	1770	1834	1721	1770	1824	1774	0	1749	1774	1770	1583
Q Serve(g_s), s	21.8	16.8	16.8	2.8	24.0	24.0	1.2	0.0	6.6	3.0	6.6	19.3
Cycle Q Clear(g_c), s	21.8	16.8	16.8	2.8	24.0	24.0	1.2	0.0	6.6	3.0	6.6	19.3
Prop In Lane	1.00		0.09	1.00		0.12	1.00		0.37	1.00		1.00
Lane Grp Cap(c), veh/h	437	888	921	159	534	551	33	0	391	71	433	388
V/C Ratio(X)	0.92	0.51	0.51	0.63	0.86	0.86	0.67	0.00	0.36	0.78	0.33	0.84
Avail Cap(c_a), veh/h	470	888	921	252	550	566	108	0	606	108	613	548
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	16.4	16.4	46.0	32.3	32.3	47.9	0.0	32.2	46.7	30.5	35.3
Incr Delay (d2), s/veh	23.6	2.1	2.0	4.8	12.0	11.7	25.4	0.0	0.5	20.4	0.4	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	8.7	9.0	1.4	13.5	13.9	0.8	0.0	3.2	1.9	3.3	9.3
LnGrp Delay(d),s/veh	59.7	18.5	18.4	50.8	44.3	44.0	73.3	0.0	32.7	67.1	30.9	43.5
LnGrp LOS	E	B	B	D	D	D	E		C	E	C	D
Approach Vol, veh/h		1327			1032			161			526	
Approach Delay, s/veh		31.0			44.8			38.3			42.5	
Approach LOS		C			D			D			D	
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	55.3	5.3	29.1	28.2	35.6	7.4	27.0				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	7.2	49.3	6.0	34.0	26.0	30.5	6.0	34.0				
Max Q Clear Time (g_c+I1), s	4.8	18.8	3.2	21.3	23.8	26.0	5.0	8.6				
Green Ext Time (p_c), s	0.1	7.6	0.0	2.8	0.4	2.8	0.0	3.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				38.0								
HCM 2010 LOS				D								

























HCM 2010 Signalized Intersection Summary  
 604: 4S Ranch Pkwy & Camino Del Norte

02/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	752	37	34	829	216	26	108	27	80	97	154
Future Volume (veh/h)	133	752	37	34	829	216	26	108	27	80	97	154
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	140	792	39	36	873	227	27	114	28	84	102	162
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	2	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	1608	79	63	1431	640	52	354	301	157	134	213
Arrive On Green	0.10	0.47	0.47	0.04	0.40	0.40	0.03	0.19	0.19	0.05	0.21	0.21
Sat Flow, veh/h	1774	3433	169	1774	3539	1583	1774	1863	1583	3442	649	1031
Grp Volume(v), veh/h	140	408	423	36	873	227	27	114	28	84	0	264
Grp Sat Flow(s),veh/h/ln	1774	1770	1833	1774	1770	1583	1774	1863	1583	1721	0	1681
Q Serve(g_s), s	5.5	11.3	11.3	1.4	13.9	7.1	1.1	3.8	1.0	1.7	0.0	10.5
Cycle Q Clear(g_c), s	5.5	11.3	11.3	1.4	13.9	7.1	1.1	3.8	1.0	1.7	0.0	10.5
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	177	829	859	63	1431	640	52	354	301	157	0	347
V/C Ratio(X)	0.79	0.49	0.49	0.57	0.61	0.35	0.52	0.32	0.09	0.54	0.00	0.76
Avail Cap(c_a), veh/h	275	829	859	155	1431	640	150	812	690	290	0	733
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.3	13.1	13.1	33.7	16.7	14.7	34.0	24.8	23.7	33.2	0.0	26.6
Incr Delay (d2), s/veh	8.1	2.1	2.0	7.7	0.6	0.1	8.0	0.5	0.1	2.8	0.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	5.9	6.1	0.8	6.8	3.1	0.6	2.0	0.5	0.9	0.0	5.2
LnGrp Delay(d),s/veh	39.4	15.1	15.1	41.4	17.3	14.8	42.0	25.4	23.9	36.0	0.0	30.0
LnGrp LOS	D	B	B	D	B	B	D	C	C	D		C
Approach Vol, veh/h		971			1136			169			348	
Approach Delay, s/veh		18.6			17.6			27.8			31.5	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	39.3	5.6	19.7	11.1	34.7	6.7	18.5				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	6.2	33.3	6.0	31.0	11.0	28.5	6.0	31.0				
Max Q Clear Time (g_c+I1), s	3.4	13.3	3.1	12.5	7.5	15.9	3.7	5.8				
Green Ext Time (p_c), s	0.0	5.2	0.0	2.2	0.1	4.5	0.0	2.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			20.5									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary  
605: Dove Canyon Rd & Camino Del Norte

02/15/2018

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	99	618	113	245	874	323	121	364	181	331	348	68	
Future Volume (veh/h)	99	618	113	245	874	323	121	364	181	331	348	68	
Number	5	2	12	1	6	16	3	8	18	7	4	14	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900	
Adj Flow Rate, veh/h	104	651	119	258	920	340	127	383	191	348	366	72	
Adj No. of Lanes	1	3	0	2	3	1	1	2	1	2	2	0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	133	1687	304	206	1904	593	158	826	370	247	638	124	
Arrive On Green	0.07	0.39	0.39	0.06	0.37	0.37	0.09	0.23	0.23	0.07	0.22	0.22	
Sat Flow, veh/h	1774	4333	782	3442	5085	1583	1774	3539	1583	3442	2955	576	
Grp Volume(v), veh/h	104	507	263	258	920	340	127	383	191	348	218	220	
Grp Sat Flow(s),veh/h/ln	1774	1695	1725	1721	1695	1583	1774	1770	1583	1721	1770	1761	
Q Serve(g_s), s	4.8	9.0	9.2	5.0	11.5	14.3	5.9	7.8	8.8	6.0	9.2	9.4	
Cycle Q Clear(g_c), s	4.8	9.0	9.2	5.0	11.5	14.3	5.9	7.8	8.8	6.0	9.2	9.4	
Prop In Lane	1.00		0.45	1.00		1.00	1.00		1.00	1.00		0.33	
Lane Grp Cap(c), veh/h	133	1320	671	206	1904	593	158	826	370	247	382	380	
V/C Ratio(X)	0.78	0.38	0.39	1.25	0.48	0.57	0.80	0.46	0.52	1.41	0.57	0.58	
Avail Cap(c_a), veh/h	191	1320	671	206	1904	593	174	1526	683	247	716	713	
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	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	38.0	18.3	18.4	39.2	20.0	20.8	37.3	27.5	27.9	38.7	29.3	29.3	
Incr Delay (d2), s/veh	14.0	0.8	1.7	146.8	0.9	4.0	21.3	0.5	1.3	205.6	1.6	1.7	
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(50%),veh/ln	2.9	4.3	4.6	6.6	5.5	6.9	3.8	3.8	4.0	9.9	4.6	4.7	
LnGrp Delay(d),s/veh	51.9	19.2	20.1	186.1	20.8	24.8	58.6	28.0	29.2	244.3	30.9	31.0	
LnGrp LOS	D	B	C	F	C	C	E	C	C	F	C	C	
Approach Vol, veh/h		874			1518			701			786		
Approach Delay, s/veh		23.3			49.8			33.9			125.4		
Approach LOS		C			D			C			F		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	9.5	39.0	11.5	23.5	10.7	37.8	10.0	25.0					
Change Period (Y+Rc), s	4.5	6.5	4.0	5.5	4.5	6.5	4.0	5.5					
Max Green Setting (Gmax), s	5.0	32.5	8.2	33.8	9.0	28.5	6.0	36.0					
Max Q Clear Time (g_c+I1), s	7.0	11.2	7.9	11.4	6.8	16.3	8.0	10.8					
Green Ext Time (p_c), s	0.0	7.9	0.0	6.7	0.1	6.1	0.0	6.9					
<b>Intersection Summary</b>													
HCM 2010 Ctrl Delay				56.3									
HCM 2010 LOS				E									

HCM 2010 Signalized Intersection Summary  
606: Bernardo Center Dr & Camino Del Norte

02/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	276	1447	72	342	1448	325	53	417	282	983	669	280
Future Volume (veh/h)	276	1447	72	342	1448	325	53	417	282	983	669	280
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	291	1523	76	360	1524	342	56	439	297	1035	704	295
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	314	1557	485	383	1659	516	104	472	211	1060	1455	651
Arrive On Green	0.09	0.31	0.31	0.11	0.33	0.33	0.03	0.13	0.13	0.31	0.41	0.41
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	291	1523	76	360	1524	342	56	439	297	1035	704	295
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	12.6	44.5	5.2	15.6	43.3	27.9	2.4	18.4	20.0	44.7	21.9	20.2
Cycle Q Clear(g_c), s	12.6	44.5	5.2	15.6	43.3	27.9	2.4	18.4	20.0	44.7	21.9	20.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	314	1557	485	383	1659	516	104	472	211	1060	1455	651
V/C Ratio(X)	0.93	0.98	0.16	0.94	0.92	0.66	0.54	0.93	1.41	0.98	0.48	0.45
Avail Cap(c_a), veh/h	314	1557	485	383	1661	517	133	472	211	1060	1455	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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.7	51.6	37.9	66.2	48.6	43.4	71.7	64.3	65.0	51.4	32.5	32.0
Incr Delay (d2), s/veh	31.7	17.9	0.3	30.6	8.9	4.1	4.3	27.3	209.1	22.1	1.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	23.4	2.3	9.0	21.7	12.8	1.2	10.8	21.0	24.5	11.0	9.3
LnGrp Delay(d),s/veh	99.4	69.4	38.2	96.8	57.6	47.6	76.1	91.6	274.1	73.5	33.6	34.2
LnGrp LOS	F	E	D	F	E	D	E	F	F	E	C	C
Approach Vol, veh/h		1890			2226			792			2034	
Approach Delay, s/veh		72.8			62.4			159.0			54.0	
Approach LOS		E			E			F			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	50.6	26.0	21.1	52.3	8.9	67.7	18.1	55.3				
Change Period (Y+Rc), s	4.4	6.0	4.4	6.4	4.4	* 6	4.4	* 6.4				
Max Green Setting (Gmax), s	46.2	20.0	16.7	45.9	5.8	* 61	13.7	* 49				
Max Q Clear Time (g_c+I1), s	46.7	22.0	17.6	46.5	4.4	23.9	14.6	45.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	25.6	0.0	3.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			73.8									
HCM 2010 LOS			E									
<b>Notes</b>												













HCM 2010 Signalized Intersection Summary  
607: Paseo Montanoso & Camino Del Norte

02/15/2018

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↖	↑↑↑	↖	↗		
Traffic Volume (veh/h)	2703	33	200	2097	34	97		
Future Volume (veh/h)	2703	33	200	2097	34	97		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	2845	35	211	2207	36	102		
Adj No. of Lanes	3	0	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	3202	39	230	4045	152	135		
Arrive On Green	0.62	0.62	0.13	0.80	0.09	0.09		
Sat Flow, veh/h	5346	63	1774	5253	1774	1583		
Grp Volume(v), veh/h	1859	1021	211	2207	36	102		
Grp Sat Flow(s),veh/h/ln	1695	1852	1774	1695	1774	1583		
Q Serve(g_s), s	39.3	39.8	10.0	13.3	1.6	5.3		
Cycle Q Clear(g_c), s	39.3	39.8	10.0	13.3	1.6	5.3		
Prop In Lane		0.03	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2096	1145	230	4045	152	135		
V/C Ratio(X)	0.89	0.89	0.92	0.55	0.24	0.75		
Avail Cap(c_a), veh/h	2096	1145	230	4045	680	607		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	13.7	13.8	36.4	3.1	36.2	37.9		
Incr Delay (d2), s/veh	6.0	10.6	36.7	0.5	0.3	3.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	19.8	23.5	7.2	6.1	0.8	2.5		
LnGrp Delay(d),s/veh	19.7	24.4	73.1	3.7	36.5	41.1		
LnGrp LOS	B	C	E	A	D	D		
Approach Vol, veh/h	2880			2418	138			
Approach Delay, s/veh	21.3			9.7	39.9			
Approach LOS	C			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.0	58.5				73.5		11.2
Change Period (Y+Rc), s	4.0	6.1				6.1		4.0
Max Green Setting (Gmax), s	11.0	52.4				67.4		32.5
Max Q Clear Time (g_c+I1), s	12.0	41.8				15.3		7.3
Green Ext Time (p_c), s	0.0	10.6				51.9		0.2
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			16.6					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary  
 608: I-15 SB Ramps & Camino Del Norte



























02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗↗	↘↘	↑↑↑					↗↗		↗↗
Traffic Volume (veh/h)	0	1339	1482	227	2180	0	0	0	0	846	0	85
Future Volume (veh/h)	0	1339	1482	227	2180	0	0	0	0	846	0	85
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1863	0	1863
Adj Flow Rate, veh/h	0	1409	1560	239	2295	0				891	0	89
Adj No. of Lanes	0	4	2	2	3	0				2	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	3294	1433	286	3213	0				955	0	774
Arrive On Green	0.00	0.51	0.51	0.08	0.63	0.00				0.28	0.00	0.28
Sat Flow, veh/h	0	6669	2787	3442	5253	0				3442	0	2787
Grp Volume(v), veh/h	0	1409	1560	239	2295	0				891	0	89
Grp Sat Flow(s),veh/h/ln	0	1602	1393	1721	1695	0				1721	0	1393
Q Serve(g_s), s	0.0	20.5	77.1	10.3	45.4	0.0				37.9	0.0	3.6
Cycle Q Clear(g_c), s	0.0	20.5	77.1	10.3	45.4	0.0				37.9	0.0	3.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3294	1433	286	3213	0				955	0	774
V/C Ratio(X)	0.00	0.43	1.09	0.84	0.71	0.00				0.93	0.00	0.12
Avail Cap(c_a), veh/h	0	3294	1433	397	3213	0				1260	0	1020
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.37	0.37	0.57	0.57	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.7	36.4	67.8	18.5	0.0				52.8	0.0	40.4
Incr Delay (d2), s/veh	0.0	0.2	45.1	4.6	0.8	0.0				9.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.1	38.4	5.1	21.3	0.0				19.2	0.0	1.4
LnGrp Delay(d),s/veh	0.0	22.9	81.5	72.4	19.3	0.0				62.0	0.0	40.5
LnGrp LOS		C	F	E	B					E		D
Approach Vol, veh/h		2969			2534						980	
Approach Delay, s/veh		53.7			24.3						60.1	
Approach LOS		D			C						E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.7	84.6		47.7		102.3						
Change Period (Y+Rc), s	* 5.2	7.5		6.1		7.5						
Max Green Setting (Gmax), s	* 17	59.0		54.9		81.5						
Max Q Clear Time (g_c+I1), s	12.3	79.1		39.9		47.4						
Green Ext Time (p_c), s	0.2	0.0		1.8		30.6						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			43.2									
HCM 2010 LOS			D									
<b>Notes</b>												

# HCM 2010 Signalized Intersection Summary

## 609: I-15 NB Ramps & Camino Del Norte





















02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  	 	 		 			
Traffic Volume (veh/h)	158	2033	0	0	1109	824	1391	0	281	0	0	0
Future Volume (veh/h)	158	2033	0	0	1109	824	1391	0	281	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	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			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	166	2140	0	0	1167	867	1464	0	296			
Adj No. of Lanes	2	3	0	0	4	2	2	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	209	2374	0	0	2380	1035	1523	0	1233			
Arrive On Green	0.12	0.93	0.00	0.00	0.37	0.37	0.44	0.00	0.44			
Sat Flow, veh/h	3442	5253	0	0	6669	2787	3442	0	2787			
Grp Volume(v), veh/h	166	2140	0	0	1167	867	1464	0	296			
Grp Sat Flow(s),veh/h/ln	1721	1695	0	0	1602	1393	1721	0	1393			
Q Serve(g_s), s	7.0	26.5	0.0	0.0	21.0	42.6	61.9	0.0	9.9			
Cycle Q Clear(g_c), s	7.0	26.5	0.0	0.0	21.0	42.6	61.9	0.0	9.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	209	2374	0	0	2380	1035	1523	0	1233			
V/C Ratio(X)	0.79	0.90	0.00	0.00	0.49	0.84	0.96	0.00	0.24			
Avail Cap(c_a), veh/h	289	2374	0	0	2380	1035	1604	0	1299			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.75	0.75	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	65.0	3.5	0.0	0.0	36.2	43.0	40.6	0.0	26.1			
Incr Delay (d2), s/veh	5.1	4.7	0.0	0.0	0.7	8.1	13.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.5	11.3	0.0	0.0	9.4	17.5	32.2	0.0	3.8			
LnGrp Delay(d),s/veh	70.1	8.2	0.0	0.0	37.0	51.1	54.3	0.0	26.1			
LnGrp LOS	E	A			D	D	D		C			
Approach Vol, veh/h		2306			2034			1760				
Approach Delay, s/veh		12.7			43.0			49.6				
Approach LOS		B			D			D				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.5			14.3	63.2		72.5				
Change Period (Y+Rc), s		7.5			* 5.2	7.5		6.1				
Max Green Setting (Gmax), s		66.5			* 13	48.7		69.9				
Max Q Clear Time (g_c+I1), s		28.5			9.0	44.6		63.9				
Green Ext Time (p_c), s		28.7			0.1	3.9		2.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				33.4								
HCM 2010 LOS				C								
<b>Notes</b>												

# HCM 2010 Signalized Intersection Summary










## 610: Dove Canyon Rd & Lone Quail Rd

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	32	32	75	44	248	33	343	117	283	319	103
Future Volume (veh/h)	56	32	32	75	44	248	33	343	117	283	319	103
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	59	34	34	79	46	261	35	361	123	298	336	108
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	169	142	450	244	626	327	480	161	377	563	178
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.18	0.18	0.18	0.21	0.21	0.21
Sat Flow, veh/h	551	429	358	921	617	1583	1774	2604	874	1774	2647	838
Grp Volume(v), veh/h	127	0	0	125	0	261	35	244	240	298	223	221
Grp Sat Flow(s),veh/h/ln	1339	0	0	1538	0	1583	1774	1770	1708	1774	1770	1715
Q Serve(g_s), s	1.3	0.0	0.0	0.0	0.0	8.2	1.1	8.9	9.1	10.9	7.8	8.0
Cycle Q Clear(g_c), s	4.3	0.0	0.0	3.0	0.0	8.2	1.1	8.9	9.1	10.9	7.8	8.0
Prop In Lane	0.46		0.27	0.63		1.00	1.00		0.51	1.00		0.49
Lane Grp Cap(c), veh/h	606	0	0	694	0	626	327	326	315	377	376	365
V/C Ratio(X)	0.21	0.00	0.00	0.18	0.00	0.42	0.11	0.75	0.76	0.79	0.59	0.61
Avail Cap(c_a), veh/h	606	0	0	694	0	626	737	735	710	789	787	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.6	0.0	0.0	13.4	0.0	15.0	23.2	26.4	26.5	25.5	24.2	24.3
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	0.2	0.1	1.3	1.5	1.4	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	1.5	0.0	3.6	0.5	4.4	4.4	5.4	3.8	3.8
LnGrp Delay(d),s/veh	14.4	0.0	0.0	13.5	0.0	15.1	23.2	27.7	27.9	26.9	24.8	24.9
LnGrp LOS	B			B		B	C	C	C	C	C	C
Approach Vol, veh/h		127			386			519			742	
Approach Delay, s/veh		14.4			14.6			27.5			25.7	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		32.0		19.1		32.0		17.2				
Change Period (Y+Rc), s		5.0		4.6		5.0		4.6				
Max Green Setting (Gmax), s		27.0		30.4		27.0		28.4				
Max Q Clear Time (g_c+I1), s		6.3		12.9		10.2		11.1				
Green Ext Time (p_c), s		1.2		1.7		1.2		1.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				23.0								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary  
601: 4 Gee Rd & Project Driveway





















02/15/2018

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	16	0	177	16	0	81		
Future Volume (veh/h)	16	0	177	16	0	81		
Number	7	14	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	0	1863	1900	1900	1863		
Adj Flow Rate, veh/h	17	0	186	17	0	85		
Adj No. of Lanes	1	0	1	0	0	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	0	2	2	2	2		
Cap, veh/h	0	0	1346	123	0	1490		
Arrive On Green	0.00	0.00	0.80	0.80	0.00	0.80		
Sat Flow, veh/h	0	0	1682	154	0	1863		
Grp Volume(v), veh/h	0	0	0	203	0	85		
Grp Sat Flow(s),veh/h/ln	0	0	0	1836	0	1863		
Q Serve(g_s), s	0.0	0.0	0.0	0.6	0.0	0.2		
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.6	0.0	0.2		
Prop In Lane	0.00	0.00		0.08	0.00			
Lane Grp Cap(c), veh/h	0	0	0	1468	0	1490		
V/C Ratio(X)	0.00	0.00	0.00	0.14	0.00	0.06		
Avail Cap(c_a), veh/h	0	0	0	1468	0	1490		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.5	0.0	0.5		
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.3	0.0	0.1		
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.7	0.0	0.5		
LnGrp LOS				A		A		
Approach Vol, veh/h	0		203			85		
Approach Delay, s/veh	0.0		0.7			0.5		
Approach LOS			A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.5		0.0		22.5		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		2.6		0.0		2.2		
Green Ext Time (p_c), s		1.3		0.0		1.3		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			0.7					
HCM 2010 LOS			A					



HCM 2010 Signalized Intersection Summary  
 602: Paseo Del Sur/4 Gee Rd & Camino Del Norte





















02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	1070	45	207	889	82	41	45	77	60	33	27
Future Volume (veh/h)	90	1070	45	207	889	82	41	45	77	60	33	27
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	95	1126	47	218	936	86	43	47	81	63	35	28
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	1740	73	259	1872	172	255	95	163	198	148	118
Arrive On Green	0.08	0.50	0.50	0.15	0.57	0.57	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1774	3462	144	1774	3278	301	1334	615	1060	1257	960	768
Grp Volume(v), veh/h	95	575	598	218	505	517	43	0	128	63	0	63
Grp Sat Flow(s),veh/h/ln	1774	1770	1837	1774	1770	1810	1334	0	1676	1257	0	1727
Q Serve(g_s), s	4.1	18.7	18.7	9.3	13.4	13.4	2.3	0.0	5.5	3.8	0.0	2.5
Cycle Q Clear(g_c), s	4.1	18.7	18.7	9.3	13.4	13.4	4.8	0.0	5.5	9.2	0.0	2.5
Prop In Lane	1.00		0.08	1.00		0.17	1.00		0.63	1.00		0.44
Lane Grp Cap(c), veh/h	140	889	923	259	1010	1033	255	0	258	198	0	266
V/C Ratio(X)	0.68	0.65	0.65	0.84	0.50	0.50	0.17	0.00	0.50	0.32	0.00	0.24
Avail Cap(c_a), veh/h	414	889	923	393	1010	1033	615	0	711	538	0	733
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	14.3	14.3	32.4	10.0	10.0	31.1	0.0	30.2	34.4	0.0	29.0
Incr Delay (d2), s/veh	2.2	3.6	3.5	6.2	1.8	1.7	0.1	0.0	0.5	0.3	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(50%),veh/ln	2.1	10.0	10.4	5.0	7.0	7.1	0.8	0.0	2.6	1.3	0.0	1.2
LnGrp Delay(d),s/veh	37.2	17.9	17.8	38.6	11.8	11.8	31.2	0.0	30.8	34.8	0.0	29.1
LnGrp LOS	D	B	B	D	B	B	C		C	C		C
Approach Vol, veh/h		1268			1240			171			126	
Approach Delay, s/veh		19.3			16.5			30.9			32.0	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.9	45.2		16.9	10.5	50.5		16.9				
Change Period (Y+Rc), s	4.5	6.0		4.9	4.4	6.0		4.9				
Max Green Setting (Gmax), s	17.3	39.2		33.1	18.2	38.4		33.1				
Max Q Clear Time (g_c+I1), s	11.3	20.7		11.2	6.1	15.4		7.5				
Green Ext Time (p_c), s	0.1	17.9		0.8	0.1	22.1		0.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			19.3									
HCM 2010 LOS			B									

# HCM 2010 Signalized Intersection Summary




























## 603: Lone Quail Rd/Rancho Bernardo Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	386	849	40	95	843	54	21	84	48	52	137	313
Future Volume (veh/h)	386	849	40	95	843	54	21	84	48	52	137	313
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	406	894	42	100	887	57	22	88	51	55	144	329
Adj No. of Lanes	1	2	0	2	2	0	1	1	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	440	1725	81	159	1012	65	33	249	144	71	435	390
Arrive On Green	0.25	0.50	0.50	0.05	0.30	0.30	0.02	0.22	0.22	0.04	0.25	0.25
Sat Flow, veh/h	1774	3442	162	3442	3377	217	1774	1108	642	1774	1770	1583
Grp Volume(v), veh/h	406	460	476	100	465	479	22	0	139	55	144	329
Grp Sat Flow(s),veh/h/ln	1774	1770	1834	1721	1770	1824	1774	0	1749	1774	1770	1583
Q Serve(g_s), s	22.0	17.2	17.2	2.8	24.5	24.5	1.2	0.0	6.6	3.0	6.6	19.5
Cycle Q Clear(g_c), s	22.0	17.2	17.2	2.8	24.5	24.5	1.2	0.0	6.6	3.0	6.6	19.5
Prop In Lane	1.00		0.09	1.00		0.12	1.00		0.37	1.00		1.00
Lane Grp Cap(c), veh/h	440	887	919	159	530	547	33	0	393	71	435	390
V/C Ratio(X)	0.92	0.52	0.52	0.63	0.88	0.88	0.67	0.00	0.35	0.78	0.33	0.84
Avail Cap(c_a), veh/h	476	887	919	252	542	558	108	0	605	108	612	547
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	16.5	16.5	46.1	32.7	32.7	48.0	0.0	32.1	46.8	30.4	35.3
Incr Delay (d2), s/veh	23.1	2.2	2.1	4.8	14.2	13.8	25.5	0.0	0.5	20.4	0.4	8.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	8.8	9.1	1.4	14.1	14.5	0.8	0.0	3.2	1.9	3.3	9.4
LnGrp Delay(d),s/veh	59.2	18.7	18.6	50.9	46.9	46.5	73.5	0.0	32.7	67.2	30.9	43.7
LnGrp LOS	E	B	B	D	D	D	E		C	E	C	D
Approach Vol, veh/h		1342			1044			161			528	
Approach Delay, s/veh		30.9			47.1			38.2			42.6	
Approach LOS		C			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.6	55.3	5.3	29.2	28.4	35.5	7.4	27.1				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	7.2	49.3	6.0	34.0	26.4	30.1	6.0	34.0				
Max Q Clear Time (g_c+I1), s	4.8	19.2	3.2	21.5	24.0	26.5	5.0	8.6				
Green Ext Time (p_c), s	0.1	7.7	0.0	2.7	0.4	2.3	0.0	3.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			38.8									
HCM 2010 LOS			D									
























HCM 2010 Signalized Intersection Summary  
 604: 4S Ranch Pkwy & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 					 		 
Traffic Volume (veh/h)	133	764	37	34	841	216	26	108	27	80	97	154
Future Volume (veh/h)	133	764	37	34	841	216	26	108	27	80	97	154
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	140	804	39	36	885	227	27	114	28	84	102	162
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	2	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	1610	78	63	1431	640	52	354	301	157	134	213
Arrive On Green	0.10	0.47	0.47	0.04	0.40	0.40	0.03	0.19	0.19	0.05	0.21	0.21
Sat Flow, veh/h	1774	3436	167	1774	3539	1583	1774	1863	1583	3442	649	1031
Grp Volume(v), veh/h	140	414	429	36	885	227	27	114	28	84	0	264
Grp Sat Flow(s),veh/h/ln	1774	1770	1833	1774	1770	1583	1774	1863	1583	1721	0	1681
Q Serve(g_s), s	5.5	11.5	11.5	1.4	14.1	7.1	1.1	3.8	1.0	1.7	0.0	10.5
Cycle Q Clear(g_c), s	5.5	11.5	11.5	1.4	14.1	7.1	1.1	3.8	1.0	1.7	0.0	10.5
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	177	829	859	63	1431	640	52	354	301	157	0	347
V/C Ratio(X)	0.79	0.50	0.50	0.57	0.62	0.35	0.52	0.32	0.09	0.54	0.00	0.76
Avail Cap(c_a), veh/h	275	829	859	155	1431	640	150	812	690	290	0	733
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.3	13.1	13.1	33.7	16.8	14.7	34.0	24.8	23.7	33.2	0.0	26.6
Incr Delay (d2), s/veh	8.1	2.1	2.1	7.7	0.6	0.1	8.0	0.5	0.1	2.8	0.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	6.1	6.3	0.8	7.0	3.1	0.6	2.0	0.5	0.9	0.0	5.2
LnGrp Delay(d),s/veh	39.4	15.3	15.2	41.4	17.4	14.8	42.0	25.4	23.9	36.0	0.0	30.0
LnGrp LOS	D	B	B	D	B	B	D	C	C	D		C
Approach Vol, veh/h		983			1148			169			348	
Approach Delay, s/veh		18.7			17.7			27.8			31.5	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	39.3	5.6	19.7	11.1	34.7	6.7	18.5				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	6.2	33.3	6.0	31.0	11.0	28.5	6.0	31.0				
Max Q Clear Time (g_c+I1), s	3.4	13.5	3.1	12.5	7.5	16.1	3.7	5.8				
Green Ext Time (p_c), s	0.0	5.3	0.0	2.2	0.1	4.5	0.0	2.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				20.5								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary  
 605: Dove Canyon Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	626	117	245	882	323	125	364	181	331	348	68
Future Volume (veh/h)	99	626	117	245	882	323	125	364	181	331	348	68
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	104	659	123	258	928	340	132	383	191	348	366	72
Adj No. of Lanes	1	3	0	2	3	1	1	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	1675	309	205	1896	590	164	836	374	246	636	124
Arrive On Green	0.07	0.39	0.39	0.06	0.37	0.37	0.09	0.24	0.24	0.07	0.22	0.22
Sat Flow, veh/h	1774	4317	795	3442	5085	1583	1774	3539	1583	3442	2955	576
Grp Volume(v), veh/h	104	516	266	258	928	340	132	383	191	348	218	220
Grp Sat Flow(s),veh/h/ln	1774	1695	1722	1721	1695	1583	1774	1770	1583	1721	1770	1761
Q Serve(g_s), s	4.8	9.2	9.4	5.0	11.7	14.4	6.1	7.8	8.8	6.0	9.2	9.4
Cycle Q Clear(g_c), s	4.8	9.2	9.4	5.0	11.7	14.4	6.1	7.8	8.8	6.0	9.2	9.4
Prop In Lane	1.00		0.46	1.00		1.00	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	133	1315	668	205	1896	590	164	836	374	246	381	379
V/C Ratio(X)	0.78	0.39	0.40	1.26	0.49	0.58	0.80	0.46	0.51	1.41	0.57	0.58
Avail Cap(c_a), veh/h	191	1315	668	205	1896	590	180	1521	680	246	708	704
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	18.5	18.6	39.4	20.2	21.0	37.3	27.4	27.8	38.9	29.4	29.5
Incr Delay (d2), s/veh	14.1	0.9	1.8	148.6	0.9	4.1	21.2	0.5	1.3	207.8	1.6	1.7
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(50%),veh/ln	2.9	4.5	4.8	6.6	5.7	7.0	4.0	3.8	4.0	9.9	4.6	4.8
LnGrp Delay(d),s/veh	52.2	19.4	20.3	188.0	21.1	25.0	58.5	27.9	29.1	246.6	31.0	31.2
LnGrp LOS	D	B	C	F	C	C	E	C	C	F	C	C
Approach Vol, veh/h		886			1526			706			786	
Approach Delay, s/veh		23.5			50.2			33.9			126.5	
Approach LOS		C			D			C			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	39.0	11.7	23.5	10.8	37.7	10.0	25.3				
Change Period (Y+Rc), s	4.5	6.5	4.0	5.5	4.5	6.5	4.0	5.5				
Max Green Setting (Gmax), s	5.0	32.5	8.5	33.5	9.0	28.5	6.0	36.0				
Max Q Clear Time (g_c+I1), s	7.0	11.4	8.1	11.4	6.8	16.4	8.0	10.8				
Green Ext Time (p_c), s	0.0	8.0	0.0	6.6	0.1	6.2	0.0	6.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				56.6								
HCM 2010 LOS				E								







HCM 2010 Signalized Intersection Summary  
 606: Bernardo Center Dr & Camino Del Norte

02/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	276	1455	72	342	1456	325	53	417	282	983	669	280
Future Volume (veh/h)	276	1455	72	342	1456	325	53	417	282	983	669	280
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	291	1532	76	360	1533	342	56	439	297	1035	704	295
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	314	1567	488	383	1669	520	104	465	208	1060	1448	648
Arrive On Green	0.09	0.31	0.31	0.11	0.33	0.33	0.03	0.13	0.13	0.31	0.41	0.41
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	291	1532	76	360	1533	342	56	439	297	1035	704	295
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	12.6	44.8	5.2	15.6	43.5	27.8	2.4	18.5	19.7	44.7	22.0	20.3
Cycle Q Clear(g_c), s	12.6	44.8	5.2	15.6	43.5	27.8	2.4	18.5	19.7	44.7	22.0	20.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	314	1567	488	383	1669	520	104	465	208	1060	1448	648
V/C Ratio(X)	0.93	0.98	0.16	0.94	0.92	0.66	0.54	0.94	1.43	0.98	0.49	0.46
Avail Cap(c_a), veh/h	314	1567	488	383	1671	520	133	465	208	1060	1448	648
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.7	51.4	37.7	66.2	48.5	43.2	71.7	64.6	65.2	51.4	32.7	32.2
Incr Delay (d2), s/veh	31.7	17.7	0.3	30.6	8.9	4.0	4.3	30.0	218.4	22.1	1.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	23.6	2.3	9.0	21.8	12.7	1.2	11.0	21.2	24.5	11.0	9.3
LnGrp Delay(d),s/veh	99.4	69.1	38.0	96.8	57.4	47.2	76.1	94.6	283.6	73.5	33.9	34.5
LnGrp LOS	F	E	D	F	E	D	E	F	F	E	C	C
Approach Vol, veh/h		1899			2235			792			2034	
Approach Delay, s/veh		72.5			62.2			164.2			54.1	
Approach LOS		E			E			F			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	50.6	25.7	21.1	52.6	8.9	67.4	18.1	55.6				
Change Period (Y+Rc), s	4.4	6.0	4.4	6.4	4.4	* 6	4.4	* 6.4				
Max Green Setting (Gmax), s	46.2	19.7	16.7	46.2	5.8	* 61	13.7	* 49				
Max Q Clear Time (g_c+I1), s	46.7	21.7	17.6	46.8	4.4	24.0	14.6	45.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	25.4	0.0	3.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			74.2									
HCM 2010 LOS			E									
<b>Notes</b>												













HCM 2010 Signalized Intersection Summary  
607: Paseo Montanoso & Camino Del Norte

02/15/2018

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↖	↑↑↑	↖	↗		
Traffic Volume (veh/h)	2711	33	200	2105	34	97		
Future Volume (veh/h)	2711	33	200	2105	34	97		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	2854	35	211	2216	36	102		
Adj No. of Lanes	3	0	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	3202	39	230	4045	152	135		
Arrive On Green	0.62	0.62	0.13	0.80	0.09	0.09		
Sat Flow, veh/h	5346	63	1774	5253	1774	1583		
Grp Volume(v), veh/h	1865	1024	211	2216	36	102		
Grp Sat Flow(s),veh/h/ln	1695	1852	1774	1695	1774	1583		
Q Serve(g_s), s	39.5	40.0	10.0	13.4	1.6	5.3		
Cycle Q Clear(g_c), s	39.5	40.0	10.0	13.4	1.6	5.3		
Prop In Lane		0.03	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2096	1145	230	4045	152	135		
V/C Ratio(X)	0.89	0.89	0.92	0.55	0.24	0.75		
Avail Cap(c_a), veh/h	2096	1145	230	4045	680	607		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	13.7	13.8	36.4	3.1	36.2	37.9		
Incr Delay (d2), s/veh	6.1	10.9	36.7	0.5	0.3	3.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	19.9	23.7	7.2	6.4	0.8	2.5		
LnGrp Delay(d),s/veh	19.9	24.7	73.1	3.7	36.5	41.1		
LnGrp LOS	B	C	E	A	D	D		
Approach Vol, veh/h	2889			2427	138			
Approach Delay, s/veh	21.6			9.7	39.9			
Approach LOS	C			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.0	58.5				73.5		11.2
Change Period (Y+Rc), s	4.0	6.1				6.1		4.0
Max Green Setting (Gmax), s	11.0	52.4				67.4		32.5
Max Q Clear Time (g_c+I1), s	12.0	42.0				15.4		7.3
Green Ext Time (p_c), s	0.0	10.4				51.8		0.2
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			16.8					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary  
608: I-15 SB Ramps & Camino Del Norte



























02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗↘	↖↗	↑↑↑					↖↗		↗↘
Traffic Volume (veh/h)	0	1342	1487	227	2188	0	0	0	0	846	0	85
Future Volume (veh/h)	0	1342	1487	227	2188	0	0	0	0	846	0	85
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1863	0	1863
Adj Flow Rate, veh/h	0	1413	1565	239	2303	0				891	0	89
Adj No. of Lanes	0	4	2	2	3	0				2	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	3294	1433	286	3213	0				955	0	774
Arrive On Green	0.00	0.51	0.51	0.08	0.63	0.00				0.28	0.00	0.28
Sat Flow, veh/h	0	6669	2787	3442	5253	0				3442	0	2787
Grp Volume(v), veh/h	0	1413	1565	239	2303	0				891	0	89
Grp Sat Flow(s),veh/h/ln	0	1602	1393	1721	1695	0				1721	0	1393
Q Serve(g_s), s	0.0	20.6	77.1	10.3	45.7	0.0				37.9	0.0	3.6
Cycle Q Clear(g_c), s	0.0	20.6	77.1	10.3	45.7	0.0				37.9	0.0	3.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3294	1433	286	3213	0				955	0	774
V/C Ratio(X)	0.00	0.43	1.09	0.84	0.72	0.00				0.93	0.00	0.12
Avail Cap(c_a), veh/h	0	3294	1433	397	3213	0				1260	0	1020
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.36	0.36	0.57	0.57	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.7	36.4	67.8	18.6	0.0				52.8	0.0	40.4
Incr Delay (d2), s/veh	0.0	0.1	46.5	4.6	0.8	0.0				9.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.2	38.7	5.1	21.6	0.0				19.2	0.0	1.4
LnGrp Delay(d),s/veh	0.0	22.9	82.9	72.4	19.4	0.0				62.0	0.0	40.5
LnGrp LOS		C	F	E	B					E		D
Approach Vol, veh/h		2978			2542						980	
Approach Delay, s/veh		54.4			24.4						60.1	
Approach LOS		D			C						E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.7	84.6		47.7		102.3						
Change Period (Y+Rc), s	* 5.2	7.5		6.1		7.5						
Max Green Setting (Gmax), s	* 17	59.0		54.9		81.5						
Max Q Clear Time (g_c+I1), s	12.3	79.1		39.9		47.7						
Green Ext Time (p_c), s	0.2	0.0		1.8		30.4						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			43.5									
HCM 2010 LOS			D									
<b>Notes</b>												

# HCM 2010 Signalized Intersection Summary

## 609: I-15 NB Ramps & Camino Del Norte

02/15/2018




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  	 	 		 			
Traffic Volume (veh/h)	158	2036	0	0	1112	824	1396	0	281	0	0	0
Future Volume (veh/h)	158	2036	0	0	1112	824	1396	0	281	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	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			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	166	2143	0	0	1171	867	1469	0	296			
Adj No. of Lanes	2	3	0	0	4	2	2	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	209	2368	0	0	2372	1032	1527	0	1237			
Arrive On Green	0.12	0.93	0.00	0.00	0.37	0.37	0.44	0.00	0.44			
Sat Flow, veh/h	3442	5253	0	0	6669	2787	3442	0	2787			
Grp Volume(v), veh/h	166	2143	0	0	1171	867	1469	0	296			
Grp Sat Flow(s),veh/h/ln	1721	1695	0	0	1602	1393	1721	0	1393			
Q Serve(g_s), s	7.0	27.7	0.0	0.0	21.1	42.7	62.1	0.0	9.9			
Cycle Q Clear(g_c), s	7.0	27.7	0.0	0.0	21.1	42.7	62.1	0.0	9.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	209	2368	0	0	2372	1032	1527	0	1237			
V/C Ratio(X)	0.79	0.91	0.00	0.00	0.49	0.84	0.96	0.00	0.24			
Avail Cap(c_a), veh/h	289	2368	0	0	2372	1032	1604	0	1299			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.75	0.75	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	65.0	3.7	0.0	0.0	36.4	43.2	40.5	0.0	26.0			
Incr Delay (d2), s/veh	5.1	4.9	0.0	0.0	0.7	8.2	13.9	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.5	11.8	0.0	0.0	9.5	17.6	32.3	0.0	3.8			
LnGrp Delay(d),s/veh	70.1	8.6	0.0	0.0	37.1	51.4	54.4	0.0	26.0			
LnGrp LOS	E	A			D	D	D		C			
Approach Vol, veh/h		2309			2038			1765				
Approach Delay, s/veh		13.0			43.2			49.6				
Approach LOS		B			D			D				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.3			14.3	63.0		72.7				
Change Period (Y+Rc), s		7.5			* 5.2	7.5		6.1				
Max Green Setting (Gmax), s		66.5			* 13	48.7		69.9				
Max Q Clear Time (g_c+I1), s		29.7			9.0	44.7		64.1				
Green Ext Time (p_c), s		28.0			0.1	3.8		2.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				33.6								
HCM 2010 LOS				C								
<b>Notes</b>												



# HCM 2010 Signalized Intersection Summary

## 610: Dove Canyon Rd & Lone Quail Rd










02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	32	32	75	44	248	33	346	117	284	322	103
Future Volume (veh/h)	56	32	32	75	44	248	33	346	117	284	322	103
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	59	34	34	79	46	261	35	364	123	299	339	108
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	294	169	141	449	243	624	328	483	161	378	566	178
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.19	0.19	0.19	0.21	0.21	0.21
Sat Flow, veh/h	551	429	358	922	617	1583	1774	2609	869	1774	2653	832
Grp Volume(v), veh/h	127	0	0	125	0	261	35	245	242	299	224	223
Grp Sat Flow(s),veh/h/ln	1338	0	0	1539	0	1583	1774	1770	1709	1774	1770	1716
Q Serve(g_s), s	1.3	0.0	0.0	0.0	0.0	8.2	1.1	9.0	9.2	10.9	7.8	8.0
Cycle Q Clear(g_c), s	4.3	0.0	0.0	3.0	0.0	8.2	1.1	9.0	9.2	10.9	7.8	8.0
Prop In Lane	0.46		0.27	0.63		1.00	1.00		0.51	1.00		0.49
Lane Grp Cap(c), veh/h	605	0	0	692	0	624	328	328	316	378	377	366
V/C Ratio(X)	0.21	0.00	0.00	0.18	0.00	0.42	0.11	0.75	0.76	0.79	0.59	0.61
Avail Cap(c_a), veh/h	605	0	0	692	0	624	736	734	709	787	786	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	0.0	0.0	13.5	0.0	15.0	23.2	26.4	26.5	25.5	24.3	24.4
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	0.2	0.1	1.3	1.5	1.4	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	1.5	0.0	3.6	0.6	4.5	4.4	5.5	3.9	3.8
LnGrp Delay(d),s/veh	14.5	0.0	0.0	13.5	0.0	15.2	23.2	27.7	27.9	26.9	24.8	25.0
LnGrp LOS	B			B		B	C	C	C	C	C	C
Approach Vol, veh/h		127			386			522			746	
Approach Delay, s/veh		14.5			14.7			27.5			25.7	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		32.0		19.2		32.0		17.3				
Change Period (Y+Rc), s		5.0		4.6		5.0		4.6				
Max Green Setting (Gmax), s		27.0		30.4		27.0		28.4				
Max Q Clear Time (g_c+I1), s		6.3		12.9		10.2		11.2				
Green Ext Time (p_c), s		1.2		1.7		1.2		1.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				23.0								
HCM 2010 LOS				C								

# HCM 2010 Signalized Intersection Summary





















## 601: 4 Gee Rd & Project Driveway

02/15/2018

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	2	0	95	2	0	61		
Future Volume (veh/h)	2	0	95	2	0	61		
Number	7	14	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	0	1863	1900	1900	1863		
Adj Flow Rate, veh/h	2	0	100	2	0	64		
Adj No. of Lanes	1	0	1	0	0	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	0	2	2	2	2		
Cap, veh/h	0	0	1456	29	0	1490		
Arrive On Green	0.00	0.00	0.80	0.80	0.00	0.80		
Sat Flow, veh/h	0	0	1820	36	0	1863		
Grp Volume(v), veh/h	0	0	0	102	0	64		
Grp Sat Flow(s),veh/h/ln	0	0	0	1856	0	1863		
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.2		
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.3	0.0	0.2		
Prop In Lane	0.00	0.00		0.02	0.00			
Lane Grp Cap(c), veh/h	0	0	0	1485	0	1490		
V/C Ratio(X)	0.00	0.00	0.00	0.07	0.00	0.04		
Avail Cap(c_a), veh/h	0	0	0	1485	0	1490		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.5	0.0	0.5		
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.2	0.0	0.1		
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.6	0.0	0.5		
LnGrp LOS				A		A		
Approach Vol, veh/h	0		102			64		
Approach Delay, s/veh	0.0		0.6			0.5		
Approach LOS			A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.5		0.0		22.5		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		2.3		0.0		2.2		
Green Ext Time (p_c), s		0.7		0.0		0.7		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			0.5					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary  
 602: Paseo Del Sur/4 Gee Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	674	47	217	570	32	32	18	102	22	24	29
Future Volume (veh/h)	73	674	47	217	570	32	32	18	102	22	24	29
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	77	709	49	228	600	34	34	19	107	23	25	31
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	1637	113	276	1947	110	241	32	179	178	98	122
Arrive On Green	0.07	0.49	0.49	0.16	0.57	0.57	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1774	3359	232	1774	3406	193	1342	244	1376	1260	758	939
Grp Volume(v), veh/h	77	373	385	228	311	323	34	0	126	23	0	56
Grp Sat Flow(s),veh/h/ln	1774	1770	1822	1774	1770	1829	1342	0	1620	1260	0	1697
Q Serve(g_s), s	2.9	9.3	9.3	8.4	6.2	6.2	1.6	0.0	5.0	1.2	0.0	2.0
Cycle Q Clear(g_c), s	2.9	9.3	9.3	8.4	6.2	6.2	3.6	0.0	5.0	6.2	0.0	2.0
Prop In Lane	1.00		0.13	1.00		0.11	1.00		0.85	1.00		0.55
Lane Grp Cap(c), veh/h	129	862	888	276	1012	1045	241	0	211	178	0	221
V/C Ratio(X)	0.60	0.43	0.43	0.83	0.31	0.31	0.14	0.00	0.60	0.13	0.00	0.25
Avail Cap(c_a), veh/h	482	862	888	616	1012	1045	722	0	792	629	0	829
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	11.3	11.3	27.7	7.5	7.5	28.1	0.0	27.8	30.7	0.0	26.5
Incr Delay (d2), s/veh	1.7	1.6	1.5	2.4	0.8	0.8	0.1	0.0	1.0	0.1	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(50%),veh/ln	1.4	4.8	5.0	4.3	3.2	3.4	0.6	0.0	2.3	0.4	0.0	0.9
LnGrp Delay(d),s/veh	32.1	12.9	12.8	30.1	8.3	8.3	28.2	0.0	28.8	30.8	0.0	26.7
LnGrp LOS	C	B	B	C	A	A	C		C	C		C
Approach Vol, veh/h		835			862			160			79	
Approach Delay, s/veh		14.6			14.1			28.7			27.9	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	39.0		13.7	9.3	44.7		13.7				
Change Period (Y+Rc), s	4.5	6.0		4.9	4.4	6.0		4.9				
Max Green Setting (Gmax), s	23.5	33.0		33.1	18.4	38.2		33.1				
Max Q Clear Time (g_c+I1), s	10.4	11.3		8.2	4.9	8.2		7.0				
Green Ext Time (p_c), s	0.2	17.3		0.7	0.1	22.5		0.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				16.1								
HCM 2010 LOS				B								
























HCM 2010 Signalized Intersection Summary  
 603: Lone Quail Rd/Rancho Bernardo Rd & Camino Del Norte

02/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	601	34	15	579	48	32	38	27	89	35	224
Future Volume (veh/h)	156	601	34	15	579	48	32	38	27	89	35	224
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	164	633	36	16	609	51	34	40	28	94	37	236
Adj No. of Lanes	1	2	0	2	2	0	1	1	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	1847	105	51	1461	122	47	150	105	122	335	300
Arrive On Green	0.12	0.54	0.54	0.01	0.44	0.44	0.03	0.15	0.15	0.07	0.19	0.19
Sat Flow, veh/h	1774	3405	193	3442	3307	277	1774	1022	715	1774	1770	1583
Grp Volume(v), veh/h	164	329	340	16	325	335	34	0	68	94	37	236
Grp Sat Flow(s),veh/h/ln	1774	1770	1829	1721	1770	1814	1774	0	1737	1774	1770	1583
Q Serve(g_s), s	7.4	8.5	8.5	0.4	10.3	10.3	1.6	0.0	2.8	4.3	1.4	11.6
Cycle Q Clear(g_c), s	7.4	8.5	8.5	0.4	10.3	10.3	1.6	0.0	2.8	4.3	1.4	11.6
Prop In Lane	1.00		0.11	1.00		0.15	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	206	960	992	51	782	801	47	0	255	122	335	300
V/C Ratio(X)	0.80	0.34	0.34	0.31	0.42	0.42	0.73	0.00	0.27	0.77	0.11	0.79
Avail Cap(c_a), veh/h	413	960	992	232	782	801	141	0	723	276	871	780
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	10.5	10.5	39.8	15.6	15.6	39.5	0.0	30.9	37.4	27.4	31.5
Incr Delay (d2), s/veh	8.3	1.0	0.9	4.1	0.1	0.1	22.7	0.0	0.6	11.6	0.1	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	4.4	4.5	0.2	5.0	5.1	1.0	0.0	1.4	2.5	0.7	5.4
LnGrp Delay(d),s/veh	43.4	11.5	11.4	43.9	15.7	15.7	62.1	0.0	31.5	49.0	27.5	36.1
LnGrp LOS	D	B	B	D	B	B	E		C	D	C	D
Approach Vol, veh/h		833			676			102			367	
Approach Delay, s/veh		17.7			16.4			41.7			38.5	
Approach LOS		B			B			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	50.3	5.6	20.5	13.5	42.1	9.1	17.0				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	5.5	44.3	6.5	40.2	19.0	30.8	12.7	34.0				
Max Q Clear Time (g_c+I1), s	2.4	10.5	3.6	13.6	9.4	12.3	6.3	4.8				
Green Ext Time (p_c), s	0.0	4.8	0.0	1.9	0.3	4.3	0.1	1.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				22.4								
HCM 2010 LOS				C								
























HCM 2010 Signalized Intersection Summary  
604: 4S Ranch Pkwy & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	591	16	28	518	132	17	68	35	99	52	118
Future Volume (veh/h)	120	591	16	28	518	132	17	68	35	99	52	118
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	126	622	17	29	545	139	18	72	37	104	55	124
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	2	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1780	49	56	1575	705	38	233	198	180	80	180
Arrive On Green	0.09	0.51	0.51	0.03	0.45	0.45	0.02	0.13	0.13	0.05	0.16	0.16
Sat Flow, veh/h	1774	3519	96	1774	3539	1583	1774	1863	1583	3442	510	1150
Grp Volume(v), veh/h	126	313	326	29	545	139	18	72	37	104	0	179
Grp Sat Flow(s),veh/h/ln	1774	1770	1846	1774	1770	1583	1774	1863	1583	1721	0	1660
Q Serve(g_s), s	4.5	6.9	6.9	1.0	6.5	3.5	0.7	2.3	1.4	1.9	0.0	6.6
Cycle Q Clear(g_c), s	4.5	6.9	6.9	1.0	6.5	3.5	0.7	2.3	1.4	1.9	0.0	6.6
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	163	895	934	56	1575	705	38	233	198	180	0	259
V/C Ratio(X)	0.77	0.35	0.35	0.52	0.35	0.20	0.48	0.31	0.19	0.58	0.00	0.69
Avail Cap(c_a), veh/h	383	895	934	164	1575	705	164	890	757	356	0	811
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.8	9.6	9.6	30.9	11.8	10.9	31.4	25.8	25.4	30.0	0.0	25.9
Incr Delay (d2), s/veh	7.5	1.1	1.0	7.4	0.0	0.1	9.0	0.7	0.4	2.9	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.6	3.7	0.6	3.2	1.5	0.4	1.2	0.6	1.0	0.0	3.3
LnGrp Delay(d),s/veh	36.3	10.7	10.7	38.3	11.8	11.0	40.3	26.5	25.8	33.0	0.0	29.1
LnGrp LOS	D	B	B	D	B	B	D	C	C	C		C
Approach Vol, veh/h		765			713			127			283	
Approach Delay, s/veh		14.9			12.8			28.3			30.5	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	38.8	4.9	15.1	10.0	34.9	6.9	13.1				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	6.0	32.8	6.0	31.7	14.0	24.8	6.7	31.0				
Max Q Clear Time (g_c+I1), s	3.0	8.9	2.7	8.6	6.5	8.5	3.9	4.3				
Green Ext Time (p_c), s	0.0	3.2	0.0	1.5	0.2	3.1	0.1	1.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				17.3								
HCM 2010 LOS				B								

























HCM 2010 Signalized Intersection Summary  
605: Dove Canyon Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	523	113	168	479	330	95	261	108	310	164	43
Future Volume (veh/h)	100	523	113	168	479	330	95	261	108	310	164	43
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	105	551	119	177	504	347	100	275	114	326	173	45
Adj No. of Lanes	1	3	0	2	3	1	1	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	1813	384	228	2143	667	128	535	239	274	443	112
Arrive On Green	0.08	0.43	0.43	0.07	0.42	0.42	0.07	0.15	0.15	0.08	0.16	0.16
Sat Flow, veh/h	1774	4206	890	3442	5085	1583	1774	3539	1583	3442	2798	709
Grp Volume(v), veh/h	105	442	228	177	504	347	100	275	114	326	108	110
Grp Sat Flow(s),veh/h/ln	1774	1695	1706	1721	1695	1583	1774	1770	1583	1721	1770	1738
Q Serve(g_s), s	4.4	6.4	6.6	3.8	4.8	12.2	4.2	5.4	5.0	6.0	4.1	4.3
Cycle Q Clear(g_c), s	4.4	6.4	6.6	3.8	4.8	12.2	4.2	5.4	5.0	6.0	4.1	4.3
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	135	1461	735	228	2143	667	128	535	239	274	280	275
V/C Ratio(X)	0.78	0.30	0.31	0.78	0.24	0.52	0.78	0.51	0.48	1.19	0.38	0.40
Avail Cap(c_a), veh/h	212	1461	735	228	2143	667	205	1690	756	274	782	767
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	14.0	14.1	34.6	14.0	16.2	34.4	29.5	29.3	34.7	28.4	28.5
Incr Delay (d2), s/veh	11.0	0.5	1.1	15.7	0.3	2.9	9.7	0.9	1.8	115.9	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.1	3.3	2.3	2.3	5.8	2.4	2.7	2.3	7.2	2.1	2.1
LnGrp Delay(d),s/veh	45.2	14.6	15.2	50.4	14.3	19.0	44.1	30.4	31.0	150.6	29.5	29.7
LnGrp LOS	D	B	B	D	B	B	D	C	C	F	C	C
Approach Vol, veh/h		775			1028			489			544	
Approach Delay, s/veh		18.9			22.1			33.3			102.1	
Approach LOS		B			C			C			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	39.0	9.5	17.4	10.2	38.3	10.0	16.9				
Change Period (Y+Rc), s	4.5	6.5	4.0	5.5	4.5	6.5	4.0	5.5				
Max Green Setting (Gmax), s	5.0	32.5	8.7	33.3	9.0	28.5	6.0	36.0				
Max Q Clear Time (g_c+I1), s	5.8	8.6	6.2	6.3	6.4	14.2	8.0	7.4				
Green Ext Time (p_c), s	0.0	5.4	0.0	4.0	0.1	4.6	0.0	4.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			38.5									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary  
 606: Bernardo Center Dr & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	1158	27	187	824	97	22	231	276	110	353	121
Future Volume (veh/h)	98	1158	27	187	824	97	22	231	276	110	353	121
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	103	1219	28	197	867	102	23	243	291	116	372	127
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	1925	599	250	2071	645	74	1214	543	167	1310	586
Arrive On Green	0.04	0.38	0.38	0.07	0.41	0.41	0.02	0.34	0.34	0.05	0.37	0.37
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	103	1219	28	197	867	102	23	243	291	116	372	127
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	4.0	26.4	1.5	7.6	16.4	5.5	0.9	6.5	19.9	4.5	10.0	7.4
Cycle Q Clear(g_c), s	4.0	26.4	1.5	7.6	16.4	5.5	0.9	6.5	19.9	4.5	10.0	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	151	1925	599	250	2071	645	74	1214	543	167	1310	586
V/C Ratio(X)	0.68	0.63	0.05	0.79	0.42	0.16	0.31	0.20	0.54	0.70	0.28	0.22
Avail Cap(c_a), veh/h	297	2063	642	450	2294	714	194	1214	543	322	1310	586
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.4	34.2	26.5	61.4	28.5	25.3	64.9	31.2	35.6	63.1	29.8	29.0
Incr Delay (d2), s/veh	2.0	0.8	0.1	2.1	0.3	0.2	2.4	0.4	3.8	5.1	0.5	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(50%),veh/ln	1.9	12.5	0.7	3.7	7.7	2.4	0.4	3.2	9.3	2.2	5.0	3.4
LnGrp Delay(d),s/veh	65.4	35.0	26.5	63.5	28.8	25.5	67.2	31.6	39.3	68.2	30.4	29.9
LnGrp LOS	E	D	C	E	C	C	E	C	D	E	C	C
Approach Vol, veh/h		1350			1166			557			615	
Approach Delay, s/veh		37.2			34.4			37.1			37.4	
Approach LOS		D			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	52.2	14.2	57.3	7.3	55.8	10.3	61.2				
Change Period (Y+Rc), s	4.4	6.0	4.4	6.4	4.4	* 6	4.4	* 6.4				
Max Green Setting (Gmax), s	12.6	44.0	17.6	54.6	7.6	* 50	11.6	* 61				
Max Q Clear Time (g_c+I1), s	6.5	21.9	9.6	28.4	2.9	12.0	6.0	18.4				
Green Ext Time (p_c), s	0.1	10.9	0.2	22.6	0.0	14.0	0.1	33.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			36.3									
HCM 2010 LOS			D									
<b>Notes</b>												

HCM 2010 Signalized Intersection Summary  
607: Paseo Montanoso & Camino Del Norte

02/15/2018













	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↙	↑↑↑	↙	↗		
Traffic Volume (veh/h)	1587	12	110	1156	16	108		
Future Volume (veh/h)	1587	12	110	1156	16	108		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1671	13	116	1217	17	114		
Adj No. of Lanes	3	0	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	3430	27	147	4012	163	145		
Arrive On Green	0.66	0.66	0.08	0.79	0.09	0.09		
Sat Flow, veh/h	5373	40	1774	5253	1774	1583		
Grp Volume(v), veh/h	1088	596	116	1217	17	114		
Grp Sat Flow(s),veh/h/ln	1695	1856	1774	1695	1774	1583		
Q Serve(g_s), s	13.7	13.7	5.4	5.6	0.7	6.0		
Cycle Q Clear(g_c), s	13.7	13.7	5.4	5.6	0.7	6.0		
Prop In Lane		0.02	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2234	1223	147	4012	163	145		
V/C Ratio(X)	0.49	0.49	0.79	0.30	0.10	0.78		
Avail Cap(c_a), veh/h	2234	1223	318	4012	690	616		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	7.3	7.3	38.2	2.5	35.3	37.7		
Incr Delay (d2), s/veh	0.8	1.4	3.6	0.2	0.1	3.5		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.6	7.4	2.8	2.7	0.4	2.7		
LnGrp Delay(d),s/veh	8.0	8.6	41.7	2.7	35.4	41.1		
LnGrp LOS	A	A	D	A	D	D		
Approach Vol, veh/h	1684			1333	131			
Approach Delay, s/veh	8.2			6.1	40.4			
Approach LOS	A			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	11.0	62.0				73.0		11.8
Change Period (Y+Rc), s	4.0	6.1				6.1		4.0
Max Green Setting (Gmax), s	15.2	47.7				66.9		33.0
Max Q Clear Time (g_c+I1), s	7.4	15.7				7.6		8.0
Green Ext Time (p_c), s	0.1	30.9				55.5		0.2
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			8.7					
HCM 2010 LOS			A					



# HCM 2010 Signalized Intersection Summary



























## 608: I-15 SB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗↗	↘↘	↑↑↑					↗↗		↗↗
Traffic Volume (veh/h)	0	1056	609	193	1203	0	0	0	0	603	0	65
Future Volume (veh/h)	0	1056	609	193	1203	0	0	0	0	603	0	65
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1863	0	1863
Adj Flow Rate, veh/h	0	1112	641	203	1266	0				635	0	68
Adj No. of Lanes	0	4	2	2	3	0				2	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	3839	1669	252	3595	0				696	0	564
Arrive On Green	0.00	0.60	0.60	0.07	0.71	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	6669	2787	3442	5253	0				3442	0	2787
Grp Volume(v), veh/h	0	1112	641	203	1266	0				635	0	68
Grp Sat Flow(s),veh/h/ln	0	1602	1393	1721	1695	0				1721	0	1393
Q Serve(g_s), s	0.0	12.6	18.0	8.7	14.6	0.0				27.1	0.0	3.0
Cycle Q Clear(g_c), s	0.0	12.6	18.0	8.7	14.6	0.0				27.1	0.0	3.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3839	1669	252	3595	0				696	0	564
V/C Ratio(X)	0.00	0.29	0.38	0.81	0.35	0.00				0.91	0.00	0.12
Avail Cap(c_a), veh/h	0	3839	1669	569	3595	0				1260	0	1020
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.85	0.85	0.85	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.6	15.7	68.5	8.6	0.0				58.5	0.0	48.9
Incr Delay (d2), s/veh	0.0	0.2	0.6	2.0	0.2	0.0				2.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.6	7.0	4.2	6.9	0.0				13.1	0.0	1.2
LnGrp Delay(d),s/veh	0.0	14.7	16.2	70.4	8.8	0.0				60.7	0.0	49.0
LnGrp LOS		B	B	E	A					E		D
Approach Vol, veh/h		1753			1469						703	
Approach Delay, s/veh		15.3			17.3						59.6	
Approach LOS		B			B						E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	16.2	97.4		36.4		113.6						
Change Period (Y+Rc), s	* 5.2	7.5		6.1		7.5						
Max Green Setting (Gmax), s	* 25	51.5		54.9		81.5						
Max Q Clear Time (g_c+I1), s	10.7	20.0		29.1		16.6						
Green Ext Time (p_c), s	0.3	16.6		1.3		21.3						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			24.0									
HCM 2010 LOS			C									
<b>Notes</b>												

HCM 2010 Signalized Intersection Summary  
 609: I-15 NB Ramps & Camino Del Norte




















02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  	 	 		 			
Traffic Volume (veh/h)	123	1535	0	0	724	607	655	0	193	0	0	0
Future Volume (veh/h)	123	1535	0	0	724	607	655	0	193	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	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			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	129	1616	0	0	762	639	689	0	203			
Adj No. of Lanes	2	3	0	0	4	2	2	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	173	3506	0	0	3874	1685	757	0	613			
Arrive On Green	0.10	1.00	0.00	0.00	0.60	0.60	0.22	0.00	0.22			
Sat Flow, veh/h	3442	5253	0	0	6669	2787	3442	0	2787			
Grp Volume(v), veh/h	129	1616	0	0	762	639	689	0	203			
Grp Sat Flow(s),veh/h/ln	1721	1695	0	0	1602	1393	1721	0	1393			
Q Serve(g_s), s	5.5	0.0	0.0	0.0	8.0	17.6	29.3	0.0	9.2			
Cycle Q Clear(g_c), s	5.5	0.0	0.0	0.0	8.0	17.6	29.3	0.0	9.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	173	3506	0	0	3874	1685	757	0	613			
V/C Ratio(X)	0.75	0.46	0.00	0.00	0.20	0.38	0.91	0.00	0.33			
Avail Cap(c_a), veh/h	340	3506	0	0	3874	1685	1283	0	1038			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.86	0.86	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	66.5	0.0	0.0	0.0	13.3	15.2	57.1	0.0	49.2			
Incr Delay (d2), s/veh	2.1	0.4	0.0	0.0	0.1	0.7	3.3	0.0	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.6	0.1	0.0	0.0	3.6	6.9	14.3	0.0	3.6			
LnGrp Delay(d),s/veh	68.6	0.4	0.0	0.0	13.4	15.9	60.4	0.0	49.4			
LnGrp LOS	E	A			B	B	E		D			
Approach Vol, veh/h		1745			1401			892				
Approach Delay, s/veh		5.4			14.5			57.9				
Approach LOS		A			B			E				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		110.9			12.7	98.2		39.1				
Change Period (Y+Rc), s		7.5			* 5.2	7.5		6.1				
Max Green Setting (Gmax), s		80.5			* 15	60.5		55.9				
Max Q Clear Time (g_c+I1), s		2.0			7.5	19.6		31.3				
Green Ext Time (p_c), s		22.6			0.1	18.9		1.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				20.2								
HCM 2010 LOS				C								
<b>Notes</b>												

# HCM 2010 Signalized Intersection Summary










## 610: Dove Canyon Rd & Lone Quail Rd

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	27	20	43	14	179	30	208	80	168	189	68
Future Volume (veh/h)	80	27	20	43	14	179	30	208	80	168	189	68
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	84	28	21	45	15	188	32	219	84	177	199	72
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	159	102	625	194	757	238	339	126	258	375	131
Arrive On Green	0.48	0.48	0.48	0.48	0.48	0.48	0.13	0.13	0.13	0.15	0.15	0.15
Sat Flow, veh/h	806	332	214	1083	405	1583	1774	2526	940	1774	2571	902
Grp Volume(v), veh/h	133	0	0	60	0	188	32	151	152	177	135	136
Grp Sat Flow(s),veh/h/ln	1352	0	0	1488	0	1583	1774	1770	1697	1774	1770	1704
Q Serve(g_s), s	1.8	0.0	0.0	0.0	0.0	4.1	0.9	4.7	5.0	5.5	4.1	4.3
Cycle Q Clear(g_c), s	2.9	0.0	0.0	1.0	0.0	4.1	0.9	4.7	5.0	5.5	4.1	4.3
Prop In Lane	0.63		0.16	0.75		1.00	1.00		0.55	1.00		0.53
Lane Grp Cap(c), veh/h	746	0	0	818	0	757	238	237	228	258	258	248
V/C Ratio(X)	0.18	0.00	0.00	0.07	0.00	0.25	0.13	0.64	0.67	0.68	0.52	0.55
Avail Cap(c_a), veh/h	746	0	0	818	0	757	860	858	822	890	888	855
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.7	0.0	0.0	8.3	0.0	9.1	22.4	24.0	24.1	23.8	23.2	23.2
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.1	0.1	1.1	1.3	1.2	0.6	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(50%),veh/ln	1.3	0.0	0.0	0.5	0.0	1.8	0.5	2.4	2.4	2.8	2.1	2.1
LnGrp Delay(d),s/veh	9.2	0.0	0.0	8.3	0.0	9.1	22.5	25.1	25.4	25.0	23.8	23.9
LnGrp LOS	A			A		A	C	C	C	C	C	C
Approach Vol, veh/h		133			248			335			448	
Approach Delay, s/veh		9.2			8.9			25.0			24.3	
Approach LOS		A			A			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.0		13.1		33.0		12.5				
Change Period (Y+Rc), s		5.0		4.6		5.0		4.6				
Max Green Setting (Gmax), s		28.0		29.4		28.0		28.4				
Max Q Clear Time (g_c+I1), s		4.9		7.5		6.1		7.0				
Green Ext Time (p_c), s		0.9		1.0		0.9		0.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				19.5								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary  
601: 4 Gee Rd & Project Driveway

02/15/2018

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	456	9	91	456	9	57		
Future Volume (veh/h)	456	9	91	456	9	57		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1900	1863		
Adj Flow Rate, veh/h	480	9	96	480	9	60		
Adj No. of Lanes	1	0	1	0	0	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	0	2	2	2	2		
Cap, veh/h	0	0	217	1083	260	1314		
Arrive On Green	0.00	0.00	0.80	0.80	0.80	0.80		
Sat Flow, veh/h	0	0	271	1353	98	1643		
Grp Volume(v), veh/h	0	0	0	576	69	0		
Grp Sat Flow(s),veh/h/ln	0	0	0	1624	1741	0		
Q Serve(g_s), s	0.0	0.0	0.0	2.5	0.0	0.0		
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.5	0.2	0.0		
Prop In Lane	0.00	0.00		0.83	0.13			
Lane Grp Cap(c), veh/h	0	0	0	1299	1574	0		
V/C Ratio(X)	0.00	0.00	0.00	0.44	0.04	0.00		
Avail Cap(c_a), veh/h	0	0	0	1299	1574	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.00	0.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.7	0.5	0.0		
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.1	0.1	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.4	0.1	0.0		
LnGrp Delay(d),s/veh	0.0	0.0	0.0	1.8	0.5	0.0		
LnGrp LOS				A	A			
Approach Vol, veh/h	0		576			69		
Approach Delay, s/veh	0.0		1.8			0.5		
Approach LOS			A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		22.5				22.5		0.0
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		18.0				18.0		18.0
Max Q Clear Time (g_c+I1), s		4.5				2.2		0.0
Green Ext Time (p_c), s		3.7				4.0		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			1.7					
HCM 2010 LOS			A					

























HCM 2010 Signalized Intersection Summary  
 602: Paseo Del Sur/4 Gee Rd & Camino Del Norte

02/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	667	47	217	563	445	32	18	102	435	24	66
Future Volume (veh/h)	110	667	47	217	563	445	32	18	102	435	24	66
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	116	702	49	228	593	468	34	19	107	458	25	69
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	1068	75	260	718	566	521	94	528	489	168	465
Arrive On Green	0.08	0.32	0.32	0.15	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1774	3357	234	1774	1885	1486	1297	244	1376	1260	439	1211
Grp Volume(v), veh/h	116	370	381	228	557	504	34	0	126	458	0	94
Grp Sat Flow(s),veh/h/ln	1774	1770	1821	1774	1770	1601	1297	0	1620	1260	0	1649
Q Serve(g_s), s	6.5	18.3	18.4	12.8	28.9	29.0	1.8	0.0	5.3	33.8	0.0	3.8
Cycle Q Clear(g_c), s	6.5	18.3	18.4	12.8	28.9	29.0	5.6	0.0	5.3	39.1	0.0	3.8
Prop In Lane	1.00		0.13	1.00		0.93	1.00		0.85	1.00		0.73
Lane Grp Cap(c), veh/h	150	563	580	260	674	610	521	0	622	489	0	633
V/C Ratio(X)	0.77	0.66	0.66	0.88	0.83	0.83	0.07	0.00	0.20	0.94	0.00	0.15
Avail Cap(c_a), veh/h	317	563	580	315	674	610	521	0	622	489	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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.6	29.9	29.9	42.6	28.4	28.5	22.3	0.0	20.9	35.5	0.0	20.5
Incr Delay (d2), s/veh	3.2	5.9	5.7	18.4	11.1	12.2	0.0	0.0	0.1	25.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	9.9	10.1	7.6	16.1	14.8	0.6	0.0	2.4	16.2	0.0	1.7
LnGrp Delay(d),s/veh	48.8	35.8	35.7	61.0	39.5	40.6	22.3	0.0	21.0	60.8	0.0	20.5
LnGrp LOS	D	D	D	E	D	D	C		C	E		C
Approach Vol, veh/h		867			1289			160			552	
Approach Delay, s/veh		37.5			43.7			21.3			53.9	
Approach LOS		D			D			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.4	38.4		44.0	13.0	44.8		44.0				
Change Period (Y+Rc), s	4.5	6.0		4.9	4.4	6.0		4.9				
Max Green Setting (Gmax), s	18.1	32.4		39.1	18.2	32.4		39.1				
Max Q Clear Time (g_c+I1), s	14.8	20.4		41.1	8.5	31.0		7.6				
Green Ext Time (p_c), s	0.1	11.4		0.0	0.1	1.4		1.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				42.6								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary  
 603: Lone Quail Rd/Rancho Bernardo Rd & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 						 	
Traffic Volume (veh/h)	207	951	39	13	929	48	37	38	25	89	35	275
Future Volume (veh/h)	207	951	39	13	929	48	37	38	25	89	35	275
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	218	1001	41	14	978	51	39	40	26	94	37	289
Adj No. of Lanes	1	2	0	2	2	0	1	1	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	1858	76	45	1385	72	49	189	123	120	387	346
Arrive On Green	0.14	0.54	0.54	0.01	0.40	0.40	0.03	0.18	0.18	0.07	0.22	0.22
Sat Flow, veh/h	1774	3465	142	3442	3422	178	1774	1056	686	1774	1770	1583
Grp Volume(v), veh/h	218	511	531	14	506	523	39	0	66	94	37	289
Grp Sat Flow(s),veh/h/ln	1774	1770	1838	1721	1770	1831	1774	0	1742	1774	1770	1583
Q Serve(g_s), s	10.8	17.0	17.0	0.4	21.5	21.5	2.0	0.0	2.9	4.7	1.5	15.8
Cycle Q Clear(g_c), s	10.8	17.0	17.0	0.4	21.5	21.5	2.0	0.0	2.9	4.7	1.5	15.8
Prop In Lane	1.00		0.08	1.00		0.10	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	256	949	985	45	716	741	49	0	311	120	387	346
V/C Ratio(X)	0.85	0.54	0.54	0.31	0.71	0.71	0.80	0.00	0.21	0.78	0.10	0.83
Avail Cap(c_a), veh/h	333	949	985	209	724	749	133	0	655	167	698	625
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	13.7	13.7	44.2	22.4	22.4	43.7	0.0	31.7	41.5	28.2	33.8
Incr Delay (d2), s/veh	15.8	2.2	2.1	4.6	2.6	2.6	28.5	0.0	0.3	16.5	0.1	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	8.8	9.1	0.2	11.1	11.4	1.4	0.0	1.4	2.9	0.8	7.4
LnGrp Delay(d),s/veh	53.6	15.9	15.8	48.8	25.1	25.0	72.2	0.0	32.1	58.0	28.3	39.1
LnGrp LOS	D	B	B	D	C	C	E		C	E	C	D
Approach Vol, veh/h		1260			1043			105			420	
Approach Delay, s/veh		22.4			25.4			47.0			42.4	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	54.5	6.0	24.8	17.1	42.6	9.6	21.2				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	5.5	48.5	6.8	35.7	17.0	37.0	8.5	34.0				
Max Q Clear Time (g_c+I1), s	2.4	19.0	4.0	17.8	12.8	23.5	6.7	4.9				
Green Ext Time (p_c), s	0.0	8.9	0.0	2.0	0.3	6.6	0.0	2.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			27.4									
HCM 2010 LOS			C									
























HCM 2010 Signalized Intersection Summary  
 604: 4S Ranch Pkwy & Camino Del Norte

02/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	934	22	26	861	132	23	68	33	99	52	118
Future Volume (veh/h)	120	934	22	26	861	132	23	68	33	99	52	118
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	126	983	23	27	906	139	24	72	35	104	55	124
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	2	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	161	1804	42	52	1589	711	48	242	206	177	79	178
Arrive On Green	0.09	0.51	0.51	0.03	0.45	0.45	0.03	0.13	0.13	0.05	0.15	0.15
Sat Flow, veh/h	1774	3535	83	1774	3539	1583	1774	1863	1583	3442	510	1150
Grp Volume(v), veh/h	126	492	514	27	906	139	24	72	35	104	0	179
Grp Sat Flow(s),veh/h/ln	1774	1770	1848	1774	1770	1583	1774	1863	1583	1721	0	1660
Q Serve(g_s), s	4.6	12.5	12.5	1.0	12.6	3.5	0.9	2.3	1.3	2.0	0.0	6.8
Cycle Q Clear(g_c), s	4.6	12.5	12.5	1.0	12.6	3.5	0.9	2.3	1.3	2.0	0.0	6.8
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	161	903	943	52	1589	711	48	242	206	177	0	257
V/C Ratio(X)	0.78	0.54	0.54	0.52	0.57	0.20	0.50	0.30	0.17	0.59	0.00	0.70
Avail Cap(c_a), veh/h	267	903	943	150	1589	711	160	869	739	311	0	775
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.5	11.0	11.0	31.8	13.6	11.1	31.9	26.1	25.7	30.8	0.0	26.6
Incr Delay (d2), s/veh	7.9	2.4	2.3	7.6	0.3	0.0	7.9	0.7	0.4	3.1	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.6	6.9	0.6	6.1	1.5	0.5	1.2	0.6	1.0	0.0	3.3
LnGrp Delay(d),s/veh	37.5	13.4	13.3	39.4	13.9	11.1	39.8	26.8	26.1	33.9	0.0	30.0
LnGrp LOS	D	B	B	D	B	B	D	C	C	C		C
Approach Vol, veh/h		1132			1072			131			283	
Approach Delay, s/veh		16.0			14.2			29.0			31.4	
Approach LOS		B			B			C			C	
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	39.9	5.3	15.3	10.0	35.8	6.9	13.6				
Change Period (Y+Rc), s	4.0	6.0	3.5	5.0	4.0	6.0	3.5	5.0				
Max Green Setting (Gmax), s	5.6	33.9	6.0	31.0	10.0	29.5	6.0	31.0				
Max Q Clear Time (g_c+I1), s	3.0	14.5	2.9	8.8	6.6	14.6	4.0	4.3				
Green Ext Time (p_c), s	0.0	5.8	0.0	1.5	0.1	5.3	0.0	1.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			17.6									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary  
 605: Dove Canyon Rd & Camino Del Norte



































02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	752	225	166	708	327	207	261	106	307	164	43
Future Volume (veh/h)	100	752	225	166	708	327	207	261	106	307	164	43
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	105	792	237	175	745	344	218	275	112	323	173	45
Adj No. of Lanes	1	3	0	2	3	1	1	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	1679	498	228	2143	667	141	534	239	274	422	107
Arrive On Green	0.08	0.43	0.43	0.07	0.42	0.42	0.08	0.15	0.15	0.08	0.15	0.15
Sat Flow, veh/h	1774	3894	1155	3442	5085	1583	1774	3539	1583	3442	2798	709
Grp Volume(v), veh/h	105	689	340	175	745	344	218	275	112	323	108	110
Grp Sat Flow(s),veh/h/ln	1774	1695	1659	1721	1695	1583	1774	1770	1583	1721	1770	1738
Q Serve(g_s), s	4.4	10.9	11.1	3.8	7.5	12.1	6.0	5.4	4.9	6.0	4.1	4.3
Cycle Q Clear(g_c), s	4.4	10.9	11.1	3.8	7.5	12.1	6.0	5.4	4.9	6.0	4.1	4.3
Prop In Lane	1.00		0.70	1.00		1.00	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	135	1462	715	228	2143	667	141	534	239	274	267	262
V/C Ratio(X)	0.78	0.47	0.48	0.77	0.35	0.52	1.54	0.51	0.47	1.18	0.40	0.42
Avail Cap(c_a), veh/h	212	1462	715	228	2143	667	141	1690	756	274	845	830
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	15.3	15.3	34.6	14.8	16.1	34.7	29.5	29.2	34.7	28.9	29.0
Incr Delay (d2), s/veh	11.0	1.1	2.3	14.9	0.4	2.8	276.7	0.9	1.7	111.8	1.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.3	5.5	2.3	3.6	5.7	13.8	2.7	2.2	7.1	2.1	2.2
LnGrp Delay(d),s/veh	45.2	16.4	17.6	49.5	15.2	18.9	311.4	30.4	31.0	146.5	30.1	30.3
LnGrp LOS	D	B	B	D	B	B	F	C	C	F	C	C
Approach Vol, veh/h		1134			1264			605			541	
Approach Delay, s/veh		19.4			21.0			131.8			99.6	
Approach LOS		B			C			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	39.0	10.0	16.9	10.2	38.3	10.0	16.9				
Change Period (Y+Rc), s	4.5	6.5	4.0	5.5	4.5	6.5	4.0	5.5				
Max Green Setting (Gmax), s	5.0	32.5	6.0	36.0	9.0	28.5	6.0	36.0				
Max Q Clear Time (g_c+I1), s	5.8	13.1	8.0	6.3	6.4	14.1	8.0	7.4				
Green Ext Time (p_c), s	0.0	8.1	0.0	4.0	0.1	7.0	0.0	4.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				51.4								
HCM 2010 LOS				D								



HCM 2010 Signalized Intersection Summary  
 606: Bernardo Center Dr & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 		 	 	
Traffic Volume (veh/h)	101	1376	29	170	1042	96	24	231	259	109	353	124
Future Volume (veh/h)	101	1376	29	170	1042	96	24	231	259	109	353	124
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	106	1448	31	179	1097	101	25	243	273	115	372	131
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	2053	639	228	2165	674	76	1180	528	162	1269	568
Arrive On Green	0.04	0.40	0.40	0.07	0.43	0.43	0.02	0.33	0.33	0.05	0.36	0.36
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	106	1448	31	179	1097	101	25	243	273	115	372	131
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	4.3	33.6	1.7	7.3	22.4	5.5	1.0	7.0	19.7	4.7	10.7	8.2
Cycle Q Clear(g_c), s	4.3	33.6	1.7	7.3	22.4	5.5	1.0	7.0	19.7	4.7	10.7	8.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	152	2053	639	228	2165	674	76	1180	528	162	1269	568
V/C Ratio(X)	0.70	0.71	0.05	0.79	0.51	0.15	0.33	0.21	0.52	0.71	0.29	0.23
Avail Cap(c_a), veh/h	233	2103	655	355	2286	712	136	1180	528	257	1269	568
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.8	35.2	25.7	65.2	29.8	25.0	68.3	33.8	38.1	66.6	32.6	31.8
Incr Delay (d2), s/veh	2.2	1.3	0.1	2.5	0.4	0.2	2.5	0.4	3.6	5.6	0.6	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	15.9	0.7	3.5	10.5	2.5	0.5	3.5	9.1	2.3	5.3	3.7
LnGrp Delay(d),s/veh	69.0	36.6	25.8	67.7	30.2	25.2	70.7	34.2	41.6	72.1	33.2	32.7
LnGrp LOS	E	D	C	E	C	C	E	C	D	E	C	C
Approach Vol, veh/h		1585			1377			541			618	
Approach Delay, s/veh		38.5			34.7			39.7			40.3	
Approach LOS		D			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	53.2	13.8	63.6	7.5	56.8	10.6	66.7				
Change Period (Y+Rc), s	4.4	6.0	4.4	6.4	4.4	* 6	4.4	* 6.4				
Max Green Setting (Gmax), s	10.6	45.0	14.6	58.6	5.6	* 51	9.6	* 64				
Max Q Clear Time (g_c+I1), s	6.7	21.7	9.3	35.6	3.0	12.7	6.3	24.4				
Green Ext Time (p_c), s	0.1	11.1	0.1	21.6	0.0	13.9	0.0	35.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			37.7									
HCM 2010 LOS			D									
<b>Notes</b>												

# HCM 2010 Signalized Intersection Summary

## 607: Paseo Montanoso & Camino Del Norte













02/15/2018

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↙	↑↑↑	↙	↗		
Traffic Volume (veh/h)	1784	14	108	1353	18	106		
Future Volume (veh/h)	1784	14	108	1353	18	106		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1878	15	114	1424	19	112		
Adj No. of Lanes	3	0	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	3447	28	144	4021	161	143		
Arrive On Green	0.66	0.66	0.08	0.79	0.09	0.09		
Sat Flow, veh/h	5372	42	1774	5253	1774	1583		
Grp Volume(v), veh/h	1223	670	114	1424	19	112		
Grp Sat Flow(s),veh/h/ln	1695	1855	1774	1695	1774	1583		
Q Serve(g_s), s	16.2	16.2	5.4	6.9	0.8	5.9		
Cycle Q Clear(g_c), s	16.2	16.2	5.4	6.9	0.8	5.9		
Prop In Lane		0.02	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2246	1229	144	4021	161	143		
V/C Ratio(X)	0.54	0.54	0.79	0.35	0.12	0.78		
Avail Cap(c_a), veh/h	2246	1229	271	4021	679	606		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	7.6	7.6	38.4	2.6	35.6	37.9		
Incr Delay (d2), s/veh	1.0	1.7	3.6	0.2	0.1	3.5		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	7.8	8.8	2.8	3.3	0.4	2.7		
LnGrp Delay(d),s/veh	8.5	9.3	42.0	2.8	35.7	41.3		
LnGrp LOS	A	A	D	A	D	D		
Approach Vol, veh/h	1893			1538	131			
Approach Delay, s/veh	8.8			5.7	40.5			
Approach LOS	A			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.9	62.5				73.4		11.7
Change Period (Y+Rc), s	4.0	6.1				6.1		4.0
Max Green Setting (Gmax), s	13.0	50.3				67.3		32.6
Max Q Clear Time (g_c+I1), s	7.4	18.2				8.9		7.9
Green Ext Time (p_c), s	0.1	31.6				56.7		0.2
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			8.7					
HCM 2010 LOS			A					

# HCM 2010 Signalized Intersection Summary



















## 608: I-15 SB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗↗	↘↘	↑↑↑					↖↖		↗↗
Traffic Volume (veh/h)	0	1120	740	187	1398	0	0	0	0	587	0	65
Future Volume (veh/h)	0	1120	740	187	1398	0	0	0	0	587	0	65
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1863	0	1863
Adj Flow Rate, veh/h	0	1179	779	197	1472	0				618	0	68
Adj No. of Lanes	0	4	2	2	3	0				2	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	3883	1689	246	3621	0				679	0	550
Arrive On Green	0.00	0.61	0.61	0.07	0.71	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	6669	2787	3442	5253	0				3442	0	2787
Grp Volume(v), veh/h	0	1179	779	197	1472	0				618	0	68
Grp Sat Flow(s),veh/h/ln	0	1602	1393	1721	1695	0				1721	0	1393
Q Serve(g_s), s	0.0	13.3	22.9	8.5	17.6	0.0				26.4	0.0	3.0
Cycle Q Clear(g_c), s	0.0	13.3	22.9	8.5	17.6	0.0				26.4	0.0	3.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3883	1689	246	3621	0				679	0	550
V/C Ratio(X)	0.00	0.30	0.46	0.80	0.41	0.00				0.91	0.00	0.12
Avail Cap(c_a), veh/h	0	3883	1689	546	3621	0				1168	0	946
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.79	0.79	0.82	0.82	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.3	16.2	68.6	8.8	0.0				58.9	0.0	49.5
Incr Delay (d2), s/veh	0.0	0.2	0.7	1.9	0.3	0.0				3.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.9	8.9	4.1	8.3	0.0				12.8	0.0	1.2
LnGrp Delay(d),s/veh	0.0	14.4	16.9	70.5	9.0	0.0				62.2	0.0	49.6
LnGrp LOS		B	B	E	A					E		D
Approach Vol, veh/h		1958			1669						686	
Approach Delay, s/veh		15.4			16.3						61.0	
Approach LOS		B			B						E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	15.9	98.4		35.7		114.3						
Change Period (Y+Rc), s	* 5.2	7.5		6.1		7.5						
Max Green Setting (Gmax), s	* 24	56.5		50.9		85.5						
Max Q Clear Time (g_c+I1), s	10.5	24.9		28.4		19.6						
Green Ext Time (p_c), s	0.3	19.6		1.2		27.6						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			23.0									
HCM 2010 LOS			C									
<b>Notes</b>												




















HCM 2010 Signalized Intersection Summary  
 609: I-15 NB Ramps & Camino Del Norte

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	1582	0	0	782	591	786	0	187	0	0	0
Future Volume (veh/h)	123	1582	0	0	782	591	786	0	187	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	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			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	129	1665	0	0	823	622	827	0	197			
Adj No. of Lanes	2	3	0	0	4	2	2	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	173	3300	0	0	3615	1572	896	0	726			
Arrive On Green	0.10	1.00	0.00	0.00	0.56	0.56	0.26	0.00	0.26			
Sat Flow, veh/h	3442	5253	0	0	6669	2787	3442	0	2787			
Grp Volume(v), veh/h	129	1665	0	0	823	622	827	0	197			
Grp Sat Flow(s),veh/h/ln	1721	1695	0	0	1602	1393	1721	0	1393			
Q Serve(g_s), s	5.5	0.0	0.0	0.0	9.6	18.8	35.1	0.0	8.4			
Cycle Q Clear(g_c), s	5.5	0.0	0.0	0.0	9.6	18.8	35.1	0.0	8.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	173	3300	0	0	3615	1572	896	0	726			
V/C Ratio(X)	0.75	0.50	0.00	0.00	0.23	0.40	0.92	0.00	0.27			
Avail Cap(c_a), veh/h	317	3300	0	0	3615	1572	1374	0	1113			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.86	0.86	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	66.5	0.0	0.0	0.0	16.4	18.3	54.0	0.0	44.1			
Incr Delay (d2), s/veh	2.1	0.5	0.0	0.0	0.1	0.7	5.5	0.0	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.6	0.1	0.0	0.0	4.3	7.3	17.3	0.0	3.3			
LnGrp Delay(d),s/veh	68.6	0.5	0.0	0.0	16.5	19.1	59.5	0.0	44.2			
LnGrp LOS	E	A			B	B	E		D			
Approach Vol, veh/h		1794			1445			1024				
Approach Delay, s/veh		5.4			17.6			56.6				
Approach LOS		A			B			E				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		104.8			12.7	92.1		45.2				
Change Period (Y+Rc), s		7.5			* 5.2	7.5		6.1				
Max Green Setting (Gmax), s		76.5			* 14	57.5		59.9				
Max Q Clear Time (g_c+I1), s		2.0			7.5	20.8		37.1				
Green Ext Time (p_c), s		24.2			0.1	19.1		2.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				21.8								
HCM 2010 LOS				C								
<b>Notes</b>												

HCM 2010 Signalized Intersection Summary  
 610: Dove Canyon Rd & Lone Quail Rd

02/15/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	27	17	41	14	182	27	314	78	171	295	68
Future Volume (veh/h)	80	27	17	41	14	182	27	314	78	171	295	68
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	84	28	18	43	15	192	28	331	82	180	311	72
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	464	151	84	585	190	712	292	465	114	280	452	103
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	821	335	186	1077	422	1583	1774	2821	689	1774	2863	654
Grp Volume(v), veh/h	130	0	0	58	0	192	28	206	207	180	191	192
Grp Sat Flow(s),veh/h/ln	1342	0	0	1499	0	1583	1774	1770	1741	1774	1770	1747
Q Serve(g_s), s	2.2	0.0	0.0	0.0	0.0	4.7	0.8	6.9	7.0	5.9	6.3	6.5
Cycle Q Clear(g_c), s	3.3	0.0	0.0	1.1	0.0	4.7	0.8	6.9	7.0	5.9	6.3	6.5
Prop In Lane	0.65		0.14	0.74		1.00	1.00		0.40	1.00		0.37
Lane Grp Cap(c), veh/h	698	0	0	774	0	712	292	292	287	280	279	276
V/C Ratio(X)	0.19	0.00	0.00	0.07	0.00	0.27	0.10	0.71	0.72	0.64	0.68	0.70
Avail Cap(c_a), veh/h	698	0	0	774	0	712	809	807	794	837	835	825
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	0.0	0.0	9.7	0.0	10.7	22.1	24.6	24.7	24.6	24.8	24.8
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.0	0.0	0.1	0.1	1.2	1.3	0.9	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.0	0.6	0.0	2.0	0.4	3.4	3.4	3.0	3.2	3.2
LnGrp Delay(d),s/veh	10.9	0.0	0.0	9.8	0.0	10.8	22.1	25.8	26.0	25.5	25.9	26.0
LnGrp LOS	B			A		B	C	C	C	C	C	C
Approach Vol, veh/h		130			250			441			563	
Approach Delay, s/veh		10.9			10.6			25.6			25.8	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.0		14.4		33.0		14.9				
Change Period (Y+Rc), s		5.0		4.6		5.0		4.6				
Max Green Setting (Gmax), s		28.0		29.4		28.0		28.4				
Max Q Clear Time (g_c+I1), s		5.3		8.5		6.7		9.0				
Green Ext Time (p_c), s		0.9		1.3		0.9		1.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				21.6								
HCM 2010 LOS				C								



## **SIGNAL TIMING SHEETS**

INTERSECTION: CAMINO DEL SUR & FOUR GEE RD

Group Assignment:  
Field Master Assignment:  
System Reference Number:

N/S Street: Four Gee Rd / PASEO DEL SUR Last Database Change:  
E/W Street: Camino del Sur

Timing sheets by: JMV

Approved by:

Timing implemented on: 4/3/2013 TO



Camino del Sur Four Gee Rd Camino del Sur

Phase Numbers-->	Phase							
	1	2	3	4	5	6	7	8
Row								
0	Ped Walk	7		7		7		7
1	Ped FDW	9	<del>25</del> <del>26</del>			9	<del>25</del> <del>26</del>	
2	Min Green	4	7	4	4	7		4
3	Type 3 Disconnect							
4	Added per Vehicle		encl 5/22/13					
5	Veh Extension	2.0	<del>5.5</del> 6.6	2.0	2.0	<del>5.2</del> 6.6		2.0
6	Max Gap	2.0	<del>5.5</del> 6.6	2.0	2.0	<del>5.2</del> 6.6		2.0
7	Min Gap	2.0	0.2	2.0	2.0	0.2		2.0
8	Max Limit	30	60	40	30	60		30
9	Max Limit 2							
A	Adv. / Delay Walk							
B	PE Min Ped FDW							
C	Cond Serv Check							
D	Reduce Every		<del>0.6</del> 0.5			<del>0.6</del> 0.5		
E	Yellow Change	3.4	5.0	3.9	3.4	<del>5.0</del> 5.1		3.9
F	Red Clear	1.0	1.0	1.0	1.0	1.0		1.0

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

	F	Row
Permit	12_456_8	0
Red Lock		1
Yellow Lock		2
Min Recall		3
Ped Recall		4
View Set Peds		5
Rest In Walk		6
Red Rest		7
Double Entry	-4-8	8
Max Recall		9
Soft Recall	2_6	A
Max 2		B
Cond. Service		C
Man Cntrl Calls		D
Yellow Start	2_6	E
First Phases	4_8	F

Phase Timing - Bank 1

<F/1+Phase+Row> ③ AL3 7/27/16

Preempt Timing <F/1+E+Row>

Phase Functions <F/1+F+Row>

Current Calculated Cycle Length: C/0 + B + F

	g	A	B	C	D
Phase 1	---	---	---	---	---
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

Free Lag 2 4 6 8 <C/1+F+0>

How to Set Page Access Code:  
F/1 -- C + 0 + F = 1  
F + 9 + E = 1

Drop Number		<C/0+0+0>
Zone Number		<C/0+0+1>
Area Number		<C/0+0+2>
Area Address		<C/0+0+3>
QuicNet Channel		(QuicNet)

Communication Addresses

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>

Start / Revert Times

Notes: 33870-51-D

(Outputs specified in Assignable Outputs at E/127+A+E & F)

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase

Manual Plan	14	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Row	Detector Name	0	1	2	3	1	3
		C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-Over
0	2I2U	39					1.8
1	6J2U	40					1.8
2	4I6U	41					
3	8J6U	42					
4	2I2L	43					1.8
5	6J2L	44					1.8
6	4I6L	45				15.0	
7	8J6L	46					
8	2I4	47					
9	6J4	48					
A	4I8	49					
B	8J8	50					
C	5J1U	55					
D	1I1U	56					
E	7J5	57					
F	3I5	58					

Program Type:

	Ped / Phase / Overlap								Row
	1	2	3	4	5	6	7	8	
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Row	Detector Name	4	5	6	7	2	4
		C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-Over
0	5J9U	59					
1	1I9U	60					
2	7J9L	61					
3	3I9L	62					
4	2I3U	63					1.8
5	6J3U	64					1.8
6	4I7U	65					
7	8J7U	66					
8	2 PPB	67					
9	6 PPB	68					
A	4 PPB	69					
B	8 PPB	70					
C	2I3L	76					
D	6J3L	77					
E	4I7L	78					
F	8J7L	79					

Detector Attributes

- 1 = Full Time Delay
- 2 = Ped Call
- 3 =
- 4 = Count
- 5 = Extension
- 6 = Type 3
- 7 = Calling
- 8 = Alternate

Det. Assignments

- 1 = Det. Set 1
- 2 = Det. Set 2
- 3 = Det. Set 3
- 4 =
- 5 =
- 6 = Failure - Min Recall
- 7 = Failure - Max Recall
- 8 = Report on Failure

Detector Assignments <E/126+Column+Row> <D/0+Column+Row>

Cabinet Type	30
--------------	----

<E/125+D+0>

Enable Redirection

(Enable Redirection = 30)

Max OFF (minutes)	20
-------------------	----

<D/0+0+1>

Max ON (minutes)	60
------------------	----

<D/0+0+2>

Detector Failure Monitor

	D	Row
		0
Output Port 1		1
Output Port 2		2
Output Port 3		3
Output Port 4		4
Output Port 5		5
Output Port 6		6
Output Port 7		7

Dimming <E/125+D+Row>

	D
Number of Digits	
1 st Digit	
2 ed Digit	
3 ed Digit	
4 th Digit	
5 th Digit	
6 th Digit	
7 th Digit	
8 th Digit	
9 th Digit	
10 th Digit	
11 th Digit	
12 th Digit	
13 th Digit	
14 th Digit	
15 th Digit	

Dial-Back Telephone Number <C/5+D+Row>

Disable Alarms

- 1 = Stop Time
- 2 = Flash Sense
- 3 = Keyboard Entry
- 4 = Manual Plan
- 5 = Police Control
- 6 = External Alarm
- 7 = Detector Failure
- 8 =

	B	Row
DELAY-A	1	A
DELAY-B	1	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

<D/0+B+Row> (seconds)

Delay Logic Times

Omit Alarm	#NAME?
------------	--------

<C/5+F+0>

Disable Alarm Reporting

Time	0	<C/5+C+0>
------	---	-----------

Redial Time (minutes)

(View Redial Timer at E/2+D+6)



		Overlap							
		1	2	3	4	5	6	7	8
Row									
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8									
9									
A									
B									
C									
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

		F	Row
	Fast Green Flash Phase		0
	Green Flash Phases		1
	Flashing Walk Phases		2
	Guaranteed Passage		3
	Simultaneous Gap Term		4
	Sequential Timing		5
	Advance Walk Phases		6
	Delay Walk Phases		7
	External Recall		8
	Start-up Overlap Green		9
	Max Extension		A
	Inhibit Ped Reservice		B
	Semi-Actuated		C
	Start-up Overlap Yellow		D
	Start-up Vehicle Calls		E
	Start-up Ped Calls		F

Specials <F/2+F+Row>

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4
C	EV-C Phases	1 6
D	EV-D Phases	8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

Row		F
	Ext. Permit 1 Phases	
	Ext. Permit 2 Phases	
	Exclusive Ped Assign	
	Preempt Non-Lock	12345678
	Ped for 2P Output	2
	Ped for 6P Output	6
	Ped for 4P Output	4
	Ped for 8P Output	8
	Yellow Flash Phases	
	Low Priority A Phases	
	Low Priority B Phases	
	Low Priority C Phases	
	Low Priority D Phases	
	Restricted Phases	
	Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

Row		C
	EV-A	
	EV-B	
	EV-C	
	EV-D	
	RR-1 *	---
	RR-2 *	---
	SE-1	0
	SE-2	0

<E/125+C+Row>

Preemption Priority (\* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
A	
B	
C	
D	
E	
F	

Row		2	Row
	Phase 1	0	0
	Phase 2	0	1
	Phase 3	0	2
	Phase 4	0	3
	Phase 5	0	4
	Phase 6	0	5
	Phase 7	0	6
	Phase 8	0	7
			8
			9
			A
			B
			C
			D
			E
			F

<C/5+2+Row>

Coordination Transition Minimums

- Extra 1 Flags**  
 1 = TBC Type 1  
 2 = NEMA Ext. Coord  
 3 = Auto Daylight Savings  
 4 = EV Advance  
 5 = Extended Status  
 6 = International Ped  
 7 = Flash - Clear Outputs  
 8 = Split Ring
- IC Select Flags**  
 1 =  
 2 = Modem  
 3 = 7-Wire Slave  
 4 = Flash / Free  
 5 =  
 6 = Simplex Master  
 7 = 7-Wire Master  
 8 = Offset Interrupter

- Extra 2 Flags**  
 1 = AWB During Initial  
 2 = LMU Installed  
 3 = Disable Min Walk  
 4 = QuicNet/4 System  
 5 = Ignore P/P on EV  
 6 =  
 7 = Reserved  
 8 =
- Flash to PE & PE Non-Lock**  
 1 = EV A 5 = RR 1  
 2 = EV B 6 = RR 2  
 3 = EV C 7 = SE 1  
 4 = EV D 8 = SE 2

8-0 Hour, Minute, Day-of-Week  
 8-1 Day-of-Month, Year, Month  
 8-F Seconds

Time and Date

Begin Month	0	<C/5+2+A>
Begin Week	0	<C/5+2+B>
End Month	0	<C/5+2+C>
End Week	0	<C/5+2+D>

Daylight Savings Time

Daylight Savings Date:  
 If set to all zeros, standard dates will be used.

Row	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Spec. Funct. 1	NOT-3	Max 2	Pretimed	Set Monday	Dial 2 (7-Wire)	Sim Term	0
1	Spec. Funct. 2	NOT-4	System Det 1	Plan 1	Ext. Perm 1	Dial 3 (7-Wire)	EV-A	1
2	Spec. Funct. 3	OR-4 (a)	System Det 2	Plan 2	Ext. Perm 2	Offset 1 (7-Wire)	EV-B	2
3	Spec. Funct. 4	OR-4 (b)	System Det 3	Plan 3	Dimming	Offset 2 (7-Wire)	EV-C	3
4	NAND-3 (a)	OR-5 (a)	System Det 4	Plan 4	Set Clock	Offset 3 (7-Wire)	EV-D	4
5	NAND-3 (b)	OR-5 (b)	System Det 5	Plan 5	Stop Time	Free (7-Wire)	RR-1	5
6	NAND-4 (a)	OR-6 (a)	System Det 6	Plan 6	Flash Sense	81 Flash (7-Wire)	RR-2	6
7	NAND-4 (b)	OR-6 (b)	System Det 7	Plan 7	Manual Enable	Excl. Ped Omit	Spec. Event 1	7
8	OR-7 (a)	Fig 3 Diamond	System Det 8	Plan 8	Man. Advance	NOT-1	Spec. Event 2	8
9	OR-7 (b)	Fig 4 Diamond	Max Inhibit (nema)	Plan 9	External Alarm	NOT-2	External Lag	9
A	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2	OR-1 (a)	AND-1 (a)	A
B	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3	OR-1 (b)	AND-1 (b)	B
C	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2	OR-2 (a)	AND-2 (a)	C
D	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3	OR-2 (b)	AND-2 (b)	D
E	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2	OR-3 (a)	AND-3 (a)	E
F	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3	OR-3 (b)	AND-3 (b)	F

Assignable Inputs

<E/126+Column+Row>

Row	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Phase ON - 4	Sp Evnt Out 3	Fig 3 Diamond	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Phase ON - 5	Sp Evnt Out 4	Fig 4 Diamond	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Phase ON - 6	Sp Evnt Out 5		Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Phase ON - 7	Sp Evnt Out 6		Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Phase ON - 8	Sp Evnt Out 7		Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Ph. Check - 2		NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C		C
D	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D		D
E	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E		E
F	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F		F

Assignable Outputs

<E/127+Column+Row>

**INTERSECTION: Cam Del Norte @ Lone Quail Rd 75**

QuicNet System Parameters

Group Assignment: **NONE**  
 Field Master Assignment: **NONE**  
 System Reference Number: **55**  
 Communications Channel: **COM1:**  
 Drop Address: **15**  
 Area Number: **2**  
 Area Address: **36**

N/S Street Name: **Lone Quail Rd**  
 E/W Street Name: **Cam Del Norte**

Last QuicNet Database Change: 11/3/2016 10:57

Notes:

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\_\_\_\_\_

Field Change Record					
Change	By	Date	Change	By	Date

Excl Ped Assignment	_____
Exclusive Walk	0
Exclusive FDW	0
All Red Clear	0.0

Note: Set the Exclusive Ped Outputs on the "Outputs / General" page

Walk Output	0
Don't Walk Output	0

**Exclusive Ped Phase**

	Phase							
	1	2	3	4	5	6	7	8
Min Green	4	6	4	5	4	6	4	4
Extension	3.5	2.0	3.5	3.0	3.5	2.0	3.5	3.0
Max	25	50	20	45	30	40	17	25
Max 2	0	0	0	0	0	0	0	0
Cond Serve Check	0	0	0	0	0	0	0	0

	Phase							
	1	2	3	4	5	6	7	8
Yellow Change	3.5	5.0	3.0	4.0	3.5	5.0	3.0	4.0
Red Clear	0.5	1.0	0.5	1.0	0.5	1.0	0.5	1.0

	Phase							
	1	2	3	4	5	6	7	8
Walk	0	7	0	7	0	7	0	7
Ped Clear - FDW	0	17	0	27	0	20	0	27
Adv / Delay Walk	0	0	0	0	0	0	0	0
PE Min Ped FDW	0	0	0	0	0	0	0	0

	Phase							
	1	2	3	4	5	6	7	8
Type 3 Disconnect	0	0	0	0	0	0	0	0
Added per Vehicle	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Added Initial	0	0	0	0	0	0	0	0
Min Gap	3.5	1.0	3.5	3.0	3.5	1.0	3.5	3.0
Max Gap	3.5	2.0	3.5	3.0	3.5	2.0	3.5	3.0
Reduce Every	0.0	8.0	0.0	0.0	0.0	8.0	0.0	0.0

**Phase Timing - Bank 1**

	Phase							
	1	2	3	4	5	6	7	8
Alternate Walk	0	0	0	0	0	0	0	0
Alternate Ped Clear	0	0	0	0	0	0	0	0
Alternate Minimum	0	0	0	0	0	0	0	0
Alternate Extension	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Alternate Timing - Bank 1**

Red Lock	_____
Yellow Lock	_____
Simultaneous Gap	_____
Rest In Walk	_____
Advance Walk	_____
Flashing Walk	_____
Max Extension	_____

Red Rest	_____
Dual Entry	_____
Sequential Timing	_____
Inhibit Ped Reservice	_____
Semi-Actuated	_____
Guaranteed Passage	_____
Conditional Service	_____

**Phase Functions - Page 1**

Minimum Recall	<u>  2  6  </u>
Ped Recall	_____
Maximum Recall	_____
Green Flash	_____
Overlap Green Flash	_____

Soft Recall	_____
External Recall	_____
Manual Control Calls	_____
Fast Green Flash	_____
Fast Overlap G. Flash	_____

**Phase Functions - Page 2**

**INTERSECTION: Cam Del Norte @ 4S Ranch Pkwy750**

QuicNet  
System  
Parameters

Group Assignment: **NONE**  
 Field Master Assignment: **NONE**  
 System Reference Number: **299**  
 Communications Channel: **COM1:**  
 Drop Address: **14**  
 Area Number: **2**  
 Area Address: **35**

N/S Street Name: **4S Ranch Pkwy**  
 E/W Street Name: **Cam Del Norte**

Last QuicNet Database Change: **7/25/2012 14:05**

Notes:

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Field Change Record					
Change	By	Date	Change	By	Date

Excl Ped Assignment	
Exclusive Walk	<b>0</b>
Exclusive FDW	<b>0</b>
All Red Clear	<b>0.0</b>

Note: Set the Exclusive Ped Outputs on the "Outputs / General" page

Walk Output	<b>0</b>
Don't Walk Output	<b>0</b>

**Exclusive Ped Phase**

	Phase							
	1	2	3	4	5	6	7	8
<b>Basic Phase Timing</b>								
Min Green	<b>5</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>5</b>
Extension	<b>3.0</b>	<b>1.5</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>1.5</b>	<b>3.0</b>	<b>3.0</b>
Max	<b>17</b>	<b>40</b>	<b>17</b>	<b>20</b>	<b>17</b>	<b>40</b>	<b>20</b>	<b>40</b>
Max 2	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Cond Serve Check	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Clear</b>								
Yellow Change	<b>3.5</b>	<b>5.0</b>	<b>3.0</b>	<b>4.0</b>	<b>3.5</b>	<b>5.0</b>	<b>3.0</b>	<b>4.0</b>
Red Clear	<b>0.5</b>	<b>1.0</b>	<b>0.5</b>	<b>1.0</b>	<b>0.5</b>	<b>1.0</b>	<b>0.5</b>	<b>1.0</b>
<b>Pedestrian Timing</b>								
Walk	<b>0</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>7</b>
Ped Clear - FDW	<b>0</b>	<b>14</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>24</b>
Adv / Delay Walk	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
PE Min Ped FDW	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Volume Density</b>								
Type 3 Disconnect	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Added per Vehicle	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Max Added Initial	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Min Gap	<b>3.0</b>	<b>1.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>1.0</b>	<b>3.0</b>	<b>3.0</b>
Max Gap	<b>3.0</b>	<b>1.5</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>1.5</b>	<b>3.0</b>	<b>3.0</b>
Reduce Every	<b>0.0</b>	<b>8.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>8.0</b>	<b>0.0</b>	<b>0.0</b>

**Phase Timing - Bank 1**

	Phase							
	1	2	3	4	5	6	7	8
Alternate Walk	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Alternate Ped Clear	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Alternate Minimum	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Alternate Extension	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**Alternate Timing - Bank 1**

Red Lock	_____
Yellow Lock	_____
Simultaneous Gap	_____
Rest In Walk	_____
Advance Walk	_____
Flashing Walk	_____
Max Extension	_____

Red Rest	_____
Dual Entry	_____
Sequential Timing	_____
Inhibit Ped Reservice	_____
Semi-Actuated	_____
Guaranteed Passage	_____
Conditional Service	_____

**Phase Functions - Page 1**

Minimum Recall	<b>2</b> <b>6</b>
Ped Recall	_____
Maximum Recall	_____
Green Flash	_____
Overlap Green Flash	_____

Soft Recall	_____
External Recall	_____
Manual Control Calls	_____
Fast Green Flash	_____
Fast Overlap G. Flash	_____

**Phase Functions - Page 2**

Group Assignment: **NONE**

N/S Street Name: **Dove Canyon Rd**

Last Database Change: **3/1/2007 8:52**

Field Master Assignment: **NONE**

E/W Street Name: **Cam Del Norte**

System Reference Number: **145**

Change Record					
Change	By	Date	Change	By	Date

Notes:

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Drop Number	0	<C+0+0>
Zone Number	0	<C+0+1>
Area Number	0	<C+0+2>
Area Address	0	<C+0+3>
QuicNet Channel	COM1:	(QuicNet)

Manual Plan	14	<C+A+1>
Manual Offset	0	<C+B+1>

Max Initial	20	<F+0+E>
Red Revert	5.0	<F+0+F>
All Red Start	5.0	<F+C+0>

**Communication Addresses**

**Manual Selection**

**Start / Revert Times**

		Phase							
Column Numbers →		1	2	3	4	5	6	7	8
Row	Phase Names →								
0	Ped Walk	0	5	0	5	0	5	0	5
1	Ped FDW	0	27	0	28	0	21	0	31
2	Min Green	5	5	5	5	5	5	5	5
3	Type 3 Limit	0	0	0	0	0	0	0	0
4	Added Initial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	Veh Extension	3.5	2.0	3.0	3.5	3.5	2.0	3.0	3.5
6	Max Gap	3.5	2.0	3.0	3.5	3.5	2.0	3.0	3.5
7	Min Gap	3.5	1.0	3.0	3.5	3.5	1.0	3.0	3.5
8	Max Limit	25	40	17	40	17	40	17	40
9	Max Limit 2	0	0	0	0	0	0	0	0
A		0	0	0	0	0	0	0	0
B	Call To Phase	0	0	0	0	0	0	0	0
C	Reduce By	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0
D	Reduce Every	0.0	8.0	0.0	0.0	0.0	8.0	0.0	0.0
E	Yellow Change	3.5	5.0	3.0	4.0	3.5	5.0	3.0	4.0
F	Red Clear	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5

Phase Timing - Bank 1 <F Page>

		E	F	Row
RR-1 Delay	0			0
RR-1 Clear	0			1
EV-A Delay	0			2
EV-A Clear	1			3
EV-B Delay	0			4
EV-B Clear	1			5
EV-C Delay	0			6
EV-C Clear	1			7
EV-D Delay	0			8
EV-D Clear	1			9
RR-2 Delay	0			A
RR-2 Clear	0			B
View EV Delay	---			C
View EV Clear	---			D
View RR Delay	---			E
View RR Clear	---			F
Permit	12345678			
Red Lock				
Yellow Lock	3 5 7			
Min Recall	2 6			
Ped Recall				
View Set Peds	2 4 6 8			
Rest In Walk				
Red Rest				
Dual Entry	2 6			
Max Recall				
Soft Recall				
Max 2				
Cond. Service				
Man Cntrl Calls				
Yellow Start	2 6			
First Phases	4 8			

Preempt Timing Phase Functions <F Page>

Manual Plan  
 0 = Automatic  
 1-9 = Plan 1-9  
 14 = Free  
 15 = Flash

Manual Offset  
 0 = Automatic  
 1 = Offset A  
 2 = Offset B  
 3 = Offset C

# INTERSECTION: Bernardo Cnt Dr @ Camino Del Norte

Group Assignment:  
Field Master Assignment:

N/S Street Name: Bernardo Cnt Dr  
E/W Street Name: Camino Del Norte

Last Database Change:  
System Ref. Number:



Row	Column # →	Phase							
	Phase # →	1	2	3	4	5	6	7	8
0	Ped Walk				7		7		7
1	Ped FDW				33		38		33
2	Min Green	4	7	4	10	4	7	4	10
3	Type 3 Limit								
4	Add/Veh								
5	Veh Ext n	2.0	5.4	2.0	4.8	2.0	5.9	2.0	4.9
6	Max Gap	2.0	5.4	2.0	4.8	2.0	5.9	2.0	4.9
7	Min Gap	2.0	0.2	2.0	0.2	2.0	0.2	2.0	0.2
8	Max Limit	60	40	30	60	30	40	30	60
9	Max Limit 2	60		30			40	30	60
A	Bus Adv								
B	Call to Phs								
C	Reduce By		0.1		0.1		0.1		0.1
D	Every		0.6		0.7		0.5		0.6
E	Yellow	3.4	5.0	3.4	5.4	3.4	4.2	3.4	5.3
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Grade								

Phase Timing - Bank 1

F + Phase + Row

<F Page>

Row	E	F	Row
0	RR-1 Delay	Permit	0
1	RR-1 Clear	Red Lock	1
2	EV-A Delay	Yellow Lock	2
3	EV-A Clear	Min Recall	3
4	EV-B Delay	Ped Recall	4
5	EV-B Clear	Peds (View)	5
6	EV-C Delay	Resl In Walk	6
7	EV-C Clear	Red Rest	7
8	EV-D Delay	DbI Entry	8
9	EV-D Clear	Max Recall	9
A	RR-2 Delay	Soft Recall	A
B	RR-2 Clear	Max 2	B
C	View EV Delay	Cond Serv	C
D	View EV Clear	Ped Lock	D
E	View RR Delay	Yellow Start	E
F	View RR Clear	1st Phases	F

Preempt Timing

F + E + Row

Phase Functions <F Page>

F + F + Row

Max Initial	0	F + 0 + E
Red Revert	5.0	F + 0 + F
All Red Start	0.0	F + C + 0

Start / Revert Times

Drop Number		C + 0 + 0
Zone Number		C + 0 + 1
Area Number		C + 0 + 2
Area Address		C + 0 + 3
QuicNet Channel		(QuicNet)

Communication Addresses

C + F + 0	F	Row
Free Lag	2 4 6 8	0

Lag Phases <C Page>

Overlap Timing

Row	Green Clear	Yellow Change	Red Clear	Load-Switch #
Overlap A	A			
Overlap B	B			
Overlap C	C			
Overlap D	D			

<F Page>

F + COLOR +

<D Page>

D + 0 + OVERLAP

DowntimeFlash	255	(minutes)
Downtime Before Auto Manual Flash		F + 0 + 8

Disable Ports	234
Disable Communication Ports	D + D + 9

Manual Plan	14	C + A + 1
Manual Offset	0	C + B + 1

Manual Selection

Manual Plan  
0 = Automatic  
1-9 = Plan 1-9  
14 = Free  
15 = Flash

Manual Offset  
0 = Automatic  
1 = Offset A  
2 = Offset B  
3 = Offset C

Timing Sheet By: rej

Approved By:

Drawing Number: 31963-28-D

Timing Implemented On: 3/25/2004

Row	Time	Function	Day of Week	Column F Phases/Bits
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function

7 + ROW

<D Page>

D + F + ROW

**T.O.D. Functions**  
 0 = Permitted Phases  
 1 = Red Lock  
 2 = Yellow Lock  
 3 = Veh Min Recall  
 4 = Ped Recall  
 5 =  
 6 = Rest In Walk  
 7 = Red Rest  
 8 = Double Entry  
 9 = Veh Max Recall  
 A = Veh Soft Recall  
 B = Maximum 2  
 C = Conditional Service  
 D = Free Lag Phases  
 E = Bit 1 - Local Override  
     Bit 2 - Phase Bank 2  
     Bit 3 - Phase Bank 3  
     Bit 4 - Disable Detector  
         OFF Monitor  
     Bit 7 - Detector Count Monitor  
     Bit 8 - Real Time Split Monitor  
 F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	<u>  2  </u>
6	Ped 6P	<u>    6    </u>
7	Ped 4P	<u>    4    </u>
8	Ped 8P	<u>    8    </u>
9	Yellow Flash Phases	
A	Overlap A - Phases	<u>  1  8  </u>
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	<u>  1    </u>

Configuration

E + F + ROW

<E Page>

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	<u>    8    </u>
6	Overlap B - Green Omit	
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	<u>  2  5  </u>
B	EV-B Phases	<u>    4  7  </u>
C	EV-C Phases	<u>  1  6  </u>
D	EV-D Phases	<u>    3  8  </u>
E	Extra 1 Config. Bits	<u>  1  345  </u>
F	IC Select (Interconnect)	<u>  2    </u>

Configuration

E + E + ROW

For access, set F + 9 + E = 1

**Extra 1 Flags**  
 1 = TBC Type 1  
 2 = NEMA Ext. Coord  
 3 = Auto Daylight Savings  
 4 = EV Advance  
 5 = Remote Download  
 6 = Special Event  
 7 = Prelimed Operallon  
 8 = Split Ring Operallon

**IC Select Flags**  
 1 =  
 2 = Modem  
 3 = 7-Wire Slave  
 4 = Flash / Free  
 5 =  
 6 = Simplex Master  
 7 = 7-Wire Master  
 8 = Offset Interrupter

**Day of Week**

- 1 = Sunday
- 2 = Monday
- 3 = Tuesday
- 4 = Wednesday
- 5 = Thursday
- 6 = Friday
- 7 = Saturday

**Assign 5 Outputs.**  
 1 = Right Turn Overlap  
 2 = TOD Outputs  
 3 = EV Beacon - Steady  
 4 = EV Beacon - Flashing  
 5 = Special Event Outputs  
 6 = Phase 3 & 7 Ped  
 7 = Advanced Warning Sign  
 8 =

**Time and Date**

- 8-0 Hour, Minute, Day-of-Week
- 8-1 Day-of-Month, Year, Month
- 8-F Seconds

Disable Parity	<u>  0  </u>	D+B+0
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**Dial-Up Telephone Communications**  
 (If set to a non-zero value, parity will be disabled)

**Program Information**

- C + C + 0 = program
- C + C + F = version

**Remote Download**

- C + 0 + 4 = 1-255
- w/ E + E + E bit 5 on

Row	1 Delay	3 Carry-over
0		
1		1.8
2		
3	10.0	
4		
5		
6		
7		1.8
8		1.8
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	111	14
	212U	1
	212L	5
	213U	21
	213L	25
	214	9
	315	16
	416U	3
	416L	7
	417U	23
	417L	27
	418	11
	119U	18
	319L	20
	---	---
	---	---

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 - - - -	1234
C	13 14 15 16 17 18 19 20	12345678
D	- - - - 21 22 23 24	5678
E	- - - - - - - -	1234
F	- 25 26 27 28 - - - -	2345

Active Detectors <D Page>

Row	2 Delay	4 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		1.8
8		1.8
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
	---	---
	---	---

Row	Detector #
0	
1	System Det. # 1
2	System Det. # 2
3	System Det. # 3
4	System Det. # 4
5	System Det. # 5
6	System Det. # 6
7	System Det. # 7
8	System Det. # 8

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number		F+C+1
Time Before Yellow		F+C+3

Advance Warning Beacon - Sign 1

Phase Number		F+D+1
Time Before Yellow		F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

Detector Delay & Carryover <D Page>

D + X (across) + ROW



INT SECTION: CAMINO DEL NORTE AT PASEO MONTANO

Group Assignment:  
Field Master Assignment: None

N/S Street: PASEO MONTANOSO  
E/W Street Name: CAMINO DEL NORTE

Last Change:  
Timing Sheet By: RIA  
Approved By: DRH

Drawing Number: 31238  
System Ref. Number:  
Timing implemented on: 8/30/2002

Row	Phase #	Phase							
		1	2	3	4	5	6	7	8
0	Ped Walk		7						7
1	Ped FDW		10						25
2	Min Green	4	10				10		4
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.0	5.3				5.3		2.0
6	Max Gap	2.0	5.3				5.3		2.0
7	Min Gap	2.0	0.2				0.2		2.0
8	Max Limit	30	60				60		40
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs	6	6						
C	Reduce By		0.1				0.1		
D	Every		0.6				0.6		
E	Yellow	3.0	5.1				5.1		3.0
F	Red Clear	1.0	1.0				1.0		1.0

Phase Timing - Bank 1  
F + Phase + Row

<F Page>

Row	Phase	Value
RR-1 Delay		
RR-1 Clear		
EV-A Delay	1	
EV-A Clear		
EV-B Delay		
EV-B Clear		
EV-C Delay	1	
EV-C Clear		
EV-D Delay	1	
EV-D Clear		
RR-2 Delay		
RR-2 Clear		
View EV Delay	...	
View EV Clear	...	
View RR Delay	...	
View RR Clear	...	

Preempt Timing

F + E + Row

Row	Phase	Value
Permit	12__6_8	0
Red Lock		1
Yellow Lock		2
Min Recall		3
Ped Recall		4
Peds (View)		5
Rest In Walk		6
Red Rest		7
Dbl Entry		8
Max Recall		9
Soft Recall	_2__6__	A
Max 2		B
Cond Serv		C
Ped Lock	12345678	D
Yellow Start	_2__6__	E
1st Phases	_____8	F

Phase Functions

F + F + Row

Max Initial	0	F + 0 + E
Red Revert	5.0	F + 0 + F
All Red Start	0.0	F + C + 0

Start / Revert Times		
Drop Number		C + 0 + 0
Zone Number		C + 0 + 1
Area Number		C + 0 + 2
Area Address		C + 0 + 3
QuicNet Channel		(QuicNet)

Communication Addresses		
C + F + 0	F	Row
Free Lag	_2__6_8	0
Lag Phases		<C Page>

Row	Overlap	9	C	D	0
A	Overlap A	Green	Yellow	Red	Load-Switch #
B	Overlap B	Clear	Change	Clear	
C	Overlap C				
D	Overlap D				

Overlap Timing <F Page>

F + COLOR +

<D Page>

D + 0 + OVERLAP

Downtime Flash 60 (minutes)

Downtime Before Auto Manual Flash

F + 0 + 8

Manual Plan	14	C + A + 1
Manual Offset	0	C + B + 1

Manual Selection

Manual Plan  
0 = Automatic  
1-9 = Plan 1-9  
14 = Free  
15 = Flash

Manual Offset 0  
= Automatic  
1 = Offset A  
2 = Offset B  
3 = Offset C

Disable Ports 234

Disable Communications Ports

D + D + 9

Row	Time	Function	Day of Week	Column F
0				Phases/Bits
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

T.O.D. Functions  
 0 = Permitted Phases  
 1 = Red Lock  
 2 = Yellow Lock  
 3 = Veh Min Recall  
 4 = Ped Recall  
 5 =  
 6 = Rest In Walk  
 7 = Red Rest  
 8 = Double Entry  
 9 = Veh Max Recall  
 A = Veh Soft Recall  
 B = Maximum 2  
 C = Conditional Service  
 D = Free Lag Phases  
 E = Bit 1 - Local Override  
     Bit 2 - Phase Bank 2  
     Bit 3 - Phase Bank 3  
     Bit 4 - Disable Detector  
         OFF Monitor  
     Bit 7 - Detector Count Monitor  
     Bit 8 - Real Time Split Monitor  
 F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	<u>2</u> -----
6	Ped 6P	
7	Ped 4P	
8	Ped 8P	----- <u>8</u>
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	

TOD Function

<D Page>

7 + ROW

D + F + ROW

Configuration

<E Page>

E + F + ROW

Day of Week

- 1 = Sunday
- 2 = Monday
- 3 = Tuesday
- 4 = Wednesday
- 5 = Thursday
- 6 = Friday
- 7 = Saturday

Assign 5 Outputs

- 1 = Right Turn Overlap
- 2 = TOD Outputs
- 3 = EV Beacon - Steady
- 4 = EV Beacon - Flashing
- 5 = Special Event Outputs
- 6 = Phase 3 & 7 Ped
- 7 = Advanced Warning Sign
- 8 =

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	
6	Overlap B - Green Omit	
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	<u>2</u> -----
B	EV-B Phases	
C	EV-C Phases	<u>1</u> ----- <u>6</u>
D	EV-D Phases	----- <u>8</u>
E	Extra 1 Config. Bits	<u>1</u> <u>3</u> <u>4</u> <u>5</u> ---
F	IC Select (Interconnect)	<u>2</u> -----

Extra 1 Flags

- 1 = TBC Type 1
- 2 = NEMA Ext. Coord
- 3 = Auto Daylight Savings
- 4 = EV Advance
- 5 = Remote Download
- 6 = Special Event
- 7 = Pretimed Operation
- 8 = Split Ring Operation

IC Select Flags

- 1 =
- 2 = Modem
- 3 = 7-Wire Slave
- 4 = Flash / Free
- 5 =
- 6 = Simplex Master
- 7 = 7-Wire Master
- 8 = Offset Interrupter

Time and Date

- 8-0 Hour, Minute, Day-of-Week
- 8-1 Day-of-Month, Year, Month
- 8-F Seconds

Disable Parity  D+B+0

Dial-Up Telephone Communications

(If set to a non-zero value, parity will be disabled)

(This parameter is NOT downloaded)

Program Information

- C + C + 0 = program
- C + C + F = version

Remote Download

- C + 0 + 4 = 1 -255
- w/ E + E + E bit 5 on

Configuration

For access, set F + 9 + E = 1

E + E + ROW

Row	1 Delay	3 Carry-over
0		
1		1.8
2		1.8
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E		---
F	---	---

Detector Name	332 Input File	Detector Number
	111	14
	2I2U	1
	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 -- -- --	1234
C	13 14 15 16 17 18 19 20	12345678
D	-- -- -- 21 22 23 24	5678
E	-- -- -- -- -- -- --	1234
F	-- 25 26 27 28 -- -- --	2345

Active Detectors <D Page>

Row	0 Detector #
1	System Det. # 1
2	System Det. # 2
3	System Det. # 3
4	System Det. # 4
5	System Det. # 5
6	System Det. # 6
7	System Det. # 7
8	System Det. # 8

System Detectors <D Page>

Row	2 Delay	4 Carry-over
0		
1		1.8
2		1.8
3		
4		
5		
6		
7	10.0	
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number	0	F+C+1
Time Before Yellow	0.0	F+C+3

Advance Warning Beacon - Sign 1

Phase Number	0	F+D+1
Time Before Yellow	0.0	F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

(These parameters are NOT downloaded.)

Detector Delay & Carryover <D Page>

D + X (across) + ROW

	INTERVAL	PHASE TIMING								9	PRE-EMPTION		F											
		1	2	3	4	5	6	7	8		E	FLAGS	1	2	3	4	5	6	7	8				
0	WALK	1	7		1		7			CLK RST	EV SEL	0	PERMIT	1	2		4		6					0
1	DONT WALK	1	15		1		15				RR1 CLR	15	RED LOCK	1			4							1
2	MIN GREEN	5	5		5		8				EVA DLY	0	YEL LOCK											2
3	TYPE 3 DET	0	0		0		0				EVA CLR	5	V RECALL		2				6					3
4	ADD/VEH	0.0	0.0		0.0		0.0				EVB DLY	0	P RECALL											4
5	PASSAGE	2.0	2.0		2.0		2.0				EVB CLR	5	PED PHASES		2				6					5
6	MAX GAP	2.0	2.0		2.0		2.0				EVC DLY	0	RT OLA											6
7	MIN GAP	2.0	2.0		2.0		2.0				EVC CLR	5	RT OLB											7
8	MAX EXT	25	30		35		40				EVD DLY	0	DBL ENTRY											8
9	MAX 2									YR	EVD CLR	5	MAX 2 PHASES											9
A	MAX 3									MO	MAX EV	255	LAG PHASES	READ ONLY								A		
B										DAY	RR2 CLR	15	RED REST											B
C	REDUCE BY	0.0	0.0		0.0		0.0			DOW			REST-IN-WALK											C
D	EVERY	1.0	1.0		1.0		1.0			HR			MAX 3 PHASES											D
E	YELLOW	3.7	5.5		4.1		5.5			MIN			YEL START UP		2				6					E
F	RED	1.5	2.0		2.0		2.0			SEC			FIRST PHASE					4						F
3.5	PED XING FT		53				77								1	2	3	4	5	6	7	8		
	BIKE XING FT		68				120																	

FOC LONG FAILURE	
FOD SHORT FAILURE	
FOE	0
FOF	5

FCO	3
FC1	3
FC2	10
FCA	0.0
FCB	0.0
FCC	0.0
FCD	0.0

FDO TB SELECT	1
FD3 PED SELECT	0
FD4 7 WIRE	0
FD5 PERMISSIVE	0
FD8 OS SEEKING	1

CO5 FLASH TYPE	1
CC2 DOWNLOAD	1

NOTES:

OLA = FZ 4

FZ 2 BIKE = 4 sec

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN CC1 FLASH ONLY



		CONTROL PLANS									Y-COORD			LAG PHASE	FLAGS										
		1	2	3	4	5	6	7	8	9		C	D	E	F	1	2	3	4	5	6	7	8		
0	CYCLE LENGTH	90	100	100	100	110									LAG FZ FREE		2		4		6		8	0	
1	FZ1 GRN FCTR	18	20	18	20	15								GAPOUT CP1	0	LAG FZ CP 1		2		4		6		8	1
2														GAPOUT CP2	0	LAG FZ CP 2		2		4		6		8	2
3	FZ3 GRN FCTR	0	0	0	0	0								GAPOUT CP3	0	LAG FZ CP 3		2		4		6		8	3
4	FZ4 GRN FCTR	25	30	28	26	35					PERM TIME			GAPOUT CP4	0	LAG FZ CP 4		2		4		6		8	4
5	FZ5 GRN FCTR	0	0	0	0	0					LAG OFFSET			GAPOUT CP5	0	LAG FZ CP 5		2		4		6		8	5
6											FORCE OFF			GAPOUT CP6		LAG FZ CP 6									6
7	FZ7 GRN FCTR	0	0	0	0	0					LONG GRN			GAPOUT CP7		LAG FZ CP 7									7
8	FZ8 GRN FCTR	0	0	0	0	0					NO GREEN			GAPOUT CP8		LAG FZ CP 8									8
9	MULTI CYCLE	0	0	0	0	0								GAPOUT CP9		LAG FZ CP 9									9
A	OFFSET A	43	55	55	55	65					OFFSET					LAG C COORD									A
B	OFFSET B	43	55	55	55	65										LAG D COORD									B
C	OFFSET C	43	55	55	55	65										COORD FAZES		2				6			C
D	FZ 3 EXT																								D
E	FZ 7 EXT																								E
F	OFFSET INTRPT																								F

1 2 3 4 5 6 7 8

CO1 MANUAL CP

CO2 MASTER CP

CO3 CURRENT CP

CO4 LAST CP

CO7 TRNSMT CP

COD MANUAL OFFSET

CAO LOCAL CYCLE TIMER

CBO MASTER CYCLE TIMER

CAA LOCAL OFFSET

CBA MASTER OFFSET

**SYSTEM MASTER:**

**RTE 15 SB RAMP**

FEATURE

	OFF	ON
1		
2		
3		
4		
5		
6		
7		7
8		

LOCATION

	OFF	ON
1		
2		2
3		
4		
5		
6		
7		
8		

COO = 2

CCB/CDB OFFSET TIMER

CCC/CDC LAG GREEN TIMER

CCD/CDD FORCE OFF TIMER

CCE/CDE LONG GREEN TIMER

CCF/CDF NO GREEN TIMER

	D	FLAGS								E	FLAGS								F	FLAGS							
	MAX	1	2	3	4	5	6	7	8	MIN	1	2	3	4	5	6	7	8	PED	1	2	3	4	5	6	7	8
0	RCL									RCL									RCL								
1	CP 1									CP 1	1			4					CP 1								
2	CP 2									CP 2	1			4					CP 2								
3	CP 3									CP 3	1			4					CP 3								
4	CP 4									CP 4	1			4					CP 4								
5	CP 5									CP 5	1			4					CP 5								
6	CP 6									CP 6									CP 6								
7	CP 7									CP 7									CP 7								
8	CP 8									CP 8									CP 8								
9	CP 9									CP 9									CP 9								
A																			RCL 1								
B																			RCL 2								
C																											
D																											
E																											
F																											
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8

**LAST POWER FAILURE REGISTER**

HOUR = D-A-E  
 MINUTE = D-B-E  
 DAY = D-C-E

RCL 1 = TIME OF DAY MAX RECALL (1ST SELECT) PHASES  
 (CALL ACTIVE LIGHTS)  
 RCL 2 = TIME OF DAY MAX RECALL (2ND SELECT) PHASES  
 (CALL ACTIVE LIGHTS)

**LAST FLASH TIME REGISTER**

HOUR = D-A-F  
 MINUTE = D-B-F  
 DAY = D-C-F

D-E-E = C8 VERSION NUMBER  
 D-E-F = LITHIUM BATTERY CONDITION  
 84 = BAD  
 85 = GOOD

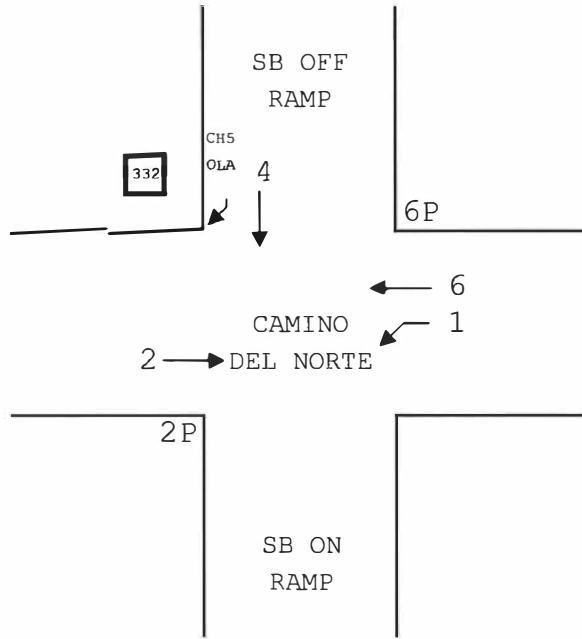
	E	FLAGS								F	FLAGS								
	FUNCTION	1	2	3	4	5	6	7	8	FUNCTION	1	2	3	4	5	6	7	8	
0										CODE 4									0
1										CODE 5									1
2										C-RECALL									2
3										D-RECALL									3
4										EXCLUSIVE									4
5										2 PED	2								5
6										6 PED					6				6
7										4 PED			4						7
8										8 PED								8	8
9																			9
A	OLA NOT									OLA ON									A
B	OLB NOT									OLB ON									B
C	OLC NOT									OLC ON									C
D	OLD NOT									OLD ON									D
E																			E
F																			F
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	



DATE: 9/12/07

LOCATION: RTE 15 SB @ CAMINO DEL NORTE

CONFLICT MONITOR PROGRAM





	INTERVAL	PHASE TIMING								9	PRE-EMPTION		F									
		1	2	3	4	5	6	7	8		E	0	FLAGS	1	2	3	4	5	6	7	8	
0	WALK		7			1	10		1	CLK RST	EV SEL	0	PERMIT		2			5	6		8	0
1	DONT WALK		18			1	10		1		RR1 CLR	15	RED LOCK				5				8	1
2	MIN GREEN		7			5	5		5		EVA DLY	0	YEL LOCK									2
3	TYPE 3 DET		0			0	0		0		EVA CLR	5	V RECALL		2			6				3
4	ADD/VEH		0.0			0.0	0.0		0.0		EVB DLY	0	P RECALL									4
5	PASSAGE		2.0			2.0	2.0		2.0		EVB CLR	5	PED PHASES		2			6				5
6	MAX GAP		2.0			2.0	2.0		2.0		EVC DLY	0	RT OLA									6
7	MIN GAP		2.0			2.0	2.0		2.0		EVC CLR	5	RT OLB									7
8	MAX EXT		30			15	25		35		EVD DLY	0	DBL ENTRY									8
9	MAX 2								45	YR	EVD CLR	5	MAX 2 PHASES								8	9
A	MAX 3									MO	MAX EV	255	LAG PHASES	READ ONLY								A
B										DAY	RR2 CLR	15	RED REST									B
C	REDUCE BY		0.0			0.0	0.0		0.0	DOW			REST-IN-WALK									C
D	EVERY		1.0			1.0	1.0		1.0	HR			MAX 3 PHASES									D
E	YELLOW		5.5			3.7	5.5		4.1	MIN			YEL START UP		2			6				E
F	RED		2.0			1.5	2.0		2.0	SEC			FIRST PHASE								8	F
3.5	PED XING FT		88				58							1	2	3	4	5	6	7	8	
	BIKE XING FT		112				81															

FOC LONG FAILURE	
FOD SHORT FAILURE	
FOE	0
FOF	5

FCO	3
FC1	3
FC2	10
FCA	0.0
FCB	0.0
FCC	0.0
FCD	0.0

FDO TB SELECT	1
FD3 PED SELECT	0
FD4 7 WIRE	0
FD5 PERMISSIVE	0
FD8 OS SEEKING	1

CO5 FLASH TYPE	1
CC2 DOWNLOAD	1

NOTES:

OLA = FZ 8

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN CC1 FLASH ONLY



		CONTROL PLANS									Y-COORD		LAG PHASE	FLAGS											
		1	2	3	4	5	6	7	8	9		C	D	E	F	1	2	3	4	5	6	7	8		
0	CYCLE LENGTH	90	100	100	100	110									LAG FZ FREE		2		4		6		8	0	
1	FZ1 GRN FCTR	0	0	0	0	0								GAPOUT CP1	0	LAG FZ CP 1		2		4		6		8	1
2														GAPOUT CP2	0	LAG FZ CP 2		2		4		6		8	2
3	FZ3 GRN FCTR	0	0	0	0	0								GAPOUT CP3	0	LAG FZ CP 3		2		4		6		8	3
4	FZ4 GRN FCTR	0	0	0	0	0					PERM TIME			GAPOUT CP4	0	LAG FZ CP 4		2		4		6		8	4
5	FZ5 GRN FCTR	16	10	16	10	10					LAG OFFSET			GAPOUT CP5	0	LAG FZ CP 5		2		4		6		8	5
6											FORCE OFF			GAPOUT CP6		LAG FZ CP 6									6
7	FZ7 GRN FCTR	0	0	0	0	0					LONG GRN			GAPOUT CP7		LAG FZ CP 7									7
8	FZ8 GRN FCTR	25	40	28	40	50					NO GREEN			GAPOUT CP8		LAG FZ CP 8									8
9	MULTI CYCLE	0	0	0	0	0								GAPOUT CP9		LAG FZ CP 9									9
A	OFFSET A	0	0	0	0	0					OFFSET					LAG C COORD									A
B	OFFSET B	0	0	0	0	0										LAG D COORD									B
C	OFFSET C	0	0	0	0	0										COORD FAZES		2				6			C
D	FZ 3 EXT																								D
E	FZ 7 EXT																								E
F	OFFSET INTRPT																								F

CO1 MANUAL CP  
 CO2 MASTER CP  
 CO3 CURRENT CP **SYSTEM MASTER:**  
 CO4 LAST CP **RTE 15 SB RAMP**  
 CO7 TRNSMT CP  
 COD MANUAL OFFSET  
 CAO LOCAL CYCLE TIMER  
 CBO MASTER CYCLE TIMER  
 CAA LOCAL OFFSET  
 CBA MASTER OFFSET

FEATURE	OFF	ON
1		
2		
3		
4		
5		
6		
7		7
8		

LOCATION	OFF	ON
1		1
2		
3		
4		
5		
6		
7		
8		

COO = 1

CCB/CDB OFFSET TIMER  
 CCC/CDC LAG GREEN TIMER  
 CCD/CDD FORCE OFF TIMER  
 CCE/CDE LONG GREEN TIMER  
 CCF/CDF NO GREEN TIMER

	D	FLAGS								E	FLAGS								F	FLAGS													
	MAX	1	2	3	4	5	6	7	8	MIN	1	2	3	4	5	6	7	8	PED	1	2	3	4	5	6	7	8						
0	RCL								RCL									RCL															
1	CP 1					5			CP 1									8	CP 1														
2	CP 2					5			CP 2									8	CP 2														
3	CP 3					5			CP 3									8	CP 3														
4	CP 4					5			CP 4									8	CP 4														
5	CP 5					5			CP 5									8	CP 5														
6	CP 6								CP 6										CP 6														
7	CP 7								CP 7										CP 7														
8	CP 8								CP 8										CP 8														
9	CP 9								CP 9										CP 9														
A																			RCL 1														
B																			RCL 2														
C																																	
D																																	
E																																	
F																																	
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8								

**LAST POWER FAILURE REGISTER**

HOUR = D-A-E  
 MINUTE = D-B-E  
 DAY = D-C-E

RCL 1 = TIME OF DAY MAX RECALL (1ST SELECT) PHASES  
 (CALL ACTIVE LIGHTS)  
 RCL 2 = TIME OF DAY MAX RECALL (2ND SELECT) PHASES  
 (CALL ACTIVE LIGHTS)

**LAST FLASH TIME REGISTER**

HOUR = D-A-F  
 MINUTE = D-B-F  
 DAY = D-C-F

D-E-E = C8 VERSION NUMBER  
 D-E-F = LITHIUM BATTERY CONDITION  
 84 = BAD  
 85 = GOOD

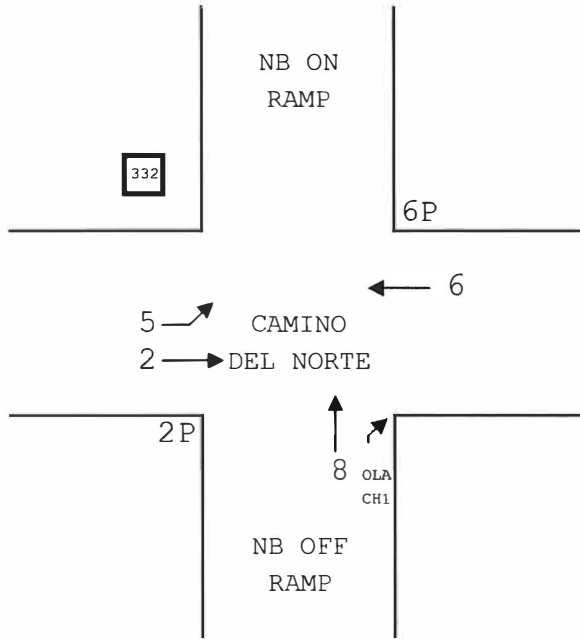
	E	FLAGS								F	FLAGS								
	FUNCTION	1	2	3	4	5	6	7	8	FUNCTION	1	2	3	4	5	6	7	8	
0										CODE 4									0
1										CODE 5									1
2										C-RECALL									2
3										D-RECALL									3
4										EXCLUSIVE									4
5										2 PED		2							5
6										6 PED						6			6
7										4 PED				4					7
8										8 PED								8	8
9																			9
A	OLA NOT									OLA ON									A
B	OLB NOT									OLB ON									B
C	OLC NOT									OLC ON									C
D	OLD NOT									OLD ON									D
E																			E
F																			F
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	



DATE: 8/26/05

LOCATION: RTE 15 NB @ CAMINO DEL NORTE

CONFLICT MONITOR PROGRAM



**INTERSECTION: Dove Canyon @ Lone Quail 750**

QuicNet  
System  
Parameters

Group Assignment: **NONE**  
 Field Master Assignment: **NONE**  
 System Reference Number: **301**  
 Communications Channel: **COM1:**  
 Drop Address: **16**  
 Area Number: **2**  
 Area Address: **37**

N/S Street Name: **Dove Canyon**  
 E/W Street Name: **Lone Quail**

Last QuicNet Database Change: **7/25/2012 11:29**

Notes:

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Field Change Record					
Change	By	Date	Change	By	Date

Excl Ped Assignment	_____
Exclusive Walk	0
Exclusive FDW	0
All Red Clear	0.0

Note: Set the Exclusive Ped Outputs on the "Outputs / General" page

Walk Output	0
Don't Walk Output	0

**Exclusive Ped Phase**

	Phase							
	1	2	3	4	5	6	7	8
Min Green	4	6	0	4	4	6	0	4
Extension	2.0	2.0	0.0	2.0	2.0	2.0	0.0	2.0
Max	15	30	0	30	15	30	0	30
Max 2	0	0	0	0	0	0	0	0
Cond Serve Check	0	0	0	0	0	0	0	0

Basic Phase  
Timing

Yellow Change	3.0	4.0	0.0	3.6	3.0	4.0	0.0	3.6
Red Clear	0.5	1.0	0.0	1.0	0.5	1.0	0.0	1.0

Clear

Walk	0	7	0	7	0	7	0	7
Ped Clear - FDW	0	18	0	22	0	11	0	21
Adv / Delay Walk	0	0	0	0	0	0	0	0
PE Min Ped FDW	0	0	0	0	0	0	0	0

Pedestrian  
Timing

Type 3 Disconnect	0	0	0	0	0	0	0	0
Added per Vehicle	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Added Initial	0	0	0	0	0	0	0	0
Min Gap	2.0	1.5	0.0	2.0	2.0	1.5	0.0	1.5
Max Gap	2.0	2.1	0.0	2.0	2.0	2.1	0.0	2.1
Reduce Every	0.0	4.6	0.0	0.0	0.0	4.6	0.0	4.6

Volume Density

**Phase Timing - Bank 1**

	Phase							
	1	2	3	4	5	6	7	8
Alternate Walk	0	0	0	0	0	0	0	0
Alternate Ped Clear	0	0	0	0	0	0	0	0
Alternate Minimum	0	0	0	0	0	0	0	0
Alternate Extension	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Alternate Timing - Bank 1**

Red Lock	_____
Yellow Lock	_____
Simultaneous Gap	_____
Rest In Walk	_____
Advance Walk	_____
Flashing Walk	_____
Max Extension	_____

Red Rest	_____
Dual Entry	4 8
Sequential Timing	_____
Inhibit Ped Reservice	_____
Semi-Actuated	_____
Guaranteed Passage	_____
Conditional Service	_____

**Phase Functions - Page 1**

Minimum Recall	2 6
Ped Recall	_____
Maximum Recall	_____
Green Flash	_____
Overlap Green Flash	_____

Soft Recall	_____
External Recall	_____
Manual Control Calls	_____
Fast Green Flash	_____
Fast Overlap G. Flash	_____

**Phase Functions - Page 2**

Comments Letter

O-2-

Response to Comments Letter

O-2-

From: Dan Silver [mailto:dsilverla@me.com]  
 Sent: Thursday, September 21, 2017 10:49 AM  
 To: Smith, Marisa <Marisa.Smith@sdcounty.ca.gov>  
 Cc: Gordon, Lisa <Lisa.Gordon@sdcounty.ca.gov>  
 Subject: Chinese Bible Church, PDS2014-SPA-14-001 (SPA), PDS2010-3300-10-037 (MUP), PDS2012-3940-12-002 (VAC), LOG NO. PDS2014-3910-95-08-007 (ER); SCH NO. 214011018

Dear Ms Smith:

Endangered Habitats League has reviewed this project from biological and MSCP standpoints. It is mostly surrounded by development and is part of a Take Authorized area of the MSCP (Santa Fe Valley Specific Plan). A DSEIR is provided for a proposed change in use. We have no comments.

With best regards,  
 Dan

Dan Silver, Executive Director  
 Endangered Habitats League  
 8424 Santa Monica Blvd., Suite A 592  
 Los Angeles, CA 90069-4267

213-804-2750  
 dsilverla@me.com  
[www.ehleague.org](http://www.ehleague.org)

O-2-1

O-2-1 The County of San Diego appreciates the comment. No issues are raised with respect to the Draft Subsequent Environmental Impact Report (DSEIR) by the comment. No further response is required.



Comments Letter

O-3-

San Diego County Archaeological Society, Inc.

Environmental Review Committee

23 September 2017

To: Ms. Marisa Smith
Department of Planning and Development Services
County of San Diego
5510 Overland Avenue, Suite 310
San Diego, California 92123

Subject: Draft Supplemental Environmental Impact Report
Chinese Bible Church
PDS2014-SPA-14-001, PDS2010-3300-10-037, PDS2012-3940-12-002,
Log No. PDS2014-3910-95-08-007

Dear Ms. Smith

I have reviewed the cultural resources aspects of the subject DSEIR on behalf of this committee of the San Diego County Archaeological Society.

Based on the information contained in the DSEIR and its Appendices F and G, we have the following comments:

Regarding archaeological resources, the survey of the property occurred more than seven years ago. Therefore, being more than five years old, and considering the possibility that rainfall and other events may have altered the visibility of any buried resources, the property needs to be resurveyed.

Regarding built environment resources, specifically the Sim Bruce Richards-designed ranch house, significant new information requires a reconsideration of the evaluation of the impact of its removal by the project.

The original evaluation by Mr. Moomjian is presented in his report dated January 9, 2012. It states, on page 17 of Appendix G, "No examples of Richards' work have been designated by the County of San Diego, Historic Site Board (HSB). Consequently, he has not been afforded master architect status by the HSB." This wording is repeated in the DSEIR.

However, on November 14, 2016, the HSB voted to recommend the Frank & Jean Nichol Residence in Pauma Valley for landmarking and a Mills Act contract. The motion passed by the HSB specifically recognized Sim Bruce Richards as a master architect.

O-3-1

O-3-2

O-3-3

Response to Comments Letter

O-3-

O-3-1 The County of San Diego appreciates the comments on the Draft Supplemental Environmental Impact Report (DSEIR) by the San Diego County Archaeological Society (SDCAS). The County acknowledges the comment as an introduction to comments that follow. This comment is included in the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project. No further response is required or necessary.

O-3-2 The comment states that the archaeological survey occurred more than seven years ago and, therefore, the project site should be resurveyed. The cultural resources study meets the County of San Diego Report Format and Content Requirements for Cultural Resources and is compliant with California Environmental Quality Act (CEQA) regulations. The study found that no archaeological sites were evident on the site. To ensure that resources that may be discovered during grading are protected, the DSEIR includes mitigation measure M-CR-1, which requires monitoring of the site by a qualified archaeological consultant during grading. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

O-3-3 The comment states that "significant new information" exists which justifies "reconsideration" of evaluating the proposed project's impacts to the ranch house within the project site. The ranch house was evaluated in the 2012 technical report (DSEIR Appendix G), where it is stated that the architect, Sim Bruce Richards, had not been afforded master architect status. The comment states that the Historic Site Board voted to recommend a separate structure, the Frank & Jean Nichol Residence, also designed by Sim Bruce Richards, for land marking status and a Mills Act Contract in 2016. Therefore the status of the ranch house should be re-evaluated in this light.

The County of San Diego, Historic Site Board (HSB) considered the voluntary, historic site designation nomination of the Frank and Jean Nichol Residence, located at 15405 Pauma Valley Road, Pauma Valley, California 92061 on October 17, 2016. During this meeting, the HSB voted to designate (landmark) the property based upon the findings documented in the Historical Assessment Of The Frank & Jean Nicol Residence, 15405 Pauma Valley Road, Pauma Valley, California, 92061, prepared by Scott A. Moomjian (September 2016). According to the study, the residence was designed in a Post and Beam style by architect Sim Bruce Richards for original owners, Frank and Jean Nicol in 1982. The home was



**O-3-3**  
Cont.

found to be the last known completed residential design produced by Richards prior to his death in 1983, and was important because it “represents the last design of one of San Diego’s leading Modernist architects, produced over the course of a prolific and successful career” and “illustrates his creativity in the very last stage of his career.” Further, the structure possessed an extremely high degree of historic integrity.

The Motion approved by the HSB stated:

“Moved, that the Historic Site Board recommends the Frank & Jean Nichol Residence (APN #132-060-82-00), in the Pauma Valley community, be placed on the Local Register of Historic Resources as Landmark Number 2016-006. The resource is significant under Criterion V.(b)(3) of Ordinance 9493, as it represents the work of an important creative individual, Master Architect Sim Bruce Richards, and as it embodies the distinctive characteristics of a type, Post and Beam Construction.

The period of significance is 1982-1984.

The landmarking includes:

- The house
- The associated retaining walls
- The grove of six Chinese flame trees

The Historic Site Board also recommends the resource for participation in a Mills Act contract.

Although this residence is less than 50 years old, Section V.(d)(2) states (in part): ‘A resource less than 50 years old may be considered for listing in the Local Register if it can be determined that sufficient time has passed to understand its historical importance.’ The Historic Site Board (HSB) finds that, particularly as the last known complete work of Sim Bruce Richards, the resource qualifies for listing despite being less than 50 years old.”

The fact that the HSB designated the Nichol Residence establishing Sim Bruce Richards as a “master” architect, approximately four years after the Historical Resources Technical Report was completed, does not give rise to an adequate basis upon which to re-examine the Ranch House. This is due to the fact that the Ranch House, constructed in 1955, was previously found not to be a prime example of the work of architect Sim Bruce Richards because it lacks definitive features characteristic of his work; was found not to be of historical significance due to a lack of association with historic or cultural events; and does not possess original integrity due to numerous modifications and alterations. This stands in contrast to the Nichols Residence, designed in 1982, which is a rare, later, and much more intact example of Richards’ work.

Comments Letter

O-3-

Response to Comments Letter

O-3-

We recognize that modifications have been made to the ranch house. However, the reversibility of those changes is not specifically addressed.

O-3-4


We recommend that the ranch house resource evaluation be updated. In addition, it should be presented to the HSB for consideration and evaluation.

O-3-5

Thank you for the opportunity to provide our comments as part of the public review of this project's environmental documents.

O-3-6

Sincerely,

  
James W. Royle, Jr., Chairperson  
Environmental Review Committee

cc: Brian F. Smith & Associates  
Scott A. Moomjian, Esq.  
SDCAS President  
File

**O-3-4** The comment states the Ranch House should be analyzed in terms of reversing the changes that have been made to the design. Such as analysis and whether changes potentially can be reversed is not a required element of evaluation in the Historical Resources Technical Report. It is also not relevant to whether the building is potentially significant under any eligibility criteria.

**O-3-5** The SDCAS letter expresses the opinion that the Ranch House evaluation be updated. However, as addressed in Response O-3-3 above, there exists no basis upon which to do so. The letter further expresses the opinion that the Ranch House evaluation be “presented to the HSB for consideration and evaluation.” While the duties and responsibilities of the HSB are codified in San Diego County Administrative Code Section 396.5(m), those actions do not include the independent review of historic evaluations absent associated, voluntary historic site nominations. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**O-3-6** This comment provides closing remarks for the letter and does not raise any issue related to the adequacy of any specific section or analysis of the Draft EIR. No further response is required.

# 4S SFV MPAC

4S Santa Fe Valley Mega-Project Abatement Coalition

October 8, 2017

Department of Planning and Development Services  
County of San Diego  
ATTN: Marisa Smith, Project Manger  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

**Subj:** Collected Comments to CBC DSEIR from residents and members of the Mega Project Abatement Coalition (MPAC)

**Ref:** Chinese Bible Church of San Diego  
PDS2014-SPA-14-001, PDS2010-3300-10-037(MUP), PDS2012-3940-12-002(VAC),  
PDS2010-3910-9508007L(ER), SCH# 214011018

Below are a set of collected comments from neighbors and members of the MPAC on the Draft Supplemental Environmental Impact Report (DSEIR) the Chinese Bible Church of San Diego, the Project as identified in the DSEIR.

As stated in the DSEIR, the Project site is located within the 888-acre Planning Area V in the northeastern portion of the SFVSP area. The site is part of sub-area 6. Designated as "Low-Medium density," the sub-area allowed up to a total of 67 dwelling units on the 71 acres. Sixty three (63) residential lots were developed as part of the Salvati project. A subsequent subdivision, Tentative Map (TM) 5123, was proposed to subdivide the remaining four lots on 9.09 acres, but that TM was not finalized and the site remains a single lot (APN 678-060-27-00). The Project site comprises this remainder lot and an off-site lot adjacent to Four Gee Road to be used for access purposes.

The County General Plan regional category for the site is Semi Rural (SR). The site is located in the San Dieguito Community Plan Area (SDCPA), and has a land use designation of SPA (Specific Plan Area [Santa Fe Valley Specific Plan]). The proposed use is allowed in the SR category with approval of a Major Use Permit (MUP). The Project proposes to develop a church campus in two phases.

The project is requesting a Specific Plan Amendment (SPA) to allow a religious assembly use and a Major Use Permit (MUP) to regulate the church and proposed uses and potential impacts to the community. Applicant is also proposing an open space easement vacation (VAC) of 0.3 acres to accommodate the main entry and to vacate a flowage or flooding easement of 0.28 acres, and an exception request to current zoning to allow for additional building heights for a building and three tower elements.

O-4-1

O-4- The comment states that the comments that follow are from the neighbors and members of the Mega-Project Abatement Coalition (MPAC). The County of San Diego appreciates the comments on the Draft Supplemental Environmental Impact Report (DSEIR) by the 4S Santa Fe Valley San Diego Mega-Project Abatement Coalition (4SSFV). The County acknowledges the comment as an introduction to the comments that follow. No further response is required or necessary.

O-4-2

O-4- The comment restates characteristics of the proposed project. The County agrees that the statements are factual. No changes to the DSEIR are required as a result of the comment.

Comments Letter

O-4-

Comments to CBC DSEIR

10/9/2017

Page 2

As drafted, the DSEIR and technical studies are invalid and have numerous deficiencies including the following:

- The land use section is not included as Chapter 2 but in Chapter 3. Environmental Effects Found Not to Be Significant. However, the project is for discretionary permit applications to amend the SFVSP to allow a previously not-permitted use and an MUP—both are land use related issues and yet the Land Use section was not included in the Significant Environmental Effects of the Proposed Project section of the DSEIR. This is an error in determining which issue areas have the potential for significant impacts; an MUP would not be required if it wasn't a use that demands regulation and has a significant potential impact.
- The traffic/circulation section is not included as Chapter 2 but in Chapter 3, Environmental Effects Found Not to Be Significant. Traffic is a significant issue with the new Del Sur town center and to bury traffic in Chapter 3 is an error in determining which issue areas have the potential for significant impacts.
- The Project would be incompatible with the existing neighborhood, including hours of operation, nighttime lighting, noise, and building heights
- MUP findings related to bulk and scale, harmful effect on desirable neighborhood character, the generation of traffic and the capacity and physical character of surrounding streets; and the suitability of the site for the type and intensity of use or proposed development cannot be made
- The biological open space and Artesian Creek would be negatively affected and transitions between open space and development are not provided
- Traffic loads would be unsafe and would contribute to already bad traffic congestion in the area and emergency response times would be impeded by traffic
- Parking impact on neighborhood streets due to inadequate off-street parking
- Annual flooding and hydro-modification of the site
- Visual effects would impact surrounding community
- Impacts to historical resources
- Impacts to biological resources and edge effects to the adjacent protected wetlands
- Retaining wall would impact Artesian Creek flows in a floodplain
- Trees, some of which are over 50 years old, would be affected
- Cooking smells introduced into the area
- Re-sale value of homes adversely affected due to incompatible land use, hours of operation until 10 pm seven days a week including special events with audio systems.

There are numerous inadequacies and insufficient data in the DSEIR and Technical Studies to complete a thorough and CEQA compliant environmental analysis.

LAND USE & PLANNING ANALYSIS AND ADDENDUM

The County of San Diego General Plan Regional Categories Map identifies the project site as "Semi-Rural." The project site is within the SFVSP, as amended in 2013. The project site is within Planning Area (PA) V-Subarea V.6 of the SFVSP. This portion of

Response to Comments Letter

O-4-

O-4-3

O-4-3 The comment states that land use should be classified as a significant impact because the project requests a previously non-permitted land use and a Major Use Permit (MUP). The land use analysis evaluated the effects of allowing a religious assembly use on the site. It determined that land use effects of the project are not significant (See DSEIR Appendix O, Chapter 6.0, page 57) because the proposed use is consistent with existing land use in the area, and the project includes numerous design features that preclude significant impacts. These include operational controls through use of a MUP, clustered building placement, high quality building design, and extensive landscaping.

O-4-4

The request for a Specific Plan Amendment (SPA) or a discretionary permit do not in themselves require that land use be considered significantly impacted. The comment is correct in noting that a MUP is required because the project requires on-going regulation. However, a MUP would be required for religious assembly on the project site regardless of whether there is a significant environmental impact. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

O-4-5

O-4-4 This comment states that the traffic/circulation analysis should be included in Chapter 2 because it is a significant issue. A traffic study was prepared for the project and was included as Appendix B of the DSEIR (KOA 2017). Based upon that analysis, traffic impacts were determined to be less than significant. The potential traffic impacts of the project were appropriately analyzed in the traffic impact study and summarized in Section 3.1.6 of the DSEIR. The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

O-4-6

O-4-7

O-4-8

O-4-9

O-4-10

O-4-11

O-4-12

O-4-13

O-4-14

O-4-15

O-4-16

O-4-17

O-4-18

O-4-19

O-4-5 The comment states that the project would be incompatible with the existing neighborhood due to hours of operation, lighting, noise, and building heights. The comment addresses general subject areas, which received extensive analysis in the DSEIR. Please see General Response 1, "Planning and Land Use" (PLU) for a detailed discussion of these issues. The comment does not raise any specific issue regarding the analyses included in the DSEIR and, therefore, no more specific response can be provided or is required. The comment will be included in the Final SEIR that will be made available to decision makers prior to their decision about the project.

- O-4-6** The comment states MUP findings cannot be made for the project due to issues of bulk and scale, neighborhood character, traffic, and intensity of use. Please see EIR Section 3.1.4.3 “Physical Compatibility with Surrounding Areas/Community Character”, starting on page 3-76 for a detailed discussion of these issues. The Land Use and Planning Analysis (DSEIR Appendix O, Chapter 1.0) presents a detailed review of all uses in the vicinity and nearby area that would be affected by the project. Chapter 2.0 of the analysis demonstrates that in light of existing conditions in the area, the project would meet all the required findings necessary for project approval when considering the surrounding uses. These include a consideration of bulk, scale, density, and coverage, land form alteration, design elements, and operations. The comment does not raise any specific issue regarding the analysis included in the Draft SEIR. The comment will be included in the Final SEIR package that will be made available to decision makers prior to their decision about the project.
- O-4-7** This comment states that the biological open space and Artesian Creek would be negatively affected. The comment also states that transitions between open space and development are not provided. Potential impacts to biological resources received extensive analysis in the Draft EIR, specifically in Section 2.2 Biological Resources. The project will not directly impact the existing biological open space of the creek to the north. Indirect impacts are addressed through design, setbacks, and barriers to entry. The comment does not raise any specific issue regarding the biological analysis and, therefore, no more specific response can be provided or is required. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.
- O-4-8** This comment states traffic volumes would be unsafe and emergency response times would be delayed. Potential impacts to traffic and hazards as they relate to emergency services received extensive analysis in the Draft SEIR, specifically in Section 3.1.6 Traffic and Section 2.4 Hazards – Fire Safety and Hazardous Chemicals. Existing traffic volumes were collected as part of the traffic report preparation and were included in Table 3.1-22. Forecasted traffic volumes were determined for the Existing + Project Scenario (Table 3.1-22 and 3.1-23), the Existing + Ambient + Cumulative Scenario (Table 3.1-30 and Table 3.1-31) and the General Plan Scenario (Table 3.1-32). All segments and intersections will operate at an acceptable level of service.

- O-4-8** With regard to emergency response, this was analyzed as part of the public services analysis (Section 3.1.5) and the Hazards analysis (Section 2.4) of the DSEIR. The required response time for semi-rural areas, per the Safety Element of the County General Plan, is five to ten minutes. It is expected that Fire Station No. 2 would be able to reach the project site in approximately two minutes, since it is located across the street from the project site. Additionally, the project will be required to implement mitigation measures M-HZ-1 as a condition of project approval. This mitigation measure further enhances fire service response by requiring the intersection of Four Gee Road and Grace Way to be signalized. This signal shall be capable of being controlled from Fire Station No. 2, which is located directly across from Grace Way. The purpose is to allow fire station personnel to control traffic so that emergency vehicles can safely exit the fire station unimpeded in an emergency. The signal at the intersection of Camino Del Sur and Four Gee Road shall be connected to this control system so that fire personnel can coordinate signal changes between the two intersections, which are in close proximity to one another. The ability to coordinate the intersection signals will prevent delays in response time as a result of church-related activities. Additionally, road striping "Do Not Block" shall be painted in front of the Fire Station entrance. These measures will be completed prior to occupancy of the facilities. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.
- O-4-9** The comment states the project would have impacts on neighborhood streets due to inadequate off-street parking. The project would provide 417 parking spaces, in excess of County requirements for on-site parking, which is 375 spaces. The project also proposes an overflow parking area to accommodate cars during special events. A shuttle will be operated by the church to reduce the number of cars entering the neighborhood. Congregants will also be asked not to park off-site. The ample on-site parking provided, in conjunction with these design measures, will prevent off-site parking from becoming a major issue.
- O-4-10** The comment states the technical studies and EIR are inadequate because of annual flooding and hydro-modification of the site. The drainage report for the project (Appendix M), Section 5.01, states the project will not create or contribute to runoff that would exceed existing storm drain capacities. For example, most of the parking areas and walkways will use porous surfaces to facilitate drainage. Any increased runoff from the site will be addressed by inclusion of hydromodification Best Management Practices (BMPs) in the drainage system. The comment does not raise any specific issues regarding annual flooding and hydromodification, therefore, no further response is required.

- O-4-11** The comment states that visual effects would impact the surrounding community. Visual effects were evaluated in the visual technical report (Appendix C) and are provided in the DESIR (Chapter 2.1). The report concluded that, with mitigation, the project's visual effects would be reduced to below a level of significance. The comment does not raise any specific issue regarding the visual resources analysis and, therefore, no more specific response can be provided or is required. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.
- O-4-12** This comment states that there will be impacts to historical resources, but does not provide additional information to support this assertion. An historical resources technical study was prepared for the project (Moomjian 2016) and was included as Appendix G of the DSEIR. The Bunk House and Ranch House have not been determined to be historically and/or architecturally significant and, therefore, are not historical resources. Consequently, the Project's destruction, disturbance, or alteration of either building will not cause a substantial adverse change in the significance of historical resources. As such, a less than significant impact is identified and no mitigation is required. The comment does not raise any specific issues regarding historical resources, therefore, no further response is required.
- O-4-13** This comment addresses biological resources, including edge effects on the adjacent preserved wetlands. Edge effects were analyzed in the DSEIR Section 2.2.3.1 on pages 2-47 and 2-48. The comment does not raise any specific issues regarding biological resources, therefore, no further response is required.
- O-4-14** The comment states that the retaining wall would impact Artesian Creek flows in a floodplain. The drainage report for the project (Appendix M), Section 5.01, states the project will not impact off-site drainage patterns. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.
- O-4-15** This comment states that trees would be affected. The on-site trees were evaluated for their biological and aesthetic value. The biological resources analysis (Klutz Biological Consulting 2016, DSEIR Appendix E) concluded the trees are not a significant biological resource (DSEIR Appendix E). The visual analysis concluded that while some trees are a visual amenity on the site, they would be replaced by a landscaping plan that would afford a different but equally appealing visual experience (Appendix C). The comment does not specify which trees are of concern to the commenter, and does not provide any specific information on the affects to the trees in question. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

- O-4-16** This comment addresses potential odors from cooking. The project proposes a café to serve the needs of the congregation. Potential odor impacts from the project on surrounding uses were evaluated in the air quality study (DSEIR Appendix K). The report concludes in Section 4.5, page 49+ that there would be no odor impacts from the project. Cafes are regulated by the County of San Diego through the Department of Environmental Health (DEH). All restaurants must have a permit and the DEH conducts regular inspections of restaurants to ensure health and safety standards are met. Section 6318 of the San Diego County Zoning Ordinance requires all commercial and industrial uses "be operated as not to emit matter causing unpleasant odors which is perceptible by the average person at or beyond any lot line of the lot containing said uses." Section 6318 goes on to further provide specific dilution standards that must be met "at or beyond any lot line of the lot containing the uses." The proposed use would be subject to these regulations.
- O-4-17** This comment states home values in the vicinity would be negatively impacted by the project due to land use, hours of operation, and noise. Home values are not a subject that is evaluated under the California Environmental Quality Act, and therefore, was not analyzed in the DSEIR. This comment will be included in the Final SEIR that will be made available to decision makers prior to their decision about the project.
- O-4-18** The comment states that there are numerous inadequacies and insufficient data in the DSEIR and technical studies, though specific items are not raised in this comment and therefore, no response is provided. All comments made in the 4SSFV letter will be included in the Final SEIR package that will be made available to decision makers prior to their decision about the project.
- O-4-19** The comment reviews details of the project proposal. The County agrees these details are accurate.



## Comments Letter

Comments to CBC DSEIR  
10/9/2017  
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the SPA is designated for Low-Medium density residential uses (1 unit per 1-1.9 acres). The property is zoned Specific Plan (S88).

Designated as "Low-Medium density," the sub-area allowed up to a total of 67 dwelling units on the 71 acres. Sixty three (63) residential lots were developed as part of the Salviati project. The site is located in the San Dieguito Community Plan Area (SDCPA), and has a land use designation of SPA (Specific Plan Area [Santa Fe Valley Specific Plan]). The proposed use requires approval of a Major Use Permit (MUP).

As demonstrated on Figure 5 of the Land Use & Planning Analysis (LUPA) and within the DSEIR, the project site is surrounded by existing residential and protected open space to the north and west. The SFVSP did NOT intend to allow a mega commercial use adjacent to residential and open space. As shown in Figure 4 and review of the SFVSP, specifically subarea V.6, the subject site was intended to accommodate single family, estate lots and religious assembly was never intended to be a permitted use. To drastically change the land use from Low-Medium to allow a mega religious assembly is poor planning and clearly inconsistent with the intent on an approved Specific Plan. As stated by Lois Jones, who participated in developing the plan, when the project was presented to the San Dieguito Community Planning Group several years ago, "We never intended this parcel to have a use like this project contemplates."

The Land Use & Planning Analysis provides extensive discussion of the uses within one mile of the site, but not the uses immediately adjacent to the project, which would have been more appropriate regarding height, scale, bulk and most importantly USE. This key compatibility issue is minimized while the focus of more intense uses further from the site are central to the justification of the analysis. Such attempted justification flies in the face of General Plan Policy "LU-1.5 ... Prohibit the use of established or planned land use patterns in nearby or adjacent jurisdictions as the primary precedent or justification for adjusting land use designations of unincorporated County lands." Furthermore, because the project is adjacent to open space it must abide by Policy LU-10.2 of the General Plan, which states, "Development—Environmental Resource Relationship. Require development in Semi-Rural and Rural areas to respect and conserve the unique natural features and rural character, and avoid sensitive or intact environmental resources and hazard areas."

The site has open space and residential all around it (48% open space, 45% single family residences and 7% multifamily residences). The larger, more intense multi-family development (The Reserve) is separated from the site by a major arterial roadway—clearly a different and distinct neighborhood that is not a fair or transparent comparison. In addition there is a county park property on the west side of Four Gee Road and open space farther west beyond the fire station.

The justification provided on page 13 of the LUPA states "Because this property is next to the 4S Ranch Village and the General Plan states that in Semi-Rural areas "Higher densities within the allowable range should be located near Village areas..." (GP page 3-

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O-4-20. The comment states the Santa Fe Valley Specific Plan (SFVSP) did not intend to allow a large scale commercial use adjacent to residential and open space. The site is currently designated as low density residential, as noted in the comment. However, all specific plans are designed to permit modifications to take into account changing circumstances. The County does not dispute points of view that may have been held when the Santa Fe Valley Specific Plan (SFVSP) was enacted. However, the plan then acknowledged that changes are permissible and changed circumstances may warrant changes to the plan. The County required an EIR for the project so that the physical reality of these changed circumstances could be evaluated. The DSEIR found that the land uses in the area have changed and that the proposed use is consistent with those changes.

O-4-21 This comment addresses the analysis in the Land Use & Planning Analysis (RECON Environmental 2016, DSEIR Appendix O), and states that the analysis does not analyze the uses immediately adjacent to the project site. The report was prepared to analyze the compatibility of the proposed Chinese Bible Church project. Therefore, it includes a discussion of the project's consistency with the Santa Fe Valley Specific Plan (SFVSP) (see Section 4.3). As a project-level consistency document, the report does not include a discussion of density distributions throughout the SFVSP area. The project is consistent with General Plan policies LU-1.5 and LU-10.2, as discussed in Responses O-4-22 and O-4-24. As stated there, the project is consistent with the existing land use plan which is characterized as a suburban development with protection of open space areas.

The project is consistent with General Plan policies LU-1.5. The policy states in full: "Prohibit the use of established or planned land use patterns in nearby or adjacent jurisdictions as the primary precedent or justification for adjusting land use designations of unincorporated County lands. Coordinate with adjacent cities to ensure that land use designations are consistent with existing and planned infrastructure capacities and capabilities." The land use report relies on the full spectrum of uses in the area in determining land use compatibility. These include the following uses within the jurisdiction of the County of San Diego: adjacent open space, the fire station, the Salviati residential development, residential development to the northwest, the proposed school site, and development beyond the fire station, such as the Bel Etage residential development. A comprehensive analysis of land uses in the area is dictated by the California Environmental Quality Act (CEQA), as stated in Section 15125: "An EIR must include a description of the physical environmental conditions in the vicinity of the project." The County has coordinated with the City of San Diego, which has jurisdiction over the areas east and south of the site, and include 4S Ranch, La Viña residential development, and Black Mountain Ranch North Village among others.

**O-4-22** The comment states that the project must abide by Policy 10.2 of the General Plan. The project meets the requirements of the policy because it preserves open space on and adjacent to the site. No direct impacts to the northern open space are proposed and project design measures such as fencing, setbacks, lighting controls, and grade differential will minimize indirect impacts. The open space to the west is a narrow strip approximately 220 feet wide that ends at the project's southwest corner. The project would impact 0.17 acres of this area. It mitigates this impact by proposing mitigation measure M-BI-1 (DSEIR Section 2.2.6), which states:

Direct impact to 0.3 acre of offsite non-native grassland shall be mitigated at a 1:1 ratio in conformance with the MSCP and BMO through preservation of similar or higher value habitat. Mitigation shall occur at the Crestridge Mitigation Bank in Lakeside, California or any other land determined acceptable by the Director of the Department of Planning & Development Services. Note that the mitigation ratio for non-native grassland is typically 0.5:1. A doubled ratio is required here since this area is located within a dedicated open space easement. Pursuant to the County Report Format and Content Requirements – Biological Resources, if existing dedicated biological open space easements are being vacated, the loss of preserved habitat should be mitigated at twice the required ratios because the original mitigation must be replaced and the current loss of habitat must be mitigated.

Additionally the project design has minimized impacts to this open space by locating the entrance as close to the end of the open space as possible to limit biological impacts associated with biological dead ends. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**O-4-23.** The comment states the site has open space and residential uses all around it and that the multi-family development known as The Reserve is not a fair comparison for use in the land use discussion because it is separated from the site by a major roadway. All uses in the vicinity were included in the land use analysis in order to present a balanced representation of uses in the area. This includes single family and multi-family residential uses, open space, civic uses, and open land, all uses immediately adjacent to the site. Uses farther from the site, such as The Reserve and Black Mountain North Village, were included because they share land use features with the proposed site such as roadways, transportation links, and viewshed. The comment also notes there is a County park west of Four Gee Road and open space farther west of the project. There are no County or City of San Diego parks west of the site, according to a review of the County Parks and Recreation's inventory of parks and the City of San Diego's inventory of parks. The open space west of the site is included in the existing viewshed inventory (Section 2.1.2.2) and was included in the DSEIR analysis. That section notes that "The large open space area along Four Gee Road north of the fire station is reserved for a park and an elementary school (page 2-5)." These uses are planned but have not been approved or processed. These uses are therefore speculative and are not included in the DSEIR analysis.

- O-4-24** This comment addresses the analysis in the land use report. The report was prepared to analyze the compatibility of the proposed Chinese Bible Church project. It includes a discussion of the project's consistency with the Santa Fe Valley Specific Plan (SFVSP) (see Section 4.3 of the report, DSEIR Appendix O). As a project-level consistency document, the land use study does not include a discussion of density distributions throughout the SFVSP area. Inclusion of the Black Mountain Ranch North Village is appropriate because it is very close to the project site and existing community. Intervening residential uses are acknowledged in the overall analysis, as discussed in Response O-4-22 paragraph 1 above. The project is consistent with General Plan policies LU-1.5 and LU-10.2, as discussed in Responses O-4-22, -23. As stated in these responses, the project is consistent with the existing land use plan which is characterized as a suburban development with protection of open space areas.
- O-4-25** The comment questions consistency with the General Plan and the SFVSP. General Plan consistency is analyzed in the DSEIR, Section 3.1.4.3. Two tables, 3.1-17, and 3.1-18, detail consistency issues with the General Plan guiding principles and the goals and policies. The project's conformance with General Plan policies 1.5 and 10.2 is addressed in responses 22 and 23 above. Conformance with the SFVSP is provided in Section 3.1.4.3 of the DSEIR, page 3-72+. The County allows Specific Plan Amendments (SPA) for the purpose of affording flexibility to future development within the specific plan area. In this case, SPA 14-001 is proposed to allow for a religious assembly use in Subarea V, with the approval of a Major Use Permit (MUP). Prior to approval of a MUP, the applicant must make findings to show that the project is consistent with Section 7358 of the Zoning Ordinance (see Section 1.7.2 of the land use report (Appendix O)). As further detailed in the land use report (DSEIR Appendix O, Section 2.0), the project would meet all the required findings necessary for project approval.

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8), this property is suitable for a civic use, such as a church.” What is being call a Village, more correctly the 4S Commons Town Center, is actually buffered by residential uses (the Reserve and single family 4S development) from the CBC property. Also, see the two GP policies quoted above. The LUPA does not address how densities were strategically, comprehensively and analytically distributed when the SFVSP was approved. The cited General Plan policy does not warrant approval of a project nor does it provide a comprehensive analysis of the exiting environment and how the project overall does or does not comply with the General Plan. Given an existing, approved Specific Plan, the project should develop within the regulatory framework of the Specific Plan and not allow an amendment that will adversely impact surrounding land uses. The General Plan accurately identifies the site as Semi-Rural; a mega development is NOT consistent with semi-rural development on any level.

The project is proposing to be allowed to operate from 8 a.m. to 10 p.m. seven days a week. This is a tremendous and egregious impact to the existing, quiet, family oriented residential homes. It is excessive and unacceptable to ask to operate, including maintenance activities, seven days a week up to 10 p.m.. This means, exterior noise, audio system, lights, equipment, noise, dust, vehicle noise—until 10 p.m. at night. This is clearly NOT a compatible or acceptable land use and undue burden on existing homes. The County should not amend the Specific Plan but enforce the existing Specific Plan to be fair and equitable to the community; and not set a precedence of spot zoning within an approved Specific Plan.

### Planning and Land Use Analysis, Section 1.7.1 Specific Plan Amendment

The section of the DSEIR states “The project conforms with the goals and policies of the SFVSP goals and policies because religious assembly is similar to Land Use & Planning Analysis for the Chinese Bible Church other community facilities such as educational facilities and commercial facilities, such as group care.” This conclusion makes no sense. Because there are other uses built in the community that are on property that are appropriately zoned for that use does NOT justify allowing a mega church to be built on a site surrounded by dedicated, protected biologically sensitive land use and existing detached single family residential. To grant an amendment to the Specific Plan based on this statement is not legally sound or coherent. The SFVSP intended the site to be developed as large estate residential lots; hence the zoning and General Plan category. To grant this amendment would be in direct conflict with the SFVSP and a classic case of spot zoning.

### Section 1.7.2 Major Use Permit

A height waiver for the tower elements is requested as part of the MUP application. The design height ranges from 29 feet to 40 feet except for some architectural elements such as one 53-foot tower and other slightly smaller tower elements. The MUP process also allows for deviations to development standards of the applicable zone and designators, and is therefore, required for towers with heights in excess of the proposed height designator. The project can not make the required findings for the MUP in accordance with Section 7358 of the Zoning Ordinance:

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**O-4-25** Cont. With respect to surrounding land uses, the project’s compatibility with surrounding land uses is summarized in Section 6.0 of the Land Use and Planning Analysis. The project area is defined by residential uses along with existing and planned mixed-use, civic, employment, and commercial uses. Single-family residential areas vary from larger lots, which are further from the project site, to smaller and multi-family lots located in closer proximity to the project site. Additionally, the church proposes buffers between itself and other uses on all four sides that are compatible with the existing open space and the site grading would place the buildings at a lower elevation than surrounding development, reducing the perceived bulk and scale. Section 4.0 of the land use report provides a discussion of the project’s consistency with the 10 guiding principles of the General Plan as well as the goals and policies of the San Dieguito Community Plan and SFVSP and found the project was consistent with them. Therefore, the project would not adversely impact surrounding land uses.

O-4-26

O-4-27

O-4-28

**O-4-26** This comment states the operational hours of 8 AM to 10 PM represent a tremendous impact on the existing quiet family homes. The comment is stating the commenter’s opinion, and does not identify any inadequacies with the technical analyses nor the DSEIR. The operational profile of the project is of a facility with a low level of weekday activity, related to administration, maintenance, and meetings. Given the nature of the use, commercial deliveries will be minimal. Weekend use is focused on Sunday, when worship will be held. The great majority of activities will take place indoors, out of sight and hearing of the surrounding residents.

**O-4-27** The County acknowledges the comment about not approving the Specific Plan Amendment. This comment will be included in the Final SEIR provided to the decision makers prior to making a final decision about the project. The DSEIR has shown that the project is consistent with surrounding uses in the area, which is largely developed and suburban in nature. The project does not represent spot zoning. Spot zoning is the application of zoning to a specific parcel of land within a larger zoned area when the rezoning is usually at odds with surrounding land uses. As discussed in the land use analysis (DSEIR Appendix O), the project would be consistent with the existing surrounding land uses.

O-4-29

**O-4-28** This comment states that the statement in the land use analysis about project consistency (Appendix O, Section 1.7.1), makes no sense because the uses cited in the statement were built in accordance with current zoning. The DSEIR evaluates the physical and operational characteristics of the proposed project against the existing conditions in the community. The statement of similarity between the project and other uses is not therefore based on their zoning but on their physical characteristics. The DSEIR does evaluate the project's consistency with the RSFSP. Section 4.4, Point 2 of Appendix O speaks to the issue of community facilities.

The project's effect on surrounding biological resources (DSEIR Appendix E) was evaluated in the DSEIR. The biological report concluded the project would have significant but mitigable effects on biology. The DSEIR, Section 2.2.6, pages 2-54 and 2-55, details this mitigation. This comment also states that the project is an example of spot zoning. The project does not represent spot zoning. Please see response O-4-27 above. All comments made in the 4SSFV letter will be included in the DSEIR package that will be made available to decision makers prior to their decision about the project.

**O-4-29** This comment addresses the proposed height exception that is requested as part of the MUP application. An exception request is proposed to allow one tower to be 43 feet and two towers to be 41.5 and 39.5 feet respectively. This would be consistent with surrounding land uses. This includes the fire tower located adjacent to the project site on the west, with a 44 foot tower, and apartments adjacent to the south, with a height of 40 feet, and nearby uses such as Del Norte High School with a maximum height of 57 feet, and the Design39 School with a maximum of 52 feet. The comment correctly states the findings that must be made before the MUP can be adopted. Chapter 2.0 of the Land Use and Planning Analysis (Appendix O) shows that in light of existing conditions in the area, the project would meet all the required findings necessary for project approval when considering the surrounding uses. These include a consideration of bulk and scale, lot size and coverage, land form alteration, design elements, and operations. This comment will be included in the Final SEIR that will be made available to decision makers prior to their decision about the project.

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1. Harmony in scale, bulk, coverage, and density.
2. Availability of public facilities, services, and utilities.
3. The harmful effect, if any, upon desirable neighborhood character.
4. The generation of traffic and the capacity and physical character of surrounding streets.
5. The suitability of the site for the type and intensity of use or development which is proposed.
6. Project findings 1 through 5 and the project location will be consistent with the San Diego County General Plan.
7. The requirements of the California Environmental Quality Act (CEQA) have been complied with.

The project is NOT consistent with the scale of the surrounding dedicated open space including protected wetlands, existing two story single-family dwellings or the fire station across the street and beyond the western open space. Inducing 5 large scale buildings and a use that is proposing to operate seven days a week from 8 a.m. to 10 p.m. is a SIGNIFICANT impact on the surrounding community. It is unlawful and completely disregarding the neighboring land owners to allow this project to operate 7 days a week until 10 p.m. at night. THIS IS EXTREMELY HARMFUL AND UNDESIRABLE AND WILL SIGNIFICANTLY IMPACT OUR NEIGHBORHOOD CHARACTER. The proposed project is not suitable for the site given the intense density and intensity of use operating until 10 p.m. at night. In addition, the project will generate significant traffic on the small dead end street of Four Gee Road and can easily impede the fire station ability to quickly respond to emergency calls. The project does NOT meet the required findings to approve a MUP.

2.0 Compatibility Analysis

2.1 Physical Compatibility with Surrounding Area/Bulk and Scale/Height

As stated above, the subject site is NOT compatible with the immediately surrounding community as stated above and the Specific Plan Amendment and height exception should not be granted to implement a project that is not consistent with the SFVSP. The report includes analysis of industrial users in business parks are not remotely part of the same neighborhood to reach a compatibility of analysis—see Figure 11 which includes analysis of Jerome’s Furniture, General Atomics, Maranatha Chapel, Northrup—all located within a distinct industrial and business park—not a semi-rural residential planning area that requires low-medium estate residential. This is a biased and undue analysis. The report should be revised to remove these industrial type uses and focus on the more comparable development in the immediate area.

To conclude the project would not have visual impact or that the site appears “visually isolated” is not technically sound or correct. On the contrary, the area as the property is very compatible with the surrounding community and is development exactly per the intent and requirements of the SFVSP with density being lower adjacent to the 4S Ranch development, protected open space to the north, to the west and surrounding the fire station, to the south and along and parallel to Camino del Sur. To say the area is

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**O-4-30** This comment states the project is not consistent with the scale of surrounding buildings, and that the operational scale is harmful to the neighborhood. The comment is stating the commenter’s general opposition to the project and does not identify any specific inadequacies with the technical analyses nor the DSEIR. For a discussion of the land use analysis, and operational hours, and a discussion of the density, please see General Response 1, “Planning and Land Use,” of the Response to Comments. Please note that the number of operational activities has been reduced in response to this and other comments. For a discussion of Findings, please see DSEIR Section 3.1.4.3.

**O-4-31** This comment addresses traffic volumes and emergency response. Both of these items were addressed in the DSEIR. Existing traffic volumes were collected as part of the traffic report preparation and were included in Table 3.1-22. Forecasted traffic volumes were determined for the Existing + Project Scenario (Table 3.1-22 and 3.1-23), the Existing + Ambient + Cumulative Scenario (Table 3.1-30 and Table 3.1-31) and the General Plan Scenario (Table 3.1-32). All segments and intersections will operate at an acceptable level of service.

With regard to emergency response, please see Response O-4-8 above.

**O-4-32** This comment states that the MUP findings cannot be made for the project. Chapter 2.0 of the Land Use and Planning Analysis (DSEIR Appendix O) shows that in light of existing conditions in the area, the project would meet all the required findings necessary for project approval when considering the surrounding uses. The project’s ability to make necessary findings is also discussed in Section 3.1.4.3 of the DSEIR. These include a consideration of bulk and scale, density, coverage, land form alteration, design elements, and operations. This comment will be included in the Final SEIR package that will be made available to decision makers prior to their decision about the project.

- O-4-33** This comment addresses the physical compatibility of the project with regard to bulk, scale and height. Figure 6 on page 8 of the Land Use and Planning Analysis provides an overview of the existing zoning within one mile of the project site. The one-mile project area is a standard used by the County to assess land use compatibility. The commercial businesses identified in the comment are identified in Figure 11, page 32 of the report, to illustrate the array of large buildings and projects within the one-mile radius. Figure 11 and Section 2.1.3 of the report further identifies Del Norte High School and the residential properties with lower percentages of lot coverage compared to the project. The purpose of this analysis is to illustrate both the project's neighborhood compatibility at a one-mile scale as well as from a more focused approach. Both are important in providing a balanced view of the neighborhoods in which development is proposed. Additionally, see Response O-4-26, paragraph 2, above, for details about surrounding land uses. This comment will be included in the Final SEIR package that will be made available to decision makers prior to a final decision on the project.
- O-4-34** This comment makes the general statement that the existing use on the site is not visually isolated and is visually compatible with the community and is developed per the intent of the SFVSP. The DEIR executive summary states on page 1, that "[w]hen compared to predominant uses in the area the site exhibits visual discontinuity due to its low density, predominance of vegetation, and lack of a consistent design. It is evident that the surrounding area has grown up around this use." Please see General Response 4, in the Response to Comments for more details. For a detailed discussion of the project's consistency with the SFVSP, please see General Response 1 "Planning and Land Use."
- O-4-35** This comment asserts that stating the site is surrounded by development ignored the SFVSP. The DSEIR takes a balanced view of surrounding uses. It states in Section 2.1.2.3 that "[t]he Project site is surrounded by suburban development on the north, east, and south. The local area also encompasses some open space and undeveloped land." The DSEIR also considers the SFVSP in its analysis, which is provided in Section 3.1.4, Land Use and Planning. The comment provides opinions that do not raise any specific issues with the DSEIR and its analysis and no more specific response can be provided. For a response to the issue of spot zoning, please see Response O-4-27, above. All comments made in the 4SSFV letter will be included in the DSEIR package that will be made available to decision makers prior to their decision about the project.



**O-4-36** This comment addresses the proposed audio system and bell. No permanent exterior audio system is proposed although temporary systems may be used from time to time for specific outdoor events. Noise from a specific outdoor audio system was not evaluated because the type of equipment to be used cannot be predicted at this time. The project will use the best technology available at the time, which could provide better sound control than is currently available. However, the DSEIR does acknowledge this as a project impact (DSEIR Section 2.5.5, page 2-113). It includes a mitigation measure to control the possibility of outdoor noise. The following mitigation measure shall be implemented as a condition of Project approval. It was amended to clarify the circumstances under which the measure would apply.

**M-N-1** If any outdoor event is proposed that will involve the use of an audio system and that includes more than 500 people, or if the outdoor event will extend past 7 PM, the noise impacts of the specific event must include design features and mitigation measures to comply with the applicable regulation. Such measures would include, but are not limited to:

1. Locating events to maximize attenuation from intervening buildings and topography
2. Limiting the time of the event and cease all substantial noise generating activities by 10 PM.
3. Limiting the number of attendees not to exceed 500 people to minimize impacts to off-site receptors.
4. Associated outdoor audio equipment shall be directed away from the occupied neighbors. Audio equipment would be directed in designated areas, facing towards the center of the site and/or using intervening structures to screen and shield associated noise sources.
5. The audio system will be tested prior to an event and the systems will be adjusted so noise does not exceed County noise limits.

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surrounded by development to justify allowing this mega intense use is completely disregarding all the professional work, analysis and strategy planning that went into the SFVSP. To allow the proposed project would simply be completely disregarding the requirements, intent and integrity of the SFVSP and result in spot zoning to accommodate the proposed project. Why would the County even entertain this proposal? Approval of this project would be completely ignoring all the work and analysis that went into the SFVSP. It is not sound planning or equitable to the neighbors and the prior decision makers who approved the SFVSP.

In addition, no details of the audio and bell would also be a direct and continual impact to the surrounding, quiet residential uses. The bell and audio system should not be permitted as there is no real, practical way to monitor these and conditions of approval on paper don't allow weekly monitoring or regulating. Especially with the site being adjacent to biologically protected wetlands; this increase noise could impede breeding, foraging and use of this area. The approval of this development would also result in significant edge effects to this biologically protected wetland area: increase of human presence, noise, lighting, trash, fencing. Why allow these impacts when the site developed in accordance with the SFVSP and Zoning Ordinance these impacts would be eliminated. Approving this development compromises the integrity and long term viability of the biologically protected open space.

### ACOUSTICAL ANALYSIS REPORT (April 13, 2017)

The acoustical analysis and DSEIR section 2.5 is lacking minimal information and therefore is inadequately assessing the noise impacts from outdoor events and the proposed church bell. The analysis does not include the outdoor audio or public address systems (see excerpt below). This basic information must be provided and properly assessed to accurately determine all impacts of the project.

### Noise from Church Events

The acoustical study Section 3.2 Potential Operational Noise Impacts, Noise from Church Events, and Section 2.5 state the following:

"No formal activities or amplification are currently planned to take place outdoors, however, if any outdoor events are proposed to include more than 500 people or will extend after the hours of 7 p.m., the noise impacts of the specific event must be evaluated to determine design features and mitigation measures required to comply with the applicable noise regulations at that time. No audio or public address system was included in this analysis, as it is currently unknown if or where such a system would be implemented. According to the project applicant, if an outdoor audio system is to be used, the church would use updated sound equipment that directs sound to designated areas. The church would also have speakers face exterior buildings to help contain the sound in the areas around the buildings and would not exceed maximum sound levels at the property lines."

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O-4-36 Noise from the church bell is analyzed in Section 3.2.1 of the noise analysis (DSEIR Appendix J). The analysis concludes that for a conservative scenario, the noise from the proposed church bell can be rounded up to 65.0 dBA, which is more than a doubling of the sound power of the measured church bell. The nearest residential receiver is located approximately 300 feet from the proposed bell location. At this distance, if the bell were to ring for a period of 5 minutes out of an hour, the hourly average noise level is calculated to be 46.2 dBA. This would comply with the 50 dBA daytime noise limit at residential properties. Noise impacts for the church bell would be less than significant.

The project's potential impact to nesting birds was evaluated [in the biological resources analysis for the project. As noted on page 12 of the biological resources report (Klutz Biological Consulting 2016), the project will introduce noise to the project site due to project operations, however the project has been designed with a parking area to buffer the proposed uses from the offsite open space area. Also, due to the transient nature of noise generation by the project, noise impact would be less than significant.

O-4-37 This comment addresses edge effects. Please see Response O-4-7 above.

O-4-38 This comment addresses the noise analysis for outdoor events and the church bell. Please see Response O-4-35 above.

O-4-39 The comment cites the text of the acoustical report and states an audio system for the project must be identified. The County agrees that the text citation is correct. Please see Response O-4-35 for a discussion of the audio system.

O-4-40 This comment states that there is no enforcement mechanism for the proposed mitigation for the outdoor audio system. There are ample safeguards to ensure County requirements are met. This includes testing of the audio system and adjustment of same, the fact that the County can check on conformance, and that the MUP is subject to enforcement of operational limits. Since the audio limit will be written into the conditions, it will be subject to enforcement. Please see Response O-4-36 for details.

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The applicant must determine if and what kind of audio system would be part of the project. Until that happens, the analysis cannot be complete and appropriate mitigation measures cannot be developed. This project is lacking a complete and comprehensive project description and therefore adequate analysis.

Moreover, the proposed mitigation measure (provided below) is unacceptable or quantifiable. How will the mitigation measure realistically and practically be enforced? There is no real teeth or regulations that ensure or require the mitigation will be implemented. Is there a special event form or analysis that is required to be submitted by the applicant? There is no assurance of how or if this mitigation measure would ever be complied with.

In order to ensure noise from outdoor events remains in compliance with applicable noise regulations, a condition of approval should be implemented as follows: If any outdoor events are proposed to include more than 500 people, will involve the use of an outdoor audio system, or will extend after the hours of 7 p.m., the noise impacts of the specific event must be evaluated to determine design features and mitigation measures required to comply with the applicable noise regulations at that time.

**M-N-1** If any outdoor events are proposed, the noise impacts of the specific event must include design features and mitigation measures to comply with the applicable noise regulations. Such measures would include, but are not limited to:

- Locating events to maximize attenuation from intervening buildings and topography
- Limiting the time of the event and cease all substantial noise generating activities by 10 PM.
- Limiting the number of attendees not to exceed 500 people to minimize impacts to off-site receptors.
- Associated outdoor audio equipment shall be directed away from the occupied neighbors. Audio equipment would be directed in designated areas, facing towards the center of the site and/or using intervening structures to screen and shield associated noise sources.

Sensitive receptors live to the north and east of the project site, and to not include this basic operational information is an incomplete and inadequate analysis. The audio system must be identified or the DSEIR and technical study remains deficient. The DSEIR and acoustical study must be revised and updated and the public must be given a chance to review the revised information.

### Noise from Church Bell

The acoustical analysis and DSEIR section 2.5 indicate that the proposed Sanctuary building is anticipated to include a church bell. However, neither document includes the exact specifications and operation schedule of the bell. And, the assumptions in the acoustical study use a church bell in Escondido, California (see excerpt below). The noise assessment for the project used this church and church bell plays a melody every day at noon for approximately two minutes. Therefore, the noise assessment of the

## Response to Comments Letter

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O-4-39  
Cont.

O-4-40

**O-4-41** This comment provides proposed language regarding outdoor events. The County concurs with the substance of the comments. The required mitigation measure (cited in response O-4-36 above) embodies the restrictions stated in the comment.

O-4-41

**O-4-42** This comment addresses the noise mitigation. The comment is the text of mitigation measure M-N-1. The measure has been modified in response to the above comments and the new text is provided in Response O-4-36 above and in the Final SEIR.

O-4-42

**O-4-43** This comment addresses the noise analysis as it relates to the future audio system and sensitive receptors in the project vicinity. The noise mitigation has been modified to reflect testing of the audio system. Please see Response O-4-36.

O-4-43

**O-4-44** This comment addresses the proposed church bell and the analysis assumptions made in the DSEIR. The County appreciates the comment. Please see Response O-4-36 paragraph 2, above. The acoustical report notes that measurement of bell noise from the church tower in Escondido was taken at 120 feet from the bell location (DSEIR Appendix J, Section 3.2, page 19). The nearest receiver for the project is 300 feet away. The DSEIR analysis also increased the potential bell noise, to 65 dBA, which is more than a doubling of the sound power of the measured church bell. The DSEIR therefore provides a conservative analysis of church bell noise, and determined that the projected noise level would be 46.2 dBA if the bell rang for five minutes in a given hour. This is below the County's daytime noise standard for residential properties of 50 dBA. Due to this conservative approach, the acoustical analysis is an adequate description of the noise the bell would generate.

O-4-44

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church bell is based on complete unknowns and is not substantiated on how the proposed project actually intends to use the bell. Again, an adequate and complete environmental analysis can NOT be done until the applicant identifies exactly how often, for how long and at what specific times the bell will be used.

To use a random church in Escondido with ASSUMPTIONS of times and duration is completely arbitrary and provides no ground for sound, technical analysis. There is no information in either SDEIR or noise study to state if the sites are similar or how they are similar. There are so many varying factors that affect noise and assessing potential impacts such as the type of bell, the same size of bell, similar type of noise generated by the bell, topography of the site, construction type/building materials (i.e. noise attenuation measures in the building), type and number of windows, sound walls, hours and days of operation. To use a random church that simply has a bell and assume a 5 minute duration only during day time hours is a fatal flaw in the suggested analysis.

The subject site may plan to ring the bell numerous times a day (even if only during day time hours) and for an extended period of time. This BASIC information must be provided and the acoustical study and DSEIR section must be revised to ensure ALL potential impacts are identified and mitigated for. To omit basic operational noise (in a tower that is exceeding the height requirements) is not in compliance with CEQA. It would be a nuisance to have a church bell ring numerous times a day for several minutes long given the adjacent sensitive receptors.

### Visual Resources Impact Report and Addendum (May 2016)

The visual study and addendum conclude that visual pattern would change but would not be visually adverse. The analysis weighs more heavily on land uses that are farther away from the site than the actual land adjacent to the site.

### **Residents**

The technical report identifies the sensitive receptors but fails to assess the view impacts from the closest residences. The keyview points as identified in Figure 2.1-2 to the east and adjacent to the site (Rosemary Lane) are taken at the ends of the site where homes are farther away from the proposed development as opposed to the homes in the center of the site which are closer to the development (see keyview points 1 and 8 on Figure 2.1-2). The keyview point should have been at the end of the cul-de-sac where the homes would be most significantly impacted. The report needs to be updated to properly and adequately assess the potential impact of the closest sensitive receptors.

The report states the site "would shift from one of a sparsely developed site with semi-rural features to one of a fully developed site with positive visual amenities consistent with the existing community." The proposed development is NOT consistent with the surrounding community. The site is surrounded by open space to the north, the northeast, west and northwest. Not only open space but biologically sensitive open space that will NEVER be developed. The building height is not compatible with the residential uses surrounding the site. The tower element of the fire station is only ONE structure and is

## Response to Comments Letter

O-4-

O-4-44  
Cont.

O-4-45

O-4-46

O-4-47

O-4-48

O-4-49

**O-4-45** The comment state that the use of church bell data from a church in Escondido is arbitrary and is not grounds for a sound technical analysis. The analysis uses the best data available when it was written. Because no bell has been selected for the project, it was necessary to provide best available information. To allow for drawbacks such as those noted in the comment, a more than doubling of the tested church bell noise was used for the analysis. Please see Response O-4-44 for more details.

**O-4-46** This comment states the ringing schedule for the ringing of the church bell should be stated. For a response to the issue of bell noise, please see Responses O-4-36 and O-4-44 above.

**O-4-47** The comment states the visual report relies more heavily on uses that are far away. The visual analysis (DSEIR Appendix C) provides analysis of both near and more distant uses. Eight of the photo simulations analyze near-by effects, and two photo simulations evaluate more distant uses. This focus is appropriate because sensitive receptors are near the project site. No changes to the DSEIR are needed as a result of the comment. This comment is included in the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**O-4-48** The comment states the visual report does not analyze visual effects from the closest residences. Four visual photo simulations (key views) were taken from the south. Key View 1 pictures the site from the southeast, while Key Views 2 and 3 picture the site from the center and left of center positions. Key View 4 pictures the site from the southwest. Two key views picture the site from the east: Key View 1 and Key View 8. These representations include views from the residences closest to the site, which are along Tallus Glen and Wild Horse Glen. The views present an accurate overall representation of visual resources at these locations. They were used to determine that views from the east (depicted in Key View 8) are significantly impacted by the project (DSEIR Appendix C, page 48) while Key Views from the south are not significantly impacted (Appendix C, page 44+). Mitigation measures to provide early screening of the site include were incorporated into the DEIR. These are M-VIS-1, which calls for screening of the retaining wall to the north. M-VIS-2 and M-VIS-3 call for installation of larger than called for trees and shrubs early in the project construction process to provide early screening of the site. Design features include a high quality Mediterranean/Tuscan architectural style, an extensive landscape plan, quality entry monumentation, screening of roof equipment, as well as limitations on lighting and signage. Please see DSEIR Sections 2.1.6, page 2-35, for mitigation text, and 7.2.1, page 7-6, for design measures. No changes to the DSEIR are needed as a result of the comment.

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not the majority of the visual character of the community and is a civil use that serves the entire community.

The report goes on to state "The site as a whole seems visually out of place due to the contrast with existing uses. These other uses, whether residential, public service, or commercial, present a unified visual impression of having been planned, with all visual elements coordinated through architecture and landscaping. The onsite uses of the site exhibit few coordinated elements. The site is "rough" in contrast to the visual elements around it and continuity is low."

The SFVSP strategically and comprehensively allocated land uses and densities based on, in part, the preservation and interface of open space and appropriate distribution of density given the higher density in 4S Ranch Specific Plan. The proposed project does not implement the intent, vision and goals of the SFVSP. Hence, the need for a Specific Plan Amendment, height exception and extensive mitigation measures. It is more aligned with spot zoning and undermines the comprehensive analysis and approach developed by the SFVSP. The proposed site use is too intense for a site that was purposefully and previously analyzed for low-medium density residential and a General Plan category of semi-rural. Amending the Specific Plan doesn't make the project consistent; on the contrary it demonstrates how the project is NOT consistent with the Specific Plan.

The conclusions for determining significance in CHAPTER 5.0 VISUAL IMPACT ASSESSMENT are not correct. The project is not consistent with the intent, vision, goals, policies or objectives of the SFVSP.

The Project does introduce features that would:

1. Detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines.
2. Not comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, or Historic District's Zoning.

The project is not consistent with the SFVSP or the zoning ordinance in terms of use, community design, and visual quality. Approving this project would compromise the visual quality, character and integrity of the surrounding existing community.

The visual study also states "Buildings and fencing would be in scale with the community character of the area as defined by the SPA. A height exception is requested that would allow portions of Building B and three towers to exceed height limits." If an exception is required the project is inherently NOT consistent with the SFVSP—it can't be consistent and require a deviation to development standards within the Zoning Ordinance. The

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O-4-49  
Cont.

O-4-49 The comment states the proposed development is not consistent with the surrounding community, citing nearby open space and tower heights. Open space areas will not be developed as a result of the project and therefore the open space will remain as a visual amenity.

O-4-50

The land use analysis evaluated building heights in the vicinity and found that tall building elements are not uncommon. The 44 foot high fire training tower is noted in the comment. The apartment building immediately to the southeast is 40 feet in height, the height requested for one building in the project. Other buildings will be under 35 feet, similar to building in the Black Mountain Ranch North Village to the southwest. The County acknowledges that the proposed buildings will be taller than single family residences in the area. Building heights from the site will appear shorter from the south because they will constructed at approximately 5 to 10 feet below grade. So a 35 foot building will have an apparent height of 25 feet from this perspective. Buildings will appear shorter from the east because those homes are built at an elevation 20 feet higher than the site. The altered angle of the view, as show in Key View 8, prevents most of the buildings from rising above the current horizon line. And they will be lower that the apparent height of the apartments to the south. All comments made in the 4SSFV letter will be included in the DSEIR package that will be made available to decision makers prior to their decision about the project. No changes to the DSEIR are required as a result of the comment.

O-4-51

O-4-52

O-4-53

O-4-54

O-4-50 The comment quotes a passage from the visual report, Section 2.1.2.3, page 2-7. The County agrees that the passage is accurately quoted.

O-4-55

O-4-51 The comment states the SFVSP allocated land uses based in part on the interfaces of open space and appropriate distribution of density and that the project does not implement the intent, vision, and goals of the SFVSP. The project preserves and protects the open space to the north and west of the site, with the exception of a small area for the project entry on the west. It is consistent in this respect with prior planned uses. Land use issues with respect to the SFVSP are addressed in Responses O-4-24, -25 above. While the site was designated as low density residential in the SFVSP, the proposal of an alternate use was always permissible with the appropriate documentation and discretionary action. For a discussion of spot zoning, please see Response O-4-27 above. All comments made in the 4SSFV letter will be included in the DSEIR package that will be made available to decision makers prior to their decision about the project.

O-4-56

- O-4-52** The comment states the proposed use is too intense for the site and not consistent with the SFVSP. Land use issues with respect to the SFVSP are addressed in Responses O-4-24, -25 above. The determination of consistency with the SFVSP was made after extensive analysis of land use (DSEIR Appendix O). It includes a detailed inventory of the existing uses in the area, which includes both multi- and single-family residential uses, open space, commercial, and civic uses. The analysis determined the project is consistent with density and intensity of surrounding uses as they have evolved since the SFVSP was adopted.
- O-4-53** The comment states the conclusions of the visual analysis are not correct and that the project is not consistent with the SFVSP. The comment is general in nature so a specific response is not possible. Specifics of the visual analysis are discussed in Response O-4-54 below and consistency with the SFVSP is addressed in Responses O-4-24 and O-4-25 above.
- O-4-54** The comment concerns visual character and quality of the neighborhood. The theme of the community is one of high quality and mixed use in a basically suburban setting. The proposed use, a church, is a common theme element in suburban settings. Style can be characterized by a commitment to an architectural design or detailed and consistent landscaping elements. The project incorporates high quality architectural elements that are found in the community. The landscape plan is extensive and provides a unifying style for the project. Setbacks are employed in all directions to protect views, biology, and reduce noise. Density, size, massing, coverage, and scale are analyzed in detail in the DSEIR, Section 3.1.4 and it was determined that the project was consistent with the land use and community with respect to these elements. The EIR and land use report (Appendix O, Chapter 2) also determined that, in light of the evidence provided, required findings for bulk, scale, and other issues required by the Zoning Ordinance (ZO), Section 7358 can be made.
- O-4-55** The comment questions consistency with the community plan, SFVSP, Historic District Zoning, as well as visual effects on the community. The County appreciates the comment. Please see Response O-4-24, and -25 for a discussion of the project's consistency with the community plan and the SFVSP. A specific reason for citing the "Historic District Zoning" is not provided in the comment so a specific response is not possible. For a discussion of visual quality please see Responses O-4-25,-47,-48, and -54 above. Community character is discussed in Responses O-4-24,-25, and -64.

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analysis is using the exception as a rationale for consistency with the SFVCP and visual character, which is intrinsically inconsistent. A deviation means the project is NOT comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, community plan and zoning code.

In addition, as stated in section, 2.2.4 County Zoning Ordinance, states *“The property is zoned Specific Plan (S88). The site carries a “G” height designator, which allows buildings to be a maximum of 35 feet and two stories. The project proposes an exception to this regulation to allow for a sanctuary building of 40 feet, two towers of 48 feet, and one tower of 53 feet.”*

The project should be required to comply with the height requirements of the 40 feet. The height exception is for the bell tower, which should be removed from the project. The noise generated by the bell is a nuisance and impact to the existing quiet community and a deviation to the development standards should not be granted to accommodate this nuisance.

Walls/Fences

Project does NOT comply with the SFVSP as it is proposing vinyl coated chain link fencing that is not identified or consistent with the community design described in the SFVSP or the existing single family residential communities.

Furthermore, the introduction of a fence adjacent to the biologically protected wetland area adjacent and to the north of the site will prohibit movement of animals in this area. There are numerous wildlife species that live in this area and their movement will be severely limited with the fence. The fence will impede the wildlife corridor that is protected in perpetuity.

A vinyl coated fence and landscaping will not adequately mitigate the view, noise or lighting impacts on the existing residences. For the DSEIR and visual study to conclude there are no visual impacts is subjective and simply not accurate. Vinyl coated chain link fence is NOT visually compatible or consistent with the existing community design goals, objectives and policies identified in the SFVSP (Chapter 7), nor is it consistent with the existing fencing in the adjacent residential area. Chain link fence is not recommended or identified in the SFVSP Chapter 7, specifically 7.2 Community Design Plan which states “promote a cohesive community design theme...., a visually unified and attractive community that preserves and enhances the natural resources, and maintains the unique visual features of this area”

Nor does a vinyl coated chain link fence implement the following component required by the SFVSP:

- Design parameters to establish a degree of project consistency and high quality of design among the multiple ownerships including streetscapes, gateways, architectural and landscape design of specified typed of development.

O-4-56  
Cont.

O-4-57

O-4-58

O-4-59

O-4-60

O-4-61

O-4-62

**O-4-56** The comment asserts that granting the height exception request would make the project incompatible with the SFVSP, Subregional Plan, and zoning ordinance. The exception request is intended to allow the project to use design characteristics that occur frequently in the area. These include the fire tower located 500 feet from the site to the west (53 feet in height). The Reserve at 4S Ranch apartments at 500 feet from the site reaches a height of 40 feet. The Black Mountain Ranch North Village, is located approximately 680 feet from the site. Del Norte High School with a maximum height of 57 feet and the Design39 School with a maximum of 52 feet, are within 1000 feet of the site. Please see Table 1 of the *Land Use & Planning Analysis for the Chinese Bible Church* (Appendix O) for additional details. Additionally, the perceived height of buildings will be diminished from the south because the buildings will be built approximately 10 feet below grade. This will also diminish apparent height from the east because buildings not appear to break the horizon line except at the center of the site. The exception will allow the project to present architectural features that add interest and diminish bulk and uniformity and thereby preserve conformity with the SFVSP and Community Plan. For a discussion of general consistency with the community plan and SFVSP please see Responses O-4-24, and -25 and Section 3.1.4.3 starting on page 3-70 of the DSEIR.

**O-4-57** The comment correctly cites a section of the DSEIR. No response is required as a result of the comment.

**O-4-58** The comment states the project should be required to comply with the height requirements of 40 feet and should remove the bell tower. It also asserts the noise generated by the bell is a nuisance. The County acknowledges the comment. The height waiver is discussed in detail in Responses O-4-29, and -57 above. For a discussion of the bell tower noise, please see Response O-4-36 above. No changes to the DSEIR are required as a result of the comment.

**O-4-59** The comment states the vinyl fencing proposed by the project is not consistent with the SFVSP. The project proposes replacing the existing chain link and vinyl white panel fencing with a mix of wrought iron and vinyl coated chain link fencing. The DSEIR determined that the vinyl fence would not be a visual impact with the adoption of project design measures. These are the use of earth-toned vinyl, and extensive landscaping on both sides of the fence to screen it from view. The reader is directed to the concept landscape plan for the project for details about the plant palette and placement. The DSEIR includes graphics of the concept plan as Figures 1-7 through 1-9.

**O-4-60** The comment asserts the project's retaining wall will inhibit wildlife movement.

The biology report for the project, DSEIR Appendix E, analyzed the wildlife corridor. It states on page 11+ :

Dense residential development occurs to the east north, and south of the project site. The San Dieguito River ends approximately 400 feet to the northeast resulting in the eastern terminus of this branch of the river. No evidence of large mammal use was found on the site. Due to the narrow width of the San Dieguito River within the project vicinity and adjacent development, the project site is not suitable as a wildlife corridor for large mammals. Therefore, impacts to wildlife corridors would be less than significant.

The biological open space north of the site runs in a generally east to west pattern. This pattern will not be disrupted by the project, which leaves the northern open space intact. No changes to the DSEIR are required as a result of the comment.

**O-4-61** The comment asserts that vinyl fencing is incompatible with the SFVSP. For a discussion of the vinyl fencing, please see Response O-4-59 above.

**O-4-62** The comment questions the consistency of vinyl fencing and design measures with the SFVSP. Please see Response O-4-59 for a discussion of vinyl fencing and other fencing designs used by the project. The visual assessment appropriately considered the extensive measures proposed to reduce visual effects in conjunction with visual mitigation measures. Design features include the architectural design, the placement of buildings, use of courtyards to reduce mass, building setback in all directions to reduce the apparent mass of buildings, preservation of open space, and varied, high quality architectural elements such as pavers, wrought iron fences, and trellises. Design features also include the use of muted colors to help the buildings and paved or graveled areas to blend with their surroundings. Design features also include the Concept Landscape Plan, which specifies plantings in multiple "layers" in each direction, which will provide multiple screenings of uses while retaining visual depth into the site. Visual mitigation measures are proposed where additional or faster visual screening is needed. VIS-1 (DSEIR Section 2.1.6, page 2-35+) provides for structural or planting solutions to the long retaining wall being proposed.



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- Design parameters to address visual compatibility with adjoining residential communities....”

## Section 7.4 Community Design Guidelines:

- The Community Design Guidelines are intended to promote the creation of a visually unified and attractive community that protects, preserves, maintains and enhances the natural resources, beauty, quality of life and community character of the Santa Fe Valley SPA.
- Walls/Fences—Walls should be limited to those needed for screening of unsightly equipment or uses or for excessive noise mitigation. The monotonous, horizontal form of continuous walls should be relieved by landscape planting, pilasters or plan offsets. None of the “typical” walls identified in Figures 7-6 include chain link or vinyl coated chain link. Chain link is not visually pleasing or consistent with the high visual character of surrounding residential developments.

Neighborhood residents strongly oppose the use of chain link fence as it not recommended or allowed in the SFVSP, it clearly does not improve the visual quality of the neighborhood, and is not a high quality design material. A fence that is more compatible with the adjacent community is requested and should replace all vinyl coated fencing.

## DSEIR:

The fact that Land Use was not part of Chapter 2 is a fatal flaw and minimizing one of the most important issue areas. The project is requesting discretionary land use applications to allow non-permitted uses, a major use permit and height deviations. These are all land use issues and to place this issue area in Chapter 3 is a defect and makes the DSEIR inaccurate and flawed.

## CHAPTER 2, AESTHETICS

The rear yards of approximately 15 houses adjacent to the Project site have views into the site. The ground view from these residences looks past wrought iron fencing and a landscaped embankment into the Project site. The second stories have an unobstructed view into the Project site.

In this section, Pattern Character “Within the Project site there is little diversity due to the trees that diminish the visibility of other uses. There is some continuity along the northern boundary where fields blend with existing open space; however, the site as a whole seems visually out of place due to the contrast with existing uses, which present a unified visual impression of having been planned, with all visual elements coordinated through architecture and landscaping. The on-site uses of the Project site exhibit few coordinated elements. The site is rough in contrast to the visual elements around it and continuity is low.

The interplay of pattern elements and pattern character at the Project site initially create the visual sense of a rural setting; however, the small scale of the site, the dominance of

# Response to Comments Letter

O-4-

O-4-63

**O-4-63** The comment cites the SFVSP as requiring design parameters to address visual compatibility with the community. High quality and extensive design measures have been used to achieve compatibility with the community. Please see Response O-4-62 above.

O-4-64

**O-4-64** The comment questions the consistency of the project with the Community Design Guidelines, with a focus on walls and fences. The extensive design measures used to conform to the high quality visual character of the area are discussed in Responses O-6-54 and -62 above. The long horizontals of the project created by retaining walls, was called out as a significant project impact (DSEIR Section 2.1.3.4, Impact VIS-4a, page 2-29). The project mitigates this impact by requiring design modifications to the wall and landscaping to break up long horizontals created by the wall (DSEIR Section 2.1.6, M-VIS-1, page 2-35).

O-4-65

**O-4-65** The comment notes strong community opposition to the proposed vinyl coated chain link fence. The comment is noted. For a discussion of the vinyl coated chain link fence, please see Response O-4-62 above. All comments made in the 4SSFV letter will be included in the DSEIR package that will be made available to decision makers prior to their decision about the project.

O-4-66

**O-4-66** The comment states that the land use study should have determined that project effects are significant, requiring a move to Chapter 2 of the DSEIR. The comment is general in nature so a detailed response is not possible. Land use was analyzed in the DSEIR, in Section 3.1.4 starting on page 3-63. The extent of the land use analysis is also discussed in Response O-4-3 above.

O-4-67

**O-4-67** The comment paraphrases or cites sections of the visual study. No questions are raised in the comment and no response is required.

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the trees and their unmaintained nature and the lack of extensive open land around the grove work against this image. The surrounding suburban setting that dominates the region further diminishes this effect. As a consequence the Project site appears visually isolated.”

However, there are ample reasons to disagree as the subject site blends very well with the adjacent open space immediately to the north, the open space and low density and scale of the fire station across the street to the west and the existing single family residential development to the east and north. The other development being compared to the subject site that is more intense is separated from the subject site by major arterial roadways that divide the community and are other neighborhoods so the analysis is not a fair or proper comparison. Moreover, the land is developed in COMPLIANCE with the SFVSP and if the subject site would develop in conformance with the SFVSP, it would be visually and aesthetically consistent. To allow the proposed mega project would cause a visual inconsistency and incompatible land use that was NEVER intended or allowed by the comprehensive land use allocation of the Specific Plan as was stated by one of the planners, Lois Jones at a SDCPG meeting several years ago..

Section, 2.1.2.6 Key Viewpoints, states  
“The selected key views from public viewpoints were identified based on the number and frequency of views, the potential sensitivity of viewers, and the types of Project-related features that would be visible. These locations were selected where viewer sensitivity, exposure, or awareness was high or moderate and include the residential areas immediately surrounding the Project site, the streets that border the Project site on the north, south, and west, sidewalks and trails, and public areas where activities were focused in such a way as to afford prolonged or vivid views of the Project site. Ten key views were selected to analyze potential impacts to visual resources. Figure 2.1-2, Key View Index, identifies the perspective and location of each view. Existing perspectives at each key view are illustrated in Figures 2.1-3 through 2.1-12.”

However, as stated above, the home on Silver Crest Lane that is closest to the subject site and has the most potential to be impacted did not have a keyview point and was not assessed. As identified in Figure 2.1-2, the keyview points were taken at the northeast and southeast corners of the site where homes are farther away from the proposed development. The assessment should have a keyview point at the home at the end of the cul-de-sac on Silver Crest Lane. The visual impact assessment is inadequate and not complete and should be revised to include this key view point of this home that will be greatly impacted.

This section concludes the project would not have visual impacts to the community or neighborhood and states:

“In summary, the Project generally conforms to the applicable regulations of the County of San Diego GP and San Dieguito Community Plan; however, the Project would conflict with the SFVSP. Mitigation is required to reduce impacts.”

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O-4-67  
Cont.

O-4-68 The comment states that the existing uses on the site blend well with surrounding uses. The visual analysis for the project concluded that the existing uses, while not incompatible with surrounding uses, does provide a contrast to existing uses as they have evolved in the area. For a discussion of the site’s relationship to existing uses, please see Response O-4-34 above.

O-4-68

O-4-69

O-4-69 The comment states that uses to which the project is being compared are separated from the project site by a roadway and are separate neighborhoods. The land use study for the project appropriately examined uses adjacent to and nearby the project site up to a mile away. This provides an overall view of the area. Please see Responses O-4-20,-21,and-24 for additional discussions. Additionally, General Response 1 “Planning and Land Use” of the Response to Comments covers this topic.

O-4-70

O-4-70 The comment states the project is inconsistent with and incompatible with the SFVSP. The land use study (DSEIR Appendix O, Section 4.3) includes a discussion of the project’s consistency with the SFVSP. A conformance discussion is also provided in the DSEIR, Section 3.1.4.3 of the DSEIR, page 3-70+. The DSEIR analysis concluded that the project is consistent with the land use and community characteristics of the area. All comments made in the 4SSFV letter will be included in the DSEIR package that will be made available to decision makers prior to their decision about the project.

O-4-71

O-4-71 The comment cites text from the visual report. No issues are raised, so a response is not necessary.

O-4-72

O-4-72 The comment states that views from houses closest to the project on Silver Crest Lane were not evaluated. Key View 8 of the DSEIR pictures views from houses along Silver Crest Lane. The view was taken from a more northerly point along the hill to capture the full extent of the proposed use in the simulation. The photo for Key View 8 is from the hill at the base of the backyard and was taken outside the backyards of the residents so as not to trespass. Views from second stories were not taken but were assumed to be significant. The analysis of this key view determined that impacts to the views were significant and in need of early screening. Please see the DSEIR, Impact VIS-2a, page 2-19. Please see Response 48 above for the text of mitigation measure MM-VIS-2 and MM-VIS-3, which are proposed to reduce impacts to below a level of significance.

O-4-73

O-4-73 The comment cites text from the visual report. No issues are raised, so a response is not necessary.

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However, the mitigation placed on the project has NOTHING to do with or to mitigate land use, intensity, density or visual quality of the site. The only mitigation for this issue area has to do with the proposed wall and landscaping.

M-VIS-1 To screen the retaining wall along the northern site boundary, the Project shall:

- Paint or clad the wall with a non-reflective earth-toned material that is matched in color to the surrounding and planned vegetation along the wall.
- Incorporate vertical elements from the base of the wall to break the horizontals of the wall. These elements can be constructed elements or vegetation. Constructed elements shall be of a type and quality that complements the existing design. Vegetation elements shall be able to attain a height that would reach the top of the fence along the wall so as to integrate these two structures.

It should be pointed out that the SFVSP generally rejects the use of retaining walls in lieu of gradual and gentle transitions of slopes and requires protection of flood plain and watercourses (p 2-9), "Provide protection from loss of life and property from flooding while preserving all floodplains and watercourses in their natural estate. Utilize the linear geographic qualities provided by floodplains as locales for green belts, open space corridors, community footpaths, and parkland.

M-VIS-2 Install 36" boxed citrus, 10 gallon shrubs, and 10 gallon vines at the earliest possible point during Project construction. At corners of the eastern boundary, the proposed California peppers shall be 48" box size. Along the eastfacing sidewalk, the proposed crepe myrtle shall be 48" box size.  
For Impacts VIS-2a, VIS-2b, VIS-3b, and VIS-4b

M-VIS-3 Install 48" trees and 10 gallon shrubs along the decorative fence line.

To conclude "the project will not result in a reduced or poor visual quality or character" is not accurate or consistent with the goals, policies and objectives which identified (and planned) this parcel as low-medium rural residential with a 1 – 1.9 acre minimum lot size—not a mega project.

## CHAPTER 4, ALTERNATIVE

4.1.1 Alternatives Considered But Rejected from Further Study, states, in part, "It provides 9.09 acres, adequate room to accommodate buildings, parking, and access without disturbing biological resources." The project does in fact impact biological resources as identified in the biological technical report and as stated in Section 2.2.6 Mitigation (M-BI-1 and M-BI-2).

# Response to Comments Letter

O-4-

O-4-74

O-4-74 The comment asserts that visual mitigation placed on the project has nothing to do with land use, intensity, density, or visual quality. The DSEIR analyzes the project in light of its design features and proposes mitigation when these features are not adequate to fully mitigate an environmental impact. The visual assessment appropriately considered the extensive measures proposed to reduce visual effects in conjunction with visual mitigation measures. Design features include the architectural design, the placement of buildings, use of courtyards to reduce mass, building setback in all directions to reduce the apparent mass of buildings, preservation of open space, and varied, high quality architectural elements such as pavers, wrought iron fences, and trellises. Design features also include the use of muted colors to help the buildings and paved or graveled areas to blend with their surroundings. Design features also include the Concept Landscape Plan, which specifies plantings in multiple "layers" in each direction, which will provide multiple screenings of uses while retaining visual depth into the site. Visual mitigation measures are proposed where additional or faster visual screening is needed. VIS-1 (DSEIR Section 2.1.6, page 2-35+) provides for structural or planting solutions to the long retaining wall being proposed. VIS-2 and VIS-3 call for plantings of larger vegetation "boxes" to speed screening of construction and early phases of the project. The project's mitigation for visual effects, taken together with design features, provide adequate measures to reduce impacts to below a level of significance.

O-4-75

O-4-75 The comment relates to the use of retaining walls by the project, specifically that the SFVSP generally rejects their use. Retaining walls are used by the project to achieve important design features that have land use and visual benefits. Retaining walls are used to attain project consistency with surrounding areas in addition to their structural use. The northern retaining wall is used in part to prevent impacts to open space adjacent to the site. The retaining wall in this position will make entry into open space more difficult, thereby discouraging trespass into this sensitive area. The retaining wall on the south will allow the project buildings to be sited approximately 10 feet below grade.

O-4-76

O-4-76 The comment cites text from the visual report. No issues are raised, so a response is not necessary.

O-4-77

O-4-77 The comment presents a closing remark that the project will result in poor visual quality and character. For a discussion of visual quality, please see Responses O-4-20,-21,-24, and -75. No changes to the DSEIR are required as a result of the comment.

O-4-78

## Comments Letter

O-4-

The alternative analysis are inadequate, incomplete and do not have technical analysis to support the determinations. Furthermore, land use and traffic were not included in the alternatives assessment, rendering an incomplete thorough analysis. This section must be revised to include these two issue areas which both have technical studies included as appendices to the DSEIR, and technical data, studies and analysis to support the unsubstantiated impact assessment of the alternatives.

The Specific Plan-Designated Land Use Alternative should be built as it is the environmentally superior alternative and it is the ONLY alternative that is consistent with the General Plan and the SFVSP and would have the least number of impacts.

There are other sites that the applicant could develop this project. At a minimum the reduced development footprint alternative should be required as it would reduce impacts to biological resources.

To summarize, the CBC campus project DSEIR is inadequate in that it has many deficiencies and fails to provide sufficient information to evaluate the impacts of the project, ignores policies and objectives of the County General Plan and the Santa Fe Valley Specific Plan, generally accepted good planning practices, puts biologically sensitive open space at risk and changes the character of the neighborhood in our planning sub-area. The project is simply too intense a use for this location and requires numerous waivers and modifications to plans and zoning that show its clear incompatibility for the site.

Thank you for considering our concerns. You may address any questions to Dr. Kent, who is acting as spokesman for the MPAC at [jerrykent@cox.net](mailto:jerrykent@cox.net).

O-4-79

O-4-80

O-4-81

O-4-82

O-4-83

## Response to Comments Letter

O-4-

**O-4-78** The comment notes that a description of the proposed project in Section 4.1.1 of the DSEIR is in error. The County concurs with the comment. The statement in Section 4.1.1, page 4-3 is hereby modified (with underline representing additional and ~~strikeout~~ representing deletions) to read:

In addition, no alternative location is proposed because this site presents special features that make it the best choice for a project of this kind. It provides 9.09 acres, and adequate room to accommodate buildings, parking, and access with minimal impacts to ~~without disturbing~~ biological resources. It is lower than surrounding uses, making it less intrusive. And infrastructure is already available to the site.

This modifications does not change any conclusions in the DSEIR because the change is minor in nature and the project's impacts to biology are extensively analyzed elsewhere in the DSEIR.

**O-4-79** The comment states the alternative analysis is inadequate, incomplete, and have no technical component. The comment is acknowledged, but because no specifics are cited, a detailed response is not possible.

**O-4-80** The comment states that land use and traffic were not included in the alternatives discussion, rendering them incomplete. The primary purpose of the alternatives is to present feasible alternate approaches that reduce environmental impact. The project was analyzed for land use and traffic impacts, and, with the adoption of design measures, it was determined that these impacts were less than significant. Their inclusion would not then provide additional insight into how significant impacts can be reduced by the alternatives.

**O-4-81** The comment states the Specific Plan-Designated Land Use Alternative (SPDLU) should be built and that it is the only alternative that meets the GP and SFVSP plans and has the fewest impacts. The comment is acknowledged. The SPDLU calls for using the site for up to four residential lots, as currently designated by the SP. The No Project Alternative (NPA) has fewer impacts than the SPDLU and is consistent with the GP and the SFVSP. Neither the NPA nor the SPDLU meet the project objectives because no church would be built. Please see the DSEIR, Section 4.2.3, page 4-5, and Section 4.3.3, page 4-8 for a discussion of project objectives. All comments in and responses to the 4SSFV will be included in the DSEIR that is provided to decision makers prior to their decision about the project.

**O-4-82** The comment states there are other sites for the project and that at a minimum the Reduced Development Footprint Alternative should be chosen over the proposed project. Chapter 4.0, Section 4.1.1 details why alternative sites were not discussed in the DSEIR. These generally related to limited choices in the region, limitations of sites that are available, and the similarity of infrastructure impacts likely to occur. The comment about the reduced footprint alternative is noted.

**O-4-83** The comment asserts as a summation that there are many deficiencies in the DSEIR, that it fails to address impacts, ignores policies and objectives of General Plan and SFVSP, good planning practices, puts biological resources at risk, and changes the character of the neighborhood. The County acknowledges the comment. All comments in and responses to the 4SSFV letter will be included in the DSEIR that is provided to decision makers prior to their decision about the project. The foregoing responses have supported the completeness of information provided in the DSEIR. Completeness of mitigation measures has been addressed in Responses O-4-36 and -48. Conformance with the GP and SFVSP has been illustrated, for example in General Response 1 of Response to Comments, as well as in Responses O-4-21,-22,-24 and -25. The quality of planning used to prepare the DSEIR is addressed in Response O-4-33 and is reflected in the depth and accuracy of information included in this letter. Biological preservation has been discussed in Responses O-4-7,-13,-15,-22,-28,-36 and -60 among others. Community character has been discussed for example in Responses O-4-24, -25 and -64, among others. The overall discussion has shown that the DSEIR is complete and accurate.

The comment also notes the project is too intense for the location and that it requests waivers. The density of the site in relation to the community has been discussed in comments O-4-6,-20,-21,-51 and -52, among others. A General Response is also provided in the Response to Comments, General Response 1. The discussion concluded the project density is compatible with the existing community as a whole. The project has prepared a specific plan amendment to allow the church use in lieu of the designated low density residential use designation of the adopted SFVSP, in conformance with County regulations. The project requests a single exception to existing zoning for the project to allow towers that will add visual interest and raise the quality of the constructed setting. The last paragraph of the letter concerns contact information for Mr. Kent and does not raise an environmental issue.

# 4S SFV MPAC

4S Santa Fe Valley Mega-Project Abatement Coalition

October 8, 2017

Department of Planning and Development Services  
County of San Diego  
ATTN: Marisa Smith, Project Manger  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

Subj: Comments to DSEIR

Ref: Chinese Bible Church of San Diego  
PDS2014-SPA-14-001, PDS2010-3300-10-037(MUP), PDS2012-3940-12-002(VAC),  
PDS2010-3910-9508007L(ER), SCH# 21401 1018

Dear Ms. Smith:

I am writing in response to the request for comments during the public comment period regarding the DSEIR for the referenced CBC campus project. I am the spokesman for the MPAC and a resident of the Savenna development whose only access is via Four Gee Road. The CBC site is completely visible from my property. This letter and others are in addition to a response being drafted by Coast Law Group, the attorneys for the MPAC.

The DSEIR makes the claim that the project “would remain compatible with the community character of the surrounding neighborhood” and “approval of the project would not alter the community character of the project area.” Also mentioned is that all impacts have been mitigated and are no longer significant. I disagree with both of these assertions and provide the proofs for some of my objections in a PowerPoint briefing I plan to deliver to the San Dieguito Community Planning Group this coming Thursday. Had you planned on attending?

In summary, in the briefing I give quantitative proof of the project 's inability to harmonize with the existing scale, bulk, cover and density and numerous other arguments among which are the inconsistencies of the project with the General and Specific Plans that govern land use in the Santa Fe Valley. As a result, I do not believe that the findings can be made to grant the requested MUP.

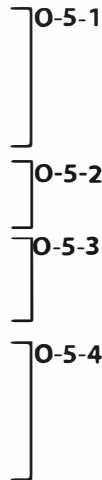
[jeirykent@cox.net](mailto:jeirykent@cox.net) • 358 829-3064

**O-5-1** The County of San Diego appreciates the comments on the Draft Supplemental Environmental Impact Report (SDEIR) by Mr. Gerald Kent on behalf of the 4S Santa Fe Valley Mega-Project Abatement Coalition. Detailed responses are provided below. Numbers here correspond to the numbered brackets that have been added to Mr. Kent’s letter. The Coast Law Group letter is included in these Response to Comments as letter B. No DSEIR issues are raised in the comment so no response is necessary.

**O-5-2** The comment summarizes conclusions from the DSEIR. No specific issues are raised in the comment and no response is necessary.

**O-5-3** The comment notes that Mr. Kent disagrees with conclusions in the DSEIR noted in comment O-5-2. The County acknowledges the comment. This comment letter will be combined with other comments made during the public review period for the DSEIR, along with the County’s responses. Comments and responses will be included in the DSEIR that is provided to decision makers prior to their making a decision about the project.

**O-5-4** The comment concerns Major Use Permit (MUP) findings and conformance with the General Plan (GP) and the Santa Fe Valley Specific Plan (SFVSP). The land use report (DSEIR Appendix O) was prepared to analyze the land use compatibility of the proposed Chinese Bible Church and includes a discussion of findings and conformance with the GP and SFVSP. The basis for the analysis was an analysis of land uses in the immediate area as well as nearby uses. Chapter 1.0 includes a detailed inventory of uses, and maps in the study show the proximity or residential areas. Photographs 1-3, for example, picture uses immediately adjacent to the site. Consideration of a wider area is appropriate in providing a complete picture of the uses as they have evolved since the SFVSP was first written. Table 1, Summary of Surrounding Land Uses, includes the uses immediately adjacent to the site as well as those nearby. The compatibility analysis (Chapter 2.0) includes adjacent residential uses in the discussion. Additional details are provided in the general response about land use in Chapter 8.2.1, General Response 1, Planning and Land Use.



Comments Letter

O-5-

My opposition is also joined by the four nearby HOAs that have promulgated motions opposing the project and the 4,000 signatures we obtained on a petition against the project.

I would like to meet with you to discuss some of the issues and will contact you next week after the dust has settled on the end of the comment period.

Sincerely,



Gerald I. Kent, Ph.D.

] O-5-5

] O-5-6

Response to Comments Letter

O-5-

**O-5-4** Chapter 2.0 of the land use report (Appendix O) discusses in detail how findings for the project can be made. Findings for the MUP have been prepared and are part of the package that decision makers will receive prior to making their decision about the project. The report concludes that findings can be made because the proposed use, with the design parameters proposes and summarized in the DSEIR, is consistent with uses in the area. The project's ability to make necessary findings required by the MUP as related to bulk, scale, and other factors, is also discussed in Section 3.1.4.3 of the DEIR.

General Plan consistency is analyzed in the DSEIR, Section 3.1.4.3. Two tables, 3.1-17, and 3.1-18, detail consistency issues with the General Plan guiding principles and the goals and policies. The land use report includes a discussion of the project's consistency with the Santa Fe Valley Specific Plan (SFVSP) (see Section 4.3 of the report, Appendix O). The analysis is also included in the DSEIR, Section 3.1.4.3 of the DSEIR, page 3-72+.

**O-5-5** The comment notes opposition to the project by four other Homeowners Associations (HOAs) in the area. The County acknowledges the comment. This comment will be included in the DSEIR that is provided to decision makers prior to their making a decision about the project.

**O-5-6** The comment has to do with scheduling a meeting. No issues about the DSEIR are raised and no response is necessary.

Comment Letter  
O-5

Response to Comment Letter  
O-5



**O-5-7** The comment is the first page from a PowerPoint presentation by Mr. Kent. This page introduces the presentation and makes no specific comments about the DSEIR. No response is necessary.



4S SFV MPAC

## Site *Inappropriate* for the Proposed Multi-use Facility

□ Required findings to grant MUP *not possible*

□ Proposed project *inconsistent* with *policies, goals and objectives* of the Santa Fe Valley Specific Plan

□ No sufficient reason to grant SP amendment, rezone or height waiver

□ This use is in conflict with the land use intent of the Specific Plan.

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2

0-5-8

- O-5-8** The comment makes four general statements about the Project, regarding MUP findings and plan consistency. None of the statements raise a specific issue with the DSEIR, so no specific response is possible. General Response 1, Planning and Land Use, and EIR Section 3.1.4.3 “Physical Compatibility with Surrounding Areas/Community Character”, starting on page 3-76, provide a comprehensive response to issues that these statements touch on.

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7358 Findings are Required to Grant an MUP (1)

Before any use permit may be granted or modified, it shall be found:

- a. That the location, size, design, and operating characteristics of the proposed use will be compatible with adjacent uses, residents, buildings, or structures, with consideration given to:
  - 1. Harmony in scale, bulk, coverage and density;
  - 2. The availability of public facilities, services and utilities;
  - 3. The harmful effect, if any, upon desirable neighborhood character;
  - 4. The generation of traffic and the capacity and physical character of surrounding streets;
  - 5. The suitability of the site for the type and intensity of use or development which is proposed; and to
  - 6. Any other relevant impact of the proposed use; and (con't next page)

O-5-9

O-5-9 The comment cites the text of required findings. No issues about the DSEIR are raised and no response is necessary.

4S SFV MPAC

## 7358 Findings are Required to Grant an MUP (2)

Before any use permit may be granted or modified, it shall be found:

- b. That the impacts, as described in paragraph "a" of this section, and the location of the proposed use will be consistent with the San Diego County General Plan.
- c. That the requirements of the California Environmental Quality Act have been complied with.

O-5-9  
Cont.

- O-5-9** The comment cites the text of required findings. No issues about the DSEIR are raised and no response is necessary.

**4S SFV MPAC**

## Proposed Development Incompatible with Adjacent Uses

**O-5-10**

Site is bordered by open space and residential within the Santa Fe Valley Specific Plan



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**O-5-10** The comment states that the Project is incompatible with adjacent uses. It notes the Project is bordered by open space and residential uses. The project does not make a specific comment on the DSEIR. General Response 1, Planning and Land Use, provides a comprehensive response to issues the statement touches on. The County agrees that the site is bordered by residential uses and open space, but notes that it is also bordered by civic uses.

**4S SFV MPAC**

## Proposed Use Incompatible with Adjacent Uses

**O-5-11**

Proposed	Type	Adjacent	Compatible?
Church	Civic	No	No
Pre-school	Civic	No	No
Café	Commercial	No	No
Bookstore	Commercial	No	No
Residence	Residential	Yes	No
All of the above	All	No	No

▢ There are no other properties in the SFVSP that comprise a combination of commercial, residential and civic uses  
▢ All other civic uses serve the entire community

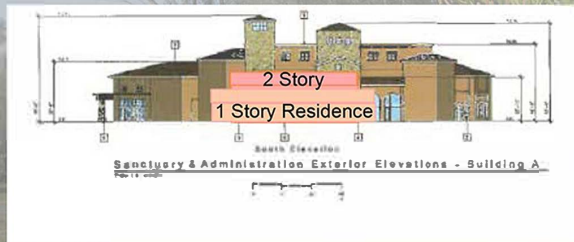
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**O-5-11** .The comment provides a land use table and notes the proposed use is incompatible with existing uses. Column 3 ignores the fire station, which is an adjacent civic use. The table shows the proposed uses to be church, pre-school, café, bookstore, and residence. No pre-school or residences are proposed by the project. The café and bookstore are ancillary to and are in support of the church function, and are not as such commercial uses such as would be found in Black Mountain Ranch North Village located approximately 550 feet to the southwest. Sleeping accommodations will be provide for congregants who will remain at the facility for days up to a few weeks while they undertake Bible study or participate in symposia or missionary training. These will be guests and the stays will fall within the scope of transient occupation in conformance with County regulations. Column 4 of the table indicates none of the proposed uses are compatible with adjacent uses. Reasoning is not provided so a detailed response is not possible. However, churches are generally considered to be compatible with residential and other civic uses. The comment states there are no other properties that represent a combination of these uses within the SFVSP. The statement provides no specific reasoning as to why this is an undesirable use. Additionally, mixed use is a common use type in the area. These include Maranatha Church, Del Norte High School, and Design 39 School, among others. The comment also states all other uses serve the entire community. This is a subjective statement unsupported by facts. It is not an exaggeration to say that schools, churches, and medical facilities, to name a few, serve the entire communities in which they are located. The project is being sponsored by the Chinese Bible Church of San Diego which is an open church that welcomes visitors and new members alike. The church has stated its café and bookstore, as well as its services, will be open to all.

4S SFV MPAC

## Scale, Bulk, Coverage And Density Towers Over Adjacent Uses

- Scale of campus buildings far exceeds surrounding residences **O-5-12**
- Articulation of the sanctuary *cannot resolve* the large scale
- 4 additional multi-story buildings amplify the problem



*Excessive Scale of the campus buildings fails harmony test,  
prohibits required finding for MUP*

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7

- O-5-12** The comment briefly states that scale, bulk, coverage and density tower over adjacent uses. Buildings will not tower over other uses because of the site topography and project design. The statement is general in nature and so a detailed response is not possible. General Response 4, Visual Resources, DSEIR Section 8.2.1, provides a comprehensive response to visual effects.

It further states the scale of the project far exceeds surrounding residences, that articulations of the sanctuary will not resolve the scale issue, and that multi-story buildings are a problem. These points do not raise specific issues with the DSEIR, so no specific response is possible. General Response 1, Planning and Land Use and EIR Section 3.1.4.3 "Physical Compatibility with Surrounding Areas/Community Character", starting on page 3-76, provide a comprehensive response to issues that these statements touch on.

The comment further states the project fails to address all required findings for the MUP, and provides a table on page 69 of these Response to Comments. The table states there are no civic uses adjacent to the project. The County disagrees with these statements. Please see General Response 1, "Planning and Land Use," referred to above. The project considers both adjacent and nearby uses. This requires that the analysis go outside of the SFVSP area to encompass existing uses and provide a fair and balanced assessment of the site. Considering only the uses surrounding the project does not provide an accurate or balanced picture of the area. For example, using the table, the fire station across the street from the project entrance would not be included in the land use analysis. This would be a distortion of the actual uses that are part and parcel of the community character of the area.

**4S SFV MPAC**

## Project Update Fails to Address All Criteria for MUP

**O-5-12**  
Cont.

- ❑ Scale, Bulk, Coverage and Density Harmony
- ❑ Comparisons should be:
  - Within planning area • Fair • Representative

Adjacent Land Use	Perimeter (Est. ft.)	Adjacent Periphery	Considered	In Planning Area?
Single Family	1,234	45%	Yes	No
Apartment	200	7%	Yes	No
Civic	0	0	No	N/A
Commercial	0	0	No	N/A
Open Space	1,330	48%	No	Yes

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**O-5-12** Cont. The comment states on page 9 that the smaller buildings of the project do not scale to single family homes in the area. When all uses in the area are considered, the smaller buildings scale well in a comparison. For example, the apartments south of the project are approximately 40 feet in height and are at an elevation of approximately 10 feet above the proposed project elevation. This compares to the fellowship hall (Building D) which will be 32.5 feet. Even the sanctuary building, at 40 feet with a height exception, will be no taller than the apartments. Even considering single family homes, the homes to the east are 30 feet in height, which is just 2.5 feet lower than the second tallest building proposed, the Fellowship Hall. Two of the buildings, C and B, will be 29.5 feet in height, which makes them shorter than some residences. The mass of the building in question are by their nature different. The masses of the smaller buildings compares favorably with the nearby apartments, and the civic uses to the southeast and west.

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## Even Smaller Buildings *Do Not Scale* to Adjacent Homes

- We make our comparisons within our planning area, but proposer goes far beyond
- No transition is provided to single family homes
- La Viña (South) >>>>>>>
- Rosemary Lane (East) >>>>
- Campus buildings **2-1/2 times the size** of homes
- Sanctuary and towers have up to **50% additional height**



O-5-12  
Cont.



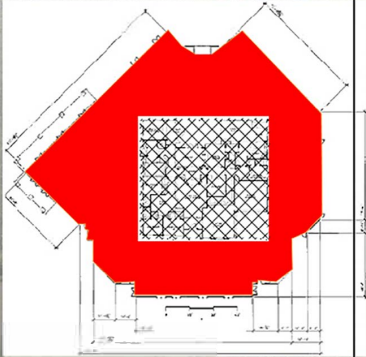
4S SFV MPAC

## Scale, Bulk, Coverage And Density Far Exceeds Surrounding Uses

O-5-13

- The bulk of the campus buildings far exceeds that of the surrounding residences
- The Savenna 1 story including courtyards fits well inside the sanctuary seating area!
- Footprint of 2 story homes is even smaller
- Residence heights lower than main building *and ½ of tower*
- Bulk is not in harmony with surroundings or plan
- Bulk cannot be reduced by articulation

*Cannot make finding for MUP: buildings of incompatible bulk*



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**O-5-13** The comment address the bulk of the project. It includes a plan view of the sanctuary building with a house plan superimposed. The County acknowledges that the sanctuary has more bulk than any one single family residence in the area. This is expected due to the different use envisioned. But single family homes are not the only land use in the area, as discussed in General Response 1, Planning and Land Use. The bulk of the sanctuary was compared to a range of uses in the area. Using a balanced approach, consideration of all uses in the immediate and nearby area is appropriate. This would include the mass of the apartments to the southeast. Please note General Response, Visual Resources, and EIR Section 3.1.4.3 “Physical Compatibility with Surrounding Areas/Community Character,” starting on page 3.76, for a comprehensive response to the issue of bulk.

The comment on page 70 addresses the bulk of the project and includes a table that compares the volume of the sanctuary building with residential and civic uses. The bulk of the sanctuary needs to be compared to a range of uses. Please see General Response 4 and EIR Section 3.1.4.3 “Physical Compatibility with Surrounding Areas/Community Character”, starting on page 3-76 for a comprehensive response to the issue of bulk.

**4S SFV MPAC**

## Scale, Bulk, Coverage And Density Far Exceeds Surrounding Uses

**O-5-13**  
Cont.

Use Type	Footprint (ft <sup>2</sup> )	Height (ft)	Volume (ft <sup>3</sup> )	Factor
Sanctuary Example	20,000*	35	700,000	1.0 (base)
Residential	3,234	23.8	78,830	8.9
Civic	10,000	20	200,000	3.5

\* Minimum

Cannot make finding for MUP with a factors of ~3.5–9  
in bulk

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**O-5-13** The comment address the bulk of the project. It includes a plan view of the sanctuary building with a house plan superimposed. The County acknowledges that the sanctuary has more bulk than any one single family residence in the area. This is expected due to the different use envisioned. But single family homes are not the only land use in the area, as discussed in General Response 1, "Planning and Land Use." The bulk of the sanctuary was compared to a range of uses in the area. Using a balanced approached, consideration of all uses in the immediate and nearby area is appropriate. This would include the mass of the apartments to the southeast. Please note General Response, Visual Resources, and EIR Section 3.1.4.3 "Physical Compatibility with Surrounding Areas/Community Character," starting on page 3.76, for a comprehensive response to the issue of bulk.

The comment on page 72 addresses the bulk of the project and includes a table that compares the volume of the sanctuary building with residential and civic uses. The bulk of the sanctuary needs to be compared to a range of uses. Please see General Response 4 and EIR Section 3.1.4.3 "Physical Compatibility with Surrounding Areas/Community Character", starting on page 3-76 for a comprehensive response to the issue of bulk.

4S SFV MPAC

## Scale, Bulk, Coverage And Density Far Exceeds Surrounding Uses

O-5-14

Surrounding Use Type	Surrounding Coverage (Build area/acre)	Proposed Coverage (Build area/acre)	Overage (factors)
Open space	0	0	∞
Residential	3,234	6,092	1.9
Civic	3,354	6,092	1.8

Cannot make finding for MUP with a factor of ~2 in coverage usurps SP transition policy

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**O-5-14** The comment addressed coverage of the project. The land use analysis (Appendix O) and the DSEIR visual analysis (page 2-20) and the land use analysis (Section 3.1.4.2, page 3-64) extensively discuss coverage in the area. Please see DSEIR Table 3.1-16 for a summary of uses, their heights and coverage. The analysis concludes that the project is consistent with uses in the area in terms of lot coverage.

**4S SFV MPAC**

## Scale, Bulk, Coverage And Density Far Exceeds Surrounding Uses

**O-5-15**

Existing		Proposed		
Surrounding Use Type	Surrounding Density (pop/acre)	Proposed Density 2,500 (pop/acre)	Design Density 3,750* (pop/acre)	Overage Multiplier (factors)
Open space	~0			
Residential	4.5	297	445	66 / 99
Civic	4.2	297	445	70 / 106

\* We will show more likely based on local church demographics

**Cannot make finding for MUP with such dramatic factors in density**

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**O-5-15** The comment states population density far exceeds surrounding uses. Density in planning terms generally refers to the number of dwelling units per acre (Zoning Ordinance (ZO) Section 4110a). In planning terms the density of the site is 0 because no permanent residents will live there. Regarding an analysis of population effects, this is reflected in the traffic report, which measures the number of vehicle trips that would be expected from the number of participants proposed. The assertion that the project will generate more than the projected number of participants does not take into account that the project is being proposed in two phases, with the first phase consisting of a 1000 seat sanctuary and the second phase adding 500 more seats, for a total of 1,500 seats. The DSEIR's various analyses used this larger number is assessing project impacts. Therefore growth has been built into the analysis. No changes to the DSEIR are required as a result of the comment.

The comment, page 75, states the project fails on a quantitative basis, and includes a table. The statement asserts a private opinion and table cannot be understood absent the context of an accompanying narrative. No response is necessary.

4S SFV MPAC

## Every Aspect of Harmony in Scale, Bulk, Coverage and Density **Fails** on a Quantitative Basis

O-5-15  
Cont.

	Residential	Civic
Scale	~3	
Bulk	8.9	3.5
Coverage	1.9	1.8
Density	66/99	70/106

*Finding for MUP not possible based on lack of harmony*

**4S SFV MPAC**

## Concerns Lead to Uncertainty

- Peak campus population
  - Originally stated as 2,500
  - Current proposal: not mentioned
  - Local church metrics lead to 3,750; **should be used to evaluate impacts**
  - Especially since CBC will hold 3 services, where others at most 2
  - Drives problems in parking, traffic and GHG emissions
- Pre-school/kindergarten
  - Omission reduces traffic, GHG, **but**
  - **Was important** objective previously
  - Still appears in **some** submitted docs
  - **Is consistent** with CBC's stated mission
  - **No facility reduction** accompanied the omission
  - Is a **reasonably foreseeable growth** path for the campus
  - **Impacts must be included**

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**O-5-16** The comment states the church usage will be higher than the 2,500 congregants originally stated for the Project. This number does not occur in the DSEIR or the traffic study for the project. The DSEIR is clear that 1,500 seats will be provided after the conclusion of the two planned phases of the project (DSEIR Section 1.2.2.6, page 1-6). Please see Response O-5-15 above. The comment also states parking, traffic, and GHG emissions would be a problem within the context of a peak campus population. Estimates from “other church metrics” are not defined and so a response is not possible.

**O-5-17** The comment discussed the pre-school for the project. No pre-school is proposed for the project. A response is not necessary.

**4S SFV MPAC**

## Building Metrics Support a Population of 3,750 >> 2,500

- Local churches
  - Maranatha: 2.5 attendees / seat
  - Church at Rancho Bernardo: 2.5 attendees / seat
  - Rock Church: 2.89 attendees / seat
- Proposed project
  - The Proposer claims slow growth, however:
  - 1,500 seats x 2.5 = 3,750 attendees
  - Originally proposed population of 2,500 understated by 1,250, a 50% increase
  - The 50% will impact:
    - Traffic - Parking - Noise
- *Population base has already grown!*
  - Original: 2 campuses combined • Current: 3 campuses to be combined

**Understatement calls analysis integrity into question**

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**O-5-18** This comment states building metrics support a population of 3,750 versus 2,500. The comment sites attendance data from three local churches to support the idea that use of the site will be more intense than planned. It also sites 2,500 as a previously stated usage number for the Project. An overall attendance estimate for the project is not given in the DSEIR and is not required for an accurate environmental analysis. Traffic, air quality and greenhouse gas analyses use methodologies tied to vehicle trips. SANDAG's "(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region" (2002) for weekday trips and on Institute of Transportation Engineers trip generation rates from the 8th edition for weekend trips provide accepted methodologies for estimating traffic. No changes to the DSEIR are needed as a result of the comment. Please see Response O-5-16 for a discussion of the potential growth of the church population.

4S SFV MPAC

## Density Comparison Defines Level of Intensity

O-5-19

- ~300 people/acre: Proposed  
2,500 stated peak load over ~8.42 acres
- ~425 people/acre: “Qualcomm Stadium”  
70,561 people over 166 acres
- ~445 people/acre: Based on Local churches  
Metrics from other churches yields population of 3,750 over ~8.42 acres

*Higher density than the “Q”?*  
*A Low –Medium neighborhood adjacent to open space is no place for this intensity of development*

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O-5-19 The comment relates to the number of congregants that might use the site. Please see Responses O-5-16 and O-5-18 above.



4S SFV MPAC

## Neighborhood Character Dramatically Changed by Traffic / Parking

- **Now:** Four Gee / Campania used for recreation, *rarely for parking*
- **With MUP:** Generation of traffic, excess trips
  - 1,660 trips for 2,500 attendees on weekends
  - 2,500 trips for 3,750 attendees (more likely)
  - Pre-school impacts should be considered
    - 300 ADTs preschool drop-off/pickups at rush hour
    - 382 ADTs for 860 daily population
  - Updated CBC traffic study will be reviewed in another comment
- **With MUP:** Weekend parking overflow exceeds local street capacity
- **Design plan not guarantee compliance**
  - Drop-offs in residential areas, on busy 4 lane major; Examples of problems
    - Oak Valley MS
    - Westview HS

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18

**O-5-20** The comment states community character will be dramatically changed, enumerates attendance assumptions for the project and suggests that there will be excess traffic trips. The comment uses figure of 2,500 attendees, includes a “more likely” level of traffic of 3,750 attendees, and states the pre-school should be considered as a traffic generator. Please see Responses O-5-16 and O-5-18 above

**O-5-21** This comment addresses neighborhood character within the context of traffic and notes that Four Gee and Campania is used for recreation, rarely for parking. The project is not proposing any on-street parking. All parking will occur within the project site. The project provides 417 parking spaces, more than the 375 spaces required by the County of San Diego. In addition it includes an overflow parking area. A shuttle will be operated by the church to reduce the number of cars entering the neighborhood. Congregants will also be asked not to park off-site. The project design includes a large circular drive located well within the project boundaries that is designed for easy drop-off of congregants. The Project uses methodology in the County of San Diego Parking manual to estimate parking needs. The comment (page 80) also includes a table that relates linear feet of parking to a population number. For a discussion of the use of overall population numbers, please see Response O-5-18.

4S SFV MPAC Updated to reflect 9/17 proposal

## Parking Requirements Will Overflow the Neighborhood

**O-5-21**  
Cont.

Campus Population (No. People)	Ratio (persons/car)	Parking (Cars)	Site Overflow (Cars)	Site Overflow (Curb ft)	Neighborhood Overflow (Curb ft)
2,500	2.00	1,250	875	17,500	<b>10,500</b>
2,500	2.29 <sup>1</sup>	1,095	720	14,400	<b>7,400</b>
2,500	2.50 <sup>3</sup>	1,000	625	12,500	<b>5,500</b>
2,500	4.00	625	250	5,000	<b>0</b>
3,750 <sup>2</sup>	2.29 <sup>1</sup>	1,638	1,263	25,260	<b>18,260</b>
3,750	2.50 <sup>3</sup>	1,500	1,125	22,500	<b>15,500</b>
3,750	4.00	938	563	11,260	<b>4,260</b>
On-site pkgng= 417 <sup>4</sup>		20 curb ft/car		7,000 curb ft available	

1 2.29 persons/car is average from several church planning organizations  
Range of 1.8-3 stated to be more realistic than government "allowed"

2 3,750 likely peak population based on local churches

3 Zoning Code proposed amendment. Only ratio proposed by staff not accepted by BoS

4 Current proposal

© 2012-2017 Miles of curb necessary outside the neighborhood in most cases 19

**4S SFV MPAC**

## Added Traffic Far Exceeds Planned Infrastructure

**O-5-22**

- The proposed land use is religious assembly/multi-use
- The ancillary uses include: • Education (Pre-K & K) • Restaurant (Café) • Retail (Bookstore) • Offices • Lodging (Short-stay hotel) • Recreation
- Phase I (1,000 Seats, 50 pupils) • Phase II (1,500 Seats, 150 school pupils)
- Unplanned future phases for eventual growth
- Baseline vehicular traffic for the project site is *Residential*

Period	SFVSP Base (ADT)	Proposed Project PH I (ADT)	Proposed Project PH II (ADT)	Base Multiplier* (factors)
TOTAL Weekday	48	857	1,084	22.6
TOTAL Weekend	48	1,707	1,903	39.6

The intensity of proposed uses far **exceeds** planned Residential ADT baseline **large multiples**

A separate document will consider DSEIR traffic issues

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**O-5-22** This comment states added traffic far exceeds planned infrastructure, and cites the pre-school and “unplanned future phases.” A pre-school and phases beyond Phase 2 are not a part of the project. For a discussion of traffic and infrastructure, please see General Response 3, “Traffic, Parking, and Queuing” in DSEIR Section 8.2.1. The comment also includes a table, but the content is not clear absent additional supporting information. No response is necessary.

4S SFV MPAC

## Residential Neighborhood Character Would be *Changed by More than Just Traffic*

- Currently Quiet
  - Residential • Open space • Park
  - Cyclists • Runners
  - Bridle path
- Character changes
  - Commercial hours of operation to 10:00 PM inappropriate for L-M zoned residential area
  - Out of scale buildings
  - Many people – *99.24% from outside the area – outdoor recreation, audio*
  - Heavy Traffic, impacted intersection, blocked driveway
  - Significant Street Parking overflow with cruising traffic
  - Illuminated signage without blinking/flashing/strobe
  - Bell tower
    - Way out of scale, noisy if used
    - There are no others

O-5-23

**O-5-23** This comment states that neighborhood character would be changed by commercial hours, out of scale buildings, many people, heavy traffic, street parking, illuminated signs, and a bell tower. No details of these assertions are provided, so a specific response is not possible. For a discussion of the land use issue, please see General Response 1 “Planning and Land Use” in DEIR Section 8.2.1.

**4S SFV MPAC**

## Site *Not Suitable* for the Proposed Intensity of Use

**O-5-24**

- Planned as Rural Residential Use Regulation and LM Density (0.53 – 1 du/acre)
- Single access
  - Across from fire station – impacting response and public safety
  - Too close to La Viña drive (violates Public Roads Standard)
  - Close to Camino del Sur Intersection
- Large traffic load when neighborhood cars active
  - On weekends (multiple services/fellowship/Sunday school, book store, café)
  - At rush hour during the week (drop-off/pick-up) *with pre-school properly included*
- Incompatible operations for residential area:
  - 7 days/week
  - Mixed use
- Large parking area highly visible (20 feet below grade of adjacent homes)
- Added traffic exceeds residential base by large multiples
- Overflow parking will saturate local streets at peak
- Biologically sensitive open space border (48%), adjacent to Artesian Creek
- Adjacent residential (52%)

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**O-5-24** The comment states the project is out of character for the proposed intensity of use, and cites proximity of the fire station, roads, traffic volumes, incompatible operations, visible parking areas, open space, and adjacent residential uses. These statements are presented in summary form, so a detailed response is not possible. Please note that the number of operational events was reduced in response to comments about project operations. Please see General Responses 1 - 4 "Planning and Land Use, Biology and the Resource Protection Ordinance, Traffic, and Queing, and Visual Resources" for comprehensive responses to the issues raised.

**4S SFV MPAC**

## Scale/Bulk/Coverage/Density Inconsistent with General Plan

- Multiple-use should be in commercial centers
  - Minimize traffic
  - Maximize pedestrian activity
- Proposed project *lacks* transition
  - Intensity is population/operation based
  - Violates **General Plan** requirement
  - Adjacent to
    - Open space
    - Single family residential
    - Consideration of comparisons outside planning area to justify land use changes violates GP policy
- Remainder parcel anticipated zoning (LM: 0.53 – 1 du/acre)  
4 remaining lots for estate style homes
- Zoning /category should not be adjusted to allow height of 53 ft

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**O-5-25** The comment states the scale, bulk, coverage, and density are inconsistent with the General Plan. It also states multiple uses should be in commercial centers. The comment makes general assertions so a detailed response is not possible. Please see EIR Section 3.1.4.3 “Physical Compatibility with Surrounding Areas/Community Character”, starting on page 3-76 for a discussion of the issues raised. The comment about multiple uses does not raise an issue with the DSEIR so no response is necessary.

**O-5-26** The comment states the project lacks transition due to intensity, violation of the General Plan, and adjacency to open space. Please see General Responses 1 (Planning and Land Use and 2 (Biology and Resource Protection Ordinance) for comprehensive discussions these issues.

**O-5-27** This comment states the anticipated zoning for the site would allow 4 lots. It also asserts the allowed height should not be adjusted. Please see General Response 1 for a discussion of both of these issues.

**4S SFV MPAC**

## Proposer's Project **Violates** Mandates of the Santa Fe Valley Specific Plan

- **The designated non-residential property in the SFVPA:**
  - Designed to service the Community (17,590)
  - Is itself of low intensity use
  - Has fixed size driven by the plan for the allowed residential population support services
  - Is placed in high density areas where necessary to minimize traffic generation
- **Proposed project**
  - Congregation (134) is a small fraction (0.76%) of the 4S Ranch population (17590)
  - Serves people mostly from outside the area
  - Is of high intensity use itself (increment of 2,500 people, unsupported by current infrastructure)
  - Generates unplanned traffic
  - **Has unlimited growth potential**
- **Non-residential zoning should be intentionally located\***
  - In the high-density residential area
  - Within walking distance of high-density residential
  - Mandated to reduce traffic, not increase traffic

© 2012-2017 \* By mandate of the SFVSP 24

**O-5-28** This comment states the Project violates the mandates of the SFVSP because non-residential properties in the SFVSP are designated to serve the community, are low intensity uses, have a fixed size, and are placed in high density areas. These characteristics fit the project as proposed. Please see Response O-5-11 and General Response 1, "Planning and Land Use."

**O-5-29** The comment states that non-residential zoning should be located in high density areas, within walking distance of high density residential. Project zoning and proximity to high density residential uses supports these principles. Many non-residential uses are located in the area for similar reasons. These include the high school, middle school, churches, and commercial uses.

The comment also notes non-residential uses should be mandated to reduce traffic. Non-residential uses by their nature include traffic. Traffic can be reduced by the use of shuttles and by offering multiple functions at a given destination. The project incorporates both of these measures.

**4S SFV MPAC**

## Non-residential Uses in Region Are Appropriately Sited

**O-5-30**

- **Library**
  - Staff population small, visitors distributed in time
  - In commercial area
  - Adequate parking
- **Fire House**
  - Continuous small staff population
  - On side of street with park
  - Serves community very well
- **Sewage treatment**
  - Largely hidden
  - Staff population small
  - Uses school road for access
- **Shopping**
  - Dedicated commercial areas
  - Adequate off-street parking
  - Multiple access points

*Services are designed to standards set and required by the SFVSP.*

*A large increment to even a transient population, would require additional infrastructure.*

*All built to serve residents, no large outside growth potential*

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**O-5-30** The comment states non-residential uses in the region are appropriately sited. Please see Responses O-5-28, and -29 and General Response 1, "Planning and Land Use."



4S SFV MPAC

## Community Opposes this High Intensity Project

Updated 9/17

O-5-31

- Four local HOAs adopted resolutions *opposing* the Proposed Project
  - Savenna–Bel-Étage
  - Salviati
  - La Viña
  - 4S Ranch
- Rationale for resolutions
  - Local residents have largest negative impacts
  - Directors trying to protect their communities
  - Diminution of property values
- 4,000 Signatures on petition against the development

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**O-5-31** The comment states four local HOAs have adopted resolutions opposing the Project. It also states that 4,000 signatures were gathered opposing the project. The County acknowledges the comment. No issues related to the DSEIR were raised, so no response is necessary.

**4S SFV MPAC**

## Recommendation Should be to *Deny* SP Amendment and MUP

O-5-32

- ❑ Proposed project is **NOT CONSISTENT** with the Goals, Objectives, and Policies of the Santa Fe Valley Specific Plan
- ❑ No support for discretionary grant of MUP
  - Out of harmony: scale, bulk, coverage, density & operations
  - Is not consistent with existing neighborhood character—
  - Significant, **un-mitigable** harmful impact on community
  - Commercial operation: 7 days/week, 10:00 PM / 24 hours/day
  - Inappropriate next to single family residences
  - Does not support open space mandate
  - Inconsistent with General Plan
- ❑ Currently services tiny portion (**0.76%**) of the 4S Ranch and Santa Fe Valley
- ❑ Required accumulated exceptions prove incompatibility
- ❑ *SDCPG spent 2 years carefully planning the Santa Fe Valley to have a rural/semi-rural character and provide a livable environment for the residents. It should not be changed now!*

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**O-5-32** The comment summarizes opposition to the Project, stating it is not consistent with the SFVSP, does not support a MUP, serves a small part of the 4S Ranch community, requires exceptions, and because the rural/semi-rural use of the site should not be changed. Specific responses are not possible due to the generality of the statements. General Response 1, "Planning and Land Use," and EIR Section 3.1.4.3 "Physical Compatibility with Surrounding Areas /Community Character", starting on page 3-76 provide a comprehensive response to these issues.

Thank you for the opportunity to comment on the Draft Supplemental Impact Report notice dated August 24, 2017 for projects PDS2014-SPA-14-001, PDS2010-3300-10-032(MUP), PDS2012-3940-12-002(VAC), PDS2010-2910-9509007L(ER), SCH#214011018

Comments

1. The DEIR needs to provide more data comparing the impact of build-out of the existing “low medium density” zoning, allowing up to 4 residential dwelling units, compared with the proposed higher intensive, non-residential land use proposed in the SPA/MUP. The DEIR needs to better explain the contrasts of the proposed land use change to the existing residential zoning and neighbors bordering the proposed site which includes single-family dwelling units, condominiums, apartments and a fire station across the street.

O-6-1

- O-6-1** The comment requests that data comparing the impact of build-out of the allowed residential zoning (4 residential dwelling units) be compared to the proposed project.

Section 4.3 (Specific Plan-Designated Land Use Alternative) of the SEIR provides an analysis of what is allowed under the Specific Plan (4 residential dwelling units) and compares that data to the proposed project. The SEIR determined that this alternative would have less impacts associated with aesthetics, biological resources, hazards - fire safety, and noise when compared to the proposed project.

In order to reduce noise impacts to adjacent residential property owners, the applicant will have barriers in place to separate regular and overflow parking. Signs will indicate that the overflow parking lot will close at 6:00 p.m. and church staff will make an announcement 30 minutes prior to the closure of overflow parking. These conditions will further reduce noise impacts to adjacent properties.

Traffic impacts were analyzed and it was determined that Four Gee Road and Camino del Sur without the project operates at a level of service (LOS) B and C, respectively during weekdays and LOS B and A, respectively during the weekend. Without the project, the intersections of the project drive way at Four Gee Road operates at a LOS A and Camino del Sur at Four Gee Road operates at a LOS C during weekdays (peak hours) and on weekends (Sunday peak). The project would add 392 weekday average daily trips (ADT) with 40 and 63 trips occurring respectively during the a.m. and p.m. peak hours. Weekend trips would increase ADT by 2,775 with 925 trips during the Sunday peak hour. With the project, Four Gee Road and Camino del Sur would operate at a LOS B and C, respectively during the weekdays and at a LOS C and B on weekends. The intersections with the project would operate at a LOS A for the project driveway (Grace Way) at Four Gee Road during weekdays (peak hours) and LOS C during weekends (Sunday peak) and Camino del Sur at Four Gee Road would operate at a LOS C during weekdays (peak hours) and LOS D on weekends (Sunday peak).

The project applicant has agreed to install a traffic signal at the project driveway and fire station that is located across from the project site. In addition, a new signal will be installed at the intersection of Four Gee Road and Camino del Sur. These two lights will be synchronized so that traffic flows efficiently. In addition, the fire station will have full access to the traffic signal that will be installed by the project in order to control when fire equipment needs roadway access. The change in the LOS was determined to not be a significant impact based on County of San Diego and City of San Diego guidelines. As such, there is no nexus to require additional traffic mitigations. The comment will be included in the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

## Comments Letter

O-6

2. The project appears to be visible from all adjacent roads as well as the residential neighborhoods bordering the parcel. The visual analysis shown in the project documentation does not illustrate sufficiently the visual impacts to the surrounding neighborhoods. Recommend additional visual analysis be performed that show views from the private property surrounding the subject parcel, that would include street or backyard views from Wild Horse Glen, Saintsbury Glen, Silver Crest Lane, and Silver Pine Way. In addition, a revised visual analysis view from Camino Del Sur closer to the intersection with Four Gee Road. Also recommend that the project parking lot visuals show the 417 cars as compared to a vacant parking lot in the current visualizations.

O-6-2

3. Request that the EIR present additional options for traffic mitigation measures. Examples could be:
- Widening Four Gee Road from two-lanes to four-lanes to Camino Del Sur.
  - Dedicated right turn lane on Camino Del Sur at Four Gee Road.
  - Additional entry and egress points such as out to Rancho Bernardo Road between the SDC Sheriff's facility and the 'Silver Crest' residential subdivision or out to Campania Avenue.

O-6-3

## Response to Comments Letter

O-6

- O-6-2 The comment is concerned with the visibility of the proposed project and requests that the visual analysis include views from private properties that surround the project site. Views requested include street or backyard views from Wild Horse Glen, Saintsbury Glen, Silver Crest Lane, and Silver Pine Way. Views from Camino del Sur closer to the intersection with Four Gee Road and a full parking lot with 417 cars is requested, as well.

The visual analysis includes views from Wild Horse Glen and Saintsbury Glen (Key View 2 and 3), and Silver Crest Lane and Silver Pine Way (Key View 7 and 8). The view from Camino del Sur is provided in Key View 4 and 10. The view of the project site would be obstructed by the townhomes that are south of the project site if the Key View is relocated closer to the intersection of Camino del Sur and Four Gee Road. Key View 1, 4, 7 and 8 provide visuals of the proposed parking lot that is located on the eastern side of the project site. Landscaping would be provided around the perimeter of the parking areas. As demonstrated in Key View 1, 4, 7, and 8, visibility of cars when parked would be limited. The comment will be included in the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

- O-6-3 The comment requests that additional options for traffic mitigation be presented. The comment provides examples that include (1) widening of Four Gee Road from two-lanes to four-lanes, (2) dedicated right turn lane on Camino del Sur at Four Gee Road, and (3) additional entry and egress points such as out to Rancho Bernardo Road between the SDC Sheriff's facility and the Silver Crest residential subdivision or out to Campania Avenue.

The proposed project includes project design features for road improvements that include the installation of a traffic signal at Four Gee Road and Grace Way and; improvement of the intersection of Four Gee Road/Camino Del Norte with a new traffic signal. In addition, the project would comply with the County's Traffic Impact Fee Ordinance through payment of the TIF for cumulative impacts. See response to comment O-6-1 for a discussion of traffic impacts.

The request for additional entry and egress points out to Rancho Bernardo Road or to Campania Avenue is infeasible for the following reasons. Easements rights would be required across the 4S Ranch property adjacent to the project site and the City of San Diego right-of-way in order to gain access to Rancho Bernardo Road. A biological open space is located between the project site and Campania Avenue. For these reasons, additional ingress/egress is not feasible.

The issue of traffic was determined to be less-than-significant with the implementation of the project. Therefore, there is no nexus for the requirement of additional mitigation. The comment will be included in the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

## Comments Letter

O-6

4. More comprehensive analysis of noise and light pollution impacts from the proposed project on the surrounding residential neighbors. The project allows unlimited outdoor activities until 10 PM seven days a week for as many as 500 people. How will these activities be managed to minimized impact to the neighborhood? The parking lot follows the perimeter of the proposed project surrounding the center campus, meaning automotive noise and exhaust is closest to the residential neighbors. How will parking lot design minimize noise generated from automobiles and how will lighting be minimized as to not illuminate the backyards of neighboring residents? What is the policy going to be for amplified sound at outdoor activities? What specific light and sound buffering features/structures are proposed to minimize impacts to the neighbors. Will there be a 'hotline' phone number for neighbors to call if there is unsatisfactory noise or lighting?

Respectfully submitted by the San Dieguito Planning Group, October 12, 2017 by a vote of 9-0-0 with 4 vacant/absent.

Douglas Dill

Chair, San Dieguito Planning Group

O-6-4

- O-6-4 The comment requests a more comprehensive analysis of noise and light pollution impacts from the proposed project on the surrounding residential neighborhood. The comment is also concerned with the following and their impacts to surrounding neighbors: (1) outdoor activities and how they will be managed to minimize impacts, (2) parking lot design and how noise and lighting will be minimized, (3) the policy for amplified sound at outdoor activities, (4) specific light and sound buffering features/structures proposed, and (5) whether a hotline number will be provided for complaints. An acoustical analysis and photometric study have been completed for the proposed project. Both of these studies analyzed potential impacts to the surrounding residential neighborhoods.

Outdoor activities will be managed through the conditions of the Major Use Permit. Specifically, the Major Use Permit restricts the number of outdoor special events and the time in which the events may take place.

The parking lot design includes landscaping along the perimeter to reduce noise and light pollution. Outdoor lighting would be required to use full cutoff luminaries that are fully shielded and focused so that lighting is downward and into the project site. The operation of outdoor lighting would be restricted to the hours of active use.

The project is conditioned to analyze amplified sound for outdoor special events for compliance with applicable noise regulations. The analysis must be provided to the County 30 days prior to outdoor special events and the project must implement any recommendation of the analysis. Outdoor audio equipment must be directed away from the residential neighborhoods and must be cited to maximize noise attenuation from intervening buildings, topography, and distance. All outdoor special events must end by 7:30 p.m.

Parapets walls are required to screen and attenuate the visibility of the solar panels and noise produced by the HVAC system. Solar panels will incorporate a non-glare finish. Landscaping will be used as filtering devices to soften noise and lighting to adjacent properties.

Signage at the front gate will include phone numbers for the San Diego Sheriff and the County of San Diego Code Compliance. The comment will be included in the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

## Response to Comments Letter

O-6

## Comments Letter

I-1-

**From:** Robert and Patty [mailto:rpanders@cox.net]  
**Sent:** Saturday, October 07, 2017 3:29 PM  
**To:** Smith, Marisa <Marisa.Smith@sdcounty.ca.gov>  
**Subject:** RTC on DSEIR PDS2014-SPA-14-001: SCH No 214011018  
**Importance:** High

Marisa, hello. Attached is my formal submittal of response to comments on the proposed project on Four Gee Road; SCH No. 214011018.

Please respond on Monday to confirm receipt of this response to comments.

Also, I did not receive the public note (NOA) for the project and I live at 16187 Silver Crest Drive. Can you please confirm that I am within 300' and regardless, please put me on the distribution list to receive all notices as I have been involved in the process from the beginning.

Can you also please forward the notice of the community planning meeting coming (I believe you said it was next week?) up so I can assure I have the correct time, date, location of the meeting.

I appreciate your information on the upcoming community meeting and response to this email.

Patty Anders

I-1-1

## Response to Comments Letter

I-1-

**I-1-1** The County of San Diego appreciates the comments on the Draft Supplemental Environmental Impact Report (DSEIR) by Patty Anders. The comment asks for confirmation of receipt of the letter. The County confirmed receipt of the comments to Ms. Anders.

Comments Letter

I-1-

October 2, 2017

Marisa Smith
Project Manger
Department of Planning and Development Services
County of San Diego
5510 Overland Avenue, Suite 310
San Diego, CA 92123

Re: 3300-10-037, PDS 2014-SPA-14-001; SCH NO 2014011018

Below are my comments on the Draft Supplemental Environmental Impact Report (DSEIR) for the Chinese Bible Church of San Diego, the Project as identified in the DSEIR.

The project is requesting a Specific Plan Amendment (SPA) to allow a religious assembly use and a Major Use Permit (MUP) to regulate the church and proposed uses and potential impacts to the community.

The County General Plan regional category for the site is Semi Rural (SR). The site is located in the San Dieguito Community Plan Area (SDCPA), and has a land use designation of SPA (Specific Plan Area [Santa Fe Valley Specific Plan]).

As stated in the DSEIR, the Project site is part of sub-area 6. Designated as "low medium density," the sub-area allowed up to a total of 67 dwelling units on the 71 acres. Sixty three (63) residential lots were developed as part of the Salviati project. A subsequent subdivision, Tentative Map (TM) 5123, was proposed to subdivide the remaining four lots on 9.09 acres, but that TM was not finalized and the site remains a single lot (APN 678-060-27-00). The Project site comprises this remainder lot and an off-site lot adjacent to Four Gee Road to be used for access purposes.

The Specific Plan NEVER intended planned or envisioned a large mega project to be built in this planning area. The site was strategically and purposefully zoned "Low Medium" as indicated above. The County has an obligation and a right to implement the SFVSP (SP) and not compromise the strategic, logical and planned land use distribution and permitted uses as identified in the Specific Plan (SP). To allow this mega project, the County would be saying they have no intent to use the SP to regulate development. The SP is CLEAR that this parcel is intended for rural, large, estate lots and this is supported by the General Plan classification of the site as Semi Rural.

I implore the County to do the right, professional action and NOT approve the request for a Major Use Permit and SP amendment. The use is simply way too dense and intense for a site that is zoned, planned and has a General Plan land use category of "Semi-Rural".

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I-1-4

Response to Comments Letter

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I-1-2 The comment restates specific characteristics of the project. The County agrees the information is correct. No changes to the DSEIR are needed as a result of the comment.

I-1-3 This comment states that the Specific Plan did not intend for a mega project to be built on the project site, and that the County has an obligation to implement the Santa Fe Valley Specific Plan. The County acknowledges the comment and notes it expresses the opinions of the commenter and does not raise an issue related to the adequacy of any specific section or analysis of the DSEIR.

Specific Plans (SP) are subject to the overall regulations of the County's General Plan (GP). The GP allows for adopted specific plans in its Land Use Element, page 3-17. A Specific Plan Amendment (SPA) in and of itself does not render a project inconsistent. The County allows SPAs for the purpose of affording flexibility to future development within the specific plan area. This feature is essential to allow the GP to meet the changing demands of land use throughout its expected 20- to 30-year lifetime. In this case, SPA 14-001 is proposed to allow for a religious assembly use in Subarea V. The County's Zoning Ordinance (ZO) allows for the proposed use with the approval of a Major Use Permit (MUP). Prior to approval of a MUP, the applicant must make findings to show that the project is consistent with Section 7358 of the Zoning Ordinance. Allowing SPAs and MUPs is a feature of the GP and ZO that applies throughout the County, not just in the Santa Fe Valley area. Therefore, the project is being processed under established rules and regulations of the County. Further, the SFVSP has been used and will continue to be used to regulate development in the area. The DSEIR discusses the SPAs for the SFVSP that have been approved prior to this proposed project in Section 1.2.1, Project's Documentation History, page 1-1. These changes have ranged from small to large alterations, including changes to a congregate care facility to conversion of golf course to residential and open space areas. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

I-1-4 This comment requests that the County not approve the request for a MUP and SPA. The County acknowledges the comment and notes it expresses the opinions of the commenter and does not raise an issue related to the adequacy of any specific section or analysis of the DSEIR. This comment letter will be included as part of the Final SEIR that decision makers will be able to review prior to a final decision on the project.

Comments Letter

I-1-

The visual report (Appendix C of the DSEIR) pulls from properties within a 1 mile radius to assess the site and visual character, viewshed and other visual indicators. However, this assessment is very biased and not comparing apples-to-apples. The visual report is comparing properties that are located within a business/industrial park and drawing conclusions of no impacts or impacts reduced to level on non-significance with some minimal mitigation based primarily on landscape and wall screening. The report is not accurate in the land it is comparing.

The correct and ACTUAL comparison is land immediately adjacent to the subject site. The site is SURROUNDED BY PROTECTED BIOLOGICAL OPEN SPACE, including wetlands immediately adjacent and to the north of the site. There is planned and intentionally preserved biological open space to the north, the south, the west (surrounding the fire station) and adjacent to Camino Del Sur. To say the site is isolated and out of character (as stated in the visual report) is saying the SP is wrong—which is not the case at all. The land surrounding the project was developed in CONFORMANCE with the SP and the County should do the professionally correct thing and REQUIRE this applicant to build pursuant to and in conformance with the SP—like the other projects and developers were REQUIRED to do!

The proposed use is excessive, extremely dense and intense as demonstrated by the number of buildings (5), square footage (+90,000), and the requirement for a height deviation, as well as the proposed hours of operation from 8am until 10pm seven days a week. The site is located right next to a quiet, detached single family residential developments on TWO sides (La Vina to the south and Rosemary Lane to the east); how in good consciousness or quality land use planning can the County allow this intense use adjacent to sensitive receptors—single family and protected open space on three sides? It truly makes NO sense from a professional land use, planning and environmental perspective.

The size and operation of the proposed project would have significant impacts to the existing area. I fully understand that the technical studies associated with the DSEIR have “technically” demonstrated that impacts would be less than significant on paper but in REAL life, this type of project will change and alter the existing quality of life and neighborhood character of the homes that were built in CONFORMANCE with the regulations—unlike this proposed project.

The increase in noise due to the proposed bell (which the EIR has NO specific information on as far as times/days/duration of bell), exterior audio system, and outside events of over 500 people, lighting and parking adjacent to residential will have a SIGNIFICANT real life impact. The County has NO obligation to approve this discretionary permit. In fact, the required findings for the MUP can not honestly or unbiasedly be made as the project would significantly change the character of the area, would impact the neighborhood by allowing a use that is NOT was never envisioned and is NOT permitted or consistent with the SP. The project requires a

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Response to Comments Letter

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**I-1-5** This comment states the visual report is biased and includes properties within a mile of the project. Visual resources receive extensive analysis in the DSEIR, specifically in Section 2.1, Aesthetics. The visual analysis evaluates the range of visual amenities in the immediate area but also considers the surrounding areas. Eight of the ten photo simulations are from properties bordering the project, including those on Tallus Glen, Wild Horse Glen, and Saintsbury Glen on the south; Four Gee Road on the west; Campania Boulevard and the Salviati development to the north; and the 4S residences to the east. More distant uses are considered in two photo simulations from Camino Del Sur and Rancho Bernardo Road to provide a balanced depiction of the area. This provides a more accurate context for the visual impact discussion than one that focuses, for example, only on the houses to the east or the apartments and houses to the south because these surrounding uses are integral to a general picture of the uses as they have evolved in the area. The visual analysis concluded that the existing uses are visually characteristic of a densely and broadly developed mixed use suburban area. Open space occurs in the area but this is preserved by the project. No changes to the DSEIR are required as a result of the comment, and the County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project. Please also see General Response 4 “Visual Resources” of the Response to Comments for an overview of the visual issues.

**I-1-6** This comment states that the visual analysis should compare land immediately adjacent to the project site. Please see response I-1-5, above, for a discussion of the visual analysis and surrounding properties. The comment also states that the project site is surrounded by biological open space. There are no sensitive receptors in the open space for which visual effects are important. Visual effects to the residential properties that look across the open space toward the project (Salviati Homes) were analyzed in the DSEIR (See for example the discussion of Key View 6 (page 2-17) and Figure 2.1-8. Mitigation is proposed for the retaining wall visible from this perspective. **M-VIS-1 states:**

- To screen the retaining wall along the northern site boundary, the Project shall:
- Paint or clad the wall with a non-reflective earth-toned material that is matched in color to the surrounding and planned vegetation along the wall.
- Incorporate vertical elements from the base of the wall to break the horizontals of the wall. These elements can be constructed elements or vegetation.
- Constructed elements shall be of a type and quality that complements the existing



**I-1-6**  
Cont.

design. Vegetation elements shall be able to attain a height that would reach the top of the fence along the wall so as to integrate these two structures.

Visual effects to the open space area to the west are not significant because development is currently readily visible across the narrow (approximately 220 foot) open space, and because the open space is left intact except for a small area at the south end where the Project entrance will be located. For a discussion of biological issues as they related to open space, please see General Response 2, "Biology and the Resource Protection Ordinance" of the Response to Comments.

**I-1-7**

The comment states that the visual report identifies the project site as "isolated and out of character", which further argues that the Specific Plan is wrong. The comment also states that the County should require that the applicant develop the project site in conformance with the Specific Plan, like other developers were required to do. The County acknowledges the comment and notes it expresses the opinions of the commenter and does not raise an issue related to the adequacy of any specific section or analysis of the DSEIR. General Response 1 "Planning and Land Use" of the Response to Comments provides an overview of land use issues. No further response is required.

**I-1-8**

This comment addresses the proposed density and intensity of the project. For purposes of clarification, the combined proposed square footage of the five buildings is 89,234 square feet (sf) (DSEIR page 1-4). An exception request is proposed to allow one tower to be 43 feet and two towers to be 41.5 and 39.5 feet respectively. Hours of operation are correctly stated as 8 AM to 10 PM, seven days a week.

The DSEIR considers the type of use proposed as discussed in section 3.1.4 (Land Use and Planning). The land use assessment of the project's potential to have impacts related to land use is based on the land use analysis (DSEIR Appendix O) prepared for the project by RECON Environmental. That analysis includes a discussion of surrounding land uses supported by geographic information system (GIS) mapping and County zoning data; a discussion of goals and policies contained within regional planning documents (San Diego Association of Governments); consistency with the County's General Plan, the San Dieguito Community Plan, the SFVSP; and a compatibility analysis focused on the project's physical compatibility with the surrounding area and land use compatibility. The analysis determines the project does not have significant impacts to land use in the area. The comment does not raise any specific issue regarding that analysis. The County will include the comment as part of the Final EIR for review and consideration by the decision-makers prior to a final decision on the project.

**I-1-9** This comment states that the identified impacts will reduce the quality of life in the surrounding neighborhoods. The County acknowledges the comment and notes it expresses the opinions of the comment and does not raise an issue related to the adequacy of any specific section or analysis of the DSEIR. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**I-1-10** The comment states that the increase in noise from the proposed bell, exterior audio system, and outside events will have a significant real life impact. Noise from the church bell is analyzed in Section 3.2.1 of the Acoustical Analysis Report (DSEIR Appendix J). The analysis concludes:

For a worst-case analysis, the noise from the proposed church bell can be rounded up to 65.0 dBA, which is more than a doubling of the sound power of the measured church bell. The nearest residential receiver is located approximately 300 feet from the proposed bell location. At this distance, if the bell were to ring for a period of 5 minutes out of an hour, the hourly average noise level is calculated to be 46.2 dBA. This is expected to comply with the 50 dBA daytime noise limit at residential properties.

No permanent exterior audio system is proposed although temporary systems may be used from time to time for specific outdoor events. Noise from a specific outdoor audio system was not evaluated because the type of equipment to be used cannot be predicted at this time. The project will use the best technology available at the time, which could provide better sound control than is currently available. However, the DSEIR does acknowledge this as a project impact (DSEIR Section 2.5.5, page 2-114). It includes a mitigation measure to control the possibility of outdoor noise. The following mitigation measure was amended to clarify the conditions under which the measure would apply. It shall be implemented as a condition of project approval:

**M-N-1** If any outdoor event is proposed that will involve the use of an audio system and that includes more than 500 people, or if the outdoor event will extend beyond 7 PM, the noise impacts of the specific event must include design features and mitigation measures to comply with the applicable regulations. Such measures would include, but are not limited to:

1. Locating events to maximize attenuation from intervening buildings and topography
2. Limiting the time of the event and cease all substantial noise generating activities by 10 PM.
3. Limiting the number of attendees not to exceed 500 people to minimize impacts to off-site receptors.

**I-1-10**

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4. Associated outdoor audio equipment shall be directed away from the occupied neighbors. Audio equipment would be directed in designated areas, facing towards the center of the site and/or using intervening structures to screen and shield associated noise sources.
5. The audio system will be tested prior to an event and the systems will be adjusted so noise does not exceed County noise limits.

Noise from future events was also analyzed in Section 3.2.1 (pages 14-15) of the Acoustical Analysis Report. The analysis concluded:

Noise from indoor church activities is expected to be controllable with typical sound transmission loss and distance attenuation, and no formal activities or amplification are currently planned to take place outdoors. If any outdoor events are proposed to include more than 500 people, or will extend after the hours of 7PM, the noise impacts of the specific event must be evaluated to determine design features and mitigation measures required to comply with the applicable noise regulations at that time.

The DSEIR fully evaluates noise impacts. Project design and mitigation of impacts address noise issues. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**I-1-11**

This comment states that lighting and parking will have a significant real-life impact. Lighting and glare impacts are analyzed in the DSEIR (Section 2.1.3.5, Dark Skies and Glare, page 2-30). Potential impacts to visual resources (including lighting) and traffic (including parking) receive extensive analysis in the DSEIR. Parking areas were depicted in the visual simulations, where appropriate. Please see the Key Viewpoint discussion in Section 2.1.1.2.6 of the DSEIR for details. The comment does not raise any specific issue regarding the analyses and, therefore, no more specific response can be provided or is required. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**I-1-12**

The comment states the County has no obligation to approve the project. The County acknowledges the comment and notes it expresses the opinions of the commenter and does not raise an issue related to the adequacy of any specific section or analysis of the DSEIR. No further response is required.

## Comments Letter

I-1-

SP amendment and the EIR tries to conclude that the SP amendment will make the project compatible—that is professionally unsound, completely goes against the land use, community character design and intent of the Specific Plan. To rationalize the use by approving a SP Amendment is not adequate or technically sound.

In accordance with Section 7358 of the Zoning Ordinance, before any use permit may be granted or modified, the County must make favorable findings concerning the following factors:

1. Harmony in scale, bulk, coverage, and density.
2. Availability of public facilities, services, and utilities.
3. The harmful effect, if any, upon desirable neighborhood character.
4. The generation of traffic and the capacity and physical character of surrounding streets.
5. The suitability of the site for the type and intensity of use or development which is proposed.
6. Project findings 1 through 5 and the project location will be consistent with the San Diego County General Plan.
7. The requirements of the California Environmental Quality Act (CEQA) have been complied with.

These findings in true objectivity and profession assessment can NOT be made. The fact that the project requires a height variation, a biological open space easement vacation, the use was not ever intended or allowed in the SP, clearly indicates the project can not meet these required findings. To conclude this mega project will NOT have harmful effects upon the existing desirable neighborhood character is obviously incorrect. A site that is zoned for four rural, estate lots can not logically or in good zoning/land use principals be suitable for the proposed type and intensity of development being proposed by the applicant. There is clearly a non-compatible land use issue with the proposed project. The proposed use is NOT allowed and is not remotely suitable for the zoning and General Plan classification. To approve this use and SP Amendment would be a classic example of spot zoning given the site is within an existing and approved, and built out Specific Plan. It is illogical and the DSEIR is completely inadequate in the baseline premise and conclusions. The analysis of visual should be redone and recirculated.

Land Use and Traffic should be analyzed in Chapter 2—the discretionary applications are LAND USE related—how can the County allow Land Use to be part of the “Environmental Effects Found not to be Significant” when the project requires a radical change in Land Use? The DSEIR should be revised to include Land Use in Chapter 2 and recirculated to allow the public to review and provide comments.

Moreover, the project has a building that is right at the edge of the 100’ biological easement and this building should be removed. And, EIR is flawed and inadequate and should be recirculated as it does not have the required details on noise, it does not accurately assess the visual impacts, and it places Land Use and Traffic in

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## Response to Comments Letter

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**I-1-13** This comment states that the MUP findings cannot be made, and that the SPA goes against land use, community character design, and intent of the Specific Plan. The DSEIR found that the project does not have a significant impact on land use. The project’s ability to make necessary findings required by the MUP is discussed in Section 3.1.4.3 of the DEIR and is supported by the Land Use & Planning Analysis completed for the proposed project (Appendix O). This comment does not identify any specific inadequacies with the analysis, and no further response is required. The County acknowledges that the comment expresses the opinion of the commenter. Please see EIR Section 3.1.4.3 “Physical Compatibility with Surrounding Areas/Community Character”, starting on page 3-76 for an overview of the MUP issue. This comment also addresses the proposed SPA and the associated DSEIR analysis. The comment states the purpose of the proposed SPA is to make the project compatible with the current Specific Plan. Please see response I-1-5 for a discussion of the SPA process. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**I-1-14** This comment cites Section 7358 of the Zoning Ordinance. The comment is acknowledged. The findings required for a MUP are correctly stated.

**I-1-15** This comment addresses MUP findings that will be prepared for the project. The comment is acknowledged. No specific issue with the DSEIR is raised in the comment, so a specific response cannot be made. The project’s ability to make necessary findings required by the MUP is discussed in Section 3.1.4.3 of the DEIR. Please refer to response 5 above and General Response 1 “Planning and Land Use” in the Response to Comments for additional discussions about Land Use as it relates to the SPA process.

**I-1-16** This comment states the project would have a negative effect on the existing desirable neighborhood character. The site would accommodate up to four residential lots under its current designation, as noted. The project is allowed with the approval of a discretionary MUP. MUPs are not pre-designated by the General Plan because it is too difficult to predict where the need for a specific use may occur. So selected zones throughout the County allow MUPs with appropriate supporting findings and environmental analysis. This site zoning falls into that category. Therefore the MUP requirement does not imply the project is incompatible with the neighborhood. The land use analysis (DSEIR Appendix O, Chapter 2, Compatibility Analysis) concludes that the overall effect of the project will be similar to existing uses in the area. It states:

Overall, the project design and operations would not change the character of the neighborhood. The project would be within an area with mixed-density residential uses, nearby commercial centers and other civic facilities, including a fire and police station. Operation of the proposed church, at buildout, would not

**I-1-16**  
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alter the community character or result in land use compatibility issues within the neighborhood. The project would be located in a neighborhood that consists not only of existing large-lot residential units but also of existing multi-family residential units, denser single-family units, large commercial developments and civic uses. In addition, the planned future character of the community will be composed of vibrant urbanized mixed uses; employment opportunities; and civic, residential, and commercial uses. The MUP would allow long-term facility operations as described above by prescribing conditions on the project which would assure that the proposed use and operations is maintained as intended.

The DSEIR states that the project provides a lower intensity civic use that is adjacent to higher density residential and commercial village uses, thereby serving as an appropriate transitional land use (DSEIR, Section 3.1.4.2, page 3-72). Intensity of use is determined by a range of factors such as scope of the project, traffic, operating hours, noise, and lighting, which are analyzed in the above-cited chapter. A comparison of the proposed project and the nearby commercial center as an example is provided in response I-1-14 above.

**I-1-17**

This comment describes the project as spot zoning. However, the proposed use is permitted under current zoning with the approval of a MUP. The DSEIR has determined that the project is consistent with surrounding uses in the area, which is largely developed and suburban in nature. Additionally, the SFVSP is not currently built out. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**I-1-18**

The comment states that the DSEIR is inadequate in the baseline premise and conclusions. The comment does not raise any specific examples; therefore, no more specific response can be provided or is required.

**I-1-19**

This comment states that the visual analysis should be redone and recirculated. The comment does not raise a specific point about the visual study, nor does the study identify any new information regarding impacts to visual resources that would require additional analysis and recirculation. The visual study was prepared in conformance with the County's Guidelines for Determining Significance and Report Format and Content Requirements – Visual Resources (2007). Specific comments and responses on the visual impacts are provided in I-1-9, -10, and -12 above.

- I-1-20** The comment states that land use and traffic should be analyzed in Chapter 2 of the DSEIR. The Land Use and Planning Analysis (RECON, 2016) was prepared in conformance with the County of San Diego's Guidelines for Determination of Significance for Land Use. The Land Use & Planning Analysis report was included as Appendix O of the DSEIR. The report includes an analysis of surrounding land uses using GIS mapping and County zoning data, a discussion of goals and policies contained within regional planning documents (San Diego Association of Governments, the County's General Plan, the San Dieguito Community Plan, and the SFVSP), and a compatibility analysis focused on the project's physical compatibility with the surrounding area and land use compatibility. The report provides a fundamental land use and planning analysis, backed by substantial evidence, and is adequate as a document to support conclusions reached in the project's DSEIR. The DSEIR concludes, based on the report and project-specific design components, that the project would not alter the community character of the area and would be compatible with the community character of the surrounding neighborhood in terms of use, design, bulk and scale. Therefore, the project would not result in significant effects related to land use. The comment does not raise any specific issue regarding the analysis for Land Use or Traffic. The County will include the comment as part of the Final EIR for review and consideration by the decision-makers prior to a final decision on the project.
- I-1-21** This comment states there is a building at the edge of the 100 foot biological easement. General Response 2, Biology and Resource Protection Ordinance in the Response to Comments provides an overview of the issue of proximity to open space.
- I-1-22** This comment provides general comments about the adequacy of the DSEIR. The comment does not raise specific points about the subject areas cited, so a detailed response is not possible. Noise is discussed in Response I-1-10 above. Visual impacts have been addressed in the DSEIR, as well as in Responses I-1-5, -6, and -7 above. Land use and traffic were placed in Chapter 3, Environmental Effects Found Not to be Significant, after analysis of environmental effects and the determination that impacts would be less than significant.

Comments Letter

I-1-

Chapter 3 (Effects Found Not to be Significant) when the applications are completely land use based.

In conclusion, I implore the County to implement the SFVSP and not allow this significant, intense and dense change to land use and visual character of the existing community. Not only is it unfair and unjust to the existing communities, it is spot zoning within a master planned community—WHY would the County set this precedence of completely disregarding approved SPs?

I encourage staff to uphold the SFVSP, the General Plan and the San Dieguito Community Plan and do not allow the density, intensity and zoning to change. This change would also have a huge impact on the biological open space; don't allow this intensity and introduction of human presence, noise, trash, lighting adjacent to protected wetland and open space areas. The edge effects will impact the open space and wetlands—the project is proposing to wall it off which will also prohibit habitat movement.

The County and state have a housing shortage and the project would be removing housing opportunities on land zoned for housing, and replace it with an intense, non-residential use in an approved SP that was planned, zoned and envisioned for housing.

I hope the County will choose to do what is best for the entire community and not allow this Specific Plan Amendment to accommodate a dramatically intense, unpermitted land use.

Regards--

Patty Anders

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Response to Comments Letter

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**I-1-23** . The comment states that the County should implement the SFVSP and should not approve the proposed project. The comment identifies the project as spot zoning, and questions why the County would set a precedence of disregarding approved Specific Plans. The plan has been included in the analysis of all environmental variables subject to CEQA analysis, for example in the land use analysis (DSEIR Section 3.1.4.3, pages 3-72+). Please see Response I-1-17 for a discussion of spot zoning. The County acknowledges that the comment expresses general opposition for the project and addresses general subject areas. The comment will be included in the Final SEIR that will be reviewed by decision makers prior to a final decision on the project.

**I-1-24** This comment encourages staff to not allow the density, intensity, and zoning of the site to change. The comment makes a general statement so a detailed response is not possible. For a discussion of density and intensity, please see General Response 1 “Planning and Land Use” in the Response to Comments. No zoning change is proposed by the project.

**I-1-25** The comment states that the project would have a huge impact on biological open space. Biological resources were analyzed in the DSEIR and impacts were identified for loss of nonnative grassland and potential impacts to nesting raptors. Mitigation is proposed to reduce effects to below a level of significance (DSEIR Section 2.2.6, page 2-27). These measures include:

**M-BI-1** Direct impact to 0.3 acre of offsite non-native grassland shall be mitigated at a 1:1 ratio in conformance with the MSCP and BMO through preservation of similar or higher value habitat. Mitigation shall occur at the Crestridge Mitigation Bank in Lakeside, California or any other land determined acceptable by the Director of the Department of Planning & Development Services. Note that the mitigation ratio for non-native grassland is typically 0.5:1. A doubled ratio is required here since this area is located within a dedicated open space easement. Pursuant to the County Report Format and Content Requirements – Biological Resources, if existing dedicated biological open space easements are being vacated, the loss of preserved habitat should be mitigated at twice the required ratios because the original mitigation must be replaced and the current loss of habitat must be mitigated.

**I-1-25**  
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**M-BI-2** If any construction work, including onsite tree removal, is proposed during the raptor breeding season (between January 1 and July 15), a qualified biologist shall conduct a nesting raptor survey no more than three days prior to scheduled operations to ensure that no nesting birds in the Project area would be impacted. If an active nest is identified, a buffer shall be established between the construction activities and the nest so that nesting activities are not interrupted. The buffer shall be a minimum of 500 feet, be delineated by temporary fencing, and remain in effect as long as construction is occurring or until the nest is no longer active. No Project construction shall be allowed to occur within the fenced zone until the young have fledged and will not be impacted by the Project. A copy of the survey shall be submitted to the Director of Planning & Development Services.

The comment will be included in the Final SEIR that will be reviewed by decision makers prior to a final decision on the project.

**I-1-26** This comment addresses housing needs in the County. The County appreciates the comment but it does not raise a specific concern with the DSEIR. The comment will be included in the Final SEIR that will be reviewed by decision makers prior to a final decision on the project. No changes to the DSEIR are required as a result of the comment.

**I-1-27** The County acknowledges the comment as a conclusion to the comment letter. This comment is included in the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project. No further response is required or necessary.



# Comments Letter

I-2-

October 6, 2017

Marisa Smith  
County of San Diego  
Department of Planning and Land Use  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

Subject: Chinese Bible Church of San Diego Proposed Project, Supplemental Environmental Impact Report, and Specific Plan Amendment

Dear Ms. Smith,

The purpose of this letter is to raise serious and insurmountable issues with the proposed Chinese Bible Church mega-project on Four Gee road, per the most recent supplemental environmental impact report and specific plan amendment. My family and I own a home on Silver Crest Lane immediately abutting the east side of the proposed site, which the most recently available supplemental environmental impact report and specific plan amendment mentions as the most affected neighborhood. Our issues are as follows:

- **Aesthetics:** Our concerns with aesthetics are twofold. First, designated and overflow parking spaces would run the length of the property abutting my neighborhood and parking lot lights, regardless of how they are shielded, would create substantial light pollution. There is no way that the aesthetic issues of the parking will be sufficiently shielded by a small number of citrus trees along a chain link fence, as proposed by the applicant. Second, the sheer scale of the proposed buildings would aggressively consume the skyline in a way that the church would be all we see from our backyard or back windows. Despite our slight elevation advantage, the structures would tower 20 feet above our back yard (with spires even higher) and run most of the length of our block. It should be noted that our neighborhood has a wrought iron fence separating our yards from the proposed site, leaving us very exposed to these aesthetic issues.
- **Land Use Intensity:** We purchased our home with the understanding that the property in question would be developed in a “low medium density” manner. In fact, we paid a \$50,000 premium for our lot compared to the same model of home across the street in our development in order to abut the “low medium density” residential site. The proposed size of the Chinese Bible Church project, however, is similar to the average traditional Walmart Discount Store according a recent Walmart 10-K filing. Whereas with residential housing on the site we would retain a large degree of space, the proposed cluster of structures would aggressively consume the skyline in a way that it would be all we see from our backyard or back windows. This is an extreme and unacceptable change in the plan for Santa Fe Valley.
- **Noise:** Clearly the traffic and parking lot noise would be bothersome at this scale, and for seven days and nights a week based on the proposal. However, possibly more troubling, is the fact that the portion of the compound closest to our house is the Fellowship Hall, a concert and event hall in which the applicant desires the right to hold events seven nights a week. This is particularly bothersome for residential households with young children such as ours and those of our neighbors.

I-2-1

I-2-2

I-2-3

I-2-4

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# Response to Comments Letter

I-2-

I-2-1

The County of San Diego appreciates the comments on the Draft Supplemental Environmental Impact Report (DSEIR) from Jason Hightower. This comment letter and the associated responses will be made a part of the Final SEIR that will be provided to the decision makers before they make a decision about the project. The comment makes general statements in opposition to the project.

I-2-2

The comment concerns the aesthetics of the overflow parking area along the eastern boundary of the site. Lighting was analyzed in the photometric study (DSEIR Appendix D). Section 4.3, Item 3 on page 13 states that the project will not generate light trespass that exceeds 0.2 foot-candles measured five feet onto the adjacent property. The project includes landscaped buffers separating the development from adjacent single-story development to reduce spillover effects. The project has been designed to comply with the County’s Light Pollution Code (LPC) through reduced hours and type of lighting. Additionally, as detailed in Section 7.2.1 of the DSEIR, the project incorporates the following design features related to lighting:

- Use full cutoff luminaries, as defined by the Illuminating Engineering Society of North America (IESNA), to minimize the amount of light emitted upward directly from the luminaire. A fully shielded outdoor light ensures that light rays emitted from the fixture are projected below the horizontal plane passing through the lowest point on the fixture from which the light is emitted (LPC Section 59.105).
- Restrict the hours of operation of outdoor lighting to hours of active use (LPC Section 59.107 and Zoning Ordinance Section 6322).
- Require low-pressure sodium light sources<sup>1</sup>, which allow astronomers to filter the line spectra from telescopic images (LPC Section 59.105).
- Prohibit the post-construction addition of outdoor lighting that was not included in the Project.
- Select luminaries that control the intensity (candela) distribution (LPC Section 59.105).

<sup>1</sup> The Project proposes LED lighting that provides an equivalent or better lighting benefit.

**I-2-2  
Cont.**

- Use well-shielded luminaries (LPC Section 59.105).
- Keep floodlight angles aimed low enabling the entire beam to fall within the intended area to be lit.
- Use full cutoff and semi-cutoff lighting. Cutoff designations limit the intensity values in the glare zone and provide shielding (Zoning Ordinance Section 6324).
- Adjust mounting height to reduce spill light (Zoning Ordinance Section 6324).
- Focus exterior illumination, including floodlights and spotlights, downward and into the Project site. A combination of shielding, screening, and directing the lighting away from off-site areas shall be used to minimize spillover effects onto off-site roadways, properties, and open space areas.
- Use landscaping to serve as filtering devices to soften the impact of direct exterior, reflected exterior, and building interior lighting.
- Prohibit signs with flashing, mechanical, strobe, blinking lights, or moving parts.
- Limit lighted monument signs.
- Use low-level pedestrian lighting (e.g., bollards) on the site for pedestrian pathways.
- Use lowest intensity Project lighting necessary for security and safety purposes while still adhering to the recommended levels of the IESNA.

In summary, it was determined that the lighting plan met County requirements and that impacts were not significant.

The visual study for the project evaluated the project's design features and proposed mitigation to screen the parking lot (Appendix C of the DSEIR). There are a number of screening elements used. Buildings are set back from the boundary and are set apart to reduce the appearance of mass. Four "layers" of landscaping are used between the fence proposed on the east boundary and the buildings. These include: (1) the vines and dwarf lemons along the fence itself; (2) magnolia trees east of the first parking row; (3) magnolia and cape myrtle trees west of the second parking row, and (4) olive and cape myrtle trees, and different shrubs up against the buildings. Gravel will be an earth toned non-reflective surface to minimize glare. The pavement will be non-reflective. The visual study for the project determined that visual impacts from the east are adequately addressed by the project design, and that screening could begin sooner with the use of larger planting stock to speed the screening process, as required by mitigation measures M-VIS-2 and M-VIS-3, as detailed below:

- M-VIS-2: Install 36" boxed citrus, 10 gallon shrubs, and 10 gallon vines at the earliest possible point during Project construction. At corners of the eastern boundary, the proposed California peppers shall be 48" box size. Along the east-facing sidewalk, the proposed crepe myrtle shall be 48" box size.

## Comments Letter

I-2-

## Response to Comments Letter

I-2-

**I-2-2**  
Cont.

- M-VIS-3 Install 48” trees and 10-gallon shrubs along the decorative fence line.

**I-2-3**

The comment states that the scale of the project would consume the skyline in the way the church would be seen from the commentator’s backyard. The DSEIR discusses visual impacts from this direction. A photo-simulation from this direction is shown Figure 2.1-10, Key View 8, Looking from East of Project. It shows the effect of replacing the field and trees with development. Visually, from the eastern perspective, the Project will be built below or at grade, lowering the overall appearance of the buildings from the east. This effect is shown in Key View 8, where only the sanctuary and towers appear above the horizon line. The open space north of the site will remain undisturbed by the project, reserving it as a visual amenity for the houses along the eastern boundary. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**I-2-4**

The comment concerns the land use intensity and real estate values of the project. The California Environmental Quality Act (CEQA) does not consider real estate values a subject for environmental evaluation; therefore, this discussion is not part of the DSEIR. The comment is correct in stating that the site is designated for low density residential uses. However, the proposed use is allowed with an approved Specific Plan Amendment and Major Use Permit. This comment will be made a part of the Final SEIR that will be provided decision makers before about a final decision on the project.

**I-2-5**

The comment compares the project to a Walmart store. Please see Response I-2-3 above for a discussion of the scale of the project. The project provides a number of design features that distinguish it from a “big box” design, which is generally associated with Walmart store designs. These include varied height elements, articulation of facades, varied wall heights, numerous window designs, arches, walks and courtyards between buildings, trellises, covered walks, decorative fencing and pavers for street construction in multiple areas. The landscape plan is also extensive, layering landscape features in all directions to provide visual variation and screening. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**I-2-6**

The comment concerns the visual effects of the project on the skyline viewed from the east. Please see Response I-2-3 above.

**I-2-7**

The comment states general concerns related to traffic and parking lot noise. During the week, the activity level is expected to be low to moderate due to the nature of the use proposed. Sunday traffic will be heavier, but will be disbursed throughout the day, thereby lowering noise levels. Planned below grade parking on the south and setbacks

## Comments Letter

I-2-

Similar to the aesthetic issues, this is in no way mitigated by a chain link fence along the perimeter of the property.

- **Traffic:** At peak traffic times, which will occur not only on Sundays but potentially seven days a week based on the proposal, excess traffic will undoubtedly flow north and then east through our residential streets. This is of great concern for pedestrian safety given that our young children play out front with other neighborhood children daily.

When my wife and I purchased our home we assumed correctly that the farm would ultimately be developed. However, we expected the property to be developed with low density residential housing consistent with the zoning and previously approved site plan. Clearly we were not interested in living in the shadows of a project of such an extreme scale and intensity.

Thank you for your consideration.

Sincerely,



Jason Hightower  
16942 Silver Crest Lane  
San Diego, CA 92127  
858-832-1843

I-2-8  
Cont.

I-2-9

I-2-10

## Response to Comments Letter

I-2-

I-2-7  
Cont.

will further diminish noise. The DSEIR Section 2.5, evaluated noise that would be generated by project traffic and concluded that impact would be less than significant (page 2-107 of the DSEIR).

I-2-8

The comment concerns noise from the Fellowship Hall. The comment identifies that the Fellowship Hall is the closest building to their residence, and states that noise from events will not be mitigated by a chain link fence. Noise from church events in the church courtyard was calculated, based on 500 guests with all males and females speaking loudly a majority of the time to account for occasional shouting (DSEIR, Figure 2.5-4). The resulting noise generated was calculated at 46.2 dBA at the eastern boundary, which is below the 50 decibels allowed by County regulations.

The DSEIR, Section 2.5.3.1, page 2-106, also states:

The County of San Diego requires places of worship to be designed in order to attenuate, control, and maintain interior noise levels to below 45 dBA in noise-sensitive spaces. Current exterior building construction, which proposes plastered wall surfaces, is generally expected to achieve at least 15 dB of exterior-to-interior noise attenuation, with windows opened. Therefore, proposed building structures exposed to exterior noise levels greater than 60 CNEL could be subject to interior noise levels exceeding the 45 dBA CNEL noise limits for noise-sensitive spaces.

The DSEIR analysis determined that exterior spaces would not be subject to noise in excess of 60 CNEL. Therefore, interior spaces are not expected to exceed the 45 dBA CNEL limit and impacts would be less than significant.

The project proposes replacing the site's existing chain link and vinyl white panel fencing with a mix of wrought iron and vinyl coated chain link fencing. This fencing is part of the project design and is not intended to serve as noise mitigation. Section 2.5.6 (pages 2-113 and 2-114 of the DSEIR) identifies noise mitigation for outdoor events. The mitigation measures was modified to clarify the conditions under which it would apply:

**M-N-1** If any outdoor event is proposed that will involve the use of an audio system and that includes more than 500 people, or if the outdoor event will extend beyond 7 PM, the noise impacts of the specific event must include design features and mitigation measures to comply with the applicable regulations. Such measures would include, but are not limited to:

1. Locating events to maximize attenuation from intervening buildings and topography
2. Limiting the time of the event and cease all substantial noise generating activities by 10 PM.

**I-2-8**  
Cont.

3. Limiting the number of attendees not to exceed 500 people to minimize impacts to off-site receptors.
4. Associated outdoor audio equipment shall be directed away from the occupied neighbors. Audio equipment would be directed in designated areas, facing towards the center of the site and/or using intervening structures to screen and shield associated noise sources.
5. The audio system will be tested prior to an event and the systems will be adjusted so noise does not exceed County noise limits.

No changes to the Draft SEIR are required as a result of this comment. This comment will be made a part of the Final SEIR that will be provided decision makers before about a final decision on the project.

**I-2-9**

This comment addresses peak traffic and traffic flows in the surrounding neighborhood. The comment states that traffic is of concern for pedestrian safety. During the week, the activity level is expected to be low to moderate due to the nature of the use proposed. The majority of the traffic will be on Sunday. Please see Section 1.2.2.7 of the DSEIR for the proposed operational hours and corresponding uses. This was reflected in the traffic analysis which considered project trip generation for both the weekday and weekend uses. Trip distribution and assignments were analyzed in the traffic study. The trip distribution and assignment are shown in Figure 3-6 of the traffic study and daily project trips are shown in Figures 3- 7 and 3-8 of the traffic study. Project trips for AM, PM and Sunday peak hours are shown in Figures 3-9 thru 3-11. Over 99 percent of the project traffic is forecasted to use Four Gee Road to Camino del Sur. Traffic is not expected to go through the adjacent neighborhoods. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**I-2-10**

The comment concerns the development of the project site. The County acknowledges the comment and notes it expresses the opinions of the commenter and does not raise an issue related to the adequacy of any specific section or analysis of the DSEIR. No further response is required.

## Comment Letter

I-3

October 7, 2017

Marisa Smith  
Project Manger  
Department of Planning and Development Services  
County of San Diego  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

Re: PDS2014-SPA-14-001, PDS2010-3300-10-037(MUP), PDS2012-3940-12-002(VAC), PDS2010-3910-9508007L(ER), SCH# 214011018, Chinese Bible Church of San Diego

Below are our comments on the Draft Supplemental Environmental Impact Report (DSEIR) the Chinese Bible Church of San Diego, the Project as identified in the DSEIR.

Chapter 2, Paragraph 2.1 Aesthetics, subparagraph 2.1.2.1 Existing Settings states *"The east and central parts of the planning area have been developed whereas northern and western areas are more sparsely developed or are undeveloped. The Project site is surrounded by suburban development on the north, east, and south. The local area also encompasses some open space and undeveloped land. The Project site's general visual environment is composed of an open field with a dense grove of trees in the center of the site."*

Chapter 2, Paragraph 2.1 Aesthetics, subparagraph 2.1.2.2 Project Site Visibility/Viewshed states *"The area to the northeast and east of the Project site is within the County of San Diego's 4S Ranch Specific Plan. The 4S Ranch land uses within the vicinity of the Project site primarily include single-family residential development, but at higher densities than the single-family estate residential development that lies to the north and northwest of the Project site. The single-family units to the east are on approximately 4,000 square foot lots and the units to the northeast are on approximately 6,250 square foot lots. The rear yards of approximately 15 houses adjacent to the Project site have views into the site. The ground view from these residences looks past wrought iron fencing and a landscaped embankment into the Project site."*

Chapter 2, Paragraph 2.1 Aesthetics, subparagraph 2.1.2.5 Viewer response states *"Residents in the surrounding developments to the north, east, and south would be the most sensitive to the development of the Project site."*

Chapter 2, Paragraph 2.1 Aesthetics, 2.1.3.1 Visual Character and Quality quote 1 *"As shown, buildings and rooflines would be visible above a range of landscape elements."* and quote 2 *"Existing mature eucalyptus trees would be removed and replaced by a range of drought-tolerant trees that would grow to varied heights. As a result, a vegetative cover that is less intense and more dispersed would replace the density of vegetation in the existing condition. This varied vegetative cover over most of the site would replace the tall cluster of vegetation surrounded by flat fields."*

## Response to Comment Letter

I-3

**I-3-1** The County of San Diego appreciates the comments on the Draft Supplemental Environmental Impact Report (DSEIR) from Shamim, Habib, and Jasmin Husain. The County acknowledges the comment as an introduction to comments that follow. This comment is included in the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project. No further response is required or necessary.

**I-3-2** The comment cites passages in the aesthetics report. The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required.

**I-3-3** The comment quotes two passages from Chapter 2, Section 2.1.3.1 Visual Character and Quality, which summarize viewshed elements and landscape features. The comment then identifies the aesthetic impacts, particularly to Key View 1, as a significant impact. Visual resources received extensive analysis in the DSEIR, and mitigation was identified for impacts to visual resources in 2.2 Aesthetics, specifically in Sections 2.2.4, Significance of Impacts Prior to Mitigation and 2.2.5 Mitigation. The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**I-3-4** The comment states that the height of buildings as portrayed in the land use report (Appendix O) are too high to be compatible with the surrounding residential uses. The County acknowledges the comment as the opinion of the commenter. For the purposes of clarification, towers are not proposed at 55 feet. One tower is proposed at 43 feet and two towers would be 41.5 and 39.5 feet respectively. The towers were analyzed in Section 2.1.3.1 of the Draft SEIR and were also depicted in the Key View visual simulations. Impacts related to the towers were determined to be less than significant. This comment will be incorporated as part of the Final SEIR that will be provided to decision makers prior to a final decision on the project. No further response is required.

Comment Letter

I-3

The above two quotes are from Key View 1. The aesthetic impacts listed in their own report are significant to the neighbors.

Upon further examining the proposed building elevations in Figures 12a and 12b of the Appendix O. Land Use, clearly indicate that proposed church buildings will form a solid wall of 40 feet height with tower elements reaching a height of 55 feet. The proposed church development is too high to be compatible with the adjoining two story residential uses of approximately 20 to 25 feet high located to the east and southeast of the proposed site. The landscaping indicated is of sparsely distributed Palm trees not at all in character with the existing mature eucalyptus trees that will be removed by the proposed church development.

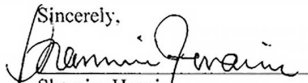
As stated in draft EIR and referenced in italics above this is the land that is surrounded by suburban homes and the only land left open from the surrounding developments. This land provides a serene and quite open space for the neighborhood. This portion of the land was planned for low-medium density residential uses (1 unit per 1-1.9 acres) but never approved. It was planned and protected from development due to the open space restrictions.

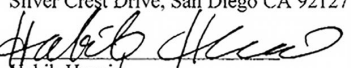
The Specific Plan Amendment 14-001 is proposed to allow for a Land Use for the Chinese Bible Church religious assembly use in Subarea V. If this proposed change for land use is allowed for constructing a wall of 40 feet high buildings, a height waiver for constructing tower elements 55 feet tall and installing outdoor audio system then it will be in conflict to the intent and community character of the SFVSP and a significant change from the current County of San Diego General Plan Regional Categories Map showing "Semi-Rural" land use for this site.

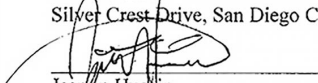
Allowing the Chinese Bible church to move forward with their plans will result in a higher density non-residential land use. This type of development will not only increase traffic, noise, light pollution and impacts on surrounding aesthetics, but will also have harmful effect, upon desirable neighborhood character of the surrounding homes and their respective property values.

Therefore we are opposed to the approval of the proposed Draft Supplemental EIR Chinese Bible Church of San Diego PDS2014-SPA-14-001, PDS2010-3300-10-037(MUP), PDS2012-3940-12-002(VAC), PDS2010-3910-9508007L(ER), SCH# 214011018.

Sincerely,

  
Shamim Husain  
Silver Crest Drive, San Diego CA 92127

  
Habib Husain  
Silver Crest Drive, San Diego CA 92127

  
Jasmin Husain  
Silver Crest Drive, San Diego CA 92127

I-3-3

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I-3-9

Response to Comment Letter

I-3

**I-3-5** The comment states that the proposed sparsely distributed palm trees are not in character with the existing eucalyptus trees that will be removed. The Concept Landscape Plan (CLP) includes an extensive list of trees, shrubs, vines, and groundcover that will be used. Please see DSEIR Figure 1-9, Concept Landscape Plan Notes, for details of the planting palette. An analysis of the CLP was included on pages 2-12 and 2-13 of the Draft SEIR. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project. No further response is required.

**I-3-6** The comment concerns the character of the site in its existing condition. The comment states that the land is surrounded by suburban homes, and that it provides a quiet and serene open space for the neighborhood. The comment also states that the project site was planned for low-medium density residential uses and that the site has open space restrictions. The impact of the project on community character was evaluated in the DSEIR in Section 3.1.4.3. The comment does not raise any specific issue regarding the DSEIR; therefore, no more specific response can be provided or is required. However, General Response 1 in the Response to Comments provides an overview of the subject of land use and community character. This comment will be incorporated into the Final SEIR that will be provided to decision makers prior to a final decision on the project. No further response is required.

**I-3-7** The comment concerns the project's effects on the community character of the Santa Fe Valley Specific Plan (SFVSP). The comment addresses general subject areas, which received extensive analysis in the DSEIR. General Response 1 in the Response to Comments provides a response to the subject of community character. The project's consistency with the SFVSP is discussed in Section 3.1.4.3 of the DSEIR, page 3-72+. It was determined that the project, with the design measures proposed, does not have a significant impact on Land Use. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.

**I-3-8** This comment states that the project will result in higher density non-residential use, as well as impacts to traffic, noise, light pollution, aesthetics, neighborhood character, and property values. The comment addresses general subject areas, which received extensive analysis in the Draft EIR. Please see General Responses 1, 2, and 4 "Planning and Land Use," "Biology and the Resource Protection Ordinance," and "Visual Resources," respectively for responses to the subjects of land use and community character, traffic, and visual effects, respectively. The comment is general so a more specific response is not required. Property values are not a topic of analysis under the California Environment Quality Act, therefore property values were not discussed in the DSEIR. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision of the project.

Comment Letter

I-3

Response to Comment Letter

I-3

**I-3-9** The comment expresses opposition to the proposed project. The County acknowledges the comment letter, and notes it expresses general concerns for the project, but does not raise any issue concerning the adequacy of the Draft EIR. For that reason, the County provides no further response to this comment. The comment will be made a part of the Final SEIR that will be provided to decision makers prior to a final decision on the project.



# Comments Letter

I-4

From: Arne Johanson [mailto:arne\_kj@yahoo.com]  
Sent: Monday, October 09, 2017 11:37 AM  
To: Smith, Marisa <Marisa.Smith@sdcounty.ca.gov>  
Subject: Chinese Bible Church PDS2014-SPA-14-001 (SPA), PDS2010-3300-10-037 (MUP), PDS2012-3940-12-002 (VAC), Log No. PDS2014-3910-95-08-007

Ms Smith,

I am writing in opposition to the proposed Chinese Bible Church project. I do not object to a church, if it is just the church without all of the other uses. I do not object to the project of this scope if it is a proper place, such as, Black Mountain Ranch just one or two blocks away. The proposal, at this sight, is simple too large a project for the area.

As you are well aware, the specific plan indicates that this parcel would be suitable for four homes. Even very large home at 5,000 square feet would result in 20,000 square feet of buildings. The proposal before us calls for many times that amount of development. Such a large project has many negative consequences for the neighborhood.

Current homeowners bought into the neighborhood expecting higher intensity development along Camino Del Sur with a transition to lower densities and intensive use going north from there. Now it is proposed that the more extensive use will leapfrog into the middle of the residential area. Certainly, homeowners in 4S and La Vina will have major changes imposed on their lives and property.

Traffic is another issue that is not compatible with the specific plan or the existing neighborhood. With all the buildings proposed for the sight there is simply not enough parking to handle the number of cars that the church expects to have for services. This will force cars to travel and park all along streets in existing neighborhoods. Worse are the traffic impacts on roads and the fire station.

The driveway entrance to the project sight is directly in front of the fire station. There is no way that this traffic will not have a negative impact on emergency response no matter what mitigation measures are taken. Four Gee Road is a two lane road that will clog with traffic. If most of this traffic comes from Camino Del Sur, cars coming from the north will back up waiting to make a left turn into the sight. If these cars from the north are allowed in, it will back up traffic from Camino Del Sur, most likely blocking traffic associated with La Vina. The distance between the two driveways simple isn't adequate. On street parking, blocked streets and driveways will make driving problematic for all other users, including the emergency vehicles.

I also take issue with the planting plan for the project. They specify orange trees and so called California Pepper trees. These have limited habitat value and the roots of pepper trees are very problematic. Garden books say they should never be planted any closer than twenty feet from hardscape of plumbing.

More appropriate local choices could be Quercus agrifolia, Quercus engelmani, Pantanus racemosa, Sambucus mexicanus and any of the local willows. Willows provide preferred nesting sights for certain rare birds like Least Bells Virio and Willow Flycatcher. The elderberry

I-4-1

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# Response to Comments Letter

I-4

- I-4-1 The comment expresses general opposition to the project and states that the proposed project is too large for the area. The County of San Diego appreciates the comments on the Draft Supplemental Environmental Impact Report (DSEIR) by Mr. Arne Johanson. The comment does not raise any specific issues concerning the adequacy of the DSEIR. See Response to Comments, General Responses 1, Planning and Land Use, and EIR Section 3.1.4.3, "Physical Compatibility with Surrounding Areas/Community Character, page 3-76, for an overview of the issue of density, intensity, and scale. This letter will be included with the Final SEIR that is provided to decision makers prior to a final decision on the project.
- I-4-2 The comment expresses concern for negative effects on the community. The County acknowledges the comment and notes it expresses the opinions of the commenter, and does not raise an issue related to the adequacy of any specific section or analysis of the Draft EIR. General Response 1, Planning and Land Use in the Response to Comments, provides an overview of the issues related to land use and the community.
- I-4-3 The comment states that current homeowners expected higher intensity development along Camino Del Sur with lower densities and intense of use moving north. The comment also states that the proposed project is leapfrog development. The County acknowledges the comment and notes it expresses the opinions of the commenter, and does not raise an issue related to the adequacy of any specific section or analysis of the Draft SEIR. Furthermore, the project does not represent a "leapfrog development." Leapfrog development is generally described as a development requiring the extension of public services through existing undeveloped property or it is sometimes defined as new development separated from existing development by substantial vacant land. The project as described in the DSEIR does not meet either of these definitions. The provision of public services was analyzed in the DSEIR (Sections 3.1.5 and 3.15.7) and it was determined that existing facilities are adequate to service the project. The development is not separated from development by substantial vacant land. It is surrounded on all sides by developed land and open space. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project. No further response is required or necessary.

- I-4-4 This comment states that there will not be enough parking to serve church services, and that cars will need to park along streets in surrounding neighborhoods. Traffic was analyzed in Section 3.1.6 of the Draft SEIR, and it was determined that impacts will be less than significant. The project would provide 417 parking spaces, in excess of County requirements for on-site parking, which require 375 spaces. The project also proposes an overflow parking area to accommodate cars during special events. A shuttle will be operated by the church to reduce the number of cars entering the neighborhoods. The ample on-site parking provided, in conjunction with these design measures, will prevent the need for off-site parking. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.
- I-4-5 This comment addresses traffic and the location of the existing fire station. The comment states that the project will not have a negative impact on emergency response despite mitigation measures. The effects of the project on the functioning of the fire station were evaluated in the DSEIR Section 2.4, Hazards – Fire Safety and Hazardous Chemicals, and mitigation was identified to ensure that the project does not interfere with fire station operations. Mitigation measure M-HZ-1, (DSEIR page 2-98) requires coordinated signals at the fire station exit point and the Four Gee Road/Camino Del Sur intersections. In the event of an emergency, both intersections will be traffic controlled to allow quick and safe exit for emergency vehicles. With implementation of mitigation measures M-HZ-1, impacts would be reduced to below a level of significance. The comment does not raise any specific issue regarding the traffic analysis and, therefore, no more specific response can be provided. The County will include the comment as part of the Final EIR for review and consideration by the decision-makers prior to a final decision on the project.
- I-4-6 This comment states Four Gee Road will clog with traffic that could block traffic at the entrance to the La Viña neighborhood. The comment also states that the distance between the two driveways is not adequate, and that on street parking will occur. Potential impacts to traffic, including queueing and traffic operations, received extensive analysis in the Draft SEIR. As detailed on pages 3-104 and 3-105 of the DSEIR, an operational analysis to evaluate the vehicular queue was performed at the project Driveway/Four Gee Road and Four Gee Road/Camino Del Sur intersections. The proposed improvements at the intersection of Four Gee Road and Camino Del Sur (as part of the Camino Del Sur widening projects) are accounted for in the operational analysis. The future queue estimates were provided in Table 3.1-28, Future Queue Analysis, of the DSEIR.

**I-4-6**  
Cont.

The operations analysis indicates that the estimated maximum vehicle queue for the southbound leg at the intersection of Four Gee Road and Camino Del Sur would not exceed capacity. The estimated maximum vehicle queue for the southbound leg at the intersection of Four Gee Road and Camino Del Sur would, at times, exceed the capacity prior to traffic signal installation. However, as mitigation for fire safety (Chapter 2.4, Hazards – Fire Safety and Hazardous Chemicals), the project will install a traffic signal at the project entrance and Four Gee Road prior to project operation. The project will also interconnect this new signal with the signal at Four Gee Road and Camino Del Sur. This would reduce queuing and expedite emergency vehicle movement through the two intersections.

Excessive queuing along Four Gee Road was not identified during the analysis. The distance between the La Viña entrance, Tallus Glen, and the proposed Grace Way, will be a minimum of 150 feet. This distance meets the exception request requirements granted by the County on October 5, 2016, where the County concluded this separation would not adversely affect the safety and flow of traffic. Therefore ingress and egress issues at the La Viña community are not anticipated. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project. For a discussion of on-street parking, please see Response I-4-4 above.

**I-4-7**

This comment addresses the proposed landscape plan for the project. The orange trees and pepper trees have been replaced with dwarf lemon and oak in response to the comment. Dwarf lemon trees and oak were selected because they provide good screening, produce fruit, and/or are native to the area. Dwarf lemon has dense foliage that can provide dense screening along the eastern boundary and are sweet smelling. *Quercus agrifolia*, Coast Live Oak, does well in the area and is used quite often at the nearby Santaluz community. The Project will provide 36" box specimens at initial installation which will be around 8' to 10' tall and 4'-5' wide. It is a slow grower, however the landscape plan incorporates other trees larger tree like Sycamore around the site that grow faster. In addition the oak is an evergreen. *Sambucus* spp, Elderberry, is a deciduous shrubs and is not used as tree. It is mostly grown in colder area of San Diego County which Western Garden Book has identify as Zones 14-17. The Project site is in Zone 23. For these reasons this plant would not be ideal for the site. *Salix babylonica*, Willow, is a deciduous trees with very evasive roots. It is fast growing to 30'-50' tall and wide. Willow does well around streams and water. Plants of this type would not work well with the infrastructure planned for the parking areas.

The comment about pepper trees near hardscape or plumbing is acknowledged. The pepper trees have been replaced by oaks, which were noted in the comment as an acceptable tree. Additionally, the landscape plan will be reviewed for proximity in particular to plumbing systems and will be moved as needed. The County concurs that the plants noted in paragraph 2 of the comment are a useful addition to the plant palette.

Comments Letter

I-4

provides nesting, roosting sights while also providing food for wildlife. Sycamore (specifically *Platanus racemosa*, not *P. orientalis* or *p. occidentalis*) naturally occur in the area and provide tall nesting and perching sights for birds of prey. The oak have many advantages including nesting, roosting, food but maybe most importantly they serve has heat sinks that lessen fire risk.

In summary, the church sanctuary alone is large but within the order of magnitude of development suitable for the parcel. A church alone could allow for more on-sight parking which could avoid some of the negative issues associated with the larger proposal. This very large complex is more suitable for other nearby areas where roads and other infrastructure are designed for this level of development. These other nearby areas would also provide for future potential expansion as the church grows and flourishes. The project as proposed for the current parcel is not a good for the existing community, causes many problems that cannot be adequately mitigated and ultimately is not the best choice for the church and its future growth.

Arne Johanson  
Chair, Friends of Santa Fe Valley (County parks friends group since 2004)  
17269 Silver Gum Way  
San Diego, CA 92127  
858-759-4769

I-4-7  
Cont.

I-4-8

Response to Comments Letter

I-4

I-4-7  
Cont.

The revised planting palette, Figure 1-9, Landscape Plan Notes, has been amended include them.

I-4-8

This comment states that the church sanctuary alone would be appropriate for the project site, and would allow for additional parking. The comment also states that the complex is more suitable for alternative nearby areas. Project alternatives are discussed in Chapter 4.0, Project Alternatives. A church building alone would not allow the church congregations to meet the project objectives. Therefore, a church only project was not analyzed. A discussion on alternative locations is provided in Section 4.1.1, Alternatives Considered but Rejected from Further Study. The comment does not raise any additional specific issues not addressed in this section. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project. No further response is required.

Comments Letter

I-5

By Email:

From: Bruno Leone [mailto:bruleone@cox.net]
Sent: Friday, October 06, 2017 4:25 PM
To: Smith, Marisa <Marisa.Smith@sdcounty.ca.gov>
Subject: Chinese Church, Santa Fe Valley

Dear Ms. Smith:

My wife and I are residents of Salviati and were given your email address as one where we may register our objections to the construction of the Chinese Church on the property abutting Campania and Four Gee in Santa Fe Valley. While our objections are multiple (beginning with the deception employed by the realtor in question to obtain an easement for the church from Salviati's HOA), we'll try to keep this simple and direct and for now, at least, mention only one of our principle objections.

We have resided in our home for the past sixteen years and have seen the traffic situation on Camino del Sur, Four Gee and Campania evolve from minimal to hectic. The proposed church building and the number of congregants anticipated for school and church services are enormous by residential neighborhood standards (especially Santa Fe Valley) and would seriously and adversely impact upon each of the aforementioned roadways. (You are aware, of course, of the fact that the Target shopping center is quite large, generates large amounts of traffic, and somehow or other managed to be built while a verdict on the church was pending. Perhaps we should invite Ringling Brothers Circus to rethink its decision to close shop by finding a spot for them in Santa Fe Valley where they can set up their winter headquarters?)

In fact, allowing the church to be constructed would be at the very least irresponsible and at most, risky. Given even the Church's own EIR, it is apparent that at certain times of the day and on certain days of the week, the traffic situation will be potentially untenable. I'm sure you are aware of the fact that a fire station and paramedical unit are housed directly across the street. My wife and I have recently witnessed both fire trucks and the paramedical vehicles being slowed down by traffic at the Four Gee and del Sur intersection. I would not want to be having a cardiac episode while waiting for the paramedics to arrive on one of those "certain times of the day" or "certain days of the week" that the church will be contributing to the vehicular traffic.

Certain facts are obvious: Cars will be parked on the streets and most likely extend nearly the entire length of Four Gee with spillover onto Campania; moreover, cars will be backed up from the church grounds onto the streets. Both possibilities clearly invite auto accidents on a regular basis which in turn invite the possibilities of injuries and yes, even fatalities. Finally, all of the above will generate far more noise and bedlam than the current residents originally expected when the property in question was originally zoned for -- I believe -- merely four homes.

We appreciate your taking the time to read this email and trust in the good will and judgment of those public officials whose decisions will impact upon the final outcome of this matter.

Sincerely,
Bruno and Patricia Leone
Salviati Residents

Response to Comments Letter

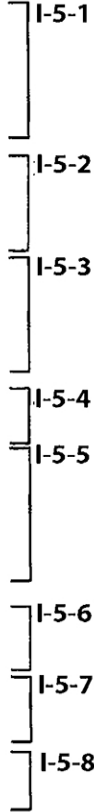
I-5

I-5-1 The County of San Diego appreciates the comments on the Draft Supplemental Environmental Impact Report (DSEIR) by Bruno Leone. The comment expresses general opposition to the project. This letter will be included in the Final SEIR that is provided to decision makers prior to a final decision on the project. No further response is required.

I-5-2 The comment states that the commenter has observed hectic traffic on Camino Del Sur, Four Gee, and Campania Avenue. The comment also states that the proposed project's buildings and estimated attendance is too large for residential neighborhoods, and that it would cause traffic impacts on the surrounding roads. It should be noted that this comment references traffic generated by a school and for church services; however, a school is no longer proposed as part of the project. A traffic study was prepared for the project by KOA (2017) and was included as Appendix B of the DSEIR, as well as summarized in Section 3.1.6 of the DSEIR. The traffic analysis concluded that all traffic impacts would be less than significant. The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required.

I-5-3 The comment states that the nearby Target shopping center is large, generates traffic, and was built during the processing of the proposed project. The comment also proposes that the Ringling Brothers Circus could find a place in the Santa Fe Valley to set up headquarters. The County acknowledges the comment and notes it expresses the opinions of the commenter and does not raise an issue related to the adequacy of any specific section or analysis of the DSEIR. No further response is necessary.

I-5-4 The comment states that approval of the project would be irresponsible and risky. The comment also states that the traffic would be untenable on certain days of the week. Potential impacts to traffic received extensive analysis in the DSSEIR, specifically Section 3.1.6, Traffic. The comment does not raise any specific issue regarding that analysis and, therefore, no more specific response can be provided or is required. This comment will be included in the Final SEIR that will be provided to decision makers prior to about a final decision on the project.



- I-5-5** The comment concerns traffic in the vicinity of the fire station. The commenter states that they have witnessed emergency vehicles being slowed by traffic at the Four Gee and Camino Del Sur intersection. The effects of the project on the functioning of the fire station were evaluated in the DSEIR, specifically Section 2.4 Hazards – Fire Safety and Hazardous Chemicals, and mitigation was required to ensure that the project does not interfere with fire station operations. Mitigation measure M-HZ-1, (DSEIR page 2-98) is proposed to address concerns about traffic entering or leaving the site during an emergency. This mitigation measure calls for coordinated signals at the fire station exit point and the Four Gee Road/Camino Del Sur intersections. Therefore, in an emergency both intersections will be traffic controlled to allow quick and safe exit for emergency vehicles. With implementation of mitigation measures M-HZ-1, impacts would be reduced to below a level of significance. The County will include the comment as part of the Final EIR for review and consideration by the decision-makers prior to a final decision on the project.
- I-5-6** The comment concerns on-street parking in the area as a result of the project. The comment states that cars will be parked on nearby streets and that traffic will be backed up onto nearby streets as well. The comment also states that these scenarios will invite auto accidents. The project is providing 417 parking spaces, which is in excess of County requirements of 375 spaces by 42 spaces. The project also proposes an overflow parking area to accommodate cars during special events (DSEIR Section 1.2.2.3, page 1-5). The project's operational requirements also include the use of two shuttle buses on Sunday when services are held. This service is already in use at existing church locations so it would be a familiar service that would reduce parking pressures from the start of church operations at this new location. Public parking along Four Gee Road is allowed, but parking near the fire station is already restricted. Four Gee Road is designed to safely accommodate parking on two sides of the road in unrestricted areas. However, congregants will be asked to park only on the project site or use the shuttle service. The County will include the comment as part of the Final EIR for review and consideration by the decision-makers prior to a final decision on the project.

Comments Letter  
I-5

Response to Comments Letter  
I-5

- I-5-7** The comment states that the proposed project will generate more noise and bedlam than the current residents expected if housing was developed. Potential noise impacts received extensive analysis in the DSEIR, specifically in Section 2.5, Noise, which was supported by a noise study prepared by Eilar Associates (2016; Appendix L the DSEIR). The analysis found that, with project design features and mitigation, noise impacts would be reduced to less than significant. The comment does not raise any specific issue regarding the noise analysis and, therefore, no more specific response can be provided or is required. The County will include the comment as part of the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project.
- I-5-8** The County acknowledges the comment as a conclusion statement to the letter. This comment is included in the Final SEIR for review and consideration by the decision-makers prior to a final decision on the project. No further response is required or necessary.