

FINAL
INITIAL STUDY /
MITIGATED NEGATIVE DECLARATION

MIDDLE SCHOOL #5 AT PACIFIC
HIGHLANDS RANCH

Prepared for

San Dieguito Union High School District
710 Encinitas Blvd
Encinitas, CA 92024

URS Project No. 27653125

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URS

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List of Acronyms and Abbreviations

AB	Assembly Bill
AB 32	Global Warming Solutions Act
ADT	Average Daily Traffic
amsl	above mean sea level
ATCM	Airborn Toxic Control Measure
ATSM	American Society for Testing and Materials
BMP	Best Management Practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emission Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CCA	Canyon Crest Academy
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CH ₄	methane
CMP	Congestion Management Program
CNEL	Community noise equivalent level
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
dBA	A-weighted decibels
DPM	Diesel Particulate Matter
FINDS	Facility Index System Database
FUA	Future Urbanizing Area
GHG	greenhouse gasses
GSF	gross square feet
GWP	Global Warming Potential
HFCs	hydrofluorocarbons
HRA	Health Risk Assessment
HVAC	Heating, Ventilating and Air Conditioning
I-15	Interstate 15
I-5	Interstate 5
IS	Initial Study
Leq	equivalent continuous noise level
LOS	Level of Service
MCAS	Marine Corps Air Station
MEIR	Master Environmental Impact Report
mgd	million gallons per day

List of Acronyms and Abbreviations

MHPA	Multiple Habitat Planning Area
MLD	Most Likely Descendant
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zone
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
New Middle School	New Middle School #5 at Pacific Highlands Ranch
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
O ₃	ozone
Pb	lead
PFCs	perfluorocarbons
PLWTP	Point Loma Wastewater Treatment Plant
PM ₁₀	Particulate matter up to 10 micrometers in diameter
PM _{2.5}	Particulate matter up to 2.5 micrometers in diameter
RAQS	Regional Air Quality Strategy
RCRA	Resource Conservation and Recovery Act
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SARA	Superfund Amendments and Reauthorization Act
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDC	Special Day Class
SDCWA	San Diego County Water Authority
SDFD	City of San Diego Fire-Rescue Department
SDUHSD	San Dieguito Union High School District
SETDA	State Educational Technology Director's Association
SF ₆	sulfur hexafluoride
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SR-56	State Route 56
SUSMP	Countywide Model Standard Urban Stormwater Mitigation Plan
SWMP	San Dieguito Union High School District Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TAC	Toxic Air Contaminant
UBC	Uniform Building Code
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound
WQTR	Water Quality Technical Report

SECTION 1 MITIGATED NEGATIVE DECLARATION**Subject: New Middle School #5 at Pacific Highlands Ranch**

- I. Project Description:** The Project would design and construct a new middle school comparable in size and programmatic offerings to the nearby Carmel Valley Middle School, and would serve the students living in Pacific Highlands Ranch and surrounding area, as well as alleviate overcrowding at Carmel Valley Middle School. The New Middle School #5 in Pacific Highlands Ranch (New Middle School) would be approximately 101,230 square feet and located on an eight-acre parcel. The Project site plan illustrates the location of the classrooms and core facilities which would be built surrounding a campus quad designed to hold outdoor assemblies and promotion ceremonies, and provide shaded areas available for students to congregate during breaks and lunches. The school's classroom facilities are designed as a multi-story building to reduce the building footprint and allow for maximum outdoor space. Athletic field space for the New Middle School, identified as Parcel 2, would be located adjacent to the south of school building areas. Parcel 2, would be transferred from Canyon Crest Academy (CCA) to the New Middle School. Replacement of Parcel 2, which is currently CCA athletic field space, would be provided through acquisition of Parcel 5, which is located at the southern end of the CCA. The vehicular and pedestrian circulation would incorporate numerous elements, including: a new access/loop road from the existing Village Center Loop Road; a new turn lane adjacent to eastbound lanes of Village Center Loop Road; a pedestrian sidewalk; a new bus plaza within the existing CCA parking lot; a parking lot adjacent to the New Middle School encircled by the access/loop road. To help maintain a distinction between the CCA and New Middle School identities and programs, a barrier park/fitness course is proposed adjacent to the new bus plaza and bounded on the northwest by the CCA, and to the north and south by the New Middle School drop-off loop and athletic field. A dense grove of trees planted as part of the park would help visually reinforce the distinction between the CCA and New Middle School. The Project is consistent with the 1998 Pacific Highlands Ranch Subarea Plan Master Environmental Impact Report, which includes the construction and operation of a new middle school within this area of the community. The Project site is not included on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.
- II. Environmental Setting:** See attached Initial Study.
- III. Determination:** The proposed project may result in potential impacts associated with Aesthetics, Hydrology and Water Quality, Noise, Recreation and Utilities and Service Systems. Mitigation measures would be implemented to reduce these impacts to a less than significant level.
- IV. Documentation:** The attached Initial Study documents the reasons to support the determination discussed above.
- V. Mitigation Measures:** See attached Mitigation Monitoring and Reporting Program.
- VI. Public Review Distribution:** The following individuals, organizations, and agencies received a copy or notice of the Draft Initial Study and Mitigated Negative Declaration and were invited to comment on its adequacy and sufficiency:

Federal Government

United States Fish and Wildlife Service

State of California

Department of Fish and Wildlife, Region 5

Native American Heritage Commission

SECTION ONE

Mitigated Negative Declaration

Department of Toxic Substances Control
Regional Water Quality Control Board, Region 9
Department of Transportation, District 11
State Clearinghouse

Local Agencies

City of San Diego Development Services Department
City of San Diego Fire-Rescue Department
City of San Diego Public Utilities; Water Division
San Diego County Clerk's Office

Native American Bands

La Jolla Band of Mission Indians
Pala Band of Mission Indians
Pauma and Yuima Band of Mission Indians
Pechanga Band of Mission Indians
Rincon Band of Mission Indians
San Luis Rey Band of Mission Indians

Other

San Diego County Archaeological Society
San Diego Gas & Electric

VII. Results of Public Review:

- () No comments were received during the public input period.
- () Comments were received but did not address the Draft Mitigated Negative Declaration finding or the accuracy/completeness of the Initial Study. No response is necessary. The letters are attached.
- () Comments addressing the findings of the Draft Mitigated Negative Declaration and/or accuracy or completeness of the Initial Study were received during the public input period. Responses were prepared to each letter. The letters and responses follow.

The Initial Study and Mitigated Negative Declaration are available for review at the San Dieguito Union High School District Office, 710 Encinitas Boulevard, Encinitas, CA 92024.



John Addleman, Director of Planning Services
San Dieguito Union High School District

May 28, 2013
Date of Draft Report

Date of Final Report

SECTION 2 INTRODUCTION

San Dieguito Union High School District (SDUHSD) proposes to design and construct an approximately 101,230 square-foot New Middle School #5 at Pacific Highlands Ranch (New Middle School) located on an eight-acre parcel adjoining the northeast portion of the Canyon Crest Academy (CCA), and bounded on the southeast by State Route 56 (SR-56).

In addition to construction of the New Middle School, a parcel that includes athletic fields and is currently a part of the CCA would be acquired from the CCA to be included as part of the New Middle School site. Also, a comparable amount of land would be acquired adjacent to CAA's southwest boundary and added to the CCA's site to make up for the land acquired for the New Middle School. A combined barrier park/fitness course is proposed to be built between the CCA and the New Middle School vehicular drop-off loop road. These actions and the New Middle School are collectively referred to as the Project.

2.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

The SDUHSD is the lead agency pursuant to the California Environmental Quality Act (CEQA) and is responsible for analyzing and approving the proposed New Middle School Initial Study (IS)/Mitigated Negative Declaration (MND) document. SDUHSD has determined that an MND is the appropriate environmental document to be prepared in compliance with CEQA. This finding is based on the Initial Study Checklist (Section 5) and Discussion of Environmental Impacts (Section 6). As provided for by CEQA Statute Section 21064.5, an MND may be prepared for a project subject to CEQA when the project will not result in significant environmental impacts that cannot be mitigated to a level below significance.

This draft MND has been prepared by SDUHSD, as the lead agency, and in conformance with CEQA Guidelines Section 15070(a). The purpose of the MND and the IS is to determine the potential significant impacts associated with the construction of the Project and incorporate mitigation measures into the project design as necessary to reduce or eliminate the significant or potentially significant effects of the Project.

2.2 OTHER AGENCIES THAT MAY USE THE MITIGATED NEGATIVE DECLARATION AND INITIAL STUDY

This MND is intended to be used by responsible and trustee agencies that may have review authority over the project. SDUHSD will obtain all permits as required by law and is the lead agency for this project. The Regional Water Quality Control Board (RWQCB) would be a responsible agency for this project because the RWQCB would be required to issue a Construction Activities Storm Water General Permit for this project.

2.3 PUBLIC REVIEW PROCESS

In accordance with CEQA, a good faith effort has been made during preparation of this MND to contact affected agencies, organizations, and persons who may have an interest in this Project.

In reviewing the MND and IS, affected public agencies and interested public were asked to focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the Project are proposed to be avoided or mitigated.

Comments on the MND were solicited in writing before the end of the comment period. A 30-day comment period commenced on May 30, 2013 and ended on June 29, 2013.

This MND and associated appendices were made available for review on the SDUHSD web site. The web address is <http://sduhsd.net/About-SDUHSD/Department-Listing-/Facilities-Planning-and-Construction/Prop-AA/index.html>.

During the public comment period, the MND and appendices were also made available for review during regular business hours at the following location:

San Dieguito Union High School District
684 Requeza Street
Encinitas, CA 92024
(Phone: 760-753-6491x5310)

Information regarding the IS/MND, including the SDUHSD hearing, may also be directed to:

John Addleman
Director of Planning Services
San Dieguito Union High School District
684 Requeza Street
Encinitas, CA 92024

Email: john.addleman@sduhsd.net

SECTION 3 PROJECT DESCRIPTION

3.1 PROJECT LOCATION AND SITE

As shown in Figures 3.1-1 and 3.1-2, the New Middle School campus would be located in the community of Pacific Highlands Ranch within the northern City of San Diego limits. The project site is bounded by a vacant park site to the northeast, SR-56 to the southeast, CCA athletic fields to the southwest, and CCA to the west. Regional access is provided to the New Middle School via SR-56 to the local road network and is directly accessed by Village Center Loop Road. The New Middle School campus would be adjacent to the existing CCA, and is made up of two site parcels – Parcel 3 and Parcel 2 (Figure 3.1-3). Parcel 2, which is currently part of the CCA campus, would be used for the New Middle School’s athletic fields. Parcel 5 would be acquired as part of the Project and serve as a replacement for the Parcel 2 New Middle School acquisition (Figure 3.1-3).

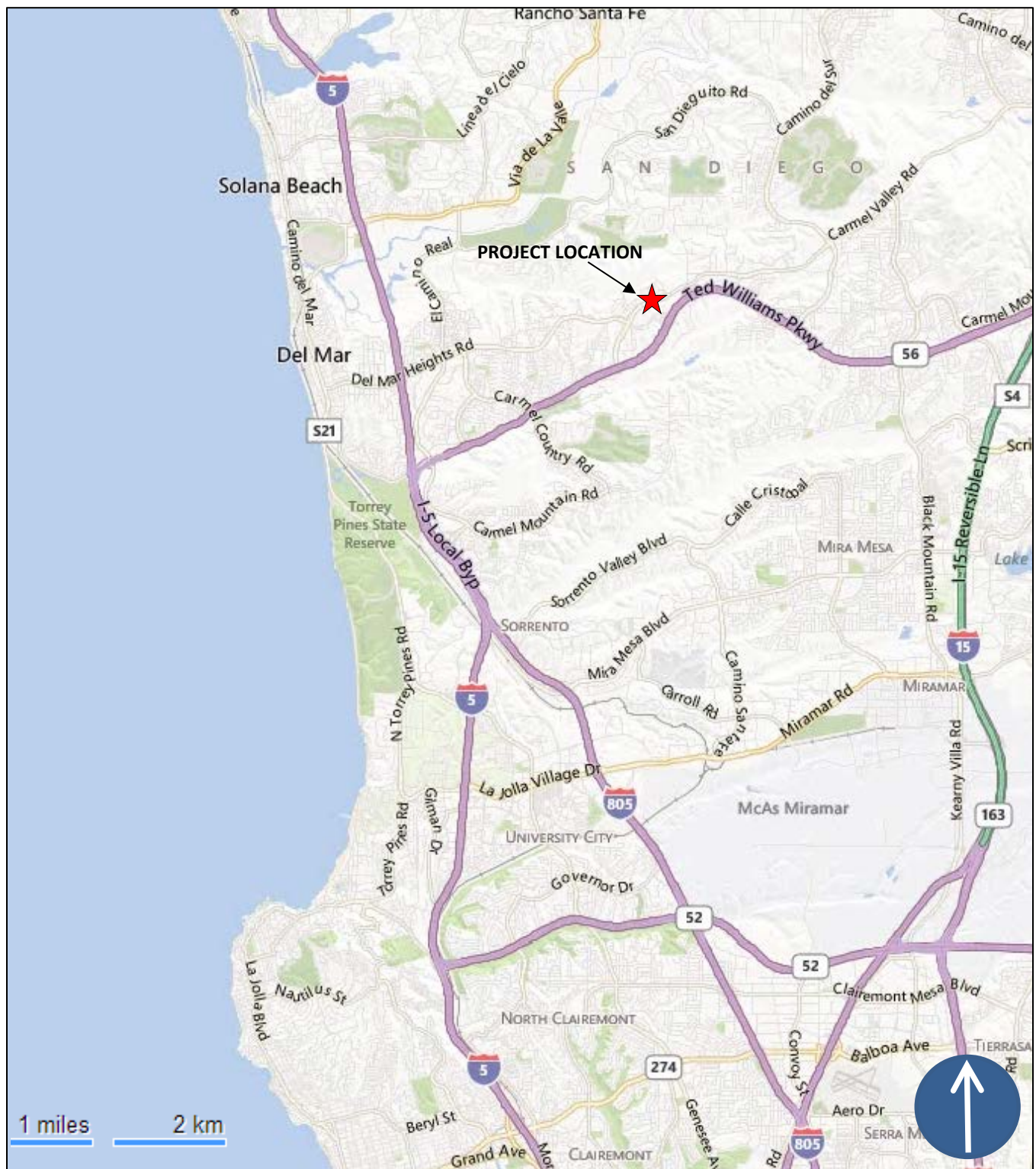
At present, the site of the proposed New Middle School is located on vacant land that was mass-graded as part of prior construction activities (Figure 3.1-2). The site is heavily disturbed, with all of the native vegetation having been removed by the mass grading activities, leaving large areas of bare soil.

3.2 PROJECT DESCRIPTION

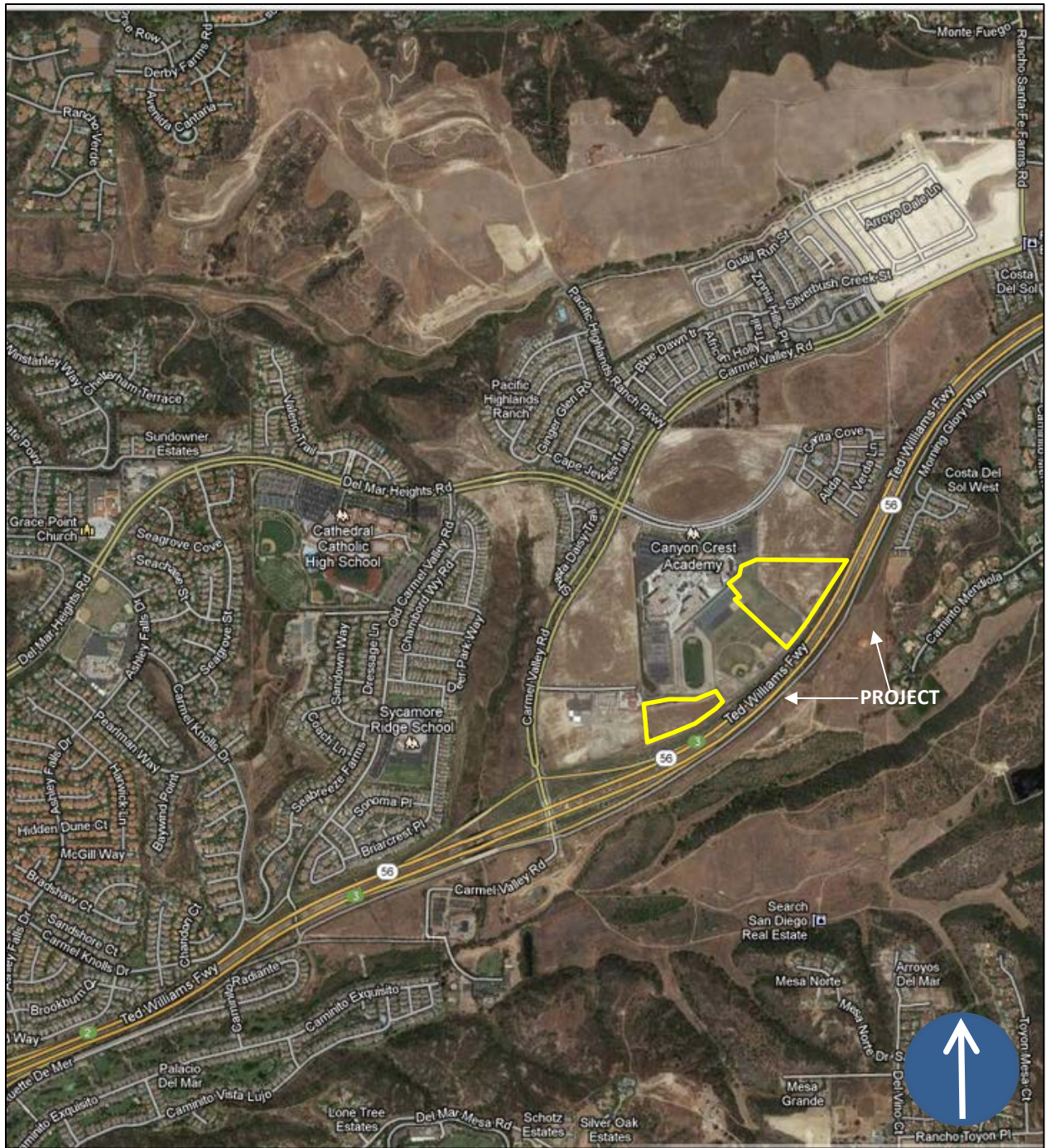
The SDUHSD Master Plan (Lionakis 2011) outlines the development of a 101,230 square-foot new middle school on an eight-acre parcel adjoining the CCA in Pacific Highlands Ranch. The school would be comparable in size and programmatic offerings to the nearby Carmel Valley Middle School, and would serve the students living in Pacific Highlands Ranch and surrounding area, and would alleviate overcrowding at Carmel Valley Middle School. The vision described within the SDUHSD Master Plan is to create a comprehensive middle school campus with flexible, adaptable facilities that encourage teaching and learning that is responsive to the needs of the user. The goals of the New Middle School are as follows:

- Create a campus with the capacity for 1,000 students, to be phased in two 500-student increments in conjunction with the two construction phases.
- Provide a music classroom, art classroom, multi-use room, media center, and gymnasium with locker rooms.
- Provide facilities and spaces comparable to Carmel Valley Middle School at its reduced enrollment capacity of 1,000 students.
- Provide technology infrastructure to accommodate the increasing number of wireless devices used by students.
- Provide 21st-Century learning environments comparable to those being developed on other middle school campuses in the district.

A 21st-Century Learning Environment, outlined by the State Educational Technology Director’s Association (SETDA), encourages small learning communities, interactive public spaces and integrative technology access designed to expand the boundaries of the traditional classroom setting. SDUHSD has adopted this model as a standard for its schools to aid in adapting to growing technological advancements, and learning and teaching needs of the students and faculty.



Source: Microsoft Maps 201



No scale.

Source: Google Maps 2013

AERIAL PHOTOGRAPH OF THE PROJECT VICINITY

Figure 3.1-2



No scale.
Source: Google Maps 2013

Construction of the New Middle School would occur in two phases. The first phase of construction for the New Middle School is proposed to begin in the fall of 2013 and be completed by the fall of 2016, while the construction of the second phase is expected to be completed by 2019. Occupancy after the first phase of construction will take place in two phases. Occupancy of the first classroom building, music classroom, art classroom, multi-use room, and administrative office would occur in the fall of 2015, and occupancy of the media center, and gymnasium in the fall of 2016. The second classroom building, to be built as the second phase of construction, would be available for occupancy in fall 2019. Figure 3.2-1 shows the overall Project site plan, inclusive of circulation plans and athletic fields. Figure 3.2-2 shows the New Middle School site plan, which illustrates the location of classrooms and core facilities that would be built surrounding a campus quad designed to hold outdoor assemblies and promotion ceremonies, as well as shaded areas available for students to congregate during breaks and lunches. The school's classroom facilities would be multi-story to allow for maximum outdoor space. Athletic field space for the New Middle School would be located southeast and adjacent to the campus on Parcel 2, which would be obtained from CCA. Parcel 5, located at the southwest corner of the CCA site, would be acquired, developed as athletic fields and replace the land associated with Parcel 2.

SDUHSD seeks to ensure the identity and programs of the CCA and New Middle School maintain a distinction from one another. To this end, the Project includes a barrier park/fitness course that would separate the CCA from the New Middle School adjacent to the new bus plaza and bounded to the north by the CCA, and to the south and east by the New Middle School drop-off loop road and athletic field. A dense grove of trees planted as part of the park would help visually reinforce the distinction between the CCA and New Middle School.

3.2.1 Proposed Uses

The New Middle School would be a comprehensive middle school campus built for an ultimate capacity of 1,000 students. The construction timeline of the New Middle School has been split into two phases.

Phase I construction includes:

- Grading activities;
- Athletic fields
- New Middle School parking lot and Special Education bus drop-off;
- Bus plaza, access loop road, and Village Center Loop Road turn lane;
- Fitness Course/Barrier Park;
- Buildings A, B, C, E, F and G;
- Quad and Pavilion; and
- New Middle School sport courts;

Phase II construction includes:

- Building D

Each building and its facilities are described in greater detail below.

3.2.1.1 Phase I

Phase I activities are anticipated to start in the fall of 2013 and be completed in the fall of 2015. The activities to be performed as part of Phase I are as follows:

Grading of Parcel 5: Parcel 5, a 6.89-acre parcel located at the south end of the current CCA athletic field and parking lot, would be acquired, mass-graded, and developed as two baseball fields for CCA, to serve as replacement for Parcel 3, which would be acquired for the New Middle School.

Athletic Fields: Parcel 2, an approximately five acre parcel of land currently part of the CCA, would be graded and developed as athletic fields for the New Middle School.

Bus Plaza, Access Loop Road and Turn Lane: A separate bus plaza for New Middle School student transportation would be constructed within a portion of the exiting CCA parking lot located directly northwest of the Project site. A new turn lane from Village Center Loop Road would be constructed to facilitate traffic accessing the New Middle School access loop road. The access loop road would direct vehicular traffic to the drop-off points at the entry to the New Middle School.

Barrier Park/Fitness Course: A proposed barrier park and fitness course would separate the CCA and the New Middle School, and is proposed to be available to students from both campuses and to the surrounding community.

Parking Lot and Special Education Bus Drop-off: A 70-space parking lot and Special Education bus drop-off area would be constructed on the western edge of Parcel 3. The parking lot would be encircled by the access loop road.

Building A - Administration: Building A would provide administration and student services. A list of the facilities included in Building A and their size is provided in Table 3.2-1.

**Table 3.2-1
Building A Facilities**

Facility Name	Square Footage	Facility Name	Square Footage
Principal's Secretary/Reception	300	Student Support (two areas)	107, 130
Conference Room	650	Counselor's Office	120
Principal's Office	250	Counselor's Secretary Area	260
Attendance Office	200	Speech/Language Office	120
Assistant Principal's Office	225	Psychologist's Office	120
Assistant Principal's Secretary Area	120	Toilet Rooms (small; two)	70, 70
Workroom	350	Toilet Room (large)	230
Teacher's Lounge	920	Teacher's Patio	350

**Table 3.2-1
Building A Facilities**

Facility Name	Square Footage	Facility Name	Square Footage
Health Office	300		
Total Building A Square Footage			4,892

Building B – Multi-Use/Music/Art: Building B would house the campus’ music and arts facilities, two special day class (SDC) classrooms, and the multi-use room. . A list of the facilities included in Building B and their size is provided in Table 3.2-2.

**Table 3.2-2
Building B Facilities**

Facility Name	Number of Rooms	Individual Square Footage	Total Square Footage
Multi-Use Room	1	6,080	6,080
Music Classroom	1	3,650	3,650
Art Classroom	1	2,435	2,435
SDC	2	1,235	2,470
Total Building B Square Footage			23,160

SDC – Special Day Class

Building C – Classroom Building: Building C would be a two-story classroom building. Students and faculty would circulate the building via interior corridors. A set of boys’ and girls’ bathrooms would be available on each level, and each classroom would meet SDUHSD standards for 21st-Century Learning Environments. A list of the facilities included in Building C and their size is provided in Table 3.2-3.

**Table 3.2-3
Building C Facilities**

Facility Name	Number of Rooms	Individual Square Footage	Total Square Footage
Classrooms	14	1,150	16,100
Science Labs	4	1,250	5,000
Science Resource Rooms	2	385	770
Restrooms	4	610	2,440
Corridors/circulation	N/A	N/A	4,000
Total Building C Square Footage			28,310

Building E – Gymnasium: Building E would be a 500-seat gymnasium, that would provide indoor physical education opportunities and a space to conduct indoor large-crowd assemblies and activities. A shower and locker facility would be located adjacent to the Gymnasium as part of Building E, allowing direct access between the two facilities. A list of the facilities included in Building E and their size is provided in Table 3.2-4.

**Table 3.2-4
Building E Facilities**

Facility Name	Number of Rooms	Individual Square Footage	Total Square Footage
Gymnasium	1	9,425	9,425
Lockers>Showers/Restrooms	2	1,660	3,320
Office/Storage	2	315	630
Total Building E Square Footage			13,375

Buildings F and G – Media Center/Food Service: As part of a 21st-Century Learning Environment, a Media Center (Building F) would be built in place of a traditional library, due to the increased amount of digital resources available rather than print media. The Media Center would serve as a combined library and student union center with access to online resources that would provide independent and small-group work areas. A walk-up food service outlet would be constructed directly north of the Media Center as Building G. The facilities and their size provided in Building F and G are listed in Table 3.2-5.

**Table 3.2-5
Buildings F and G**

Facility Name	Number of Rooms	Total Square Footage
Media Center (Building F)	1	4,625
Food Service Building (Building G)	2	Food Service – 2,724 Walk-in Freezer - 512
Total Buildings F and G Square Footage		7,861

Quad and Pavilion: The quad would provide open space for students to congregate, and a pavilion located at the entrance of Building F's Media Center would serve as a platform for outdoor student body gatherings or promotion ceremonies. Seating would consist of steps and planter walls, and large paved areas would be available for table seating.

Sports Courts: Seven hard-surface sport courts would be constructed between Building D and the athletic fields constructed as Parcel 2.

3.2.1.2 Phase II

Phase II construction activities are anticipated to start in the summer of 2018 and be completed in the fall of 2019. The Phase II construction activities are as follows:

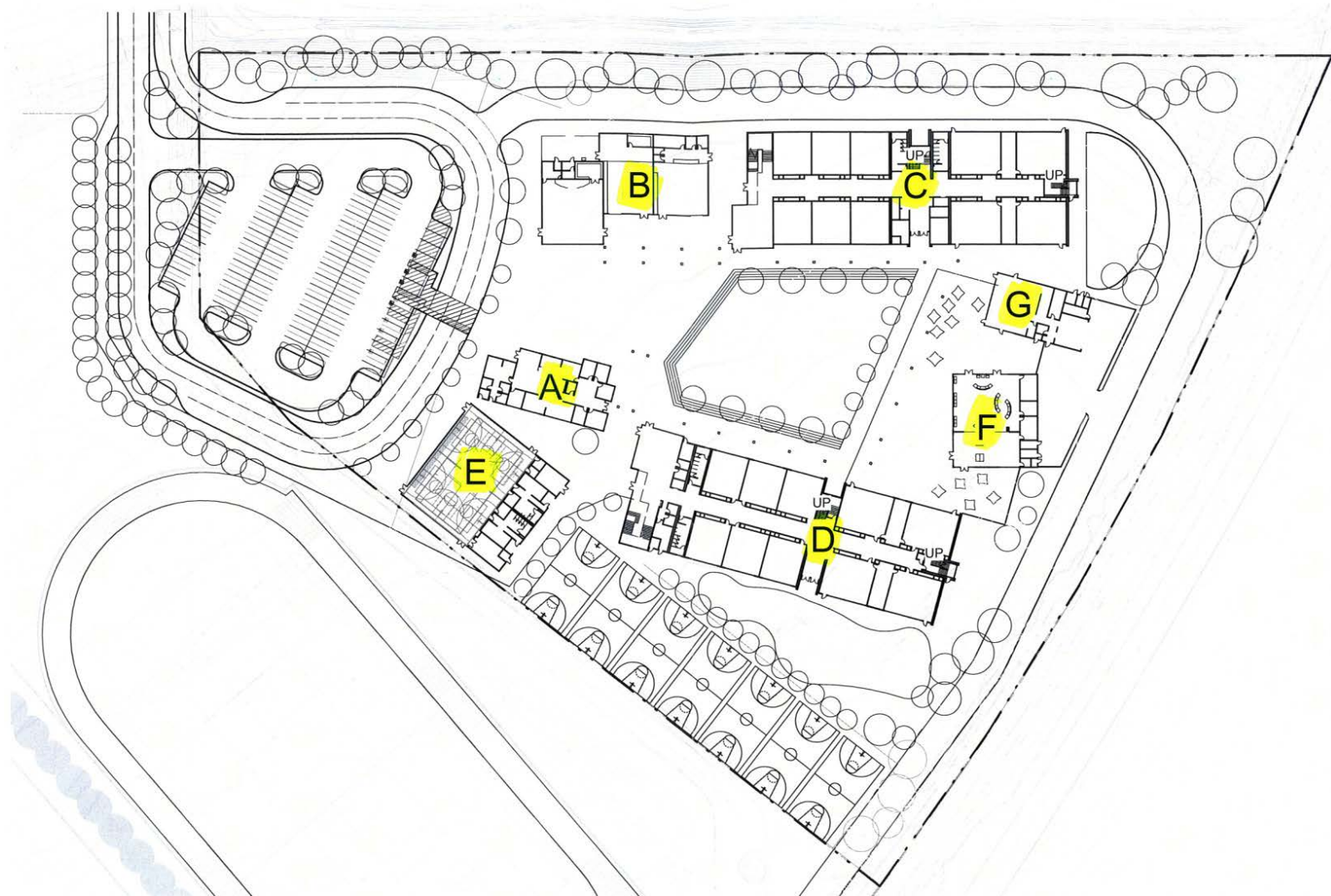
Building D – Classroom Building: Building D would be a two-story classroom building. Similar to Classroom Building C, students and faculty would circulate the building using interior corridors. A set of boys' and girls' bathrooms would be available on each level, and each classroom would meet SDUHSD standards for 21st-Century Learning Environments. A list of the facilities included in Building A and their size is provided in Table 3.2-6.

**Table 3.2-6
Building D Facilities**

Facility Name	Number of Rooms	Individual Square Footage	Total Square Footage
Classrooms	18	1,150	20,700
Science Labs	4	1,250	5,000
Science Resource Rooms	2	385	770
Restrooms	4	610	2,440
Corridors/circulation	N/A	N/A	4,880
Total Building D Square Footage			33,790



No scale
Source: Lionakis 2011



No scale.
Source: Lionakis 2013

3.2.2 Circulation

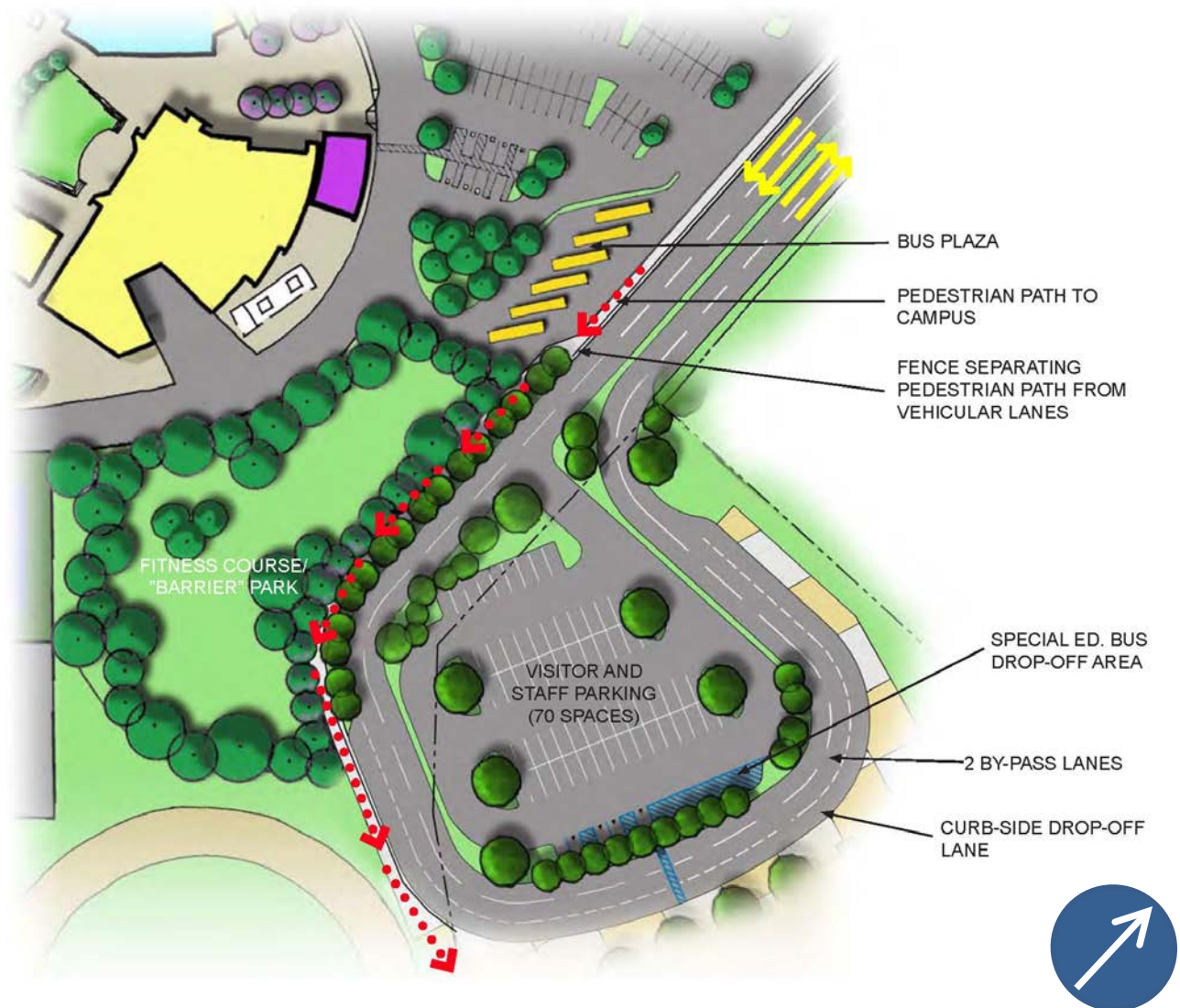
Vehicular and Service Circulation: The Project would include a single access for vehicular circulation entry and exit to the site via a drop-off loop road from Village Center Loop Road. Given the volume of students that are expected to come to school via bus or parental drop-off, a separate bus plaza is proposed within the eastern part of the existing CCA visitor parking area to reduce the traffic on the four-lane access loop road (Figure 3.2-3). Busses would enter the new bus plaza by using the current CCA bus access route from Village Center Loop Road. Parental and other traffic accessing the Project would also use Village Center Loop Road; however, they would enter the site from a new access road to the east of the CCA access. The project would include a new turn lane proposed on the eastbound Village Center Loop Road to facilitate entry into the New Middle School access loop road (Figure 3.2-1). The two entry lanes on the access loop road would widen to three lanes prior to the school entry plaza to accommodate a designated curbside drop-off lane in front of the school. The three lanes would encircle a 70-space visitor and staff parking lot and special education bus drop-off area.

Pedestrian Circulation: Pedestrian access to the New Middle School would come from Village Center Loop Road and the bus plaza via a sidewalk located along the west side of the four-lane access loop road. The sidewalk would be separated from vehicular traffic by a fence until the sidewalk meets the school entry plaza. Special education busses would release students at a drop-off area at the south end of the visitor and staff parking lot. A crosswalk would be provided to connect the visitor and staff parking lot to the New Middle School entrance from the special education bus drop-off area.

Circulation within the two-story classroom buildings (Buildings C and D) would be via an interior corridor designed to vary in width so as not to appear “long and monotonous.” An interior corridor for these buildings was deemed a superior option to an exterior balcony to prevent the possibility of student injury do to roughhousing on the second level. The large and open green area dedicated as a central quad would allow for easy transition for students from one portion of the campus to another between class periods.

3.2.3 Stormwater Runoff

The Project would accommodate stormwater runoff through a collection, retention, treatment and discharge system. Runoff on the New Middle School site would be designed to flow to two retention basins. The runoff from the school building area would flow southerly to a retention basin in the southern corner of the site, while runoff from the athletic field area would flow to a retention basin adjacent to the southerly and southeastern portions of the track. Runoff associated with Parcel 5 would flow easterly to a retention basin proposed in the southeast corner of this parcel. Each of the three retention basins would be designed to accommodate a 50-year storm before discharging the stormwater through a standpipe and storm drain pipe network to an existing storm drain generally located approximately mid-point between Parcel’s 3 and 5. This existing storm drain pipe drains in a southeast direction to Carmel Valley Creek. The stormwater in each of the retention basins would be treated through a media filter. Standpipes and French drains would divert stormwater flows over the 50-year storm design into the storm drain and pipe that cross under SR-56 to Carmel Valley Creek.



No scale.
Source: Lionakis 2011

3.2.4 Project Construction

As described above construction of the New Middle School would be undertaken in two phases, with most of the construction taking place during Phase I. All of the parcels associated with the project have been previously mass-graded. Therefore grading associated with the project would be primarily fine grading. In general, fine grading and associated utility work would take place prior to construction of the various facilities. The finished pad elevation for the New Middle School building area would be approximately 235 feet above mean sea level (amsl).

Access to the site by construction vehicles would be via Village Center Loop Road for Parcel 3 site entry driveway and bus plaza, and Edgewood Bent Court via Carmel Valley Road for the balance of Parcel 3's development, and Parcel 2's and Parcel 5's development. The staging area for construction materials storage, contractor trailers, and general work area would be on the Project site and possibly a part of the CCA parking lot, depending on availability. As part of construction activities the SDUHSD would follow the Best Management Practices (BMPs) identified in the 2006 SDUHSD Stormwater Management Plan and the standard dust control measures required by the San Diego Air Pollution Control District.

3.2.5 Sustainability and Energy Conservation

The SDUHSD Master Plan describes a vision for sustainable, high-performance facilities to foster an environment in which students learn to be environmentally conscious and understand the impact of their built environment. These high-performance schools incorporate strategies that employ energy-efficient tactics, the outcome of which would positively impact the student learning experience through classroom acoustics, natural ventilation, temperature control, and indoor air quality. The design principles incorporated into the Project are identified below in order of greatest energy-saving potential and effectiveness.

Building Envelope/Energy Conservation: The building's envelope would employ a number of energy conservation features, such as high-quality insulation and dual-paned windows. In addition, the buildings would be oriented to maximize energy conservation by reducing the baseline need for energy management in lighting and temperature control.

Daylighting: The Project's building design includes plans to maximize daylighting potential through building orientation and natural lighting features to reduce the need for electric lighting during daytime hours, and lower demand on air conditioning systems. The use of daylighting has been shown to improve student learning environments, providing a significant benefit to schools.

User Control/Operational Performance: The proposed buildings would include user-operated thermostat and lighting controls. This allows faculty and students to become familiar with classroom environmental controls and encouraging successful sustainable behaviors. These behaviors reduce the potential for sustainable strategies to fail to meet their intended goals.

High Efficiency Heating, Ventilating and Air Conditioning (HVAC): A smaller, high efficiency HVAC system would be included in the Project design to maximize energy savings. This system would be introduced after employing daylighting techniques and engaging user control as described above.

Solar: Solar panels would be included on some or all New Middle School building rooftops. This would allow for an electric energy offset of an already minimized demand, after the previously mentioned methods of design and conservation have been utilized.

3.3 PURPOSE AND NEED

The purpose and need of the proposed New Middle School is based on prior planning efforts and increasing middle school student population within the areas currently served by Carmel Valley Middle School and Earl Warren Middle School. The Project site is located within the eastern area of Carmel Valley Middle School and just south of the Earl Warren Middle School's south-eastern boundary area. From a planning perspective, the City of San Diego Progress Guide and General Plan (City of San Diego 1978) has designated certain vacant lands as a Future Urbanizing Area (FUA), which covers approximately 12,000 acres and is situated within the northern part of the city, between the developing communities of Carmel Valley and Rancho Peñasquitos. During the 1990's, a Framework Plan for the FUA was approved to define the basic form and pattern of development for the FUA (City of San Diego 1997). Subarea III of the FUA, known as Pacific Highlands Ranch, is the community where the proposed Project is located. The Master Plan for Subarea III (Pacific Highlands Ranch Subarea Plan; City of San Diego 1998) analyzes two options that each list at least one public middle school as an element of the subarea plan. The Pacific Highlands Ranch Subarea Plan indicates that all schools serving this subarea are currently operating above capacity. Development of new homes within Pacific Highlands Ranch has increased demand for additional educational facilities, which have currently only been addressed by construction of the CCA, an elementary school, and the private Cathedral Catholic High School. Furthermore, a new middle school would address overcrowding at the nearby Carmel Valley Middle School and serve middle school students living in Pacific Highlands Ranch and the surrounding area, as indicated in the SDUHSD Master Plan.

SECTION 4 FINDINGS

SDUHSD finds that the proposed Project would not have a significant adverse effect on the environment based on the Initial Study Checklist (Section 5) and the Discussion of Environmental Impacts (Section 6). Some potentially significant effects have been identified and mitigation measures have been incorporated into the Project to ensure that these effects remain at less than significant levels. The mitigation measures are summarized in the Mitigation Monitoring and Report Program (Section 7). An MND is therefore proposed to satisfy the requirement of CEQA (PRC 2100 et.seq. 14 Cal Code Regs 1500 et.seq.). This conclusion is supported by the following:

No Significant Effect Finding

1. **Aesthetics:** The Project would not have a substantial effect on a scenic vista or substantially degrade the existing visual quality of the site. New sources of spillover light and nighttime glare would be mitigated for through shielding techniques and by employing an appropriate operational schedule. See Section 6.1, Aesthetics, for additional information.
2. **Agriculture and Forest Resources:** There is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance located within the Project area; no portion of the Project is under Williamson Act contract; and no forestry resources occur on the Project site. No impacts to agricultural or forestry resources would occur due to Project implementation. See Section 6.2, Agriculture and Forest Resources, for additional information.
3. **Air Quality:** Emissions of criteria pollutants during construction and operation of the Project would be below the screening level significant thresholds and would result in less than significant impacts to air quality. See Section 6.3, Air Quality, for additional information.
4. **Biological Resources:** The Project site has been mass graded. No sensitive plant or wildlife species, sensitive vegetation, or potentially jurisdictional waters were identified in the vicinity of the Project site. Additionally, the Project does not function as a wildlife corridor. No impacts to biological resources due to Project implementation are anticipated. See Section 6.4, Biological Resources, for additional information.
5. **Cultural Resources:** While a cultural resources record search performed for the Pacific Highland Ranch Subarea Plan Master Environmental Impact Report (City of San Diego 1998) identified several cultural resources sites within Pacific Highlands Ranch, the Project site has been mass graded. It is unlikely that cultural or paleontological resources would be present within the project site. Additionally, due to the lack of burial sites recorded within the Project area and within the immediate vicinity, it is unlikely that human remains would be disturbed during the construction or operation of the Project. The Project would have a less than significant impact on unknown archaeological or paleontological resources and unknown human remains. See Section 6.5, Cultural Resources, for additional information.
6. **Geology and Soils:** The Project site has been mass graded, and therefore past activities have mitigated potentially significant impacts associated with slope instability hazards. The Project is anticipated to have a less than significant impact with regards to geology and soils. See Section 6.6, Geology and Soils, for additional information.

7. **Greenhouse Gas Emissions:** Implementation of the Project would not generate greenhouse gas (GHG) emissions, either directly or indirectly, that would conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHG. Construction and operation practices for the Project are consistent with strategies recommended by the California Air Pollution Control Officers Association (CAPCOA), California Climate Action Team, and the California Attorney General. Impacts associated with GHG emissions during Project construction and operation would be less than significant. See Section 6.7, Greenhouse Gas Emissions, for additional information.
8. **Hazards and Hazardous Materials:** The Project site does not contain existing hazardous materials. The Project would not interfere with emergency response and evacuation efforts. Impacts associated with hazards and hazardous materials would be less than significant. See Section 6.8, Hazards and Hazardous Materials, for additional information.
9. **Hydrology and Water Quality:** Construction of the Project has the potential to violate water quality standards, and cause erosion and temporary flooding and runoff. Mitigation measures have been incorporated to reduce these impacts to a less than significant level. See Section 6.9, Hydrology and Water Quality, for additional information.
10. **Land Use and Planning:** The Project would not result in impacts associated with land use and planning issues. See Section 6.10, Land Use and Planning, for additional information.
11. **Mineral Resources:** The Project would not result in impacts to mineral resources. See Section 6.11, Mineral Resources, for additional information.
12. **Noise:** The Project would not result in significant impacts to noise sensitive receptors during construction due to equipment noise and vibration. As identified by the City of San Diego General Plan Noise Element, institutional land uses are considered “conditionally compatible” with the noise levels associated with the Project. A mitigation measure has been included to ensure that the proposed school structures would be capable of attenuating exterior noise levels to the appropriate interior noise level. See Section 6.12, Noise, for additional information.
13. **Population and Housing:** The construction and operation of the Project is in response to the growth of the surrounding population. Therefore, there would be no impacts to population and housing due to the implementation of the Project. See Section 6.13, Population and Housing, for additional information.
14. **Public Services:** The Project would not increase the need for public services. The Project would not impact existing public services. See Section 6.14, Public Services, for additional information.
15. **Recreation:** The Project would construct an additional Fitness/Barrier Park and athletic fields that would be available to the surrounding community. However, mitigation measures have been incorporated so that construction impacts of these facilities would be less than significant. See Section 6.15, Recreation, for additional information.
16. **Transportation and Traffic:** The Project would not substantially increase the amount of vehicular traffic or interfere with emergency access to the Project. Additional roadways and pedestrian paths are included in the design plans for the Project, and therefore impacts to traffic

and transportation would be less than significant. See Section 6.16, Transportation and Traffic, for additional information.

17. **Utilities and Service Systems:** The Project would require the extension of existing water and wastewater lines that would have potentially significant environmental effects. Mitigation measures have been incorporated to reduce these impacts to a less than significant level. See Section 6.17, Utilities and Service Systems, for additional information.
18. **Mandatory Findings of Significance:** As discussed Section 5.4, Biological Resources, implementation of the proposed project would result in no significant impacts to biological resources including sensitive plant or wildlife species, sensitive vegetation communities, jurisdictional waters, or wildlife corridors. Further, as discussed in Section 5.5, Cultural Resources, implementation of the proposed project would result in no impacts to historical, paleontological, or known archaeological resources. Regarding unknown archaeological impacts, it is unlikely that implementation of the proposed project would significantly impact these resources due to the amount of ground surface disturbance that has already occurred on the project site. Finally, the Project would not degrade the quality of the environment, given the various mitigation measures that have been incorporated into the Project.

A cumulative impacts analysis, which documented the additive effect of all projects in the same geographic region as the proposed project, was completed and included as Section 6, Cumulative Impacts in the Pacific Highlands Ranch Subarea Plan MEIR (City of San Diego 1998). This cumulative impacts analysis documented the effects of the Subarea Plan occurring in the context of other past, present, and reasonably foreseeable future projects. This previous cumulative analysis assumed the project site would contain a middle school, similar to the proposed project. Based on the discussions provided in Section 5, Discussion of Environmental Impacts, the proposed project would not result in environmental impacts that would cause adverse effects on human beings because all potentially significant impacts would be mitigated to a less than significant level. See Section 6.18, Mandatory Findings of Significance, for additional information.

SECTION 5 ENVIRONMENTAL INITIAL STUDY CHECKLIST*Project Title:*

New Middle School #5 at Pacific Highlands Ranch

Lead agency name and address:

San Dieguito Union High School District
710 Encinitas Blvd
Encinitas, CA 92024

Contact person and phone number:

John Addleman, Director of Planning Services

760-753-6491; extension 5532

Project location:

The Project site is located in the Pacific Highlands Ranch community adjacent to and southeast of the CCA, and bounded by SR-56 to the southeast.

Project sponsor's name and address:

San Dieguito Union High School District
684 Requeza Street
Encinitas, CA 92024
Contact: John Addleman, 760-753-6491; extension 5532

Community plan designation:

School – SDUHSD Senior/Junior High School

Zoning:

School – SDUHSD Senior/Junior High School

Description of project:

The SDUHSD Master Plan (Lionakis 2011) outlines the development of a 101,230 square foot new middle school on an eight-acre parcel adjoining the CCA in Pacific Highlands Ranch. The school would be comparable in size and programmatic offerings to the nearby Carmel Valley Middle School, and would serve the students living in Pacific Highlands Ranch and surrounding area, and would alleviate overcrowding at Carmel Valley Middle School.

The first phase of construction for the New Middle School would accommodate 500 students and is proposed to be completed by the fall of 2015, while the construction of the second phase (an additional 500 students) is expected to be completed in late 2019. The Project site plan illustrates the location of the classrooms and core facilities which would be built surrounding a campus quad designed to hold outdoor assemblies and promotion ceremonies, and provide shaded areas for students to congregate during breaks and lunches. The school's classroom facilities are designed as multi-story buildings to reduce the building footprint and allow for maximum outdoor space. Athletic field space for the New Middle School would be located adjacent to the south of school building areas. The athletic field space, identified as Parcel 2, would be transferred from CCA to the New Middle School. Replacement of Parcel 2, which is currently CCA athletic field space, would be provided through acquisition of Parcel 5, which is located at the southern end of the CCA.

The proposed vehicular and pedestrian circulation system contains numerous elements, including:

1. A new access/loop road from Village Center Loop Road to the New Middle School site;
2. A new turn lane/deceleration lane adjacent to the eastbound lanes of Village Center Loop Road lanes;
3. A pedestrian sidewalk along the west side of the access/loop road;
4. A new bus plaza located in the easterly part of the CCA parking lot; and
5. A parking lot adjacent to the new middle school encircled by the access/loop road.

To help maintain a distinction between the CCA and New Middle School identities and programs, a barrier park/fitness course is proposed adjacent to the new bus plaza and bounded to the northwest by the CCA, and to the north and south by the New Middle School drop-off loop and athletic field. A dense grove of trees planted as part of the park would help visually reinforce the distinction between the CCA and New Middle School.

Surrounding land uses and setting:

The Project would be located in the community of Pacific Highlands Ranch within the northern City of San Diego limits. The project site is bounded by a vacant park site to the northeast, State Route 56 (SR-56) to the southeast, CCA athletic fields to the southwest and CCA to the west. Regional access is provided to the New Middle School via SR-56 to the local road network, and is directly accessed by Village Center Loop Road. Residential development characterizes the majority of the land use in the Project vicinity. Multiple Habitat Planning Area (MHPA) lands lie to the southeast across SR-56, and approximately one mile to the north and west of the project site.

Required approvals:

SDUHSD Board of Trustees – Project Approval
RWQCB - Construction Activities Storm Water General Permit

SECTION FIVE

Environmental Initial Study Checklist

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|---|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | |
| <input type="checkbox"/> Mandatory Findings of Significance | | |

Determination:

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

5-28-13

Date

Eric Dill, Associate Superintendent of Business Services
Printed Name

San Dieguito Union High School District
Agency

Evaluation of Environmental Impacts:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is Potentially Significant, Less Than Significant With Mitigation, or Less Than Significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to tiering, an effect has been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where these are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., campus master plans, general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a. The significance criteria or threshold, if any, used to evaluate each question; and
 - b. The mitigation measure identified, if any, to reduce the impact to a less than significant level.

Environmental Issue Areas

A brief explanation of the reasons the applicable column is checked is available in Section 6, Discussion of Environmental Impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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5.1 AESTHETICS

Would the project:

- | | | | | | |
|----|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) | Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) | Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) | Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5.2 AGRICULTURE AND FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- | | | | | | |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) | Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code section 4256), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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5.4 BIOLOGICAL RESOURCES

Would the project:

- | | | | | | |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) | Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) | Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) | Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) | Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5.5 CULTURAL RESOURCES

Would the project:

- | | | | | | |
|----|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) | Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

5.6 GEOLOGY AND SOILS

Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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5.7 GREENHOUSE GAS EMISSIONS

Would the project:

- | | | | | | |
|----|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) | Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) | Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

5.8 HAZARDS AND HAZARDOUS MATERIALS

Would the project:

- | | | | | | |
|----|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) | Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) | Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) | Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) | Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) | For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) | For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

5.9 HYDROLOGY AND WATER QUALITY

Would the project:

a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5.10 LAND USE AND PLANNING

Would the project:

a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5.11 MINERAL RESOURCES

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5.12 NOISE

Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5.13 POPULATION AND HOUSING

Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5.14 PUBLIC SERVICES

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5.15 RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.16 TRANSPORTATION/TRAFFIC

Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5.17 UTILITIES AND SERVICE SYSTEMS

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5.18 MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SECTION 6 DISCUSSION OF ENVIRONMENTAL IMPACTS

6.1 AESTHETICS

Would the project:

a) **Have a substantial adverse effect on a scenic vista?**

Less Than Significant Impact. Neither the San Diego General Plan nor the Pacific Highlands Ranch Subarea Plan Master Environmental Impact Report (MEIR; City of San Diego 1998) identifies any nearby landscape feature as a key scenic resource. A part of the area within Pacific Highlands Ranch is classified as MHPA, resulting in expanses of natural, open space preserve that adds visual diversity in this community; however, the only open space area visible from the Project site is to the south across SR-56. This area is mostly grassland with little vegetation. While the Project is located on land zoned for school development and situated next to the existing CCA and near other nearby residential development to the north, northeast, east and west, it will alter the visual character of the of the project site by adding development to a man-made topographic pad (Figure 3.1-2). However, due to the current generally developed visual characteristics of the area surrounding the project site from the adjacent CCA and a considerable amount of nearby residential development, and the lack of specifically identified scenic vistas, the Project will have a less than significant impact on scenic vistas.

b) **Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?**

No Impact. Highways in the vicinity of the Project include SR-56, bounding the Project site to the east; Interstate (I) 5, located approximately more than three miles west of the site; and I-15, located approximately six miles to the east. None of these facilities are officially designated state scenic highways (Caltrans 2007). Although I-5 is listed as eligible for state scenic highway designation, the Project's distance of more than three miles from this highway and intervening topography result in the Project site not being visible from I-5. Therefore, no impacts to scenic resources along I-5 would occur. There are no unique trees or trees of significant stature, unique rock outcroppings, or historic buildings in the vicinity of the Project site that would be affected by the Project. Additionally, the Pacific Highlands Ranch Subarea Plan MEIR does not specifically identify any scenic resources within the Project area. Therefore, no impact would occur.

c) **Substantially degrade the existing visual character or quality of the site and its surroundings?**

Less Than Significant Impact. The proposed Project is located in the Pacific Highlands Ranch community; its visual characteristics include existing residential development and bare, undeveloped land. Nearby residential development is located to the north, northeast, east, and west. MHPA lands exist outside of the community to the south across SR-56, resulting in expanses of natural, open space preserve that adds visual diversity. A portion of the area within the north and northwest boundaries of Pacific Highlands Ranch is also classified as MHPA lands; however, the only open space area visible from the Project site is to the south across SR-56. This area is mostly grassland with little vegetation (Figure 3.1-2). Because of the mostly existing developed community visual characteristics the construction of a New

Middle School adjacent to the existing developed CCA would not change the quality of views available from surrounding roadways and land uses on or off campus. Therefore, Project impacts associated with degradation of the existing visual character or quality of the site would be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact with Mitigation Incorporated. The Project would not propose daytime exterior lighting but would incorporate sustainability design measures consistent with current SDUHSD policies. Such measures may include highly reflective roofing materials designed to reflect sunlight and lower building temperatures and the incorporation of solar panels. Roof-mounted panels would reflect light upwards, not toward roadways or walkways. Therefore, these panels would not result in a distraction, nuisance, or hazard to people and would not adversely affect daytime views.

Viewing of the night sky could be impacted from new light and glare; however, impacts to views of the night sky from the Project are considered less than significant because viewing is already limited due to urban light pollution from adjacent Pacific Highland Ranch development and the CCA. Further, the nearby area does not contain an astronomical observatory that could be directly impacted. The closest observatory to the project site is Palomar Observatory, located approximately 53 miles northeast of the Project site.

Residential and commercial areas surrounding the Project site to the west, north, and east contribute to the existing ambient light in the Project vicinity. Parking lot lighting, exterior safety and security lighting, lighting as part of athletic fields for nighttime sports activities, and any additional lighting that would not be limited to the interior of the New Middle School has the potential for creating spillover and glare into surrounding land uses. Such spillover and glare could impact surrounding MHPA-designated lands, residential uses, or other existing or future sensitive receptors adjacent to the Project site. Therefore, the Project would result in a less than significant impact associated with adverse impacts to day or nighttime views, by incorporating the following mitigation:

Aes-1 Design features would be included in the design of the Project to mitigate for potential spillover and glare from parking lot lighting, exterior safety and security lighting and nighttime athletic field lighting such as:

- a. Shielding direct lighting away from residential or future park areas, sensitive biological habitat or other light sensitive receptors. Shielding shall at a minimum extend to 20 degrees below the horizontal to direct lighting towards the target area. Lighting at the Project boundary shall be shielded as necessary to prevent any spillover to adjacent properties.
- b. Outdoor lighting fixtures incorporated into the design of the Project will be operated during reasonable hours. Reasonable hours will be determined per structure or building to assign a unique set of allowable hours of operation. It is anticipated that most lighting will shut off by approximately 10:00 P.M.

6.2 AGRICULTURE AND FOREST RESOURCES

Would the project:

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

No Impact. As identified on the San Diego County Important Farmland Map prepared by the California Department of Conservation (2008), the New Middle School campus is designated as “Urban and Built-up Land.” This classification is used for land that is occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures per 10-acre parcel. The New Middle School site is not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the Project would not convert these sensitive agricultural resources to non-agricultural uses. Therefore, no impact to agricultural resources would occur.

- b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

No Impact. The SDUHSD is exempt from local zoning and land use plan/element requirements, and no portion of the Project site is under a Williamson Act contract. Accordingly, implementation of the Project would not conflict with existing zoning or with a Williamson Act contract. Therefore, no impact would occur.

- c) **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code section 4256), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?**

No Impact. The California Department of Forestry and Fire Protection (Cal Fire) identifies the Project area as “working”, and a sub-identification as “private/rural residential” on its *The Management Landscape* map (2003). Working areas are lands that are held or managed for some degree of commodity output. Human impact is definite and measurable; however there is a considerable amount of habitat value remaining. Despite this classification, the Project site is located within a developed area that has been previously graded, and the Project area is not used for any forestry production. Development of the Project would not conflict with, or cause the rezoning of, land zoned for forestry resources. Therefore, no impact would occur.

- d) **Result in the loss of forest land or conversion of forest land to non-forest use?**

No Impact. As described above in Section 6.2(c), no forestry resources occur on within the Project area. Therefore, implementation of the Project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore no impact would occur.

- e) **Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?**

No Impact. Implementation of the Project would not convert agricultural lands to non-agricultural uses or forest land to non-forest use. Refer to the discussions in Sections 6.2(b) and (c) above for additional information. Therefore no impact would occur.

6.3 AIR QUALITY

An air quality analysis of the proposed Project was performed to support the air quality findings below. The subject analysis included emission estimates of criteria pollutants compiled using the California Emission Estimator Model (CalEEMod 2011.1.1) (CAPCOA 2012). The results of these analyses are included in the following discussions, where appropriate, and the complete CalEEMod output files are provided as Appendix A.

Would the project:

- a) **Conflict with or obstruct implementation of the applicable air quality plan?**

Less Than Significant Impact. The Clean Air Act (CAA) of 1970 requires the United States Environmental Protection Agency (USEPA) to establish National Ambient Air Quality Standards (NAAQS) for six criteria pollutants: carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O₃), lead (Pb), particulate matter (PM₁₀ and PM_{2.5}), and sulfur dioxide (SO₂). The San Diego Air Basin (SDAB) is currently designated a non-attainment area for the 8-hour O₃ NAAQS, and designated an attainment or unclassified area for all other pollutants. SDAB is also in the USEPA redesignation process to change from a non-attainment area to maintenance area for the 1997 O₃ NAAQS. The CAA and its subsequent amendments require each state to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP includes strategies and control measures to attain the NAAQS by the deadlines established in the CAA.

The State of California has also established ambient air quality standards, known as the California Ambient Air Quality Standards (CAAQS), which are generally more stringent than the corresponding federal standards, and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. The SDAB is designated a non-attainment area for the O₃, PM₁₀ and PM_{2.5} CAAQS, and is in attainment or unclassified for all of the other state standards.

The San Diego Air Pollution Control District (SDAPCD) is the agency responsible for preparing and implementing the portion of the California SIP applicable to the SDAB. SDAPCD's plans and control measures designed to attain or maintain the NAAQS for O₃ and the CAAQS for O₃ and PM_{10/2.5} are outlined in the *Redesignation Request and Maintenance Plan for the 1997 National Ozone Standard for San Diego County* (2012 SIP, pending USEPA approval) and *San Diego Air Basin 2009 Regional Air Quality Strategy Revision* (RAQS). Both documents (SIP and RAQS) were developed in conjunction with each other by the SDAPCD to reduce regional O₃ emissions.

The SDAPCD relies on information from the California Air Resources Board (CARB) and the San Diego Association of Governments (SANDAG), including projected growth in the county, as well as mobile, and all other source emissions in order to forecast future emissions and develop appropriate strategies for the reduction of source emissions through regulatory controls. The CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the cities and the County of San Diego. As such, projects that propose development that is consistent with the growth anticipated by SANDAG would be consistent with the RAQS and the SIP.

The proposed Project is a school development, not a housing or residential development project, and will not result in additional population growth. For this reason, implementation of the proposed Project would not exceed SANDAG growth projections for the region and the Project would not conflict with the RAQS or the SIP.

b) Violate any air quality standards or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact.

Construction Emissions

Construction activities would result in temporary increases in air pollutant emissions. These emissions would be generated in the form of fugitive dust emissions from earth-disturbing activities during fine site grading and exhaust emissions from operation of heavy equipment and vehicles during construction. In addition, paving and painting activities would emit volatile organic compounds (VOCs) during off-gassing.

To evaluate the Project impact from construction activities, including site preparation and demolition, fine grading, building construction, paving, and architectural coating, the CARB-approved CEQA tool, CalEEMod, was used to estimate the construction emissions. Table 6.3-1 presents a summary of estimated maximum unmitigated daily and annual air pollutant emissions from all construction phases associated with the proposed Project. Detailed emissions and model inputs/outputs are provided in Appendix A. The most recent projected construction schedule and the current design scope of the Project construction were conservatively incorporated into the model. For instance, the construction associated with both Phases 1 and 2 was conservatively input to CalEEMod in a 12 month timeframe. CalEEMod default values and emission factors were also utilized. It is assumed that both phases of construction would occur sequentially, with no overlap between the phases.

The *City of San Diego CEQA Significance Determination Thresholds* (City of San Diego 2011) were used to determine the significance of emission impacts from the Project, except for PM_{2.5}. In the case of PM_{2.5}, the significance threshold was obtained from the *San Diego County Guideline for Determining CEQA Significance* (County of San Diego 2007). As shown in Table 6.3-1, the proposed Project would not exceed the screening level significance thresholds for any criteria air pollutants during any phase of construction. Therefore, the proposed project would result in a less than significant impact related to air pollutant emissions during construction and mitigation measures are not required during construction.

**Table 6.3-1
Construction Maximum Unmitigated Daily and Annual Air Pollutant Emissions**

Construction Phase and Significant Impact Thresholds	Maximum Emissions					
	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
Maximum Daily Emissions (pounds per day)						
Maximum from all phases	59.98	113.30	104.57	0.13	90.75	11.30
Significance Threshold	550	137	250	250	100	55
Significant Impact?	No	No	No	No	No	No
Maximum Annual Emissions (tons per year)						
2014	3.22	0.64	4.94	0.01	2.58	0.45
2015	1.09	1.89	1.28	0.00	0.13	0.08
Significance Threshold	100	15	40	40	15	10
Significant Impact?	No	No	No	No	No	No

N/A: Not Applicable

Model inputs and outputs are provided in Appendix A.

Operational Emissions

Project operational emissions of air pollutants would result from stationary and vehicular sources. Stationary sources include fuel combustion emissions from space and water heating; fuel combustion emissions from landscape maintenance equipment; and VOC emissions from consumer products, periodic repainting of interior and exterior surfaces, and energy usage. Increased volumes of vehicles contribute to regional emissions of NO_x, VOC, CO, SO_x, PM_{2.5} and PM₁₀. The proposed Project would add vehicle trips to the surrounding street system associated with students and/or faculty/workers at the New Middle School. The operational emissions are based on a conservative capacity assumption of 1,200 students (to account for the planned 1,000-student population of both Phase I and Phase II, plus faculty/workers). CalEEMod was also used to estimate the operational emissions.

The same CEQA emissions thresholds to determine significance in construction are used in operation of the Project. The estimated maximum unmitigated daily and annual air pollutant emissions from operations of the proposed Project are shown in Table 6.3-2. Detailed emissions and model inputs/outputs are provided in Appendix A. As shown in Table 6.3-2, operational emissions from the proposed Project would not exceed the significance thresholds for maximum daily or annual emissions. Therefore, air quality impacts associated with operation of the proposed Project would be less than significant and mitigation measures would not be required during operation.

**Table 6.3-2
Operational Maximum Unmitigated Daily and Annual Air Pollutant Emissions**

Emission Source and Significant Impact Thresholds	Maximum Emissions					
	CO	VOC	NO _x	SO ₂	PM ₁₀	PM _{2.5}
Maximum Daily Emissions (pounds per day)						
Area	0.00	4.05	0.00	0.00	0.00	0.00
Energy	0.15	0.02	0.18	0.00	0.01	0.01
Mobile	84.48	9.52	19.01	0.1302	15.24	0.89
Total Operational Emissions	84.63	13.59	19.19	0.1302	15.25	0.90
Significance Threshold	550	137	250	250	100	55
<i>Significant Impact?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Maximum Annual Emissions (tons per year)						
Area	<i>0.00</i>	<i>0.74</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
Energy	<i>0.03</i>	<i>0.00</i>	<i>0.03</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
Mobile	<i>11.05</i>	<i>1.14</i>	<i>2.32</i>	<i>0.02</i>	<i>1.74</i>	<i>0.12</i>
Total Operational Emissions	<i>11.08</i>	<i>1.88</i>	<i>2.35</i>	<i>0.02</i>	<i>1.74</i>	<i>0.12</i>
Significance Threshold	100	15	40	40	15	10
<i>Significant Impact?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

N/A: Not Applicable

Model inputs and outputs are provided in Appendix A.

- c) **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**

Less Than Significant Impact. As discussed in subsection (b) of Section 6.3, Air Quality, above, construction and operation of the proposed Project would not exceed established thresholds for criteria air pollutants. The aforementioned results considered the emissions from both Phases I and II and no probable future projects would result in a cumulatively considerable net increase when added to the past or present project are anticipated in the project vicinity (as discussed further below in Section 6.18.4, Mandatory Findings of Significance, Air Quality). In addition, the emissions associated with project construction activities would be localized and of relatively short duration. Therefore, the proposed project would not result in a cumulatively considerable net increase in nonattainment pollutant emissions and dispersion modeling for criteria pollutants to evaluate off-site cumulative impact is not required.

- d) **Expose sensitive receptors to substantial pollutant concentrations?**

Less Than Significant Impact. Air quality regulators typically define sensitive receptors as schools (preschool-12th grade), hospitals, resident care facilities, day-care centers, or other facilities that may house individuals with health conditions that would be adversely affected by changes in air quality. The

two primary emissions of concern regarding health effects for land development projects are CO and diesel particulate matter (DPM).

CEQA Guideline Section 15186, School Facilities, provides specific requirements pertaining to potential health impacts resulting from exposure to hazardous materials, wastes, and substances; hazardous air emissions and the preparation of a health risk assessment (HRA) for a school site within 500 feet of a nearest freeway traffic lane. With respect to a school site adjacent to a freeway, this section of the CEQA guidelines indicates that for urban freeways, the traffic volume must be above 100,000 Average Daily Traffic (ADT) to require the study. According to the Traffic Impact Study (Darnell and Associates 2013), included as Appendix C of this Initial Study, forecasted build-out traffic volume for SR-56 adjacent to the site is 95,000 ADT. Because this traffic volume is lower than the 100,000 ADT threshold, an HRA is not required for the Project.

CO Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Therefore, a CO "hot spots" analysis may be provided to assess whether the change in the level of service (LOS) of an intersection due to the Project would have the potential to result in exceedances of the CAAQS or NAAQS. Vehicle emissions standards have become increasingly more stringent in the last 20 years. With the turnover of older vehicles, introduction of cleaner fuels and implementation of control technology on industrial facilities, CO concentrations in the SDAB have steadily declined. Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard.

The proposed Project would add vehicle trips to the surrounding street system associated with students and/or faculty/workers at the New Middle School. According to the Traffic Impact Study (Darnell and Associates 2013) and as discussed in subsection (b) of Section 6.16, Transportation/Traffic, the LOS for intersections in the project vicinity do not degrade below level D. Due to the lack of LOS degradation at nearby intersections, the small number of vehicle trips that would be generated by the proposed project and the limited amount of emissions associated with these trips, Project operations would not result in congestion that exceeds the CO standard, and no CO hot spots would occur. Potential CO hot spots impacts are less than significant.

Diesel Particulate Matter

According to the *San Diego County Guidelines for Determining Significance, Air Quality* (County of San Diego 2007), DPM is the primary toxic air contaminant (TAC) of concern for typical land use projects that do not propose stationary sources of emissions regulated by SDAPCD. Because the proposed project includes educational and office uses that typically do not include stationary sources of emissions regulated by the SDAPCD, the primary source of DPM would be construction equipment.

As shown in Table 6.3-1 above, implementation of the proposed project would not result in PM emissions above the screening level threshold during construction. Additionally, because DPM is considered to have long-term health effects and construction would be a short-term event, emissions would not result in a significant long-term health risk to surrounding receptors.

Operation of the proposed project would require some student transportation (i.e., diesel school bus trips) and other diesel truck trips to provide food and other supplies. In 2004, the CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to DPM and other TACs and their pollutants. The measure prohibits diesel-fueled commercial vehicles idle time to no more than five minutes at any given time. Potential localized air toxic impacts from on-site sources of DPM would be minimal since only a limited number of heavy-duty trucks would be required per month to supply the proposed facility, and both the trucks and buses would not be allowed to idle for extended periods of time.

In summary, there are no CO hot spots in the vicinity of the proposed project. Short-term construction emissions would not result in long-term health effects resulting from DPM emissions, and limited trucks and idling time would reduce DPM emissions during project operation. Therefore, impacts to sensitive receptors would be less than significant.

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. Construction associated with the proposed Project could result in minor amounts of odor compounds associated with diesel heavy equipment exhaust. However, all diesel equipment would not be operating at once, and construction near existing receptors would be temporary. The closest buildings to the proposed project are residences, located approximately 400 to 1,000 feet north of the middle school site, or buildings associated with CCA, located approximately 100 to 1,300 feet west of the middle school site. Potential receptors would be residents and/or pedestrians and students, faculty and staff at the CCA, and these receptors would be exposed to odors on a relatively short duration. Therefore, impacts associated with odors during construction would not be significant.

The CARB's Air Quality and Land Use Handbook identifies a list of the most common sources of odor complaints received by local air districts. Typical sources of odor complaints include facilities such as sewage treatment plants, landfills, recycling facilities, petroleum refineries, and livestock operations. The proposed project is a middle school and operation of such an educational land use does not typically result in sources of nuisance odors associated with operations. Therefore, odors would not be considered objectionable and operational odor impacts would be less than significant.

6.4 BIOLOGICAL RESOURCES

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The Project is located on lands that have been mass graded and contain no sensitive plant or wildlife species. Therefore, implementation of the Project would not affect any candidate, sensitive or special status species.

- b) **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

No Impact. The Project is located on lands that have been mass graded and contain no riparian habitat or other sensitive natural communities. Therefore, implementation of the Project would not impact sensitive vegetation.

- c) **Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

No Impact. The Project is located on lands that have been mass graded and contain no federally protected wetlands or potentially jurisdictional waters. Therefore, implementation of the Project would not impact federally protected wetlands.

- d) **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

No Impact. The Project area does not function as part of a wildlife corridor. The site is connected to mass graded undeveloped land to the north; however, open space that would connect to the project site does not occur to the west, south, or east of the campus. Therefore, because the Project site does not function as a wildlife corridor, no impact to wildlife corridors would occur as a result of the development of the Project.

- e) **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

No Impact. SDUHSD is considered an independent special-purpose government agency that is not subject to municipal plans, policies, and regulations, such as county and/or city general plans or local ordinances. Therefore no impact would occur.

- f) **Conflict with any applicable habitat conservation plan or natural community conservation plan?**

No Impact. The Project site is not located within the boundaries of a habitat conservation plan or natural community conservation plan. Approximately 1,050 acres of land within Pacific Highlands Ranch community lies within the City of San Diego MHPA, however the Project site is not located within these lands. Furthermore, the Project site is not located within a wildlife corridor as defined in the Pacific Highlands Ranch Subarea Plan MEIR (City of San Diego 1998). Therefore, no impact would occur.

6.5 CULTURAL RESOURCES

Would the project:

a) **Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?**

No Impact. The Pacific Highlands Ranch Subarea Plan MEIR (City of San Diego 1998) identified several potentially historic sites previously located within the boundaries of Pacific Highlands Ranch. However, because the site has been mass graded which has changed the topography such that any resources that may have been on the Project site are no longer present. Therefore, implementation of the Project would not result in a significant impact to historical resources.

b) **Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?**

Less Than Significant Impact. A cultural resources records search and field investigation was completed as part of the Pacific Highlands Ranch Subarea Plan MEIR (City of San Diego 1998).

Due to the high level of ground surface disturbance on the Project site from previous mass grading, there is little potential for the occurrence of unknown buried archaeological resources to occur. Therefore, impacts to unknown archaeological resources as a result of the Project would be less than significant.

c) **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

No Impact. According to the Pacific Highlands Ranch Subarea Plan MEIR (City of San Diego 1998), the marine sediments that underlay the Project site vary in their potential to hold paleontological resources. However, due to the high level of previous ground surface disturbance on the Project site from mass grading, there is little potential for the occurrence of unknown paleontological resources to occur. Therefore, impacts to unknown paleontological resources as a result of the Project would be less than significant.

d) **Disturb any human remains, including those interred outside of formal cemeteries?**

Less Than Significant Impact. Due to the lack of burial sites recorded within the Project area and within the immediate vicinity, as well as past mass-grading activities on the Project site that may have led to the discovery of human remains, it is unlikely that human remains would be disturbed during the construction or operation of the proposed project. However, although unlikely, the discovery of human remains during site development is always a possibility. If human remains were found during project construction, these finds would be dealt with in accordance with State of California Health and Safety Code Section 7050.5. This code section states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendent (MLD). The MLD shall complete the inspection of the site within 24 hours of notification, and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Compliance with State of California Health and Safety Code Section 7050.5 would reduce the potential for significant impacts to occur in the unlikely event that

human remains are found on the site during construction. Therefore, impacts would be less than significant.

6.6 GEOLOGY AND SOILS

Would the project:

- a) **Expose people or structures to potential substantial adverse effects, including the risk of loss, or injury, or death involving:**
 - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

Less Than Significant Impact. The Project site is not underlain by an active, potentially active, or inactive fault. Further, the site is not located within a State of California Earthquake Fault Zone. The nearest active fault to the Project is the Rose Canyon Fault, located about seven miles west of the Project site. As such, project impacts associated with fault rupture would be less than significant.

- ii) **Strong seismic ground shaking?**

Less Than Significant Impact. The Rose Canyon Fault, located about seven miles west of the Project site, is the most dominant source of potential ground motion in the Project area. Earthquakes occurring along the faults within San Diego, Orange, and Riverside counties could produce potentially significant impacts to the Project from ground shaking. However, proper engineering and adherence to the Uniform Building Code (UBC) and California Building Code (CBC) guidelines during the building design phase would minimize the risk to life and property. Pursuant to the UBC and CBC, design and construction of the Project would be engineered to withstand the expected ground acceleration that may occur from nearby faults. Therefore, compliance with applicable UBC and CBC guidelines would reduce impacts related to seismic ground shaking to a less than significant level.

- iii) **Seismic-related ground failure, including liquefaction?**

Less Than Significant Impact. Liquefaction is a phenomenon where loose, saturated, and relatively cohesionless soil deposits lose strength during strong ground motions. Primary factors controlling the development of liquefaction include intensity and duration of ground accelerations, characteristics of the subsurface soil, in situ stress conditions, and depth to groundwater. The City of San Diego Seismic Safety Study (City of San Diego 2008) did not identify any soils within the Project area, or within Pacific Highlands Ranch that have a high potential for liquefaction. Therefore, impacts would be less than significant.

- iv) **Landslides?**

Less Than Significant Impact. Landslides occur when the stability of a slope changes from a stable to an unstable condition. The terrain within the Project site prior to mass grading is generally classified by the City of San Diego Seismic Safety Study (City of San Diego 2008) as level or sloping terrain with an unfavorable geologic structure, having a low to moderate risk of ground failure. The study also indicates

that the Friars Formation can be found on a small portion of the southern area of Project site (Parcel 2). This formation is characterized as having slide-prone slopes with neutral or favorable geologic structure. No ancient landslides are known to exist within the Project site, and previous mass grading activities would have stabilized the Project site, had the risk existed. Therefore, impacts due to landslides would be less than significant.

b) Result in substantial soil erosion or loss of topsoil?

Less Than Significant Impact. Site preparation activities for the Project would necessitate the excavation of top soil, resulting in temporary stockpiles of excavated soil to be stored on the Project site. Water and wind erosion of the stockpiles may impact surface water runoff and air quality to off-site areas. Implementation of the Project could result in significant short-term impacts to water quality from uncontrolled sediment and pollutants from the construction site. However, SDUHSD's compliance with mitigation measure *Hyd-1*, found in Section 5.9 (a) Hydrology and Water Quality below, would reduce water quality impacts during construction, including erosion and loss of top soil, to below a level of significance through the implementation of water quality BMPs.

Impacts related to erosion and loss of topsoil following Project construction would not be significant because exposed or stockpiled soils would be removed, and the Project would be paved, developed for athletic fields, and seeded and landscaped with trees and other vegetation, resulting in little potential for erosion or loss of topsoil to occur. Impacts would be less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact. As discussed in Section 6.6 (a)(iv) above, no ancient landslides are known to exist on the Project site; therefore, landslide hazards are not a concern for the proposed Project. In addition, because most of the Project site is underlain by terrain identified as having a low to moderate risk of ground failure (City of San Diego 2008), the risk posed by subsidence and settlement is considered to be very low. The Project would result in the construction of a new building, which would involve the excavation of soil. Fill would be used to contour the site for landscaping and to control the grade of the building. Improperly backfilled excavations would have the potential to result in a settlement hazard for the future building. Compliance with the UBC and CBC when preparing the Project site for construction would reduce the potential for soil subsidence and settlement to occur due to compaction and site preparation techniques mandated by these codes.

Soil stability can also be affected by near-surface groundwater. According to the City of San Diego Seismic Safety Study, a static, near-surface groundwater table was not observed on the Project site. Project design features adhering to UBC and CBC guidelines, and previous mass grading activities resulting in a stabilization of the Project area, would reduce the potential impact of the Project from an on- or off-site landslide, lateral spreading, liquefaction, or collapse. Therefore, impacts are considered to be less than significant.

- d) **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?**

Less Than Significant Impact. The Project site was previously mass graded. Grading activities associated with the Project would include adequate burial of expansive soils, over-excavation and recompaction of poorly consolidated soils, and buttressing of unstable claystone beds (RBRiggan and Associates 2003). Therefore, impacts resulting from expansive soils would be less than significant.

- e) **Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater?**

No Impact. The Project would be connected to the City of San Diego sanitary sewer system, and no septic tanks or alternative wastewater systems would be used by the Project. The Project would connect to the existing sewer system and does not propose the use of septic tanks or alternative waste disposal systems. Therefore, no impact would occur.

6.7 GREENHOUSE GAS EMISSIONS

A GHG analysis of the Project was performed to support the findings below. The subject analysis included emission estimates of GHGs compiled using CalEEMod 2011.1.1 (CAPCOA 2012). The results of these analyses are included in the following discussions, where appropriate, and the complete CalEEMod output files are provided as Appendix A.

Would the project:

- a) **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Less Than Significant Impact. Gases that trap heat in the atmosphere are often called greenhouse gases (GHGs). Some GHGs such as carbon dioxide occur naturally and are emitted to the atmosphere through natural actions such as volcanic eruptions, forest fires, and biological processes. Identical GHG constituents, like carbon dioxide (CO₂), can also be emitted through a variety of human activities. Other GHGs (e.g., fluorinated gases) are created and emitted solely through human activities. The principal GHGs that enter the atmosphere because of human activities are (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

Carbon dioxide equivalent (CO₂e) is a methodology for comparing GHG emissions by normalizing the emissions of various GHGs, using each GHG's global warming potential (GWP), into CO₂e emissions. The definition of a GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to that of one unit mass of CO₂ over a specific time period. For example, the GWP for CO₂, CH₄, and N₂O, the three GHGs estimated in CalEEMod, are 1, 21, and 310, respectively, based on a 100-year time horizon. GWP is a simple and commonly used method to estimate the warming effects of a particular GHG.

In 2006, Governor Schwarzenegger signed the Global Warming Solutions Act (Assembly Bill [AB] 32), establishing statutory limits on GHG emissions in California. AB 32 seeks to reduce statewide emissions to 1990 levels by the year 2020. To meet the targets established by AB 32, the County of San Diego

published its *Draft Guidelines for Determining Significance—Climate Change* on June 20, 2012. The guidance provides several proposed approaches and significance thresholds to determine if a project would have a cumulatively considerable contribution to climate change impact. The applicable approach for the Project is the Bright Line Threshold. This threshold was defined and established as a net increase of operational greenhouse gas emissions, either directly or indirectly, at a level exceeding 2,500 metric tons of CO₂e per year.

Construction Impacts

The Project would emit GHGs during construction from the operation of construction equipment, and from worker, materials delivery, and commercial vendor vehicles. The estimated maximum unmitigated GHG emissions from the entire construction phase are presented in Table 6.7-1. The emissions are presented for each, including CO₂, CH₄, and N₂O, and also shown as CO₂e.

**Table 6.7-1
Estimated Maximum GHG Emissions from Project Construction Without Mitigation**

Construction	CO₂	CH₄	N₂O	CO₂e
Entire Construction Phase (metric tons)	769.96	0.07	0.00	771
Significant Threshold (metric tons per year)	--	--	--	2,500
Significant Impact?	--	--	--	No

--: Not Applicable

Model inputs and outputs are provided in Appendix A.

CO₂e emissions associated with construction of the Project, as shown in Table 6.7-1, would contribute to the regional GHG inventory. The Project estimated GHG emissions during construction are below the CEQA significant GHG threshold of 2,500 metric tons per year proposed in the June 2012 draft San Diego County CEQA guidance. The impacts would be temporary since GHG emissions associated with project construction would cease once construction is finished. Therefore, the impact associated with GHG emissions during project construction would be less than significant.

Operational Impacts

Operational GHG emissions associated with the Project would include direct and indirect emission sources such as mobile sources; natural gas consumption; solid waste handling; and indirect sources such as electricity generation, water use and wastewater treatment. The estimated maximum unmitigated annual emissions of GHGs associated with the proposed Project are summarized in Table 6.7-2.

As shown in Table 6.7-2, operation of the Project would result in maximum unmitigated emissions of approximately 1,855 metric tons of CO₂e per year. These estimates do not include any GHG-reducing measures incorporated by the Project; therefore, this estimate is very conservative. The Project-estimated GHG emissions during operation are below the CEQA significant GHG threshold of 2,500 metric tons per year proposed in San Diego County draft CEQA climate change. Therefore, the GHG and climate change impact associated with GHG emissions during project operation would be less than significant.

Table 6.7-2
Estimated Maximum Annual Operational GHG Emissions Without Mitigation

Source of Emissions	Proposed Project Emissions (metric tons per year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Area	0.00	0.00	0.00	0.00
Energy	258.85	0.01	0.00	260.16
Mobile	1,448.00	0.07	0.00	1,449.44
Waste	44.46	2.63	0.00	99.63
Water	42.88	0.09	0.00	45.65
Annual Total	1,794.16	2.80	0.00	1,855
Significant Threshold	--	--	--	2,500
Significant Impact?	--	--	--	No

--: Not Applicable

Model inputs and outputs are provided in Appendix A.

- b) **Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

Less Than Significant Impact. Refer to the discussion in Section 6.7 (a), above.

6.8 HAZARDS AND HAZARDOUS MATERIALS

Would the project:

- a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Less Than Significant Impact. Construction of the Project would involve the transport of gasoline and other fuels to the project site for the sole purpose of equipment fueling. Once constructed, household/industrial cleaning products, air conditioning and heating unit chemicals, and landscaping chemicals and fertilizers would be used during Project operation. Adherence to the existing SDUHSD School Board Policies' Hazard Communication Program currently in place for SDUHSD (SDUHSD 2004), such as training and proper labeling and storage of chemicals, would ensure that the Project would not pose a significant risk to the environment through the routine use, transport, storage, and disposal of typical household/industrial hazardous chemicals. Therefore, impacts would be less than significant.

- b) **Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

Less Than Significant Impact. SDUHSD currently operates under a Risk Management Program that addresses emergency and spill response procedures including, but not limited to, specific emergency response instructions, locations of personnel and equipment resources (e.g., telephone numbers, fire extinguishers, spill kits, safety showers/eyewashes, first aid kits), and includes the Hazard

Communication Program, as well as appropriate training. The current policies regarding Hazardous Materials and Risk Management are required to be followed for any construction or operation of a new school. Compliance with all applicable federal and state laws, as well as SDUHSD policies, practices, and procedures related to transportation, storage, and use of hazardous materials would minimize the potential of a hazardous release to occur and provide for prompt and effective cleanup if an accidental release were to occur. Therefore, impacts related to accidental release due to increase transportation, storage, or use of hazardous materials would be less than significant.

- c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

Less Than Significant Impact. CCA lies adjacent to the Project. However, in employing the SDUHSD Hazardous Communication Program and Risk Management Plan, and compliance with all applicable federal and state laws, the potential for hazardous release to occur would be less than significant. See discussion in Sections 6.8 (a) and (b).

- d) **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?**

Less Than Significant Impact. A review was conducted of selected federal and state incident data lists, including National Priorities List (NPL)/Superfund Sites, NPL/Potential Responsible Parties, Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) sites, Resource Conservation and Recovery Act (RCRA) Notifier Facilities, RCRA Correction Action Sites, RCRA Subtitle D Landfills, Facility Index System Database (FINDS), Emergency Response Notification System (ERNS) Hazardous Material Spills, Superfund Amendments and Reauthorization Act (SARA) Title III Facilities, State Superfund, State Landfills, Registered Underground Storage Tanks (USTs), and Leaking USTs to evaluate proximity of recorded events in accordance with American Society for Testing and Materials (ASTM) Standard Practice E 1527-05. The Project site was not found on any of these hazardous materials site lists.

- e) **For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public use airport, would the project result in a safety hazard for people residing or working in the project area?**

No Impact. The Project is not located within an airport land use plan. The nearest airport land use plan is Marine Corps Air Station (MCAS) Miramar, which is approximately six miles south of the site. The project site is also not within two miles of a public airport or public use airport. The nearest public airport is Montgomery Field Airport, which is operated by the City of San Diego and is located approximately 12 miles south of the Project in the City of San Diego. Therefore, no airport related safety hazard impact to people residing or working within the Project area would occur.

- f) **For a project within the vicinity of a private airstrip, would the project result in safety hazard for people residing or working in the project area?**

No Impact. The Project site is not located in the vicinity of a private airstrip and would not result in a safety hazard for people residing or working within the project area. Therefore, no impact would occur.

g) Impair implementation of or physically interfere with an adopted emergency plan or emergency evacuation plan?

Less Than Significant Impact. There are two types of emergency evacuation plans in the Project area that have the potential to be affected by the Project. The first is associated with the adjacent CCA, which has an evacuation plan that relies on a perimeter access road circumventing the school and two access points to public streets. The Project would have its own perimeter access road and public street access and therefore would not affect the CCA evacuation plan. In addition, if the Project would require a lane or roadway closure prior to the initiation of Project construction that could affect an adopted emergency plan or emergency evacuation plan, the contractor and/or SDUHSD staff would ensure that the Northwestern Division of the City of San Diego Police is notified. If determined necessary by the Northwestern Division of the City of San Diego Police, SDUHSD would also initiate notification of local emergency services, including the City of San Diego Fire-Rescue Department's (SDFD) Fire Station 47, located within Pacific Highlands Ranch. Therefore, this impact would be less than significant.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less Than Significant Impact. Implementation of the Project would not expose people or the New Middle School structures to increased risks associated with wildland fires because of its location in a developed area. The land adjacent to the Project site is in an urbanizing area that is either developed or has been mass graded and has little to no vegetation. Moreover, there are no significant amounts of combustible plant material adjacent to the Project site or in the vicinity (Figure 3.1-1). As a result the potential for the Project to expose people or structures to wildland fires would be less than significant.

6.9 HYDROLOGY AND WATER QUALITY

Would the project:

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant with Mitigation Incorporated.

Construction

Construction of the Project would have the potential to result in impacts on surface water quality through activities such as demolition, clearing and grading, stockpiling of soils and materials, concrete pouring, painting, and asphalt surfacing. Construction of the Project would involve various types of construction equipment. Sediment associated earth-moving activities and exposed soil is the most common pollutant associated with construction sites. Other pollutants associated with construction activities include debris, trash, and other materials generated during demolition; hydrocarbons from leaks or spills of fuels, oils, and other fluids associated with the equipment used for construction; and paints, concrete slurries, asphalt materials, and other hazardous materials. These pollutants could impact water quality if they are washed off-site by storm water or non-storm water runoff, or are blown or tracked off-site to areas susceptible to wash-off by storm water or non-storm water runoff. If pollutants enter the Project drainage system, they

are likely to drain to one or more of the downstream receiving waters which ultimately drain to the Pacific Ocean.

All construction contractors would be required to prepare and implement a final Stormwater Pollution Prevention Plan (SWPPP), in accordance with the State's Construction General Permit, which identifies the specific storm water BMPs to be implemented during construction of a project. Construction BMPs typically include, but are not limited to, the following:

- Proper storage, use, and disposal of construction materials.
- Removal of sediment from surface runoff before it leaves the site by silt fences or other similar devices around the site perimeter with particular attention to protecting water bodies listed on the 303(d) list for sediment, such as Los Penasquitos Creek and Los Penasquitos Lagoon, which are downstream of the Project site.
- Protection of all storm drain inlets on site or downstream of the construction site to eliminate entry of sediment.
- Stabilization of cleared or graded slopes.
- Diversion of runoff from uphill areas around disturbed areas of the site.
- Prevention of tracking soil off site through use of a gravel strip or wash facilities at exit areas.
- Protection or stabilization of stockpiled soils.

Compliance with the State's Construction General Permit would reduce water quality impacts associated with construction of the Project through the implementation of sediment and erosion control BMPs, and good housekeeping measures. Therefore, impacts to water quality during Project construction would be less than significant.

Operation

Following construction, operation of the Project could generate pollutants that would potentially impact water quality. The SDUHSD Stormwater Management Plan (SWMP; SDUHSD 2006) identifies activities and areas associated with the Project that could generate pollutants and the types of pollutants that could be generated. These activities and pollutants are summarized in Table 6.9-1.

**Table 6.9-1
Potential Polluting Activities of the Project**

Activity/Source	Pollutants of Concern
Facility maintenance activities	Sediment, nutrients, metals, pesticides, bacteria (sanitary sewer overflows or septic tank system failure), and trash
Grounds maintenance activities	Sediment, nutrients, herbicides, and trash
Vehicle and equipment maintenance activities	Oil and grease, and solvents
Outdoor eating areas	Nutrients and trash
Outdoor material storage and parking areas	Oil and grease, and metals

**Table 6.9-1
Potential Polluting Activities of the Project**

Activity/Source	Pollutants of Concern
Autoshops	Oil and grease, and solvents

Source: SDUHSD 2006

Operation of the Project could result in the generation of pollutants such as sediments, nutrients, heavy metals, organic compounds, and trash and debris. When it rains, these pollutants can be washed from the Project site into the campus drainage system. Non-storm water discharges, such as landscape irrigation, may wash fertilizers or other pollutants into the drainage system.

The SDUHSD SWMP identifies post-construction site design/source-control BMPs to mitigate downstream water quality impacts from storm water and non-storm water runoff pollutants associated with operations on campus. The SWMP is not aligned with the latest standards for urban development and redevelopment in the San Diego region because is not consistent with the Countywide Model Standard Urban Stormwater Mitigation Plan (SUSMP) developed in March 2011 by the San Diego Stormwater Copermittees for the renewal of the Phase I MS4 Permit. The SUSMP requirements are applicable to all other development in the region but are not directly applicable to SDUHSD, which is an independent jurisdiction that is independent of local land use and development requirements generally governed by local jurisdictions. Without voluntary compliance with the most current water quality requirements, the 2006 SWMP would be inadequate to protect water quality from the operation of the Project because it would not provide water quality protection to the same standards as other developments within the region. Therefore, impacts to water quality from operation of the Project would be potentially significant. The following mitigation measure shall be implemented to reduce impacts to a less than significant level.

Hyd-1 Prior to operation of the Project, SDUHSD shall either update, expand, and align their existing 2006 SWMP to be generally consistent with the latest standards for urban development and redevelopment in the San Diego region, or the Project shall conform to these standards. The standards are described in the Countywide Model SUSMP developed in March 2011 by the San Diego Stormwater Copermittees for the renewal of the Phase I MS4 Permit. Either method would protect water quality and control stormwater flows to the same standards required of other development in the region. As part of compliance with the SUSMP, a report equivalent to a Water Quality Technical Report (WQTR) shall be prepared for the Project using the City of San Diego 2010 SUSMP as guidance. The report will determine the need for a detention basin or comparable alternative measures to mitigate any potential drainage and water quality conditions by selecting the most suitable post-construction BMPs for the Project's design, soil conditions, and other relevant factors. Additionally, the report will determine whether the project is a Priority Redevelopment Project, and whether the Low Impact Development and hydromodification requirements in the SUSMP apply to the Project. Upon completion, a copy of this report will be provided to the SDUHSD for its records.

- b) **Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

Less than Significant Impact. No removal of groundwater is proposed as part of the Project because the Project would use potable water supplied by the City of San Diego Water Department via existing water pipelines within the Project area. The City of San Diego Water Department receives deliveries of imported water from the San Diego County Water Authority (SDCWA) and other sources to satisfy potable water demand. Therefore, no impacts to groundwater supplies would occur.

Development of the Project site would increase impervious surfaces which would in turn reduce the groundwater percolation in the immediate area of the Project site. Because the Project is not located in an area known to support significant groundwater resources used by local agriculture, industry, or residences, this impact would be less than significant.

- c) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site?**

Less Than Significant with Mitigation Incorporated.

Construction

Construction activities that disturb land, such as grading and excavation, construction of new building foundations, and trenches for utilities, could result in the localized alteration of drainage patterns. These alterations may result in the temporary exceedance of the capacity of storm water facilities if substantial drainage is rerouted. Alterations may also temporarily result in erosion and siltation if flows are substantially increased or routed to facilities or channels without capacity to carry the storm water flow.

The Project would comply with the State's Construction General Permit, which requires preparation of a SWPPP and identification of BMPs. In compliance with the Construction General Permit, SDUHSD would continue to implement BMPs, such as the following:

- **Minimizing Disturbed Areas.** Clearing of land is limited to that which will be actively under construction in the near term, new land disturbance during the rainy season is minimized, and disturbance to sensitive areas or areas that would not be affected by construction is minimized.
- **Stabilizing Disturbed Areas.** Temporary stabilization of disturbed soils is provided whenever active construction is not occurring on a portion of the site, and permanent stabilization is provided by finish grading and permanent landscaping.
- **Protecting Slopes and Channels.** Outside of the approved grading plan area, disturbance of natural channels is avoided, slopes and crossings are stabilized, and increases in runoff velocity caused by the project are managed to avoid erosion to slopes and channels.

- **Controlling the Site Perimeter.** Upstream runoff is diverted around or safely conveyed through the project and is kept free of excessive sediment and other constituents.
- **Controlling Internal Erosion.** Sediment-laden waters from disturbed, active areas within the site are detained.

Implementation of the above BMPs would reduce the likelihood of alterations in drainage during construction activities that would result in significant hydrology impacts. Therefore, impacts would be less than significant.

Impacts Following Construction

Any proposed development project that is greater than 10,000 gross square feet (GSF) would substantially increase impervious surfaces and would result in a potentially significant impact associated with the alteration of drainage patterns that could result in flooding, the capacity of the existing storm drain system being exceeded, and increased erosion. Therefore, due to its size, implementation of the Project would result in a potentially significant impact. The following mitigation measure shall be implemented to reduce impacts to a less than significant level.

Hyd-2 A registered engineer shall perform a drainage study for the Project commissioned by the SDUHSD Facility Services departments that complies with the conditions that follow. Recommended design measures shall be consistent with SDUHSD's adopted Storm Water Management Program and/or **Hyd-1**. The drainage study recommendations would be incorporated into the Project design and regularly maintained by SDUHSD after Project completion. The results of the drainage study shall be used to determine if the SDUHSD would be required to contribute its fair share contribution to the City's Capital Facilities Fee for storm drain improvements, as required by California Government Code 54999.

- i. Site design that controls runoff discharge volumes and durations shall be used where applicable.
 - ii. Measures that protect slopes and channels such as energy dissipaters, vegetation, and slope/channel stabilizers shall be applied where appropriate.
 - iii. All developments that will increase impervious surfaces by 10,000 GSF or more shall maintain the peak runoff for the 10-year, 6-hour storm event. In cases where known or potential on-site or off-site erosion problems have been identified, a registered engineer, in coordination with SDUHSD, shall determine if maintenance of peak runoff for a larger storm event is necessary.
- d) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site?**

Less Than Significant with Mitigation Incorporated. Construction activities that disturb land, such as grading and excavation, construction of new building foundations, and trenches for utilities, could result in the localized alteration of drainage patterns. These alterations may result in the temporary exceedance of the capacity of storm water facilities if substantial drainage is rerouted. Implementation of mitigation

measure Hyd-2 would reduce this impact to a less than significant level. See the discussion provided for Section 6.9 (c), above.

- e) **Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?**

Less Than Significant with Mitigation Incorporated. See the discussion provided in Section 6.9 (c), above.

- f) **Otherwise substantially degrade water quality?**

Less Than Significant with Mitigation Incorporated. See the discussion provided in Section 6.9 (a), above.

- g) **Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

No Impact. According to the 1997 FEMA Flood Insurance Rate Maps, the Project is located in Flood Zone X, which is outside of the 100-year and 500-year flood hazard areas. Therefore, no impact would occur.

- h) **Place within a 100-year flood hazard area structures which would impede or redirect flood flows?**

No Impact. The Project would not place structures within the 100-year flood hazard area, because the entire Project site is located in Flood Zone X, which is outside of the 100-year and 500-year floodplains (FEMA 1997). Implementation of the Project would not impede or redirect flood flows. Therefore no impact would occur.

- i) **Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?**

No Impact. The Project site is located in the Carmel Valley Creek subwatershed of the Penasquitos Watershed (also known as the Los Penasquitos Hydrologic Unit [906]) and there are no upstream dams or levee's that could fail in the Carmel Valley Creek subwatershed and thereby affect the Project site. Therefore, no impact would occur.

- j) **Expose people or structures to inundation by seiche, tsunami, or mudflow?**

No Impact. A seiche is a wave on the surface of a lake or landlocked bay that is caused by atmospheric or seismic disturbances. The closest lake to the Project is Lake Poway, 11 miles from the site. Due to its distance from the Project, there is no potential for the project to be inundated by seiche.

A tsunami is a very large ocean wave caused by an underwater earthquake or volcanic eruption. The Project is located approximately 4.5 miles inland from the Pacific Ocean and is approximately 235 feet above mean sea level, and therefore does not have the potential to be inundated by a tsunami.

Mudslides and slumps are a more shallow type of slope failure compared to landslides. These typically affect the upper soil horizons and are not bedrock features. Factors that affect slope stability include saturation by water, creation of steeper slopes by erosion or construction, and earthquake shaking. Historically, mudslides and slumps occur during or soon after periods of rainfall. Erosion can occur along manufactured slopes that are improperly designed or not adequately re-vegetated. The Project is located adjacent to a steep slope on its southeastern border that is within the SR 56 right-of-way, which is owned and operated by Caltrans. This is a manufactured slope that has been designed and constructed to remain stable and since its construction in 2004 has not failed in the area adjacent to the Project site. The Project would not affect this slope. In addition, this steep slope slopes away from the project site. Therefore, inundation of the Project site by a mudflow or slump would not occur, resulting in no mudflow impact to the Project site.

6.10 LAND USE AND PLANNING

Would the project:

a) **Physically divide an established community?**

No Impact. The Pacific Highlands Ranch Subarea Plan MEIR (City of San Diego 1998) designates the site parcels specifically for middle school development within the community boundaries. The New Middle School is consistent with the general plan and zoning. Implementation of the Project would not include any development outside of established site parcels, and no intrusion into, or division of, the surrounding community would occur. Therefore, no impact would occur.

b) **Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**

No Impact. The applicable land use plan for the Project site is the 1999 Pacific Highlands Ranch Subarea Plan (Latitude 33), which is part of the North City FUA identified within the City of San Diego General Plan. The Pacific Highland Ranch Subarea Plan contains specific guiding principles for planning and design of the neighborhoods, town centers, village centers, parking areas, educational facilities and landscaping. The Project is consistent with the 1999 Pacific Highlands Ranch Subarea Plan. Therefore, no impact would occur.

c) **Conflict with any applicable habitat conservation plan or natural community conservation plan?**

No Impact. The Pacific Highlands Ranch Subarea Plan MEIR (City of San Diego 1998) identifies that conservation of the City of San Diego MHPA is the “figurative backbone of the Pacific Highlands Ranch land use plan.” The 1,275 acres of MHPA land located within Pacific Highlands Ranch is intended to implement the Multiple Species Conservation Plan (MSCP). The Project site is not within any defined MSCP area as identified in the MHPA. Therefore, no impact would occur.

6.11 MINERAL RESOURCES

Would the project:

- a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?**

No Impact. The Project area lies on marine terraces of the San Diego Embayment. There are no known mineral resources associated with these formations. Implementation of the Project would result in no impact to mineral resources.

- b) **Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

No Impact. The City of San Diego General Plan's Conservation Element (City of San Diego 2008) identifies four mineral resource zones throughout the city boundaries. According to the Conservation Element, high quality mineral resource areas are located within Mineral Resource Zone (MRZ)-2. The Project is located within MRZ-3, which does not include high quality mineral resources; therefore, implementation of Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. No impact would occur.

6.12 NOISE

Would the project:

- a) **Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Less Than Significant Impact with Mitigation Incorporated. While construction noise and occasional sports-related activities would result in intermittent increases in noise levels, the noise levels generated would not be in excess of established City of San Diego General Plan or Noise Ordinance standards. Noise generated by traffic within the surrounding area is analyzed within Appendix B. The project's traffic study prepared by Darnell & Associates (Appendix C) was used to analyze traffic noise levels using the FHWA's Traffic Noise Model (TNM). Using the traffic study's estimated peak-hour traffic volumes, TNM calculated noise levels in terms of the peak hour equivalent continuous noise level (Leq) for modeled receivers, which was used to predict corresponding community noise equivalent level (CNEL) using diurnal traffic patterns. Noise levels from motor vehicle traffic from surrounding streets are anticipated to not exceed the City of San Diego's noise standard for transportation noise of 60 dBA CNEL, with or without Project completion. Future noise levels from SR-56, either with or without Project completion, is predicted to be 63 dBA CNEL. The City of San Diego General Plan Noise Element (City of San Diego 2008) categorizes institutional land uses, including middle schools, as being "compatible" with noise levels of 60 dBA CNEL or lower, and "conditionally compatible" with noise levels of 60–65 dBA CNEL. For land uses indicated as "conditionally compatible," structures must be capable of attenuating exterior noise levels to the appropriate interior noise level (in this case, 45 dBA CNEL). To achieve an interior noise level of 45 dBA CNEL, the building structure would need to provide

a minimum of 18 decibels noise reduction. Modern structures typically provide a minimum of 20 decibels noise reduction provided doors and windows are closed, and generally achieve performance levels well above this without the use of special materials or construction techniques (USEPA 1974). With the provision mitigation measure *Noi-1*, noise from the adjacent SR-56 would be less than significant.

Noi-1 For classroom buildings located within 350 feet of the SR-56 right of way, adequate mechanical ventilation shall be provided to allow doors and windows to remain shut during school hours.

b) Expose persons to or generate excessive groundborne vibration or groundborne noise levels?

No Impact. There are no known sources of groundborne vibration or noise within the vicinity of the Project site. No surrounding land uses produce groundborne vibrations. Therefore, there would be no impact as a result of groundborne vibration or noise levels.

c) Cause a substantial permanent increase in the ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. While construction activities could result in intermittent increases in noise levels, once operational, noise associated with the proposed New Middle School would consist of human conversation and normal building activity such as opening and closing of doors and windows, weekly truck deliveries, HVAC equipment and noise associated with activities on the proposed athletic field and sports courts. Because the CCA, which consists of buildings and athletic fields of similar size and uses, is already located in this area, the increase in noise associated with the Project would not result in a substantial permanent increase in ambient noise levels in this area. Therefore, impacts associated with a permanent increase in ambient noise would be less than significant.

d) Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. Construction of the Project would generate noise that could expose nearby receptors to elevated noise levels that may disrupt communication and routine activities. Such receptors include student and faculty using the adjacent CCA facilities. Elevated noise levels would be primarily experienced close to the noise source. Construction noise levels vary depending on the distance between the activity and receptors, and the type of equipment used, how it is operated, and how well the equipment is maintained.

Construction of the Project would implement conventional construction techniques and equipment. Standard equipment, such as scrapers, graders, backhoes, loaders, tractors, cranes, and miscellaneous trucks, would be used for construction.

Construction activities would occur between the hours of 7:00 a.m. and 6:00 p.m., Monday through Saturday in conformance with the City of San Diego Noise Ordinance. Potential construction activities occurring outside of these times (or on legal holidays) would be limited to emergency conditions or situations where advance approval is received by SDUHSD. Sound levels of typical construction equipment range from 75-85 dBA Leq at 50 feet from the source (FHWA 2006). Noise from construction

equipment has point source acoustical characteristics. A point source sound decays at a rate of 6 dB per doubling of distance from the source. The rule applies to the propagation of sound waves with no ground interaction.

Due to the proximity of CCA school buildings (approximately 250 feet at the nearest location) construction of the Project would have the potential to generate temporary noise that affects these sensitive receptors. However, as assessed in Appendix B, peak construction noise levels outside of the closest CCA building would be approximately 61 dBA.

Other sensitive land uses include the Airoso multi-family residential development located to the north of the Project site. This housing complex is approximately 250 feet from the project site at its nearest location. The exterior peak noise level at this noise sensitive land use would be approximately 60 dBA at the nearest location.

The peak noise levels are maximum noise levels and not average sound levels. The average sound level at the construction site is typically less than the maximum noise level because equipment operates in alternating cycles of full power and low power. Also, the equipment rotates in various directions (i.e., noisiest side of the equipment to less noisy sides of the equipment), and moves around the construction site, especially during clearing and grading activities. Thus, the average noise levels produced would be less than the maximum level.

All construction activity would comply with the City of San Diego's allowable hours for construction and during this time period Project construction activity would generate a 12-hour average noise level of up to approximately 60 dB at the closest existing residences north of the Project site.

After construction, anticipated sources of noise would occur from sports and recreational activities. These would be limited to weekday, classroom hours (from approximately 8:00 a.m. until 3:00 p.m.) Organized sports would generate noise due to players, referees and coaches. As identified in Appendix B, individuals may use "raised" voices (65 dBA at 3.28 feet), "loud" voices (75 dBA at 3.28 feet), and mechanical whistles (82 dBA at 100 feet). Calculating the effect of 28 raised voices, 15 loud voices, and one whistle at a distance of 1,100 feet (the distance to nearest residence from the athletic fields) yields noise levels of 29, 36, and 61 dBA, respectively. Assuming 5 decibels noise reduction from the intervening proposed New Middle School buildings, the noise level at the nearest residences from the organized sports/recreational noise would range from approximately 24–31 dBA (raised and loud voices) to approximately 56 dBA (occasional whistle blows).

Therefore, because noise levels would be less than the City of San Diego's 75 dB 12-hour average noise level significance thresholds, noise impacts resulting from project construction and operation would be less than significant.

- e) **For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

No Impact. The Project is not located within an airport land use plan or within two miles of a public airport or a public use airport. See Section 6.8 Hazards and Hazardous Materials, (e). Therefore no impact would occur.

- f) **For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**

No Impact. There are no private airstrips located in the vicinity of the Project. The nearest private landing pad is the Scripps Memorial Hospital La Jolla Heliport, located approximately 5.5 miles southwest of the Project site. Use of the heliport is intermittent, and at this distance, noise from heliport operations would not be audible at the Project site. No impact would occur.

6.13 POPULATION AND HOUSING

Would the project:

- a) **Induce substantial growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

No Impact. The purpose of the Project is to provide a new middle school campus to serve the growing population of the area. Therefore, the Project would have no impact on the population growth of the area.

- b) **Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

No Impact. The Project site is currently vacant and would not displace any existing housing. Therefore, the Project would have no impact on existing housing.

- c) **Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

No Impact. The Project would not displace any people since the site is not inhabited.

6.14 PUBLIC SERVICES

Would the project:

- a) **Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any public services:**

i) **Fire Protection?**

No Impact. The Project would develop a new middle school that would require the need for fire protection. The New Middle School would be located within Subarea III of the FUA of the City of San Diego, known as Pacific Highlands Ranch. This community, including the proposed New Middle School has been specifically designed with consideration of the requirements for fire protection, and is currently served by Fire Station 47, which is located within .75 mile from the Project site at the end of Edgewood Bend Court adjacent to the southwest corner of CCA. Additional fire protection facilities are not necessary to serve the needs of the Project. Therefore, implementation of the Project would not result in an impact on fire protection services.

ii) **Police Protection?**

No Impact. As discussed in Section 6.14 (a)(i) above, Pacific Highlands Ranch has been specifically designed with consideration of the requirements for police protection, and is currently served by the Northwestern Division of the City of San Diego Police Department, which is located at 12592 El Camino Real. Because development of Pacific Highlands Ranch is part of the City of San Diego General Plan, its development has been anticipated and is taken into account when the City determines the provision of police facilities for the Pacific Highlands Ranch community. No new facilities are proposed to provide police service to the Project and therefore no impact would occur.

iii) **Schools?**

No Impact. The purpose of the Project is to provide a new middle school to serve the growing population of Pacific Highlands Ranch and the surrounding communities. As the Project would not increase the surrounding population, it is anticipated to have no impact on the surrounding schools.

iv) **Parks?**

No Impact. The Project would not result in an increase in population that would create additional demand for recreational facilities, such as parks. Furthermore, the Project would be providing recreational facilities that would be used by the New Middle School students and would result in an increase in recreational facilities available. Therefore, the Project would not create a demand for parks that require the construction of new facilities resulting in no impact to surrounding park facilities.

v) **Other public facilities?**

No Impact. The Project is not anticipated to impact other public facilities such as libraries or infrastructure because it would not result in an increase in population. No impact would occur.

6.15 RECREATION

Would the project:

- a) **Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

No Impact. See the discussion provided in Section 6.14 Public Services (a)(iv), above. The Project would not result in an increase in the surrounding population, which would create an increase in demand for recreational facilities. Therefore, the Project would not substantially increase the usage of recreational facilities and no impact would occur.

- b) **Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse effect on the environment?**

Less Than Significant Impact with Mitigation Incorporated. A Fitness Course/Barrier Park would be constructed as part of the Project, as well as a new track and field that is anticipated to have some significant mitigated environmental impacts that are described in this Initial Study and the MMRP. Mitigation measures *Aes-1*, *Hyd-1* and *Hyd-2* would minimize the impacts of the construction of these recreational facilities with regard to nighttime glare and spillover lighting, and potential stormwater impacts. Therefore, the Project would result in a less than significant impact with mitigation incorporated into the Project.

6.16 TRANSPORTATION/TRAFFIC

Would the project:

- a) **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Less Than Significant Impact. The Project would not substantially increase the amount of vehicular traffic in the surrounding areas as identified in the Traffic Impact Study prepared by Darnell and Associates for the Project and included as Appendix C. Development of the Project would generate 700 new daily trips, with 140 occurring in the AM peak period and 84 occurring in the PM peak period for each phase. This traffic would be added to the surrounding existing street and freeway system. The Traffic Impact Study concludes that each of the intersections and roadway segments analyzed can accommodate the addition of the future traffic. The analysis of the existing plus project traffic conditions and volumes on the surrounding circulation system found each of the intersections would operate at LOS D or better and would not create any significant impact. Because the significance threshold for intersections and road segments is LOS E or F the Project would result in a less than significant impact. Appendix C includes the complete findings of the Traffic Impact Study.

The Project site was included for development of a new middle school campus in the Pacific Highlands Ranch Subarea Plan MEIR (City of San Diego 1998), as part of the North City FUA of the City of San Diego

Progress Guide and General Plan. The Pacific Highlands Ranch Subarea Plan incorporates a circulation system that includes roadways for cars, parking lots/garages for students and faculty, and bus facilities. Therefore, because the Project is consistent with the Pacific Highlands Ranch Subarea Plan, implementation of the Project would not conflict with any plan, policy, or ordinance regarding the performance of a circulation system.

The Pacific Highlands Ranch Subarea Plan MEIR (City of San Diego 1998) identifies trail circulation, paved trails and paths, multi-purpose trails and paths (for both pedestrian and bicycle use), bicycle lanes, and unpaved paths and trails (for biking, hiking and horseback riding) as avenues for alternative transportation. No bicycle lanes or unpaved paths or trails exist within the Project area. Paved sidewalks exist on either side of Village Center Loop Road. The Project's design includes the construction of an additional pedestrian path starting from Village Center Loop Road, which would follow the vehicular access loop road to the New Middle School entrance. Therefore, because the Project's design includes a pathway for alternative modes of transportation and would not conflict with any existing pedestrian, bicycle, hiking or horseback trails or paths, the impacts are considered less than significant. No public mass transit bus, train or trolley lines currently serve the community of Pacific Highlands Ranch. Therefore, the Project would not impact mass transit service lines. The SDUHSD school bus system currently routes students to the CCA, adjacent to the Project site. A new bus plaza and entrance driveway for New Middle School bus drop-off is included in the Project's design to accommodate school bus traffic for the Project. Because the Project's design would not conflict with existing CCA school bus route, and would include an additional bus route and plaza to serve the Project, impacts are considered to be less than significant.

b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact. The 2008 Update to the Congestion Management Program (CMP) prepared by the SANDAG (SANDAG 2008) sets forth the criteria for which a project is subject to the CMP, which is the project's trip generation. Currently, the CMP trip generation threshold is a minimum of 2,400 ADT or 200 peak hour trips. The Traffic Impact Study (Appendix C) concludes that each phase of the Project is estimated to generate 700 new daily trips, and 140 new AM peak hour trips and 84 new PM peak hour trips and is therefore, not subject to CMP guidelines. While the Project would increase traffic in the Project area, it does not meet CMP guidelines thresholds and is therefore considered less than significant.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?

No Impact. The nearest airport to the Project site is MCAS Miramar, located approximately six miles south of the Project site. According to the Air Installations Compatible Use Zones for MCAS Miramar, the Project site is not located within any Accident Potential Zone for this airport. Based on the approach/departure routes of MCAS Miramar, no aircraft from this airport would fly over the Project. The Project does not include any component that would change air traffic patterns and, therefore, no impact to air traffic patterns would occur.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Project would develop a new middle school campus on land set aside for school development consistent with the Pacific Highlands Ranch Subarea Plan MEIR (City of San Diego 1998). The Project would include construction of a new turn lane adjacent to the eastbound travel lanes on Village Center Loop Road to facilitate ingress into the Project site access loop road. The addition of this turn lane would not increase traffic hazards and instead is included to improve traffic flow for vehicles entering the New Middle School site. Because the Project would be a compatible use that is consistent with the Pacific Highlands Ranch Subarea Plan and would not create substantial new traffic-related hazards due to a design feature, no impact would occur.

e) Result in inadequate emergency access?

No Impact. Emergency access to the Project site would be provided via the proposed turn lane from Village Center Loop Road, which turns into a three-lane access loop road in the northwestern portion of the Project site. An additional emergency access road would encircle the New Middle School as part of the Project's design. Therefore, no impact to emergency access to the Project site would occur.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. The Project would be consistent with the Pacific Highlands Ranch Subarea Plan (City of San Diego 1998), which is part of the North City FUA which in turn is part of the City of San Diego Progress Guide and General Plan. The Pacific Highlands Ranch Subarea Plan incorporates a circulation system that includes roadways for vehicles, parking lots/garages for students and faculty, and bus facilities. Consistency with the Pacific Highlands Ranch Subarea Plan ensures that the Project would not conflict with adopted policies, plans, or programs supporting public transit. Pedestrian and school bus facilities would be constructed as part of the Project, and are described in greater detail in Section 3.2.2, Project Description. The Project would not include any feature that would decrease the performance or safety of public transit, bicycle or pedestrian facilities and therefore no impact would occur.

6.17 UTILITIES AND SERVICE SYSTEMS

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact. The City of San Diego provides wastewater treatment services to Pacific Highlands Ranch. The City of San Diego wastewater system would provide sewage disposal for the New Middle School via a gravity flow system. Sewage from the Project site would be conveyed to the Point Loma Wastewater Treatment Plant (PLWTP) for treatment and disposal. The City of San Diego's capacity rights at the PLWTP is 240 million gallons per day (mgd). According to the Urban Water Management Plan (City of San Diego 2010), the City of San Diego conveyed approximately 180 mgd of wastewater to the PLWTP in 2010, and is forecasted to convey 136 mgd in 2035. The growth of continually urbanizing areas such as Pacific Highlands Ranch has been accounted for within the City of

San Diego 2010 Urban Water Management Plan. Because the Pacific Highlands Ranch Subarea Plan has accounted for the growth of the community, including a new middle school, the City of San Diego and PLWTP would have the capacity to receive and treat the additional wastewater resulting from the Project. The additional wastewater generated by the New Middle School would also not affect the wastewater treatment requirements of the RWQCB for the PLWTP. Therefore impacts would be less than significant.

- b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

Less Than Significant with Mitigation Incorporated. No expansion of water or wastewater treatment facilities would be required to accommodate the Project because the Project has been anticipated as part of future population growth forecasts incorporated into the City of San Diego 2010 Urban Water Management Plan. While there would be a slight increase in water usage, there would not be a substantial increase in the demand for water or wastewater treatment. The Project would require the extension of existing water and wastewater lines to connect the Project to existing infrastructure within a nearby public street. These water/sewer infrastructure improvements have been included in the project's limit of impacts and are addressed in the various sections of this Initial Study Checklist. The applicable mitigation measures identified in Section 7.0, Mitigation Monitoring and Reporting Program, would be implemented during construction of utilities infrastructure to reduce impacts from the construction of these facilities to a less than significant level. Also, see the discussion above in Section 6.17 (a) Utilities and Service Systems. Therefore no new water or wastewater treatment facilities or expansion of existing facilities would be required to accommodate the Project. As a result the Project would result in a less than significant impact with mitigation incorporated into the Project.

- c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

Less Than Significant with Mitigation Incorporated. Development of the Project would result in an increase in impervious surfaces on the Project site and would therefore increase stormwater runoff from the Project site. The Project would require the construction of new, or extension of existing, storm water drainage facilities on the Project site, the construction and installation of which could have significant environmental effects. The impacts from these facilities are therefore addressed in the various sections of this Initial Study Checklist. The applicable mitigation measures identified in Section 7.0, Mitigation Monitoring and Reporting Program, would be implemented during construction of the drainage infrastructure to reduce impacts from the construction of these facilities to a less than significant level.

- d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

Less Than Significant Impact. The Project would be dependent on water for drinking, sanitation, fire protection, and landscape irrigation. The Pacific Highlands Ranch Subarea Plan MEIR (City of San Diego 1998) identifies that schools are estimated to use 5,000 gallons per day per acre (gpd/acre), which equates to 0.76 mgd. This estimation is based on a school site of 152 acres. The Project, on eight acres, would be anticipated to use approximately 260 gpd/acre, which equates to 0.04 mgd.

With operation of the Project, water use would increase due to activities such as landscaping and potable water uses. The Project is consistent with the Pacific Highlands Ranch Subarea Plan, and the projected water demand has been included in water demand forecasts of the water supply agencies and the City of San Diego 2010 Urban Water Management Plan. In addition, the supplies necessary to serve the Pacific Highlands Ranch Subarea Plan, along with existing and other uses, have been identified in the water supply planning documents of the water agencies. Water transfers, canal lining projects, and future seawater desalination facilities would provide additional sources of water for future use in the San Diego County region; therefore, the City of San Diego's total projected water supplies during the next 20 years would be sufficient to meet the increase in water demand resulting from implementation of the Project. Impacts to water supply availability as a result of the implementation of the Project would therefore be less than significant.

- e) **Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

Less Than Significant Impact. The local wastewater provider, the City of San Diego, has adequate capacity to serve the Project which is anticipated in the 2010 Urban Water Management Plan (City of San Diego 2010). See the discussion provided above in Section 6.17 (a) Utilities and Service Systems.

- f) **Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

Less Than Significant Impact. Implementation of Project would result in increased solid waste generation and disposal due to construction and operation activities, although the Project would not increase the surrounding population. The Project would be served by the Miramar Landfill, which is close to capacity and is anticipated to close in 2021 according to the Long-Term Resource Management Options Strategic Plan Phase II Report prepared for the City of San Diego (Bryan A. Stirrat and Associates 2012). According to the *County Integrated Waste Management Plan (CIWMP)* (County of San Diego 2005), two landfill projects are being planned that would increase San Diego County's landfill capacity through 2037: the phased expansion of the existing Sycamore Canyon Landfill and the new Gregory Canyon landfill located off SR-76 near Fallbrook. The expansion of Sycamore Canyon Landfill would increase its total capacity to 151 million cubic yards, while the new Gregory Canyon Landfill would accommodate 33.4 million tons of solid waste. The Sycamore Canyon Landfill expansion was approved unanimously by the City Council of San Diego on September 17, 2012 (City Council of San Diego 2012), and the Gregory Canyon Landfill project is in the permitting process. The combined effect of these two projects, along with SDUHSD's continued achievement of their 50 percent landfill diversion goal for the campus (through construction and post-construction recycling programs), would provide adequate landfill capacity to serve the solid waste disposal needs of the Project.

In the event the Gregory Canyon landfill project is not approved, the CIWMP would be revised to identify alternative solid waste disposal sites, or solid waste generated within the County of San Diego would be exported to landfills outside the service area with appropriate capacity. Therefore, the planned increase in Countywide landfill capacity and continued implementation of the SDUHSD Recycling and Waste Diversion Program (refer to the discussion below in Section 6.17 (g) Utilities and Service Systems would

ensure that impacts to landfill capacity from increases in solid waste generated by the project would be less than significant.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact. In accordance with AB 939, California Integrated Waste Management Act of 1989, SDUHSD has a target recycling and waste diversion rate of at least 50 percent. The Project would therefore include a number of recycling programs to meet this goal. These include containers that would be placed next to trash cans throughout the campus. In addition, every classroom and office would be supplied with blue recycling containers. SDUHSD also recycles green waste from campus landscaping.

Solid waste generated as part of the Project would comply with all applicable federal, state and local regulations pertaining to solid waste. Impacts would therefore be less than significant.

6.18 MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact. As discussed in Section 6.4, Biological Resources, implementation of the proposed project would result in no significant impacts to biological resources including sensitive plant or wildlife species, sensitive vegetation communities, jurisdictional waters, or wildlife corridors. Further, as discussed in Section 6.5, Cultural Resources, implementation of the Project would result in no impacts to historical, paleontological, or known archaeological resources. Regarding unknown archaeological impacts, it is unlikely that implementation of the Project would significantly impact these resources due to the amount of ground surface disturbance that has already occurred on the project site. Finally, the Project would not degrade the quality of the environment, given the mitigation measures identified that have been incorporated into the Project.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant Impact. A cumulative impacts analysis, which documented the additive effect of all projects in the same geographic region as the Project, was completed and included as Section 6, Cumulative Impacts in the Pacific Highlands Ranch Subarea Plan MEIR (City of San Diego 1998). This cumulative impacts analysis documented the effects of the Subarea Plan occurring in the context of other past, present, and reasonably foreseeable future projects. This previous cumulative analysis assumed the Project site would contain a middle school that is similar to the Project. While the previous cumulative

analysis addressed the construction of the Project on the same site as it is currently proposed, the analysis has been updated to reflect current cumulative project conditions.

Table 6.18-1 Cumulative Projects provides a list of all the present, and probable future projects within the Project area. Past projects have been included as part of the baseline condition used in the analysis provided above in the Initial Study.

**Table 6.18-1
Cumulative Projects**

Name (Status)	Description	Cumulative Issues of Particular Relevance
<i>Mixed-use Development</i>		
Pacific Highlands Ranch Town Center	Mixed-use project including restaurant, retail, residential and cinema uses.	Aesthetics, Air Quality, Greenhouse Gas Emissions, Hydrology and Water Quality, Noise, Transportation/Traffic
<i>Other Project</i>		
Canyon Crest Academy Track & Field Reconstruction	Replace existing track and field located in the southwest part of CCA campus with an all-weather track and a new turf field in the same location	Air Quality, Greenhouse Gas Emissions, Hydrology and Water Quality, and Noise

The cumulative impacts analysis determines whether a proposed project's incremental effects would be cumulatively considerable. Cumulatively considerable means that the incremental effects of an individual project would be considerable when viewed in connection with the effects of past, current, or probable future projects. A cumulative impact is not deemed significant if the effect would be essentially the same whether the proposed project is implemented or not. Further, in discussing the cumulative impacts, one question and a possible follow-up question will be answered for each environmental topic: 1) Overall, will there be a significant cumulative impact; and 2) If it is determined that a significant cumulative impact exists, the next question is whether or not the proposed project's contribution to this significant impact is cumulatively considerable.

The following discussion of cumulative impacts is organized by each environmental topic addressed for the Project. At the beginning of each topical discussion, a description of the area of influence for each topic is provided followed by an analysis of the cumulative effects.

6.18.2 Aesthetics

The aesthetics discussion includes scenic views and vistas, general negative aesthetic effect, and light and glare. The area that would be considered for the aesthetics cumulative effects analysis is defined as the

viewshed for the project site. The Project is located adjacent to CCA, an existing high school, within a planned community that is partially built-out with some undeveloped areas consisting of previously graded pads and agricultural land. The cumulative projects would include the proposed mixed-use development located immediately north of CCA in proximity to the Project, and the CCA reconstructed track and field located about a 1,000 feet southwest of the New Middle School site. Of the two cumulative projects the CCA reconstructed track and field would not alter the visual environment from the existing condition, while the mixed-use project would change the visual character of the existing graded pad to a developed condition. Even though the type of development proposed by these projects is consistent with existing land uses, the relatively large amount of the new development would have the potential to change the aesthetic character of the area, and result in substantial new light and glare. Therefore, a significant cumulative impact would occur from the construction of the mixed-use cumulative project. However, the proposed New Middle School buildings, which constitute the Project's most prominent visual feature would be approximately 750 feet from the mixed-use project and therefore would be visually separate from the mixed-use project. Furthermore, the Project is an educational facility that would be adjacent to the existing CCA, which is also an educational facility that is considerably larger at approximately 2.5 times the size of the proposed New Middle School and it dominates the visual environmental south of Village Center Loop Road. Therefore, the Project would be consistent with existing surrounding uses, and it would be built to similar design standards. Therefore, the Project's contribution to cumulative aesthetics impacts would be less than significant and not cumulatively considerable.

6.18.3 Agriculture and Forest Resources

Within the Pacific Highlands Ranch community, Prime Farmland, only occurs on 136 acres in the McGonigle and Deer Canyons as defined by the State of California on its Important Farmlands Map. These areas have been preserved as open space. In addition, the Project site and cumulative project sites are identified on the San Diego County Important Farmland Map prepared by the California Department of Conservation (2008), as "Urban and Built-up Land." Finally, the cumulative projects sites have been previously graded and native soils that would support agricultural operations have been removed. Therefore, cumulative projects would not result in a significant cumulative impact to agriculture resources.

No forestry resources are located within the Project site or surrounding areas. Therefore, cumulative impacts to forest resources would not occur.

6.18.4 Air Quality

As discussed in above in Section 6.3 (b) Air Quality, construction of the Project would not exceed any established thresholds for criteria air pollutants. However, based on an air emissions dispersion equation used by the SCAQMD to determine localized PM_{10} concentrations, a significant cumulative impact would occur if two projects are located close enough to each other that their combined construction emissions would exceed the screening level significance thresholds. The accepted distance is generally 150 meters (500 feet), beyond which PM_{10} concentrations generally decrease by approximately 99.9 percent (SCAQMD 2008).

Based on the analysis presented in Section 6.3 (b) Air Quality, implementation of the Project would not exceed any screening level significance thresholds for operational impacts. The new CCA track project would occur prior to the New Middle School project and therefore would not contribute to a cumulative air quality impact. As discussed above, the mixed-use cumulative project would not be located near enough to the project site (within 150 meters, or 500 feet) to result in a combined exceedance of a significance construction impact threshold. Additionally, Project would be consistent with projected growth in the SDAB and emissions from the Project have already been accounted for in the RAQS and SIP. Therefore, the operational emissions of the Project would not be cumulatively considerable.

6.18.5 Biological Resources

The discussion of biological resources includes flora and fauna and their related habitats. The area of cumulative projects that would be considered for the biological resources cumulative effects analysis varies depending on the species or habitat that may be impacted. Because sensitive biological resources are identified due to their scarcity (e.g., threatened and endangered) throughout their range, impacts to these species are considered cumulatively significant. However, the Project site is located within a developed area of Pacific Highlands Ranch and is not contiguous to any natural habitat or open space areas. The Project site was previously mass graded and contains no sensitive plant or wildlife species. Therefore, implementation of the Project would not affect any candidate, sensitive or special status species and the Project's contribution would not be cumulatively considerable.

6.18.6 Cultural Resources

The cultural resources discussion includes archeological, paleontological, and historic resources. The area of projects that are considered for the cultural resources cumulative effects analysis is defined as the Project site and surrounding area. If known historical resources and archaeological resources have been identified on any of the cumulative project sites identified in Table 6.18-1 Cumulative Projects, the individual cumulative projects would be required to mitigate potential impacts in accordance with CEQA. Due to the scarcity and sensitivity of archeological, paleontological, and historic resources, impacts to such resources could result in a significant cumulative impact to cultural resources. However, no known cultural resources occur on the Project site, and due to the high level of ground surface disturbance on the project site, there is little potential for the occurrence of unknown buried resources to occur. Therefore, the Project's contribution would not be cumulatively considerable.

6.18.7 Geology and Soils

The geology section discusses impacts to structures as a result of seismic events and the stability of soils. The geographic context for the analysis of impacts resulting from seismic ground shaking and soil stability is generally site specific, rather than cumulative in nature, because each development site has unique geologic considerations that would be subject to uniform site development and construction standards. In this way, potential cumulative impacts resulting from geologic, seismic, and soil conditions would be minimized on a site-by-site basis to the extent that modern construction methods and code requirements provide. The structural design for all of the cumulative projects would be required to comply with all applicable public health, safety, and building design codes and regulations to reduce seismic and geologic hazards to an acceptable level. Therefore, because all applicable codes and

regulations would be met, the Project, along with the identified cumulative projects, would not result in a significant cumulative geologic or seismic impact.

6.18.8 Greenhouse Gases

Due to the nature of GHG emissions assessment and the effects of climate change, impacts can currently only be analyzed from a cumulative context. Individual projects are generally of insufficient magnitude by themselves to influence climate change or result in a substantial contribution to the global GHG inventory. Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no noncumulative GHG emissions impacts from a climate change perspective (CAPCOA 2008). Accordingly, the discussion of the Project's GHG emissions and its impact on global climate are addressed in terms of the project's contributions to a cumulative impact on the global climate. See discussion under Section 6.7 Greenhouse Gas Emissions, above. Because the Project would include construction practices that are consistent with strategies recommended by CAPCOA, and other state agencies, and GHG emissions would cease upon completion of construction, implementation of the Project would not generate GHG emissions during construction, either directly or indirectly, that would conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHG.

Operation of the Project would include a number of GHG-reducing measures. The Project would be designed with a number of features that would reduce energy use and thereby reduce GHG emissions. These include:

- Building Envelope/Energy Conservation
- Daylighting – Building Orientation to Minimize Lighting and Air Conditioning Demands
- User Control/Operational Performance
- High Efficiency HVAC
- Solar panels

The Project would also incorporate many of the measures recommend by CAPCOA and other state agencies to reduce GHG emissions during operation. With implementation of the measures described above, the Project would be consistent with the vision for California established in the Climate Change Scoping Plan (CARB 2009) and implementation of the Project would not generate GHG emissions, either directly or indirectly, that would conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHG, including AB 32. Therefore, the Project's cumulative contribution to GHG emissions would be less than significant.

6.18.9 Hazards and Hazardous Materials

The hazards section discusses the potential for the accidental release of hazardous materials, the potential for the creation of a public health hazard, or the increased likelihood of a wildfire. The geographic

context for the analysis of cumulative impacts from hazards is limited to the immediately surrounding area of the Project. For the most part, hazards are site specific and would not combine with impacts from other projects to result in cumulative impacts. The proposed and cumulative projects in the area are located on land that has been previously graded and they are not adjacent to open space areas that have wildfire potential. Therefore, a cumulatively considerable impact from wildfire would not occur. Additionally, the cumulative projects identified in Table 6.18-1 Cumulative Projects include projects that would potentially require the transportation, use, or disposal of hazardous materials, either during construction or operation. Therefore, the cumulative projects identified would have the potential to result in a significant cumulative impact with respect to hazards and hazardous materials. However, construction and operation of the Project would adhere to the existing hazardous materials regulations currently in place, such as training and proper labeling and storage of chemicals, which would ensure that the Project would not pose a significant risk to the environment through the routine use, transport, storage, and disposal of typical household/industrial hazardous chemicals. Therefore, the Project's contribution to the cumulative impact would not be considerable.

6.18.10 Hydrology and Water Quality

The following discussion involves both surface water hydrology and water quality. The area that would be considered for the hydrology/water quality cumulative effects analysis is defined as the projects downstream of the Project in the Penasquitos Hydrologic Unit.

Water Quality. Surface water quality may be affected by an increase in activities that generate pollutants, which, in turn, could result in water quality impacts to downstream receiving waters. Future development projects in the City of San Diego would be subject to the standards of the City's SUSMP and National Pollutant Discharge Elimination System (NPDES) permit regulations, which would require that source control and nonpoint source BMPs be employed to control potential effects on water quality and that storm water quality control devices be incorporated into project design to collect sediment and other pollutants. It is anticipated that all cumulative projects that are one acre or larger within the City of San Diego would comply with these mandated measures to control pollution or they would not be approved. These cumulative projects, as part of their development, would minimize those water quality effects where the cumulative project site is a pervious surface. Compliance with the SUSMP and NPDES permits would ensure that a significant cumulative impact to surface water quality would not occur. However, future development on the Project site is not required to comply with the City's SUSMP. The Project would comply with the SDUHSD 2006 Stormwater Management Plan; however, without voluntary compliance with the most current water quality requirements, the 2006 SWMP would be inadequate to protect water quality and a significant cumulative impact would occur as a result of cumulative project development on campus. To reduce this impact to a less than significant level, mitigation measure Hyd-1 would be implemented, in which the 2006 SWMP would be updated to voluntarily incorporate the Countywide Model SUSMP or require that the proposed Project prepare and implement a WQTR or equivalent report to ensure that water quality impacts would be less than significant. Therefore, with implementation of mitigation measure Hyd-1, the proposed project's cumulative impact would be reduced to a less than significant level.

Hydrology. The mixed-use cumulative Project is proposed on previously undeveloped land, which would have the potential to increase impervious surfaces and substantially alter existing drainage and

increase stormwater flows. Therefore, a potentially significant cumulative impact would occur. However, the Project would implement BMPs during construction in compliance with the Construction General Permit which would reduce the potential for alterations in drainage during construction activities to a less than significant level. Mitigation measure Hyd-2 requires a drainage study be prepared and its features implemented to maintain a maximum 50 year peak runoff storm event from the project site. With implementation of this mitigation measure, the proposed project's cumulative impact would be reduced to a less than significant level.

6.18.11 Land Use and Planning

The cumulative projects identified in Table 6.18-1 Cumulative Projects, would be required to be consistent with the City of San Diego General Plan, applicable community or specific plans, and applicable City zoning requirements (or be subject to an allowable exception). The cumulative projects would also be subject to CEQA, mitigation requirements, and possibly design review for project approvals to occur. Therefore, through these requirements, future development projects would be designed to be consistent with applicable land use plans, policies and regulations or they would not be approved. Therefore, a significant cumulative land use impact would not occur.

6.18.12 Mineral Resources and Energy

The energy and mineral resources section discusses whether the amount of energy proposed to be used is substantial and whether the potential impact to mineral resources highly valued by the State of California would be substantial. The area of projects that would be considered for the energy and mineral resources cumulative effects analysis is defined as the San Diego region. Potentially significant mineral deposits are identified in the City of Diego. Because urban uses, such as residential and commercial development, would generally be considered inconsistent with mineral extraction activities, development of these uses in the vicinity of an area containing significant mineral deposits could hinder or preclude mineral extraction activities. Therefore, cumulative development within the region could result in the loss of availability of some mineral resources, which would result in a potentially significant cumulative impact. However, construction within the Project site would not obstruct access to the areas of potentially significant resources or obstruct future potential mineral extraction in these areas. Therefore, the Project's contribution would not be cumulatively considerable.

6.18.13 Noise

The noise section discusses increases in ambient noise. Noise, by definition, is a localized phenomenon and is progressively reduced as the distance from the source increases; specifically, noise levels decrease by 6 dB for every doubling of distance. Therefore, the area of projects that would be considered for the noise cumulative analysis would be those projects in the immediate vicinity of the Project site, which would only include the cumulative projects identified in Table 6.18 – 1 Cumulative Projects.

As SDUHSD has no adopted noise standards, the noise standards from the City of San Diego were used in the project-specific noise analysis, including the City of San Diego General Plan Noise Element for vehicular traffic noise and City of San Diego Noise Ordinance for construction noise. The project would be impacted by noise generated by traffic from SR-56 to the school site. The noise analysis found in

Appendix B used forecasted traffic volumes on SR-56 to calculate noise levels and therefore took into account cumulative projects that would contribute to noise from SR-56. *Noi-1* would mitigate noise from cumulative projects traffic and therefore would mitigate the cumulative noise impact from SR-56.

The construction of the CCA track and field reconstruction cumulative project would be complete prior to construction of the New Middle School and therefore would not contribute to a cumulative construction noise impact. The construction of the proposed cumulative mixed-use project could occur at the same time as the Project. It is located approximately 500 feet from the nearest CCA classroom. At this distance the maximum hourly average noise level from the mixed-use project would be approximately 55 dBA. When combined with the 61 dBA from New Middle School construction the noise level would be approximately 62 dBA. Therefore, because the construction noise level would be less than the City's 75 dB 12-hour average noise level significance threshold, a significant cumulative construction noise impact would not occur.

6.18.14 Population and Housing

The population and housing discussion addresses impacts to growth rates and existing housing. The area of projects that would be considered for the population and housing cumulative effects analysis is defined as those in the City of Diego. The mixed-use cumulative projects include new residential and commercial development that would have the potential to induce growth in the City, including Pacific Highlands Ranch. Therefore, a potentially significant baseline cumulative impact would occur. The proposed New Middle School would have no impact on population and housing because it would not provide or displace housing and would be constructed to serve the existing Pacific Ranch Highlands population. Therefore, the Project's contribution would not be cumulatively considerable.

6.18.15 Public Services

The public services discussion includes services such as fire and police protection, schools, and maintenance of public facilities. The area of projects that would be considered for the public services cumulative analysis is defined as the City of San Diego. The cumulative projects listed in the Table 6.18-1 Cumulative Projects would increase the number of buildings that would require service by the City's police and fire departments. Therefore, a potentially significant cumulative impact would occur. However, implementation of the Project would not significant increase the need for fire services because it would not expand the service area of the San Diego Fire Department, which would serve the Project, nor would it significantly increase the need for fire protection because the Project would comply with all applicable state fire code requirements for public schools. It would not increase the demand for police projection, schools, parks, or other public facilities because the Project would not result in growth within the City of San Diego. Therefore, the Project's contribution would not be cumulatively considerable.

6.18.16 Recreation

The recreation discussion includes the potential for increased demand for recreational facilities and the potential to impact existing recreational opportunities. The area of projects that would be considered for the recreation cumulative effects analysis is defined as the City of San Diego. The cumulative development projects identified in Table 6.18-1 Cumulative Projects, would result in a minor amount of

increased population growth associated with the residential component of the mixed-use project and a proportional increase in the use of local and regional recreational facilities. The deterioration that would have the potential to occur to parks and recreational facilities within the region from regional population growth would be repaired and replaced with funding from various sources. As future residential development is approved within the City, in-lieu fees for parks or donation of parkland would be required as part of the individual development projects. Therefore, the baseline cumulative impact associated with recreational resources would be less than significant. The project's impact would not be cumulatively considerable.

6.18.17 Transportation/Traffic

The transportation and circulation section discusses potential traffic congestion from the Project and compliance with applicable plans, ordinances and polices. The geographic context for the analysis of cumulative traffic impacts is the Pacific Highlands Ranch community in the City of San Diego.

Long-Term Operational Traffic. The mixed-use projects listed in Table 6.18-1 Cumulative Projects would generate new trips in the Pacific Highlands Ranch community following construction. As indicated in the Traffic Impact Study for the Project, the cumulative increase in trips would not exceed the current capacity of the City's circulation system and no significant cumulative roadway segment or intersection impacts were identified. Therefore, the Project would not result in a significant cumulative traffic impact.

6.18.18 Utilities and Service Systems

The utilities and service systems discussion includes electric power and natural gas, communications, water treatment facilities, sewer, solid waste, and storm water drainage. The geographic context for the cumulative analysis for public utilities encompasses the service area of each specific utility. The increased use of public utilities associated with the cumulative projects identified in Table 6.18-1 Cumulative Projects would add to the incremental demand for these utilities within each utilities service area. If the cumulative projects would exceed growth projections for the City that were utilized by the public utilities to plan for the capacity of their systems, the public utilities providers may not have adequate infrastructure or funding in place to serve the cumulative projects. In this case, a potentially significant baseline cumulative impact would occur. However, the Project is consistent with the Pacific Highlands Ranch Subarea Plan, which in turn is a part of the City of San Diego General Plan and all of the public utilities have incorporated the population projections and corresponding development into their master plans which account for the Project. The Project would not exceed the capacity of the public utilities that serve the Project. Therefore, the Project's contribution would not be cumulatively considerable.

- c) **Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

Less Than Significant Impact. The Project is the construction and operation of a New Middle School that would be similar in nature but smaller in size as compared to the adjacent CCA. Based on the discussions provided in Section 6, Discussion of Environmental Impacts, the proposed project would not

result in environmental impacts that would cause significant effects on human beings because all potentially significant impacts would be mitigated to a less than significant level.

SECTION 7 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Time Frame of Mitigation				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of	
	Planning	Pre Constr.	During Constr.	Post Constr.		Monitor	Report	Completion	Verification
AESTHETICS									
<p><i>Aes-1</i> Design features would be included in the design of the Project to mitigate for potential spillover and glare from parking lot lighting, exterior safety and security lighting and nighttime athletic field lighting such as:</p> <ul style="list-style-type: none"> a. Shielding direct lighting away from residential or future park areas, sensitive biological habitat, or other light sensitive receptors. Shielding shall at a minimum extend to 20 degrees below the horizontal to direct lighting toward the target area. Lighting at the Project boundary shall be shielded as necessary to prevent any spillover to adjacent properties. b. Outdoor lighting fixtures incorporated into the design of the Project will be operated during reasonable hours. Reasonable hours will be determined per structure or building to assign a unique set of allowable hours of operation. It is anticipated that most lighting will shut off by approximately 10:00 P.M. 	X				SDUHSD				
HYDROLOGY AND WATER QUALITY									
<p><i>Hyd-1</i> Prior to operation of the Project, SDUHSD shall update, expand, and align their existing 2006 SWMP to be generally consistent with the latest standards for urban development and redevelopment in the San Diego region by voluntarily incorporating the Countywide Model SUSMP developed in March 2011 by the San Diego Stormwater Copermittees for the renewal of the Phase I MS4 Permit. By voluntarily incorporating the Countywide Model SUSMP into its SWMP, SDUHSD will protect water quality and control stormwater flows to the same standards as other development in the region are subjected and will provide equal water quality protection for all future development projects on the campus. As part of compliance with the SUSMP, a report equivalent to a WQTR shall be prepared for the Project using the City</p>				X	SDUHSD				

SECTION SEVEN

Mitigation Monitoring and Reporting Program

Mitigation Measure	Time Frame of Mitigation				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of	
	Planning	Pre Constr.	During Constr.	Post Constr.		Monitor	Report	Completion	Verification
of San Diego 2010 SUSMP as guidance. The report will determine the need for a detention basin or comparable alternative measures to mitigate any potential drainage and water quality conditions by selecting the most suitable post-construction BMPs for the Project's design, soil conditions, and other relevant factors. Additionally, the report will determine whether the project is a Priority Redevelopment Project, and whether the Low Impact Development and hydromodification requirements in the SUSMP apply to the Project. Upon completion, a copy of this report will be provided to the SDUHSD for its records.									
<p>Hyd-2 A registered engineer shall perform a drainage study for the Project commissioned by the SDUHSD Facility Services departments that complies with the conditions that follow. Design measures shall be consistent with SDUHSD's adopted Storm Water Management Program, in operation prior to project occupancy, and regularly maintained by SDUHSD. The results of the drainage study shall be used to determine the Project's fair share contribution to the City's Capital Facilities Fee for storm drain improvements, as required by California Government Code 54999.</p> <ul style="list-style-type: none"> i. Site design that controls runoff discharge volumes and durations shall be utilized where applicable. ii. Measures that protect slopes and channels such as energy dissipaters, vegetation, and slope/channel stabilizers shall be applied where appropriate. iii. All developments that will increase impervious surfaces by 10,000 GSF or more shall maintain the peak runoff for the 10-year, 6-hour storm event. In cases where known or potential on-site or off-site erosion problems have been identified, a registered engineer, in coordination with SDUHSD, shall determine if maintenance of peak runoff for a larger storm event is necessary. 	X				SDUHSD				

SECTION SEVEN

Mitigation Monitoring and Reporting Program

Mitigation Measure	Time Frame of Mitigation				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of	
	Planning	Pre Constr.	During Constr.	Post Constr.		Monitor	Report	Completion	Verification
NOISE									
<i>Noi-1</i> For classroom buildings located within 350 feet of the SR-56 right of way, adequate mechanical ventilation shall be provided to allow doors and windows to remain shut during school hours.	X				SDUHSD				

SECTION 8 REFERENCES

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**SDUHSD Middle School #5
San Diego Air Basin, Annual**

1.0 Project Characteristics

Project Name	Location Scope	EMFAC ID	Wind Speed	Precipitation Frequency	Climate Zone	Urbanization Level	Operational Year
SDUHSD Middle School #5	AB	SDAB	2.6	40	13	Urban	2015

Utility Company	CO2 Intensity Factor	CH4 Intensity Factor	N2O Intensity Factor	Total Population	Total Lot Acreage	Using Historical Energy Use Data
San Diego Gas & Electric	780.79	0.029	0.011	5	27	0

1.1 Remarks

The inputs here are based on SDUHSD master plan construction schedule, revised schedule, conservative assumptions.

Modified and conservative values in acres and sq. ft

Project construction starts from 06/01/2014. 2 years total construction time was condensed to 1 year and modified (consecutive and no overlap) to be conservative.

Conservatively assumed 1000 sq ft building got demolition

Conservatively assume 3100 cu. yd total material imported and exported during grading (22 acres disturbed and 1 inch deep)

1.2 Pollutants

Pollutant Selection	Pollutant Full Name	Pollutant Name
1	Reactive Organic Gases (ROG)	ROG
1	Nitrogen Oxides (NOx)	NOX
1	Carbon Monoxide (CO)	CO
1	Sulfur Dioxide (SO2)	SO2
1	Particulate Matter 10um (PM10)	PM10
1	Particulate Matter 2.5um (PM2.5)	PM2_5
1	Fugitive PM10um (PM10)	PM10_FUG
1	Fugitive PM2.5um (PM2.5)	PM25_FUG
1	Total Organic Gases (TOG)	TOG
1	Lead (Pb)	PB
1	Biogenic Carbon Dioxide (CO2)	CO2_BIO
1	Non-Biogenic Carbon Dioxide (CO2)	CO2_NBIO
1	Carbon Dioxide (CO2)	CO2
1	Methane (CH4)	CH4
1	Nitrous Oxide (N2O)	N2O
1	CO2 Equivalent GHGs (CO2e)	CO2E

1.3 Land Use

Land Use Type	Land Use Sub Type	Land Use Unit Amount	Land Use Size Metric	Lot Acreage	Land Use Square Feet	Population
Educational	High School	0	Student	12	4000	0
Educational	Junior High School	1200	Student	14	102000	5
Parking	Parking Lot	100	Space	1	40000	0

2.0 Construction Phase

Phase Number	Phase Name	Phase Type	Phase Start Date	Phase End Date	Days/Week	No. of Days	Phase Description
1	Demolition	Demolition	2014/06/01	2014/06/13	5	10	limited demolition
2	Fine Grading	Grading	2014/06/14	2014/09/05	5	60	Fine Grading
3	Building Construction	Building Construction	2014/09/06	2015/03/20	5	140	all building constructions
4	Paving	Paving	2015/03/21	2015/04/17	5	20	all paving
5	Architectural Coating	Architectural Coating	2015/04/18	2015/05/29	5	30	all coating

3.0 Off-Road Equipment

Phase Name	Equipment Type	Unit Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8	81	0.73
Demolition	Excavators	3	8	157	0.57
Demolition	Rubber Tired Dozers	2	8	358	0.59
Fine Grading	Excavators	2	8	157	0.57
Fine Grading	Graders	1	8	162	0.61
Fine Grading	Rubber Tired Dozers	1	8	358	0.59
Fine Grading	Scrapers	2	8	356	0.72
Fine Grading	Tractors/Loaders/Backhoes	2	8	75	0.55
Building Construction	Cranes	1	7	208	0.43
Building Construction	Forklifts	3	8	149	0.3
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	75	0.55
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	89	0.62
Paving	Paving Equipment	2	8	82	0.53
Paving	Rollers	2	8	84	0.56
Architectural Coating	Air Compressors	1	6	78	0.48

4.0 Trips and VMT

Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	15	0	5	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT
Fine Grading	20	0	775	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT
Fine Grading	20	0	775	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT
Building Construction	61	24	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT
Paving	15	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT
Architectural Coating	12	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT
Architectural Coating	12	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT
Architectural Coating	12	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT

5.0 On-Road Dust

Phase Name	Worker Percent Pave	Vendor Percent Pave	Hauling Percent Pave	Road Silt Loading	Material Silt Content	Material Moisture Content	Average Vehicle Weight	Mean Vehicle Speed
Demolition	100	100	100	0.1	8.5	0.5	2.4	40
Fine Grading	100	100	100	0.1	8.5	0.5	2.4	40
Fine Grading	100	100	100	0.1	8.5	0.5	2.4	40
Building Construction	100	100	100	0.1	8.5	0.5	2.4	40
Paving	100	100	100	0.1	8.5	0.5	2.4	40
Architectural Coating	100	100	100	0.1	8.5	0.5	2.4	40
Architectural Coating	100	100	100	0.1	8.5	0.5	2.4	40
Architectural Coating	100	100	100	0.1	8.5	0.5	2.4	40

6.0 Demolition

Phase Name	Demolition Size Metric	Demolition Unit Amount
Demolition	Building Square Footage	1000

7.0 Grading

Phase Name	Material Imported	Material Exported	Grading Size Metric	Import Export Phased	Mean Vehicle Speed	Acres Of Grading	Material Moisture Content Bulldozing	Material Moisture Content Truck Loading	Material Silt Content
Fine Grading	3100	3100	Cubic Yards	0	7.1	22	7.9	12	6.9
Fine Grading	0	0		0	7.1	22	7.9	12	6.9

8.0 Architectural Coating

Phase Name	Start Date	End Date	EF Residential Interior	Const. Area Residential Interior	EF Residential Exterior	Const. Area Residential Exterior	EF Nonresidential Interior	Const. Area Nonresidential Interior	EF Nonresidential Exterior	Const. Area Nonresidential Exterior
Architectural Coating	1900/01/01	3000/12/31	250	0	250	0	250	219000	250	73000

9.0 Vehicle Trips

Land Use Sub Type	Land Use Size Metric	WD_TR	ST_TR	SU_TR	HW_TL	HS_TL	HO_TL	CC_TL	CW_TL	CNW_TL	PR_T P	DV_T P	PB_T P	HW_T TP	HS_T TP	HO_T TP	CC_T TP	CW_T TP	CNW_T TP
High School	Student	1.71	0.61	0.25	0	0	0	7.3	9.5	7.3	75	19	6	0	0	0	17.2	77.8	5
Junior High School	Student	1.62	0	0	0	0	0	7.3	9.5	7.3	63	25	12	0	0	0	22.2	72.8	5
Parking Lot	Space	0	0	0	0	0	0	7.3	9.5	7.3	0	0	0	0	0	0	0	0	0

10.0 Vehicle EF

Season	Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	FleetMix	0.498485	0.089224	0.239507	0.097693	0.020133	0.005569	0.013302	0.018876	0.001131	0.001417	0.009114	0.001141	0.004408
A	CH4_IDLEX	0	0	0	0	0.0014	0.0013	0.0009	0.1	0.0012	0	0	0.03	0
A	CH4_RUNEX	0.01	0.02	0.02	0.03	0.02	0.02	0.01	0.03	0.03	0.04	0.22	0.03	0.03
A	CH4_STREX	0.02	0.01	0.02	0.03	0.02	0.01	0.02	0.08	0.04	0.04	0.13	0.03	0.03
A	CO_IDLEX	0	0	0	0	0.2	0.18	0.13	10.11	0.17	0	0	5.27	0
A	CO_RUNEX	1.69	1.99	2.25	2.85	2.84	1.81	2.58	3.77	4.36	4.89	32.14	7.28	6.22
A	CO_STREX	4.26	4.15	5.27	6.38	4.82	3.41	5.23	20.81	12.12	8.37	9.88	6.62	10.54
A	CO2_IDLEX	0	0	0	0	7.956	8.5117	12.441	1456.397	11.037	0	0	540.2085	0
A	CO2_RUNEX	330.7005	416.6662	436.3905	600.0345	843.57	738.8745	1341.269	1758.92	1194.122	2186.876	160.6702	1374.058	753.363
A	CO2_STREX	64.1257	78.6922	83.382	114.4747	36.7575	29.718	11.6025	12.909	20.826	31.005	44.733	17.4427	33.2475
A	NOX_IDLEX	0	0	0	0	0.02	0.05	0.18	26.45	0.11	0	0	8.71	0
A	NOX_RUNEX	0.17	0.2	0.28	0.37	1.11	2	4.62	9	3.58	13.74	1.15	9.43	1.48
A	NOX_STREX	0.26	0.26	0.5	0.61	1.51	1.21	0.61	2.4	1.68	1.37	0.3	0.45	1.03
A	PM10_IDLEX	0	0	0	0	0.0002	0.0007	0.0022	0.25	0.0016	0	0	0.1	0
A	PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0088	0.004	0.01	0.01
A	PM10_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.18	0.38	0.12	0.24	0.02	0.4	0.01

Season	Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	PM10_STREX	0.0072	0.0081	0.01	0.01	0.0022	0.0019	0.0011	0.0016	0.0024	0.0026	0.01	0.0012	0.0009
A	PM25_IDLEX	0	0	0	0	0.0002	0.0006	0.002	0.23	0.0014	0	0	0.09	0
A	PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0089	0.003	0.0022	0.001	0.003	0.003
A	PM25_RUNEX	0.01	0.01	0.02	0.03	0.02	0.03	0.16	0.35	0.11	0.22	0.02	0.37	0.01
A	PM25_STREX	0.0067	0.0075	0.01	0.01	0.002	0.0017	0.001	0.0015	0.0022	0.0024	0.0093	0.0011	0.0008
A	ROG_DIURN	0.08	0.08	0.09	0.08	0.0019	0.0014	0.0005	0.0006	0.0008	0.0028	0.83	0.0061	1.24
A	ROG_HTSK	0.16	0.16	0.18	0.16	0.04	0.03	0.01	0.01	0.02	0.06	0.35	0.05	0.08
A	ROG_IDLEX	0	0	0	0	0.03	0.02	0.01	2.25	0.02	0	0	0.72	0
A	ROG_RESTL	0.07	0.07	0.08	0.08	0.0009	0.0006	0.0003	0.0004	0.0004	0.0023	0.52	0.0029	0.57
A	ROG_RUNEX	0.06	0.06	0.05	0.09	0.27	0.21	0.21	0.73	0.28	0.8	3.1	0.61	0.24
A	ROG_RUNLS	0.065982	0.106519	0.127551	0.105441	0.356151	0.238561	0.085596	0.010512	0.162586	0.010295	0.293095	0.028877	0.016292
A	ROG_STREX	0.35	0.29	0.39	0.54	0.41	0.32	0.36	1.4	0.75	0.82	2.13	0.52	0.62
A	SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0053	0
A	SO2_RUNEX	0.0037	0.0046	0.0046	0.0063	0.0083	0.0073	0.01	0.01	0.01	0.02	0.0022	0.01	0.0075
A	SO2_STREX	0.0008	0.0009	0.001	0.0013	0.0004	0.0004	0.0002	0.0005	0.0004	0.0005	0.0007	0.0003	0.0005
A	TOG_DIURN	0.08	0.08	0.09	0.08	0.0019	0.0014	0.0005	0.0006	0.0008	0.0028	0.83	0.0061	1.24
A	TOG_HTSK	0.16	0.16	0.18	0.16	0.04	0.03	0.01	0.01	0.02	0.06	0.35	0.05	0.08
A	TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	2.56	0.02	0	0	0.8	0
A	TOG_RESTL	0.07	0.07	0.08	0.08	0.0009	0.0006	0.0003	0.0004	0.0004	0.0023	0.52	0.0029	0.57
A	TOG_RUNEX	0.08	0.08	0.08	0.13	0.3	0.24	0.24	0.82	0.32	0.89	3.38	0.68	0.28
A	TOG_RUNLS	0.065982	0.106519	0.127551	0.105441	0.356151	0.238561	0.085596	0.010512	0.162586	0.010295	0.293095	0.028877	0.016292
A	TOG_STREX	0.37	0.31	0.42	0.58	0.44	0.35	0.38	1.5	0.8	0.88	2.29	0.55	0.67
S	FleetMix	0.498485	0.089224	0.239507	0.097693	0.020133	0.005569	0.013302	0.018876	0.001131	0.001417	0.009114	0.001141	0.004408
S	CH4_IDLEX	0	0	0	0	0.0014	0.0013	0.0009	0.09	0.0012	0	0	0.03	0
S	CH4_RUNEX	0.02	0.02	0.02	0.03	0.02	0.02	0.01	0.03	0.03	0.04	0.22	0.03	0.03
S	CH4_STREX	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.06	0.03	0.04	0.11	0.02	0.03
S	CO_IDLEX	0	0	0	0	0.2	0.18	0.13	7.35	0.17	0	0	5.27	0
S	CO_RUNEX	1.87	2.16	2.49	3.12	2.89	1.83	2.6	3.79	4.43	4.89	30.9	7.16	6.35
S	CO_STREX	3.24	3.17	4.01	4.87	3.8	2.72	4.29	16.88	9.83	7.09	8.75	5.72	8.27
S	CO2_IDLEX	0	0	0	0	7.956	8.5117	12.441	1539.389	11.037	0	0	540.2085	0
S	CO2_RUNEX	353.067	443.2642	464.7825	639.0735	843.57	738.8745	1341.269	1758.92	1194.122	2186.876	160.6702	1374.058	753.363
S	CO2_STREX	64.1257	78.6922	83.382	114.4747	36.7575	29.718	11.6025	12.909	20.826	31.005	44.733	17.4427	33.2475

Season	Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
S	NOX_IDLEX	0	0	0	0	0.02	0.05	0.18	27.38	0.11	0	0	8.71	0
S	NOX_RUNEX	0.17	0.2	0.28	0.37	1.15	2.07	4.79	9.31	3.7	14.22	1.17	9.74	1.52
S	NOX_STREX	0.23	0.24	0.46	0.56	1.45	1.17	0.59	2.3	1.61	1.3	0.29	0.42	0.99
S	PM10_IDLEX	0	0	0	0	0.0002	0.0007	0.0022	0.21	0.0016	0	0	0.1	0
S	PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
S	PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0088	0.004	0.01	0.01
S	PM10_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.18	0.38	0.12	0.24	0.02	0.4	0.01
S	PM10_STREX	0.0072	0.0081	0.01	0.01	0.0022	0.0019	0.0011	0.0016	0.0024	0.0026	0.01	0.0012	0.0009
S	PM25_IDLEX	0	0	0	0	0.0002	0.0006	0.002	0.19	0.0014	0	0	0.09	0
S	PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
S	PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0089	0.003	0.0022	0.001	0.003	0.003
S	PM25_RUNEX	0.01	0.01	0.02	0.03	0.02	0.03	0.16	0.35	0.11	0.22	0.02	0.37	0.01
S	PM25_STREX	0.0067	0.0075	0.01	0.01	0.002	0.0017	0.001	0.0015	0.0022	0.0024	0.0093	0.0011	0.0008
S	ROG_DIURN	0.13	0.13	0.15	0.14	0.003	0.0021	0.0009	0.0011	0.0013	0.0042	1.42	0.0097	1.92
S	ROG_HTSK	0.17	0.17	0.19	0.17	0.04	0.03	0.01	0.01	0.02	0.07	0.42	0.04	0.08
S	ROG_IDLEX	0	0	0	0	0.03	0.02	0.01	2.11	0.02	0	0	0.72	0
S	ROG_RESTL	0.12	0.13	0.14	0.14	0.0015	0.0011	0.0005	0.0007	0.0008	0.0038	1.09	0.005	0.94
S	ROG_RUNEX	0.06	0.06	0.06	0.09	0.28	0.21	0.21	0.73	0.29	0.8	3	0.61	0.25
S	ROG_RUNLS	0.062237	0.098681	0.117631	0.097691	0.343972	0.229844	0.084353	0.010572	0.159481	0.00945	0.268788	0.026157	0.015895
S	ROG_STREX	0.29	0.24	0.32	0.45	0.36	0.28	0.31	1.2	0.66	0.74	1.85	0.45	0.52
S	SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0053	0
S	SO2_RUNEX	0.0039	0.0049	0.005	0.0067	0.0083	0.0073	0.01	0.01	0.01	0.02	0.0021	0.01	0.0075
S	SO2_STREX	0.0007	0.0009	0.0009	0.0013	0.0004	0.0003	0.0002	0.0004	0.0004	0.0004	0.0006	0.0003	0.0005
S	TOG_DIURN	0.13	0.13	0.15	0.14	0.003	0.0021	0.0009	0.0011	0.0013	0.0042	1.42	0.0097	1.92
S	TOG_HTSK	0.17	0.17	0.19	0.17	0.04	0.03	0.01	0.01	0.02	0.07	0.42	0.04	0.08
S	TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	2.41	0.02	0	0	0.8	0
S	TOG_RESTL	0.12	0.13	0.14	0.14	0.0015	0.0011	0.0005	0.0007	0.0008	0.0038	1.09	0.005	0.94
S	TOG_RUNEX	0.08	0.08	0.09	0.13	0.31	0.24	0.24	0.83	0.33	0.9	3.27	0.68	0.29
S	TOG_RUNLS	0.062237	0.098681	0.117631	0.097691	0.343972	0.229844	0.084353	0.010572	0.159481	0.00945	0.268788	0.026157	0.015895
S	TOG_STREX	0.31	0.25	0.35	0.48	0.38	0.3	0.33	1.29	0.7	0.79	1.99	0.48	0.56
W	FleetMix	0.498485	0.089224	0.239507	0.097693	0.020133	0.005569	0.013302	0.018876	0.001131	0.001417	0.009114	0.001141	0.004408
W	CH4_IDLEX	0	0	0	0	0.0014	0.0013	0.0009	0.11	0.0012	0	0	0.03	0
W	CH4_RUNEX	0.01	0.02	0.02	0.03	0.02	0.02	0.01	0.03	0.03	0.04	0.22	0.03	0.03

Season	Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
W	CH4_STREX	0.02	0.01	0.02	0.03	0.02	0.01	0.02	0.08	0.04	0.04	0.13	0.03	0.03
W	CO_IDLEX	0	0	0	0	0.2	0.18	0.13	13.97	0.17	0	0	5.27	0
W	CO_RUNEX	1.65	1.95	2.2	2.8	2.84	1.81	2.58	3.77	4.35	4.89	32.32	7.33	6.21
W	CO_STREX	4.31	4.2	5.33	6.46	4.84	3.42	5.18	20.59	12	8.39	9.91	6.94	10.41
W	CO2_IDLEX	0	0	0	0	7.956	8.5117	12.441	1340.196	11.037	0	0	540.2085	0
W	CO2_RUNEX	324.6945	409.5487	428.7855	589.5922	843.57	738.8745	1341.269	1758.92	1194.122	2186.876	160.6702	1374.058	753.363
W	CO2_STREX	64.1257	78.6922	83.382	114.4747	36.7575	29.718	11.6025	12.909	20.826	31.005	44.733	17.4427	33.2475
W	NOX_IDLEX	0	0	0	0	0.02	0.05	0.18	25.14	0.11	0	0	8.71	0
W	NOX_RUNEX	0.19	0.22	0.31	0.41	1.21	2.15	4.98	9.65	3.9	14.76	1.3	10.1	1.64
W	NOX_STREX	0.26	0.26	0.5	0.62	1.5	1.21	0.61	2.4	1.68	1.37	0.3	0.46	1.03
W	PM10_IDLEX	0	0	0	0	0.0002	0.0007	0.0022	0.3	0.0016	0	0	0.1	0
W	PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
W	PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0088	0.004	0.01	0.01
W	PM10_RUNEX	0.01	0.01	0.03	0.03	0.02	0.03	0.18	0.38	0.12	0.24	0.02	0.4	0.01
W	PM10_STREX	0.0072	0.0081	0.01	0.01	0.0022	0.0019	0.0011	0.0016	0.0024	0.0026	0.01	0.0012	0.0009
W	PM25_IDLEX	0	0	0	0	0.0002	0.0006	0.002	0.28	0.0014	0	0	0.09	0
W	PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
W	PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0089	0.003	0.0022	0.001	0.003	0.003
W	PM25_RUNEX	0.01	0.01	0.02	0.03	0.02	0.03	0.16	0.35	0.11	0.22	0.02	0.37	0.01
W	PM25_STREX	0.0067	0.0075	0.01	0.01	0.002	0.0017	0.001	0.0015	0.0022	0.0024	0.0093	0.0011	0.0008
W	ROG_DIURN	0.08	0.07	0.09	0.08	0.0025	0.0017	0.0007	0.0008	0.001	0.0032	0.92	0.0082	1.64
W	ROG_HTSK	0.2	0.2	0.23	0.2	0.05	0.04	0.01	0.02	0.02	0.09	0.57	0.06	0.12
W	ROG_IDLEX	0	0	0	0	0.03	0.02	0.01	2.44	0.02	0	0	0.72	0
W	ROG_RESTL	0.07	0.08	0.09	0.09	0.0011	0.0008	0.0004	0.0005	0.0006	0.0029	0.62	0.004	0.76
W	ROG_RUNEX	0.06	0.06	0.05	0.09	0.27	0.21	0.21	0.73	0.28	0.79	3.11	0.61	0.24
W	ROG_RUNLS	0.076749	0.129328	0.156101	0.12793	0.398217	0.267763	0.092332	0.011214	0.176125	0.012631	0.360697	0.035143	0.01741
W	ROG_STREX	0.35	0.29	0.39	0.54	0.41	0.32	0.36	1.39	0.75	0.83	2.14	0.54	0.62
W	SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0053	0
W	SO2_RUNEX	0.0036	0.0045	0.0046	0.0062	0.0083	0.0073	0.01	0.01	0.01	0.02	0.0022	0.01	0.0075
W	SO2_STREX	0.0008	0.0009	0.001	0.0013	0.0004	0.0004	0.0002	0.0005	0.0004	0.0005	0.0007	0.0003	0.0005
W	TOG_DIURN	0.08	0.07	0.09	0.08	0.0025	0.0017	0.0007	0.0008	0.001	0.0032	0.92	0.0082	1.64
W	TOG_HTSK	0.2	0.2	0.23	0.2	0.05	0.04	0.01	0.02	0.02	0.09	0.57	0.06	0.12
W	TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	2.78	0.02	0	0	0.8	0

Season	Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
W	TOG_RESTL	0.07	0.08	0.09	0.09	0.0011	0.0008	0.0004	0.0005	0.0006	0.0029	0.62	0.004	0.76
W	TOG_RUNEX	0.08	0.08	0.08	0.12	0.3	0.24	0.24	0.82	0.32	0.89	3.39	0.68	0.28
W	TOG_RUNLS	0.076749	0.129328	0.156101	0.12793	0.398217	0.267763	0.092332	0.011214	0.176125	0.012631	0.360697	0.035143	0.01741
W	TOG_STREX	0.37	0.31	0.42	0.58	0.44	0.35	0.38	1.48	0.8	0.88	2.3	0.58	0.66

11.0 Road Dust

Road Percent Pave	Road Silt Loading	Material Silt Content	Material Moisture Content	Mobile Average Vehicle Weight	Mean Vehicle Speed
100	0.1	4.3	0.5	2.4	40

12.0 Area Coating

Area EF Residential Interior	Area Residential Interior	Area EF Residential Exterior	Area Residential Exterior	Area EF Nonresidential Interior	Area Nonresidential Interior	Area EF Nonresidential Exterior	Area Nonresidential Exterior	Reapplication Rate Percent
250	0	250	0	250	219000	250	73000	10

13.0 Energy Use

Land Use Sub Type	T24E	NT24E	Lighting Electricity	T24NG	NT24NG
High School	1.86	1.18	2.92	5.72	0.48
Junior High School	1.86	1.18	2.92	5.72	0.48
Parking Lot	0	0	0	0	0

14.0 Water

Land Use Sub Type	Metric	Indoor Water Use Rate	Outdoor Water Use Rate	Electricity Intensity Factor To Supply	Electricity Intensity Factor To Treat	Electricity Intensity Factor To Distribute	Electricity Intensity Factor For Wastewater Treatment	Septic Tank Percent	Aerobic Percent	Anaerobic and Facultative Lagoons Percent	AnaDigest CombDigest Gas Percent	AnaDigest Cogen CombDigest Gas Percent
High School	Student	0	0	9727	111	1272	1911	10	84.69	2.14	3.17	0
Junior High School	Student	2909088	7480512	9727	111	1272	1911	10	84.69	2.14	3.17	0
Parking Lot	Space	0	0	9727	111	1272	1911	10	84.69	2.14	3.17	0

15.0 Solid Waste

Land Use Sub Type	Metric	Generation Rate	Landfill No Gas Capture	Landfill Capture Gas Flare	Landfill Capture Gas Energy Recovery
High School	Student	0	6	94	0
Junior High School	Student	219	6	94	0
Parking Lot	Space	0	6	94	0

16.0 Construction Equipment Mitigation

Equipment Type	Fuel Type	Total Number Of Equipment Mitigated	Oxidation Catalyst
Air Compressors	Diesel	1	0
Concrete/Industrial Saws	Diesel	1	0
Cranes	Diesel	1	0
Excavators	Diesel	5	0
Forklifts	Diesel	3	0
Generator Sets	Diesel	1	0
Graders	Diesel	1	0
Pavers	Diesel	2	0
Paving Equipment	Diesel	2	0

Equipment Type	Fuel Type	Total Number Of Equipment Mitigated	Oxidation Catalyst
Rollers	Diesel	2	0
Rubber Tired Dozers	Diesel	3	0
Scrapers	Diesel	2	0
Tractors/Loaders/Backhoes	Diesel	5	0
Welders	Diesel	1	0

SDUHSD Middle School #5
San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
High School	0	Student
Junior High School	1200	Student
Parking Lot	100	Space

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.6 **Utility Company** San Diego Gas & Electric
Climate Zone 13 **Precipitation Freq (Days)** 40

1.3 User Entered Comments

Project Characteristics - The inputs here are based on SDUHSD master plan construction schedule, revised schedule, conservative assumptions.

Land Use - modified and conservative values in acres and sq. ft

Construction Phase - Project construction starts from 06/01/2014. 2 years total construction time was condensed to 1 year and modified (consecutive and no overlap) to be conservative.

Grading - conservatively assume 3100 cu. yd total material imported and exported during grading (22 acres disturbed and 1 inch deep)

Demolition - conservatively assumed 1000 sq ft building got demolition

Construction Off-road Equipment Mitigation - project will do watering 2 times per day and limit the vehicle speed in 15 mph on unpaved road.

Mobile Land Use Mitigation -

Mobile Commute Mitigation - assume 5% families' children will use school bus

Energy Use -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.64	4.94	3.22	0.01	2.33	0.25	2.58	0.20	0.25	0.45	0.00	597.61	597.61	0.05	0.00	598.68
2015	1.89	1.28	1.09	0.00	0.04	0.08	0.13	0.00	0.08	0.08	0.00	172.35	172.35	0.02	0.00	172.69
Total	2.53	6.22	4.31	0.01	2.37	0.33	2.71	0.20	0.33	0.53	0.00	769.96	769.96	0.07	0.00	771.37

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.64	4.94	3.22	0.01	2.12	0.25	2.37	0.09	0.25	0.34	0.00	597.61	597.61	0.05	0.00	598.68
2015	1.89	1.28	1.09	0.00	0.04	0.08	0.13	0.00	0.08	0.08	0.00	172.35	172.35	0.02	0.00	172.69
Total	2.53	6.22	4.31	0.01	2.16	0.33	2.50	0.09	0.33	0.42	0.00	769.96	769.96	0.07	0.00	771.37

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.74	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	258.82	258.82	0.01	0.00	260.18
Mobile	1.14	2.32	11.05	0.02	1.64	0.10	1.74	0.03	0.09	0.12	0.00	1,448.00	1,448.00	0.07	0.00	1,449.44
Waste						0.00	0.00		0.00	0.00	44.46	0.00	44.46	2.63	0.00	99.63
Water						0.00	0.00		0.00	0.00	0.00	42.88	42.88	0.09	0.00	45.65
Total	1.88	2.35	11.08	0.02	1.64	0.10	1.74	0.03	0.09	0.12	44.46	1,749.70	1,794.16	2.80	0.00	1,854.90

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.74	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	258.82	258.82	0.01	0.00	260.18
Mobile	1.14	2.31	10.99	0.02	1.63	0.10	1.73	0.03	0.09	0.11	0.00	1,438.46	1,438.46	0.07	0.00	1,439.89
Waste						0.00	0.00		0.00	0.00	44.46	0.00	44.46	2.63	0.00	99.63
Water						0.00	0.00		0.00	0.00	0.00	42.88	42.88	0.09	0.00	45.65
Total	1.88	2.34	11.02	0.02	1.63	0.10	1.73	0.03	0.09	0.11	44.46	1,740.16	1,784.62	2.80	0.00	1,845.35

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.33	0.21	0.00		0.02	0.02		0.02	0.02	0.00	34.06	34.06	0.00	0.00	34.13
Total	0.04	0.33	0.21	0.00	0.00	0.02	0.02	0.00	0.02	0.02	0.00	34.06	34.06	0.00	0.00	34.13

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.00	0.00	0.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.65	0.00	0.00	0.66
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.85

3.2 Demolition - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.33	0.21	0.00		0.02	0.02		0.02	0.02	0.00	34.06	34.06	0.00	0.00	34.13
Total	0.04	0.33	0.21	0.00	0.00	0.02	0.02	0.00	0.02	0.02	0.00	34.06	34.06	0.00	0.00	34.13

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.00	0.00	0.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.65	0.00	0.00	0.66
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.85

3.3 Fine Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.39	0.00	0.39	0.20	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.34	2.72	1.52	0.00		0.13	0.13		0.13	0.13	0.00	295.39	295.39	0.03	0.00	295.96
Total	0.34	2.72	1.52	0.00	0.39	0.13	0.52	0.20	0.13	0.33	0.00	295.39	295.39	0.03	0.00	295.96

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.03	0.39	0.20	0.00	1.88	0.01	1.90	0.00	0.01	0.01	0.00	58.08	58.08	0.00	0.00	58.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.07	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	10.47	10.47	0.00	0.00	10.49
Total	0.04	0.40	0.27	0.00	1.91	0.01	1.93	0.00	0.01	0.01	0.00	68.55	68.55	0.00	0.00	68.60

3.3 Fine Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.17	0.00	0.17	0.09	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.34	2.72	1.52	0.00		0.13	0.13		0.13	0.13	0.00	295.39	295.39	0.03	0.00	295.96
Total	0.34	2.72	1.52	0.00	0.17	0.13	0.30	0.09	0.13	0.22	0.00	295.39	295.39	0.03	0.00	295.96

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.03	0.39	0.20	0.00	1.88	0.01	1.90	0.00	0.01	0.01	0.00	58.08	58.08	0.00	0.00	58.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.07	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	10.47	10.47	0.00	0.00	10.49
Total	0.04	0.40	0.27	0.00	1.91	0.01	1.93	0.00	0.01	0.01	0.00	68.55	68.55	0.00	0.00	68.60

3.4 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.20	1.33	0.96	0.00		0.08	0.08		0.08	0.08	0.00	152.08	152.08	0.02	0.00	152.42
Total	0.20	1.33	0.96	0.00		0.08	0.08		0.08	0.08	0.00	152.08	152.08	0.02	0.00	152.42

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.15	0.10	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00	24.59	24.59	0.00	0.00	24.60
Worker	0.01	0.02	0.15	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	22.10	22.10	0.00	0.00	22.12
Total	0.02	0.17	0.25	0.00	0.04	0.01	0.04	0.00	0.00	0.01	0.00	46.69	46.69	0.00	0.00	46.72

3.4 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.20	1.33	0.96	0.00		0.08	0.08		0.08	0.08	0.00	152.08	152.08	0.02	0.00	152.42
Total	0.20	1.33	0.96	0.00		0.08	0.08		0.08	0.08	0.00	152.08	152.08	0.02	0.00	152.42

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.15	0.10	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00	24.59	24.59	0.00	0.00	24.60
Worker	0.01	0.02	0.15	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	22.10	22.10	0.00	0.00	22.12
Total	0.02	0.17	0.25	0.00	0.04	0.01	0.04	0.00	0.00	0.01	0.00	46.69	46.69	0.00	0.00	46.72

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.12	0.83	0.65	0.00		0.05	0.05		0.05	0.05	0.00	104.44	104.44	0.01	0.00	104.65
Total	0.12	0.83	0.65	0.00		0.05	0.05		0.05	0.05	0.00	104.44	104.44	0.01	0.00	104.65

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.10	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	16.91	16.91	0.00	0.00	16.92
Worker	0.01	0.01	0.10	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	14.83	14.83	0.00	0.00	14.85
Total	0.02	0.11	0.16	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	31.74	31.74	0.00	0.00	31.77

3.4 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.12	0.83	0.65	0.00		0.05	0.05		0.05	0.05	0.00	104.44	104.44	0.01	0.00	104.65
Total	0.12	0.83	0.65	0.00		0.05	0.05		0.05	0.05	0.00	104.44	104.44	0.01	0.00	104.65

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.10	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	16.91	16.91	0.00	0.00	16.92
Worker	0.01	0.01	0.10	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	14.83	14.83	0.00	0.00	14.85
Total	0.02	0.11	0.16	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	31.74	31.74	0.00	0.00	31.77

3.5 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.05	0.30	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.54
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.05	0.30	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.54

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.28	1.28	0.00	0.00	1.28
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.28	1.28	0.00	0.00	1.28

3.5 Paving - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.05	0.30	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.54
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.05	0.30	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.54

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.28	1.28	0.00	0.00	1.28
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.28	1.28	0.00	0.00	1.28

3.6 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Archit. Coating	1.69					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.83	3.83	0.00	0.00	0.00	3.84
Total	1.70	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.83	3.83	0.00	0.00	0.00	3.84

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	4.61	4.61	0.00	0.00	0.00	4.61
Total	0.00	0.00	0.03	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	4.61	4.61	0.00	0.00	0.00	4.61

3.6 Architectural Coating - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.69					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.83	3.83	0.00	0.00	3.84
Total	1.70	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.83	3.83	0.00	0.00	3.84

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	4.61	4.61	0.00	0.00	4.61
Total	0.00	0.00	0.03	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	4.61	4.61	0.00	0.00	4.61

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Implement School Bus Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.14	2.31	10.99	0.02	1.63	0.10	1.73	0.03	0.09	0.11	0.00	1,438.46	1,438.46	0.07	0.00	1,439.89
Unmitigated	1.14	2.32	11.05	0.02	1.64	0.10	1.74	0.03	0.09	0.12	0.00	1,448.00	1,448.00	0.07	0.00	1,449.44
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	0.00	0.00	0.00		
Junior High School	1,944.00	0.00	0.00	3,121,778	3,100,456
Parking Lot	0.00	0.00	0.00		
Total	1,944.00	0.00	0.00	3,121,778	3,100,456

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
High School	9.50	7.30	7.30	77.80	17.20	5.00

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	223.74	223.74	0.01	0.00	224.90
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	223.74	223.74	0.01	0.00	224.90
NaturalGas Mitigated	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	35.07	35.07	0.00	0.00	35.28
NaturalGas Unmitigated	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	35.07	35.07	0.00	0.00	35.28
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
High School	24800	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.32	1.32	0.00	0.00	1.33
Junior High School	632400	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	33.75	33.75	0.00	0.00	33.95
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	35.07	35.07	0.00	0.00	35.28

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
High School	24800	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.32	1.32	0.00	0.00	1.33
Junior High School	632400	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	33.75	33.75	0.00	0.00	33.95
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	35.07	35.07	0.00	0.00	35.28

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
High School	23840					8.44	0.00	0.00	8.49
Junior High School	607920					215.30	0.01	0.00	216.41
Parking Lot	0					0.00	0.00	0.00	0.00
Total						223.74	0.01	0.00	224.90

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
High School	23840					8.44	0.00	0.00	8.49
Junior High School	607920					215.30	0.01	0.00	216.41
Parking Lot	0					0.00	0.00	0.00	0.00
Total						223.74	0.01	0.00	224.90

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.74	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.74	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.17					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.57					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.74	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.17					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.57					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.74	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					42.88	0.09	0.00	45.65
Unmitigated					42.88	0.09	0.00	45.65
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
High School	0 / 0					0.00	0.00	0.00	0.00
Junior High School	2.90909 / 7.48051					42.88	0.09	0.00	45.65
Parking Lot	0 / 0					0.00	0.00	0.00	0.00
Total						42.88	0.09	0.00	45.65

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
High School	0 / 0					0.00	0.00	0.00	0.00
Junior High School	2.90909 / 7.48051					42.88	0.09	0.00	45.65
Parking Lot	0 / 0					0.00	0.00	0.00	0.00
Total						42.88	0.09	0.00	45.65

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					44.46	2.63	0.00	99.63
Unmitigated					44.46	2.63	0.00	99.63
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
High School	0					0.00	0.00	0.00	0.00
Junior High School	219					44.46	2.63	0.00	99.63
Parking Lot	0					0.00	0.00	0.00	0.00
Total						44.46	2.63	0.00	99.63

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
High School	0					0.00	0.00	0.00	0.00
Junior High School	219					44.46	2.63	0.00	99.63
Parking Lot	0					0.00	0.00	0.00	0.00
Total						44.46	2.63	0.00	99.63

9.0 Vegetation

SDUHSD Middle School #5
San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
High School	0	Student
Junior High School	1200	Student
Parking Lot	100	Space

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.6 **Utility Company** San Diego Gas & Electric
Climate Zone 13 **Precipitation Freq (Days)** 40

1.3 User Entered Comments

Project Characteristics - The inputs here are based on SDUHSD master plan construction schedule, revised schedule, conservative assumptions.

Land Use - modified and conservative values in acres and sq. ft

Construction Phase - Project construction starts from 06/01/2014. 2 years total construction time was condensed to 1 year and modified (consecutive and no overlap) to be conservative.

Grading - conservatively assume 3100 cu. yd total material imported and exported during grading (22 acres disturbed and 1 inch deep)

Demolition - conservatively assumed 1000 sq ft building got demolition

Construction Off-road Equipment Mitigation - project will do watering 2 times per day and limit the vehicle speed in 15 mph on unpaved road.

Mobile Land Use Mitigation -

Mobile Commute Mitigation - assume 5% families' children will use school bus

Energy Use -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	12.57	104.23	59.55	0.13	86.06	4.69	90.75	6.65	4.65	11.30	0.00	13,405.17	0.00	1.08	0.00	13,427.90
2015	113.28	33.03	28.49	0.06	1.37	2.55	2.96	0.02	2.55	2.55	0.00	5,307.48	0.00	0.45	0.00	5,316.88
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	12.57	104.23	59.55	0.13	79.00	4.69	83.69	3.01	4.65	7.66	0.00	13,405.17	0.00	1.08	0.00	13,427.90
2015	113.28	33.03	28.49	0.06	1.37	2.55	2.96	0.02	2.55	2.55	0.00	5,307.48	0.00	0.45	0.00	5,316.88
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.05	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01		211.83		0.00	0.00	213.12
Mobile	8.92	18.07	84.46	0.13	14.46	0.77	15.23	0.20	0.68	0.88		12,926.45		0.67		12,940.55
Total	12.99	18.25	84.61	0.13	14.46	0.77	15.24	0.20	0.68	0.89		13,138.28		0.67	0.00	13,153.67

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.05	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01		211.83		0.00	0.00	213.12
Mobile	8.88	17.97	84.00	0.13	14.36	0.77	15.13	0.20	0.68	0.88		12,841.15		0.67		12,855.16
Total	12.95	18.15	84.15	0.13	14.36	0.77	15.14	0.20	0.68	0.89		13,052.98		0.67	0.00	13,068.28

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.10	0.00	0.10	0.00	0.00	0.00						0.00
Off-Road	8.39	66.18	41.03	0.07		3.21	3.21		3.21	3.21		7,510.81		0.75		7,526.57
Total	8.39	66.18	41.03	0.07	0.10	3.21	3.31	0.00	3.21	3.21		7,510.81		0.75		7,526.57

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.26	0.12	0.00	0.12	0.01	0.13	0.00	0.01	0.01		41.40		0.00		41.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.08	0.09	0.94	0.00	0.20	0.01	0.20	0.00	0.01	0.01		153.63		0.01		153.83
Total	0.10	0.35	1.06	0.00	0.32	0.02	0.33	0.00	0.02	0.02		195.03		0.01		195.25

3.2 Demolition - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.04	0.00	0.04	0.00	0.00	0.00						0.00
Off-Road	8.39	66.18	41.03	0.07		3.21	3.21		3.21	3.21	0.00	7,510.81		0.75		7,526.57
Total	8.39	66.18	41.03	0.07	0.04	3.21	3.25	0.00	3.21	3.21	0.00	7,510.81		0.75		7,526.57

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.26	0.12	0.00	0.12	0.01	0.13	0.00	0.01	0.01		41.40		0.00		41.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.08	0.09	0.94	0.00	0.20	0.01	0.20	0.00	0.01	0.01		153.63		0.01		153.83
Total	0.10	0.35	1.06	0.00	0.32	0.02	0.33	0.00	0.02	0.02		195.03		0.01		195.25

3.3 Fine Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.84	0.00	12.84	6.62	0.00	6.62						0.00
Off-Road	11.22	90.65	50.83	0.10		4.18	4.18		4.18	4.18		10,856.65		1.00		10,877.72
Total	11.22	90.65	50.83	0.10	12.84	4.18	17.02	6.62	4.18	10.80		10,856.65		1.00		10,877.72

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.13	13.33	6.21	0.02	72.20	0.49	72.69	0.02	0.45	0.48		2,138.84		0.05		2,139.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.22	0.25	2.50	0.00	1.02	0.02	1.04	0.01	0.02	0.02		409.68		0.02		410.20
Total	1.35	13.58	8.71	0.02	73.22	0.51	73.73	0.03	0.47	0.50		2,548.52		0.07		2,550.18

3.3 Fine Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.78	0.00	5.78	2.98	0.00	2.98						0.00
Off-Road	11.22	90.65	50.83	0.10		4.18	4.18		4.18	4.18	0.00	10,856.65		1.00		10,877.72
Total	11.22	90.65	50.83	0.10	5.78	4.18	9.96	2.98	4.18	7.16	0.00	10,856.65		1.00		10,877.72

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.13	13.33	6.21	0.02	72.20	0.49	72.69	0.02	0.45	0.48		2,138.84		0.05		2,139.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.22	0.25	2.50	0.00	1.02	0.02	1.04	0.01	0.02	0.02		409.68		0.02		410.20
Total	1.35	13.58	8.71	0.02	73.22	0.51	73.73	0.03	0.47	0.50		2,548.52		0.07		2,550.18

3.4 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02		4,040.61		0.42		4,049.51
Total	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02		4,040.61		0.42		4,049.51

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.32	3.80	2.16	0.01	0.22	0.12	0.35	0.01	0.11	0.12		655.31		0.02		655.64
Worker	0.34	0.38	3.81	0.01	0.80	0.03	0.82	0.01	0.03	0.04		624.77		0.04		625.56
Total	0.66	4.18	5.97	0.02	1.02	0.15	1.17	0.02	0.14	0.16		1,280.08		0.06		1,281.20

3.4 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02	0.00	4,040.61		0.42		4,049.51
Total	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02	0.00	4,040.61		0.42		4,049.51

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.32	3.80	2.16	0.01	0.22	0.12	0.35	0.01	0.11	0.12		655.31		0.02		655.64
Worker	0.34	0.38	3.81	0.01	0.80	0.03	0.82	0.01	0.03	0.04		624.77		0.04		625.56
Total	0.66	4.18	5.97	0.02	1.02	0.15	1.17	0.02	0.14	0.16		1,280.08		0.06		1,281.20

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81
Total	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.30	3.53	1.99	0.01	0.22	0.12	0.34	0.01	0.11	0.11		656.26		0.01		656.57
Worker	0.32	0.35	3.51	0.01	0.80	0.03	0.82	0.01	0.03	0.04		610.61		0.03		611.34
Total	0.62	3.88	5.50	0.02	1.02	0.15	1.16	0.02	0.14	0.15		1,266.87		0.04		1,267.91

3.4 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81
Total	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.30	3.53	1.99	0.01	0.22	0.12	0.34	0.01	0.11	0.11		656.26		0.01		656.57
Worker	0.32	0.35	3.51	0.01	0.80	0.03	0.82	0.01	0.03	0.04		610.61		0.03		611.34
Total	0.62	3.88	5.50	0.02	1.02	0.15	1.16	0.02	0.14	0.15		1,266.87		0.04		1,267.91

3.5 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.89	30.10	20.54	0.03		2.54	2.54		2.54	2.54		2,917.65		0.44		2,926.87
Paving	0.13					0.00	0.00		0.00	0.00						0.00
Total	5.02	30.10	20.54	0.03		2.54	2.54		2.54	2.54		2,917.65		0.44		2,926.87

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.08	0.09	0.86	0.00	0.20	0.01	0.20	0.00	0.01	0.01		150.15		0.01		150.33
Total	0.08	0.09	0.86	0.00	0.20	0.01	0.20	0.00	0.01	0.01		150.15		0.01		150.33

3.5 Paving - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.89	30.10	20.54	0.03		2.54	2.54		2.54	2.54	0.00	2,917.65		0.44		2,926.87
Paving	0.13					0.00	0.00		0.00	0.00						0.00
Total	5.02	30.10	20.54	0.03		2.54	2.54		2.54	2.54	0.00	2,917.65		0.44		2,926.87

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.08	0.09	0.86	0.00	0.20	0.01	0.20	0.00	0.01	0.01		150.15		0.01		150.33
Total	0.08	0.09	0.86	0.00	0.20	0.01	0.20	0.00	0.01	0.01		150.15		0.01		150.33

3.6 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	112.69					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22		281.19		0.04		281.96
Total	113.10	2.57	1.90	0.00		0.22	0.22		0.22	0.22		281.19		0.04		281.96

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.19	0.20	2.07	0.00	1.37	0.02	1.39	0.01	0.02	0.02		360.36		0.02		360.79
Total	0.19	0.20	2.07	0.00	1.37	0.02	1.39	0.01	0.02	0.02		360.36		0.02		360.79

3.6 Architectural Coating - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	112.69					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22	0.00	281.19		0.04		281.96
Total	113.10	2.57	1.90	0.00		0.22	0.22		0.22	0.22	0.00	281.19		0.04		281.96

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.19	0.20	2.07	0.00	1.37	0.02	1.39	0.01	0.02	0.02		360.36		0.02		360.79
Total	0.19	0.20	2.07	0.00	1.37	0.02	1.39	0.01	0.02	0.02		360.36		0.02		360.79

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Implement School Bus Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.88	17.97	84.00	0.13	14.36	0.77	15.13	0.20	0.68	0.88		12,841.15		0.67		12,855.16
Unmitigated	8.92	18.07	84.46	0.13	14.46	0.77	15.23	0.20	0.68	0.88		12,926.45		0.67		12,940.55
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	0.00	0.00	0.00		
Junior High School	1,944.00	0.00	0.00	3,121,778	3,100,456
Parking Lot	0.00	0.00	0.00		
Total	1,944.00	0.00	0.00	3,121,778	3,100,456

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
High School	9.50	7.30	7.30	77.80	17.20	5.00

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01		211.83		0.00	0.00	213.12
NaturalGas Unmitigated	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01		211.83		0.00	0.00	213.12
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
High School	67.9452	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		7.99		0.00	0.00	8.04
Junior High School	1732.6	0.02	0.17	0.14	0.00		0.00	0.01		0.00	0.01		203.84		0.00	0.00	205.08
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01		211.83		0.00	0.00	213.12

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
High School	0.0679452	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		7.99		0.00	0.00	8.04
Junior High School	1.7326	0.02	0.17	0.14	0.00		0.00	0.01		0.00	0.01		203.84		0.00	0.00	205.08
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01		211.83		0.00	0.00	213.12

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.05	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	4.05	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.93					0.00	0.00		0.00	0.00						0.00
Consumer Products	3.12					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	4.05	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.93					0.00	0.00		0.00	0.00						0.00
Consumer Products	3.12					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	4.05	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

SDUHSD Middle School #5
San Diego Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
High School	0	Student
Junior High School	1200	Student
Parking Lot	100	Space

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Utility Company	San Diego Gas & Electric
Climate Zone	13	Precipitation Freq (Days)	40		

1.3 User Entered Comments

Project Characteristics - The inputs here are based on SDUHSD master plan construction schedule, revised schedule, conservative assumptions.

Land Use - modified and conservative values in acres and sq. ft

Construction Phase - Project construction starts from 06/01/2014. 2 years total construction time was condensed to 1 year and modified (consecutive and no overlap) to be conservative.

Grading - conservatively assume 3100 cu. yd total material imported and exported during grading (22 acres disturbed and 1 inch deep)

Demolition - conservatively assumed 1000 sq ft building got demolition

Construction Off-road Equipment Mitigation - project will do watering 2 times per day and limit the vehicle speed in 15 mph on unpaved road.

Mobile Land Use Mitigation -

Mobile Commute Mitigation - assume 5% families' children will use school bus

Energy Use -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	12.61	104.57	59.98	0.13	86.06	4.69	90.75	6.65	4.65	11.30	0.00	13,362.29	0.00	1.08	0.00	13,385.03
2015	113.30	33.11	28.59	0.06	1.37	2.55	2.96	0.02	2.55	2.55	0.00	5,255.04	0.00	0.45	0.00	5,264.43
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	12.61	104.57	59.98	0.13	79.00	4.69	83.69	3.01	4.65	7.66	0.00	13,362.29	0.00	1.08	0.00	13,385.03
2015	113.30	33.11	28.59	0.06	1.37	2.55	2.96	0.02	2.55	2.55	0.00	5,255.04	0.00	0.45	0.00	5,264.43
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.05	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01		211.83		0.00	0.00	213.12
Mobile	9.52	19.01	84.48	0.12	14.46	0.78	15.24	0.20	0.69	0.89		12,100.91		0.58		12,113.09
Total	13.59	19.19	84.63	0.12	14.46	0.78	15.25	0.20	0.69	0.90		12,312.74		0.58	0.00	12,326.21

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.05	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01		211.83		0.00	0.00	213.12
Mobile	9.48	18.90	84.06	0.12	14.36	0.78	15.14	0.20	0.69	0.89		12,021.14		0.58		12,033.25
Total	13.55	19.08	84.21	0.12	14.36	0.78	15.15	0.20	0.69	0.90		12,232.97		0.58	0.00	12,246.37

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.10	0.00	0.10	0.00	0.00	0.00						0.00
Off-Road	8.39	66.18	41.03	0.07		3.21	3.21		3.21	3.21		7,510.81		0.75		7,526.57
Total	8.39	66.18	41.03	0.07	0.10	3.21	3.31	0.00	3.21	3.21		7,510.81		0.75		7,526.57

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.26	0.13	0.00	0.12	0.01	0.13	0.00	0.01	0.01		41.18		0.00		41.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.10	0.89	0.00	0.20	0.01	0.20	0.00	0.01	0.01		141.82		0.01		142.01
Total	0.11	0.36	1.02	0.00	0.32	0.02	0.33	0.00	0.02	0.02		183.00		0.01		183.21

3.2 Demolition - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.04	0.00	0.04	0.00	0.00	0.00						0.00
Off-Road	8.39	66.18	41.03	0.07		3.21	3.21		3.21	3.21	0.00	7,510.81		0.75		7,526.57
Total	8.39	66.18	41.03	0.07	0.04	3.21	3.25	0.00	3.21	3.21	0.00	7,510.81		0.75		7,526.57

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.02	0.26	0.13	0.00	0.12	0.01	0.13	0.00	0.01	0.01		41.18		0.00		41.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.10	0.89	0.00	0.20	0.01	0.20	0.00	0.01	0.01		141.82		0.01		142.01
Total	0.11	0.36	1.02	0.00	0.32	0.02	0.33	0.00	0.02	0.02		183.00		0.01		183.21

3.3 Fine Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.84	0.00	12.84	6.62	0.00	6.62						0.00
Off-Road	11.22	90.65	50.83	0.10		4.18	4.18		4.18	4.18		10,856.65		1.00		10,877.72
Total	11.22	90.65	50.83	0.10	12.84	4.18	17.02	6.62	4.18	10.80		10,856.65		1.00		10,877.72

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.15	13.64	6.78	0.02	72.20	0.50	72.70	0.02	0.46	0.48		2,127.45		0.06		2,128.63
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.24	0.27	2.37	0.00	1.02	0.02	1.04	0.01	0.02	0.02		378.19		0.02		378.68
Total	1.39	13.91	9.15	0.02	73.22	0.52	73.74	0.03	0.48	0.50		2,505.64		0.08		2,507.31

3.3 Fine Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.78	0.00	5.78	2.98	0.00	2.98						0.00
Off-Road	11.22	90.65	50.83	0.10		4.18	4.18		4.18	4.18	0.00	10,856.65		1.00		10,877.72
Total	11.22	90.65	50.83	0.10	5.78	4.18	9.96	2.98	4.18	7.16	0.00	10,856.65		1.00		10,877.72

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.15	13.64	6.78	0.02	72.20	0.50	72.70	0.02	0.46	0.48		2,127.45		0.06		2,128.63
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.24	0.27	2.37	0.00	1.02	0.02	1.04	0.01	0.02	0.02		378.19		0.02		378.68
Total	1.39	13.91	9.15	0.02	73.22	0.52	73.74	0.03	0.48	0.50		2,505.64		0.08		2,507.31

3.4 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02		4,040.61		0.42		4,049.51
Total	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02		4,040.61		0.42		4,049.51

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.34	3.86	2.45	0.01	0.22	0.13	0.35	0.01	0.12	0.12		650.02		0.02		650.37
Worker	0.37	0.41	3.61	0.01	0.80	0.03	0.82	0.01	0.03	0.04		576.74		0.04		577.49
Total	0.71	4.27	6.06	0.02	1.02	0.16	1.17	0.02	0.15	0.16		1,226.76		0.06		1,227.86

3.4 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02	0.00	4,040.61		0.42		4,049.51
Total	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02	0.00	4,040.61		0.42		4,049.51

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.34	3.86	2.45	0.01	0.22	0.13	0.35	0.01	0.12	0.12		650.02		0.02		650.37
Worker	0.37	0.41	3.61	0.01	0.80	0.03	0.82	0.01	0.03	0.04		576.74		0.04		577.49
Total	0.71	4.27	6.06	0.02	1.02	0.16	1.17	0.02	0.15	0.16		1,226.76		0.06		1,227.86

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81
Total	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.31	3.57	2.28	0.01	0.22	0.12	0.34	0.01	0.11	0.11		650.86		0.02		651.18
Worker	0.34	0.38	3.32	0.01	0.80	0.03	0.82	0.01	0.03	0.04		563.56		0.03		564.26
Total	0.65	3.95	5.60	0.02	1.02	0.15	1.16	0.02	0.14	0.15		1,214.42		0.05		1,215.44

3.4 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81
Total	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.31	3.57	2.28	0.01	0.22	0.12	0.34	0.01	0.11	0.11		650.86		0.02		651.18
Worker	0.34	0.38	3.32	0.01	0.80	0.03	0.82	0.01	0.03	0.04		563.56		0.03		564.26
Total	0.65	3.95	5.60	0.02	1.02	0.15	1.16	0.02	0.14	0.15		1,214.42		0.05		1,215.44

3.5 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.89	30.10	20.54	0.03		2.54	2.54		2.54	2.54		2,917.65		0.44		2,926.87
Paving	0.13					0.00	0.00		0.00	0.00						0.00
Total	5.02	30.10	20.54	0.03		2.54	2.54		2.54	2.54		2,917.65		0.44		2,926.87

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.08	0.09	0.82	0.00	0.20	0.01	0.20	0.00	0.01	0.01		138.58		0.01		138.75
Total	0.08	0.09	0.82	0.00	0.20	0.01	0.20	0.00	0.01	0.01		138.58		0.01		138.75

3.5 Paving - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.89	30.10	20.54	0.03		2.54	2.54		2.54	2.54	0.00	2,917.65		0.44		2,926.87
Paving	0.13					0.00	0.00		0.00	0.00						0.00
Total	5.02	30.10	20.54	0.03		2.54	2.54		2.54	2.54	0.00	2,917.65		0.44		2,926.87

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.08	0.09	0.82	0.00	0.20	0.01	0.20	0.00	0.01	0.01		138.58		0.01		138.75
Total	0.08	0.09	0.82	0.00	0.20	0.01	0.20	0.00	0.01	0.01		138.58		0.01		138.75

3.6 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	112.69					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22		281.19		0.04		281.96
Total	113.10	2.57	1.90	0.00		0.22	0.22		0.22	0.22		281.19		0.04		281.96

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.20	0.22	1.96	0.00	1.37	0.02	1.39	0.01	0.02	0.02		332.59		0.02		333.01
Total	0.20	0.22	1.96	0.00	1.37	0.02	1.39	0.01	0.02	0.02		332.59		0.02		333.01

3.6 Architectural Coating - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	112.69					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22	0.00	281.19		0.04		281.96
Total	113.10	2.57	1.90	0.00		0.22	0.22		0.22	0.22	0.00	281.19		0.04		281.96

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.20	0.22	1.96	0.00	1.37	0.02	1.39	0.01	0.02	0.02		332.59		0.02		333.01
Total	0.20	0.22	1.96	0.00	1.37	0.02	1.39	0.01	0.02	0.02		332.59		0.02		333.01

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Implement School Bus Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.48	18.90	84.06	0.12	14.36	0.78	15.14	0.20	0.69	0.89		12,021.14		0.58		12,033.25
Unmitigated	9.52	19.01	84.48	0.12	14.46	0.78	15.24	0.20	0.69	0.89		12,100.91		0.58		12,113.09
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	0.00	0.00	0.00		
Junior High School	1,944.00	0.00	0.00	3,121,778	3,100,456
Parking Lot	0.00	0.00	0.00		
Total	1,944.00	0.00	0.00	3,121,778	3,100,456

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
High School	9.50	7.30	7.30	77.80	17.20	5.00

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01		211.83		0.00	0.00	213.12
NaturalGas Unmitigated	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01		211.83		0.00	0.00	213.12
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
High School	67.9452	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		7.99		0.00	0.00	8.04
Junior High School	1732.6	0.02	0.17	0.14	0.00		0.00	0.01		0.00	0.01		203.84		0.00	0.00	205.08
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01		211.83		0.00	0.00	213.12

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
High School	0.0679452	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		7.99		0.00	0.00	8.04
Junior High School	1.7326	0.02	0.17	0.14	0.00		0.00	0.01		0.00	0.01		203.84		0.00	0.00	205.08
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01		211.83		0.00	0.00	213.12

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.05	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	4.05	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.93					0.00	0.00		0.00	0.00						0.00
Consumer Products	3.12					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	4.05	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	0.93					0.00	0.00		0.00	0.00							0.00
Consumer Products	3.12					0.00	0.00		0.00	0.00							0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00			0.00
Total	4.05	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00			0.00

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

May 14, 2013

7613-01

Mr. John Addleman
Director of Planning Services
San Dieguito Union High School District
684 Requeza Drive
Encinitas, California 92024

Subject Pacific Highlands Ranch Middle School Project, Noise Assessment

Dear Mr. Addleman:

This report contains our assessment of the noise associated with the Pacific Highlands Ranch Middle School project (Project) located in the City of San Diego. In summary, the Project would construct a new middle school on an eight-acre parcel adjoining the Canyon Crest Academy (CCA) high school in Pacific Highlands Ranch. The New Middle School would be a comprehensive middle school campus with an ultimate capacity of 1,000 students. Classroom buildings would be phased accordingly in two 500-student increments, while administrative and core facilities would be sized to support the full capacity of the ultimate campus. Among the facilities associated with the Project are the construction of a new CCA track, restroom/concession building, and other recreational facilities.

Noise from short-term (construction) and long-term (operational) noise effects related to the project have been analyzed and assessed in terms of the relevant noise standards. Construction noise from project-related construction activities would comply with the City's noise standards and thus would be less than significant. Noise from operational noise (on-site activities as well as off-site project-related traffic) would also be less than significant.

INTRODUCTION AND PROJECT DESCRIPTION

This report evaluates the potential noise impacts associated with the proposed Pacific Highlands Ranch Middle School project (Project) located in the Pacific Highlands Ranch community of the City of San Diego (Figures 1 and 2). The site is bounded on the north by an undeveloped lot designated as a future park site, on the east by State Route 56, and on the south and west by the Canyon Crest Academy High School campus. The project site is accessed via Village Center Loop Road, located to the northwest.

The SDUHSD Master Plan (Lionakis 2011) outlines the development of a 101,230 square foot new middle school on an eight-acre parcel adjoining the CCA in Pacific Highlands Ranch. The

school would be comparable in size and programmatic offerings to the nearby Carmel Valley Middle School, and would serve the students living in Pacific Highlands Ranch and surrounding area, as well as alleviate overcrowding at Carmel Valley Middle School. The vision described within the SDUHSD Master Plan is to create a comprehensive middle school campus with flexible, adaptable facilities that encourage teaching and learning that is responsive to the needs of the user. The goals of the New Middle School are as follows:

- Create a campus with the capacity for 1,000 students with enrollment and construction to be phased to accommodate two 500-student increments.
- Provide a music classroom, art classroom, multi-use room, media center, and a gymnasium with locker rooms.
- Provide facilities and spaces comparable to Carmel Valley Middle School at its reduced enrollment capacity of 1,000 students.
- Provide technology infrastructure to accommodate the increasing number of wireless devices used by students.
- Provide 21st-Century learning environments comparable to those being developed on other middle school campuses in the district.

NOISE CRITERIA

The project is located in the City of San Diego; therefore, the City of San Diego's noise element and noise ordinance criteria are used for this project. The City's noise element is contained within the City of San Diego General Plan (March 2008). The noise land use compatibility standards within the City's noise element are intended to be applicable for land use designations exposed to noise levels generated by transportation-related sources and use the CNEL noise descriptor. The "compatible" (i.e., acceptable without mitigation) exterior noise level standard for Institutional land uses (Hospitals; Nursing Facilities; Intermediate Care Facilities; Kindergarten through Grade 12 Educational Facilities; Libraries; Museums; Places of Worship; Child Care Facilities) and for multifamily residential land uses is 60 dBA CNEL. The City's noise ordinance criteria are contained within the City's Municipal Code Chapter 5 Article 9.5 Noise Abatement and Control (City of San Diego 2010).

City Noise Ordinance

The City's noise limits are in terms of a one-hour average sound level. The allowable noise limits vary according to the land use and time of day. The City's allowable sound level limits for different land uses and time periods are depicted in Table 1. The project site and the land uses south and east of the site are zoned single family residential. Thus, the applicable noise level

limits at the adjacent single family residential land uses are 50 dB between the hours of 7 a.m. to 7 p.m. (daytime), 45 dB between the hours of 7 p.m. to 10 p.m. (evening) and 40 dB between the hours of 10 p.m. and 7 a.m. (nighttime).

Section 59.5.0404 of the City’s noise ordinance restricts the allowable hours of construction activities to 7:00 a.m. through 7:00 p.m., Monday through Saturday excluding legal holidays. Further, the construction noise level is not to exceed an average sound level greater than 75 dB during the 12-hour period between 7:00 a.m. to 7:00 p.m. at residentially zoned property.

Significance Determination Thresholds

Table 1 summarizes the allowable sound levels in the City’s noise ordinance.

Table 1
Allowable Sound Level Limits

Land Use	Time of Day	Applicable Limit One-Hour Average Sound Level (Decibels)
Single Family Residential	7 a.m. to 7 p.m.	50
	7 p.m. to 10 p.m.	45
	10 p.m. to 7 a.m.	40
Multi-Family Residential (Up to a maximum density of 1/2000)	7 a.m. to 7 p.m.	55
	7 p.m. to 10 p.m.	50
	10 p.m. to 7 a.m.	45
All other Residential	7 a.m. to 7 p.m.	60
	7 p.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
Commercial	7 a.m. to 7 p.m.	65
	7 p.m. to 10 p.m.	60
	10 p.m. to 7 a.m.	60
Industrial or Agricultural	Anytime	75

Source: City of San Diego Municipal Code 2010

EXISTING CONDITIONS

Noise

Noise sources in the vicinity of the project site include traffic along State Route 56 (SR-56), located to the east of the Project site. Noise is also generated by students and activities at the existing Canyon Crest Academy High School, located to the south and west of the Project site, and by distant aircraft (most likely from Marine Corps Air Station Miramar, located

approximately 6.5 miles to the south). Existing noise sensitive receptors in the area consist of multifamily residences located north of the site (beyond the future park site), as well as students at Canyon Crest Academy.

Ambient Noise Levels

Three noise measurements were conducted in and around the project site to determine the approximate typical daytime ambient noise levels in the area. The measurement locations are shown in Figure 4. The noise measurements were made between the hours of 11:00 a.m. and 12:35 p.m. on May 8, 2013. Noise measurements were conducted on the adjacent Canyon Crest Academy/future Fitness Course and Track/Soccer Field (NM1), on the eastern edge of the proposed Project site adjacent to SR-56 (NM2), and adjacent to Carmel Valley Road south of Village Center Loop Road (NM3).

The measured ambient noise level on-site, with varying degrees of student activity outside on the Canyon Crest Academy campus (NM1), was 49.3 dBA Leq. This noise levels is considered to be typical of quiet urban daytime levels as indicated in Table 2. The measured noise level adjacent to SR-56 (NM2) was 68.9 dBA Leq, and the measured noise level adjacent to Carmel Valley Road was 64.5 dBA Leq.

**Table 2
Typical Sound Levels Measured in the Environment and Industry**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library

Table 2
Typical Sound Levels Measured in the Environment and Industry

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Quiet rural nighttime		Bedroom at night, concert
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 1998.

IMPACT ANALYSIS

Noise

Noise associated with the proposed project would include short-term construction noise, as well as noise from daily outdoor activities, and noise from project-related vehicle trips on local arterial roadways.

Short-Term Construction Activities

The first phase of construction for the New Middle School is proposed to be completed by 2015, while the construction of the second phase is expected to be completed in late 2019. Approximately 15 to 20 workers would be traveling to and from the project site during a typical work day. This would be a negligible amount of additional traffic on local arterials and would not result in an audible change in traffic noise. No blasting, pile driving or other special construction techniques are anticipated as part of this project.

Construction noise is difficult to quantify because of the many variables involved including the size of equipment used, percentage of time and number of pieces of equipment which will actually operate on the site. However, maximum construction noise levels at 50 feet would range from approximately 75 to 85 dBA for the type of equipment expected to be used for this project. The maximum noise levels associated with various pieces of construction equipment are depicted in Figure 5. Construction noise typically attenuates at approximately 6 dB per doubling of distance. Thus, the maximum noise level would be approximately 69 to 79 dBA at 100 feet, 63 to 73 dBA at 200 feet, and so on.

During construction of the Middle School campus, construction activities are predicted to generate a maximum hourly average noise level of approximately 60 dBA at the closest existing residences to the north of the site, and approximately 61 dBA at the nearest

classrooms and recreation areas at the CCA campus. All construction activity would comply with the City's allowable hours for construction. During this time period the construction equipment would generate a 12-hour average noise level of up to approximately 60 dB or less at the closest existing residences to the north of the site. The construction noise level would comply with the City's 75 dB 12-hour average sound level criterion. Thus, the noise impact would be less than significant.

Sporting/Recreational Activity Noise

Sports and recreational activities at the Middle School would be limited to weekday, classroom hours (approximately 8:00 a.m. until 3:00 p.m.). There would be no bleachers, Public Address system, lights, or weekend events. On-site facilities would include hard-courts, a running track and soccer field.

Organized Sports would generate noise due to players, referees, cheerleaders, and coaches. Individuals may use "raised" voices (65 dBA at 3.28 feet), "loud" voices (75 dBA at 3.28 feet), and mechanical whistles (82 dBA at 100 feet). Calculating the effect of 28 raised voices, 15 loud voices, and one whistle at a distance of 1,100 feet (the distance to nearest residence from the track/soccer field) yields noise levels of 29, 36, and 61 dBA, respectively.

Assuming 5 decibels noise reduction¹ from the intervening proposed Middle School buildings, the noise at the nearest residences from the organized sports/recreational noise would range from approximately 24–31 dBA (raised and loud voices) to approximately 56 dBA (occasional whistle blows). The noise from the outdoor activities may be audible at times, but would generally be well below the existing ambient noise levels and would be lower than the City's noise ordinance standard for multifamily residences. Therefore the noise from outdoor activities would be less than significant.

Off-Site Project-Related Traffic

The project's traffic study prepared by Darnell & Associates (2013) was used to determine potential traffic impacts from the proposed project. The traffic study evaluated operational traffic impacts broken down by phase of the proposed school on the surrounding land uses. Traffic noise levels were analyzed using the FHWA's Traffic Noise Model (TNM), version 2.5. TNM analyzes traffic noise based on number of vehicles, traffic mix (automobiles, medium trucks, and heavy trucks), project site geometry with respect to roadways, shielding from structures such as

¹ The minimum amount of noise reduction provided by a solid barrier blocking the line-of-sight between a source and a receiver is 5 decibels.

walls or buildings, and other parameters. Using the traffic study’s estimated peak-hour traffic volumes, TNM calculates noise levels in terms of the peak hour Leq noise level for modeled receivers. To determine the corresponding CNEL, the peak hour noise levels were input into an Excel spreadsheet which models diurnal traffic patterns.

Table 3 provides the modeled dBA CNEL noise levels for modeled receivers for Existing, Existing plus Project (phases 1 and 2), Existing plus Cumulative projects, and Existing plus Project (phases 1 and 2) plus Cumulative Projects.

**Table 3
Predicted Off-Site Exterior Traffic Noise Levels with and without the Project**

Receiver	Receiver Location	Modeled1 Existing Noise Level (dBA CNEL)	Modeled1 Existing plus Project Noise Level (dBA CNEL)	Difference (dBA)	Modeled Existing + Cumulative Projects Noise Level (dBA CNEL)	Modeled Existing + Project + Cumulative Projects Noise Level (dBA CNEL)	Difference (dBA)
R1	Residences NW of Carmel Valley Rd/ Del Mar Heights Rd	58	58	0	58	59	1
R2	Canyon Crest Academy	57	57	0	57	58	1
R3	Multi-Family Residences	57	58	1	57	58	1
R4	Project Site near Village Loop Drive	58	59	1	59	59	0
R5	Project Site near SR-56	62	62	0	63	63	0

As shown in Table 3-20, the project’s traffic noise contribution would result in a zero to one decibel traffic increase, when rounded to the whole decibel. A change in noise levels of one dB or less is generally not audible in the community environment. Therefore, off-site noise impacts associated with project-related traffic would be less than significant.

Noise levels from motor vehicle traffic at receivers R1 through R4 are predicted to not exceed the City’s noise standard for transportation noise of 60 dBA CNEL. At receiver R5², the future noise level either with or without the project is predicted to be 63 dBA CNEL. The City’s

² Receiver R5 was modeled at a distance from SR-56, which is approximately equivalent to the nearest proposed school building façade.

Mr. John Addleman

Subject Pacific Highlands Ranch Middle School Project, Noise Assessment

General Plan Noise Element categorizes institutional land uses (including middle schools) as being “compatible” with noise levels of 60 dBA CNEL or lower, and “conditionally compatible” with noise levels of 60–65 dBA CNEL. For land uses indicated as “conditionally compatible,” structures must be capable of attenuating exterior noise levels to the appropriate interior noise level (in this case, 45 dBA CNEL). In order to achieve an interior noise level of 45 dBA CNEL, the building structure would need to provide a minimum of 18 decibels noise reduction. Modern structures typically provide a minimum of 20 decibels noise reduction provided doors and windows are closed, and generally achieve performance levels well above this without the use of special materials or construction techniques (USEPA, 1974). With the provision of adequate mechanical ventilation to permit doors and windows to remain closed (as detailed in the Mitigation Measures section below), noise from the adjacent SR-56 at on-site uses would be less than significant.

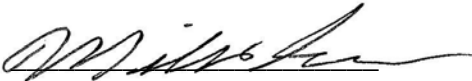
MITIGATION

In order to ensure that noise from traffic does not exceed applicable City of San Diego noise standards, the following mitigation measure is provided:

1. For classroom buildings located within 350 feet of the SR-56 right of way, adequate mechanical ventilation shall be provided to allow doors and windows to remain shut during school hours.

This concludes our noise assessment. If you have any questions, please give me a call or email.

Sincerely,



Mike Greene, INCE Bd. Cert.
Environmental Specialist/Acoustician

*Att: Attachment 1, Acoustical Definitions
Attachment 2, Input/Output Noise Data*

Mr. John Addleman

Subject Pacific Highlands Ranch Middle School Project, Noise Assessment

REFERENCES

City of San Diego. 2010. *City of San Diego Municipal Code, Chapter 5 Article 9.5: Noise Abatement and Control*.

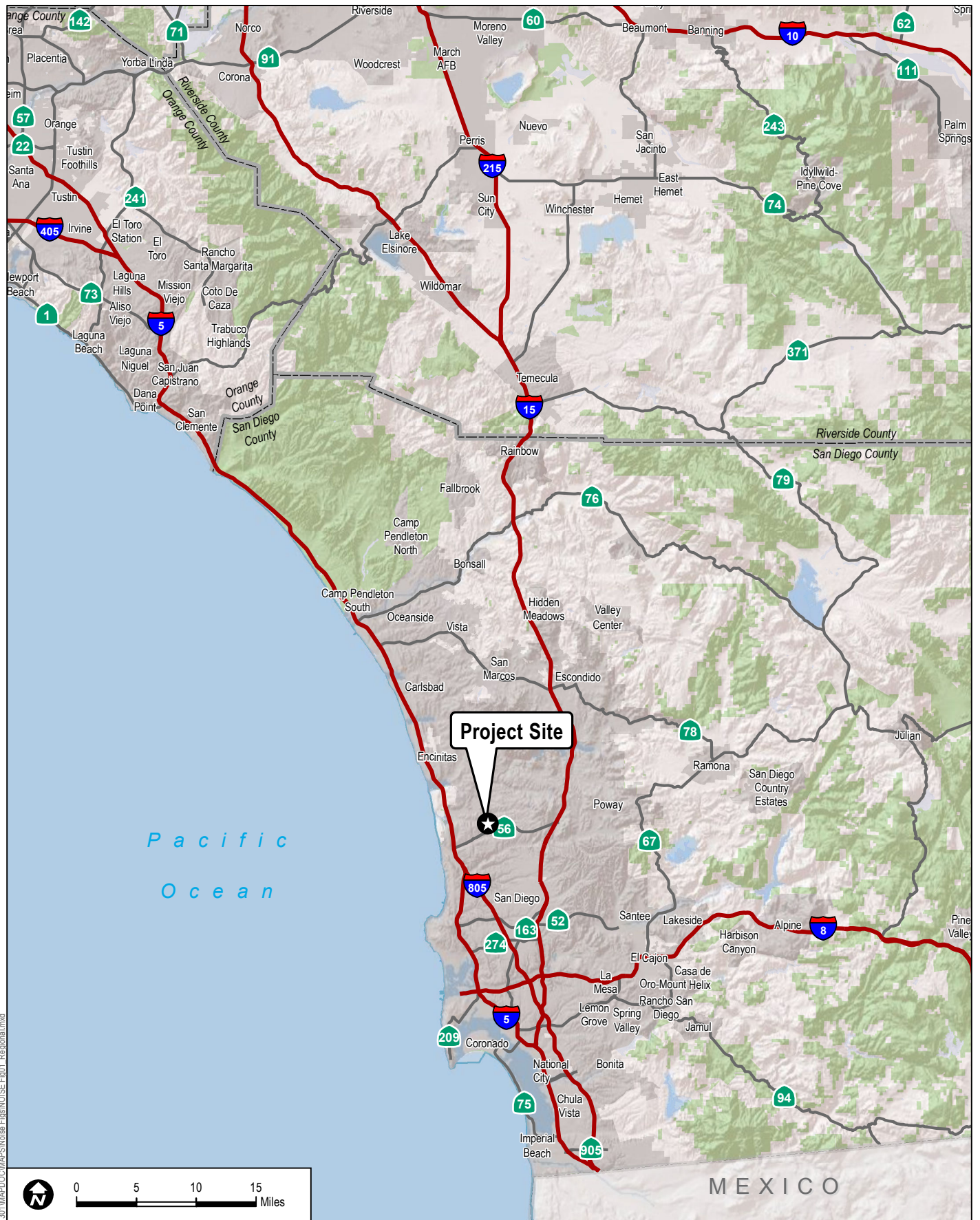
City of San Diego. 2008. *City of San Diego General Plan, Noise Element*. San Diego, California. March.

Darnell & Associates, Inc. 2013. Pacific Highlands Ranch Middle School Project Traffic Figures. San Diego, California. April.

Federal Highway Administration (FHWA). 2004. FHWA Traffic Noise Model, Version 2.5. Office of Environment and Planning. Washington, DC. February.

URS Corporation. 2001. Suncoast Family YMCAs, Inc: Noise Study for YMCA Omni Center and Sports Complex. Santa Ana, California. January.

U.S. Environmental Protection Agency (USEPA), 1974. *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, EPA/ONAC 550/9-74-004. Washington, DC. March.



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DUDEK

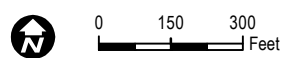
7613

Pacific Highlands Ranch Middle School Project Noise Assessment

FIGURE 1
Regional Location



 Project Site



DUDEK

AERIAL SOURCE: BING MAPPING SERVICE

FIGURE 2
Local Vicinity Map

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Site Plan

DUDEK

SOURCE: LIONAKIS 2011

6973-01
AUGUST 2011

Pacific Highlands Ranch Middle School Project Noise Assessment

FIGURE 3
Site Plan

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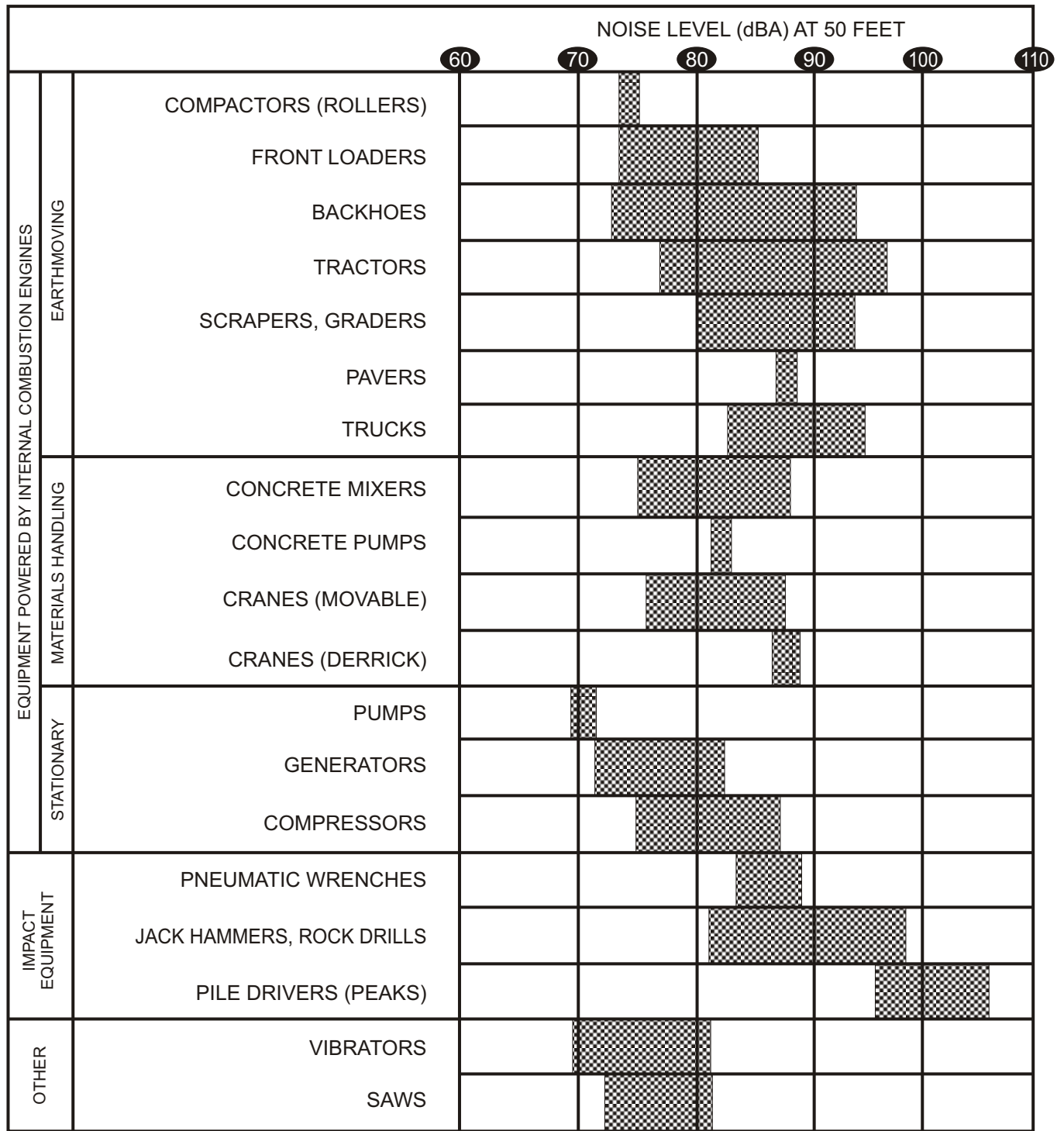
● Noise Measurement Location
 Project Site
 0 150 300 Feet

DUDEK

AERIAL SOURCE: BING MAPPING SERVICE

FIGURE 4

Noise Measurement Locations



NOTE: Based on limited available data samples.

SOURCE: EPA PB 206717, Environmental Protection Agency, Dec. 31, 1971, "Noise from Construction Equipment & Operations"

ATTACHMENT 1
Acoustical Definitions

ATTACHMENT 1

Acoustical Definitions

Term	Definition
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
A-Weighted Sound Level	The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Day Night Average Sound Level	The Day-Night Average Sound Level (Ldn) is the A-weighted equivalent continuous sound exposure level for a 24-hour period with a ten dB adjustment added to sound levels occurring during nighttime hours (10 pm to 7 am).
Decibel	The decibel (dB) is a unit for measuring sound pressure level and is equal to 10 times the logarithm to the base 10 of the ratio of the measured sound pressure squared to a reference pressure, which is 20 micropascals.
Equivalent Continuous Sound Level	The equivalent continuous sound level (Leq) is the sound level corresponding to a steady state level containing the same total energy as a time varying signal over a given sample period. Leq is designed to average all of the loud and quiet sound levels occurring over a time period.

ATTACHMENT 2
Input/Output Noise Data

ATTACHMENT 2
Input/Output Noise Data

Typical Const. txt
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 05/14/2013
Case Description: Typical Construction Scenario

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Residences to the north	Residential	50.0	45.0	40.0

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	600.0	0.0
Concrete Mixer Truck	No	40		78.8	600.0	0.0
Concrete Pump Truck	No	20		81.4	600.0	0.0
Flat Bed Truck	No	40		74.3	600.0	0.0

Results

Noise Limit Exceedance (dBA)			Noise Limits (dBA)						
Night	Day	Calculated (dBA)		Day Night		Evening			
		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	
Dozer		60.1	56.1	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Concrete Mixer Truck		57.2	53.2	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Concrete Pump Truck		59.8	52.8	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Flat Bed Truck		52.7	48.7	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Total	60.1	59.5	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

**** Receptor #2 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Park Site to the north	Residential	50.0	45.0	40.0

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)

		Typical Const. txt			
Dozer	No	40	81.7	250.0	0.0
Concrete Mixer Truck	No	40	78.8	250.0	0.0
Concrete Pump Truck	No	20	81.4	250.0	0.0
Flat Bed Truck	No	40	74.3	250.0	0.0

Results

Noise Limit Exceedance (dBA)

Noise Limits (dBA)

Night	Day	Calculated (dBA)		Day Night		Evening		
		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Dozer		67.7	63.7	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck		64.8	60.8	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck		67.4	60.4	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck		60.3	56.3	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	67.7	67.1	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Description	Baselines (dBA)		Evening	Night
	Land Use	Daytime		
School Classrooms to the west	Residential	50.0	45.0	40.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40	81.7	81.7	500.0	0.0
Concrete Mixer Truck	No	40	78.8	78.8	500.0	0.0
Concrete Pump Truck	No	20	81.4	81.4	500.0	0.0
Flat Bed Truck	No	40	74.3	74.3	500.0	0.0

Results

Noise Limit Exceedance (dBA)

Noise Limits (dBA)

Night	Day	Calculated (dBA)		Day Night		Evening		
		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax

Leq	Lmax	Leq	Lmax	Typical Const. txt					
				Leq	Lmax	Leq			
Dozer			61.7	57.7	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Concrete Mixer Truck			58.8	54.8	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Concrete Pump Truck			61.4	54.4	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Flat Bed Truck			54.3	50.3	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A			
		Total	61.7	61.1	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A			

INPUT: ROADWAYS

<Project Name?>

Dudek					14 May 2013					
Mike Greene					TNM 2.5					

INPUT: ROADWAYS
PROJECT/CONTRACT: <Project Name?>
RUN: PHR Middle School - Existing

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway Name	Width	Points			Coordinates (pavement)			Flow Control		Segment		
		Name	No.		X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft				ft	ft	ft		mph	%		
Del Mar Hts Rd EB - w of Carmel Vily Rd	55.0	point1	1		100.0	975.0	100.00				Average	
		point2	2		5,000.0	975.0	100.00					
Rancho Santa Fe Rd SB n of SM Blvd	55.0	point7	7		4,980.0	970.0	100.00				Average	
		point6	6		4,980.0	100.0	100.00					
Village Loop Dr WB - e of Proj Access 1	55.0	point10	10		20,000.0	1,025.0	100.00				Average	
		point11	11		15,000.0	1,025.0	100.00					
SB Proj Access 2 - s of Village Loop Dr	30.0	point16	16		9,980.0	970.0	100.00				Average	
		point15	15		9,980.0	100.0	100.00					
Rancho Santa Fe Road NB s of SM Blvd	55.0	point21	21		5,020.0	100.0	100.00				Average	
		point22	22		5,020.0	970.0	100.00					
Rancho Santa Fe Road NB n of SM Blvd	55.0	point23	23		5,020.0	1,030.0	100.00				Average	
		point24	24		5,020.0	2,000.0	100.00					
Rancho Santa Fe Road SB n of SM Blvd	55.0	point26	26		4,980.0	2,000.0	100.00				Average	
		point25	25		4,980.0	1,030.0	100.00					
NB Proj Access 2 - s of Village Loop Dr	30.0	point29	29		10,020.0	100.0	100.00				Average	
		point30	30		10,020.0	970.0	100.00					
NB Proj Access 1 - s of Village Loop Dr	30.0	point35	35		15,020.0	100.0	100.00				Average	
		point36	36		15,020.0	970.0	100.00					
SB Proj Access 1 - s of Village Loop Dr	30.0	point37	37		14,980.0	970.0	100.00				Average	
		point38	38		14,980.0	100.0	100.00					
Village Loop Dr EB - w of Proj Access 2	55.0	point39	39		5,000.0	975.0	100.00				Average	
		point3	3		10,000.0	975.0	100.00					
Del Mar Hts Rd WB -w of Carmel Vily Rd	55.0	point40	40		5,000.0	1,025.0	100.00				Average	
		point14	14		100.0	1,025.0	100.00					
Village Loop Dr EB - e of Proj Access 2	55.0	point41	41		10,000.0	975.0	100.00				Average	

INPUT: ROADWAYS

<Project Name?>

		point4	4	15,000.0	975.0	100.00					
Village Loop Dr WB -w of Proj Access 2	55.0	point42	42	10,000.0	1,025.0	100.00				Average	
		point13	13	5,000.0	1,025.0	100.00					
Village Loop Dr EB - e of Proj Access 1	55.0	point43	43	15,000.0	975.0	100.00				Average	
		point5	5	20,000.0	975.0	100.00					
Village Loop Dr WB - e of Proj Access 2	55.0	point44	44	15,000.0	1,025.0	100.00				Average	
		point12	12	10,000.0	1,025.0	100.00					
SR-56 SB	40.0	point45	45	5,000.0	-310.0	100.00				Average	
		point46	46	15,000.0	-310.0	100.00					
SR-56 NB	40.0	point47	47	5,000.0	-420.0	100.00				Average	
		point48	48	15,000.0	-420.0	100.00					

INPUT: TRAFFIC FOR LAeq1h Percentages

<Project Name?>

	point14	14											
Village Loop Dr EB - e of Proj Access 2	point41	41	149	95	35	4	35	1	35	0	0	0	0
	point4	4											
Village Loop Dr WB -w of Proj Access 2	point42	42	548	95	35	4	35	1	35	0	0	0	0
	point13	13											
Village Loop Dr EB - e of Proj Access 1	point43	43	255	95	35	4	35	1	35	0	0	0	0
	point5	5											
Village Loop Dr WB - e of Proj Access 2	point44	44	210	95	35	4	35	1	35	0	0	0	0
	point12	12											
SR-56 SB	point45	45	3263	95	65	2	65	2	65	0	0	1	65
	point46	46											
SR-56 NB	point47	47	3263	95	65	2	65	2	65	0	0	1	65
	point48	48											

INPUT: BARRIERS

<Project Name?>

Dudek					14 May 2013												
Mike Greene					TNM 2.5												
INPUT: BARRIERS																	
PROJECT/CONTRACT: <Project Name?>																	
RUN: PHR Middle School - Existing																	

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	\$ per	\$ per	Top	Run:Rise	\$ per			X	Y	Z	at	Seg	Ht	Perturbs	On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
		ft	ft	Area	Vol.			Length			ft	ft	ft	ft	ment				tions?
				\$/sq ft	\$/cu yd	ft	ft:ft	\$/ft							ft				
Barrier1	W	0.00	99.99	0.00				0.00	point1	1	4,500.0	1,080.0	110.00	6.00	0.00	0	0		
									point2	2	4,920.0	1,080.0	110.00	6.00	0.00	0	0		
									point3	3	4,920.0	1,500.0	110.00	6.00					

INPUT: TERRAIN LINES

Dudek			14 May 2013	
Mike Greene			TNM 2.5	
INPUT: TERRAIN LINES				
PROJECT/CONTRACT:	<Project Name?>			
RUN:	PHR Middle School - Existing			
Terrain Line	Points			
Name	No.	Coordinates (ground)		
		X	Y	Z
		ft	ft	ft
Terrain Line2	2	5,000.0	-230.0	105.00
	3	15,000.0	-230.0	105.00

<Project Name?>

RESULTS: SOUND LEVELS

<Project Name?>

Dudek													14 May 2013
Mike Greene													TNM 2.5
													Calculated with TNM 2.5
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT: <Project Name?>													
RUN: PHR Middle School - Existing													
BARRIER DESIGN: INPUT HEIGHTS													
Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.													
ATMOSPHERICS: 68 deg F, 50% RH													
Receiver													
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction			
										Calculated	Goal	Calculated minus Goal	
			dB	dB	dB	dB	dB		dB	dB	dB	dB	
R1 Resi NW of CrmIVlly Rd/ DelMarHts	1	1	0.0	57.9	66	57.9	10	----	57.9	0.0	8	-8.0	
R2 Cnyn Crest Academy	2	1	0.0	56.5	66	56.5	10	----	56.5	0.0	8	-8.0	
R3 MultiFamlyRes's	5	1	0.0	57.0	66	57.0	10	----	57.0	0.0	8	-8.0	
R4 Project Site	7	1	0.0	57.9	66	57.9	10	----	57.9	0.0	8	-8.0	
R5 Project Site near SR-56	9	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0	
Dwelling Units		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		5	0.0	0.0	0.0								
All Impacted		0	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

INPUT: ROADWAYS

<Project Name?>

		point4	4	15,000.0	975.0	100.00					
Village Loop Dr WB -w of Proj Access 2	55.0	point42	42	10,000.0	1,025.0	100.00				Average	
		point13	13	5,000.0	1,025.0	100.00					
Village Loop Dr EB - e of Proj Access 1	55.0	point43	43	15,000.0	975.0	100.00				Average	
		point5	5	20,000.0	975.0	100.00					
Village Loop Dr WB - e of Proj Access 2	55.0	point44	44	15,000.0	1,025.0	100.00				Average	
		point12	12	10,000.0	1,025.0	100.00					
SR-56 SB	40.0	point45	45	5,000.0	-310.0	100.00				Average	
		point46	46	15,000.0	-310.0	100.00					
SR-56 NB	40.0	point47	47	5,000.0	-420.0	100.00				Average	
		point48	48	15,000.0	-420.0	100.00					

INPUT: TRAFFIC FOR LAeq1h Percentages

<Project Name?>

	point14	14											
Village Loop Dr EB - e of Proj Access 2	point41	41	159	95	35	4	35	1	35	0	0	0	0
	point4	4											
Village Loop Dr WB -w of Proj Access 2	point42	42	742	95	35	4	35	1	35	0	0	0	0
	point13	13											
Village Loop Dr EB - e of Proj Access 1	point43	43	332	95	35	4	35	1	35	0	0	0	0
	point5	5											
Village Loop Dr WB - e of Proj Access 2	point44	44	225	95	35	4	35	1	35	0	0	0	0
	point12	12											
SR-56 SB	point45	45	3263	95	65	2	65	2	65	0	0	1	65
	point46	46											
SR-56 NB	point47	47	3263	95	65	2	65	2	65	0	0	1	65
	point48	48											

INPUT: TERRAIN LINES

Dudek			14 May 2013	
Mike Greene			TNM 2.5	
INPUT: TERRAIN LINES				
PROJECT/CONTRACT:	<Project Name?>			
RUN:	PHR Middle School - Existing plus Project			
Terrain Line	Points			
Name	No.	Coordinates (ground)		
		X	Y	Z
		ft	ft	ft
Terrain Line2	2	5,000.0	-230.0	105.00
	3	15,000.0	-230.0	105.00

<Project Name?>

INPUT: RECEIVERS

<Project Name?>

Dudek							14 May 2013					
Mike Greene							TNM 2.5					
INPUT: RECEIVERS												
PROJECT/CONTRACT:		<Project Name?>										
RUN:		PHR Middle School - Existing plus Project										
Receiver												
Name	No.	#DUs	Coordinates (ground)			Height	Input Sound Levels and Criteria				Active	
			X	Y	Z		above	Existing	Impact Criteria			NR
						Ground	L _{Aeq} 1h	L _{Aeq} 1h	Sub'l	Goal	in	
			ft	ft	ft	ft	dBA	dBA	dB	dB	Calc.	
R1 Resi NW of CrmIVlly Rd/ DelMarHts	1	1	4,880.0	1,120.0	110.00	5.00	0.00	66	10.0	8.0	Y	
R2 Cnyn Crest Academy	2	1	9,500.0	700.0	100.00	5.00	0.00	66	10.0	8.0	Y	
R3 MultiFamilyRes's	5	1	15,200.0	800.0	100.00	5.00	0.00	66	10.0	8.0	Y	
R4 Project Site	7	1	10,200.0	850.0	100.00	5.00	0.00	66	10.0	8.0	Y	
R5 Project Site near SR-56	9	1	11,000.0	-100.0	100.00	5.00	0.00	66	10.0	8.0	Y	

INPUT: ROADWAYS

<Project Name?>

Dudek					14 May 2013					
Mike Greene					TNM 2.5					

INPUT: ROADWAYS
 PROJECT/CONTRACT: <Project Name?>
 RUN: PHR Middle School - Fut No Project

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway	Width	Points	No.	Coordinates (pavement)			Flow Control			Segment	
Name		Name		X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Del Mar Hts Rd EB - w of Carmel Vily Rd	55.0	point1	1	100.0	975.0	100.00				Average	
		point2	2	5,000.0	975.0	100.00					
Rancho Santa Fe Rd SB n of SM Blvd	55.0	point7	7	4,980.0	970.0	100.00				Average	
		point6	6	4,980.0	100.0	100.00					
Village Loop Dr WB - e of Proj Access 1	55.0	point10	10	20,000.0	1,025.0	100.00				Average	
		point11	11	15,000.0	1,025.0	100.00					
SB Proj Access 2 - s of Village Loop Dr	30.0	point16	16	9,980.0	970.0	100.00				Average	
		point15	15	9,980.0	100.0	100.00					
Rancho Santa Fe Road NB s of SM Blvd	55.0	point21	21	5,020.0	100.0	100.00				Average	
		point22	22	5,020.0	970.0	100.00					
Rancho Santa Fe Road NB n of SM Blvd	55.0	point23	23	5,020.0	1,030.0	100.00				Average	
		point24	24	5,020.0	2,000.0	100.00					
Rancho Santa Fe Road SB n of SM Blvd	55.0	point26	26	4,980.0	2,000.0	100.00				Average	
		point25	25	4,980.0	1,030.0	100.00					
NB Proj Access 2 - s of Village Loop Dr	30.0	point29	29	10,020.0	100.0	100.00				Average	
		point30	30	10,020.0	970.0	100.00					
NB Proj Access 1 - s of Village Loop Dr	30.0	point35	35	15,020.0	100.0	100.00				Average	
		point36	36	15,020.0	970.0	100.00					
SB Proj Access 1 - s of Village Loop Dr	30.0	point37	37	14,980.0	970.0	100.00				Average	
		point38	38	14,980.0	100.0	100.00					
Village Loop Dr EB - w of Proj Access 2	55.0	point39	39	5,000.0	975.0	100.00				Average	
		point3	3	10,000.0	975.0	100.00					
Del Mar Hts Rd WB -w of Carmel Vily Rd	55.0	point40	40	5,000.0	1,025.0	100.00				Average	
		point14	14	100.0	1,025.0	100.00					
Village Loop Dr EB - e of Proj Access 2	55.0	point41	41	10,000.0	975.0	100.00				Average	

INPUT: ROADWAYS

<Project Name?>

		point4	4	15,000.0	975.0	100.00					
Village Loop Dr WB -w of Proj Access 2	55.0	point42	42	10,000.0	1,025.0	100.00				Average	
		point13	13	5,000.0	1,025.0	100.00					
Village Loop Dr EB - e of Proj Access 1	55.0	point43	43	15,000.0	975.0	100.00				Average	
		point5	5	20,000.0	975.0	100.00					
Village Loop Dr WB - e of Proj Access 2	55.0	point44	44	15,000.0	1,025.0	100.00				Average	
		point12	12	10,000.0	1,025.0	100.00					
SR-56 SB	40.0	point45	45	5,000.0	-310.0	100.00				Average	
		point46	46	15,000.0	-310.0	100.00					
SR-56 NB	40.0	point47	47	5,000.0	-420.0	100.00				Average	
		point48	48	15,000.0	-420.0	100.00					

INPUT: TRAFFIC FOR LAeq1h Percentages

<Project Name?>

	point14	14											
Village Loop Dr EB - e of Proj Access 2	point41	41	149	95	35	4	35	1	35	0	0	0	0
	point4	4											
Village Loop Dr WB -w of Proj Access 2	point42	42	635	95	35	4	35	1	35	0	0	0	0
	point13	13											
Village Loop Dr EB - e of Proj Access 1	point43	43	275	95	35	4	35	1	35	0	0	0	0
	point5	5											
Village Loop Dr WB - e of Proj Access 2	point44	44	224	95	35	4	35	1	35	0	0	0	0
	point12	12											
SR-56 SB	point45	45	4505	95	65	2	65	2	65	0	0	1	65
	point46	46											
SR-56 NB	point47	47	4505	95	65	2	65	2	65	0	0	1	65
	point48	48											

INPUT: TERRAIN LINES

Dudek			14 May 2013	
Mike Greene			TNM 2.5	
INPUT: TERRAIN LINES				
PROJECT/CONTRACT:	<Project Name?>			
RUN:	PHR Middle School - Fut No Project			
Terrain Line	Points			
Name	No.	Coordinates (ground)		
		X	Y	Z
		ft	ft	ft
Terrain Line1	1	5,000.0	-230.0	105.00
	2	15,000.0	-230.0	105.00

<Project Name?>

INPUT: ROADWAYS

<Project Name?>

Dudek					14 May 2013					
Mike Greene					TNM 2.5					

INPUT: ROADWAYS
PROJECT/CONTRACT: <Project Name?>
RUN: PHR Middle School - Fut w Project

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway Name	Width	Points			Coordinates (pavement)			Flow Control		Segment		
		Name	No.		X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft				ft	ft	ft		mph	%		
Del Mar Hts Rd EB - w of Carmel Vily Rd	55.0	point1	1		100.0	975.0	100.00				Average	
		point2	2		5,000.0	975.0	100.00					
Rancho Santa Fe Rd SB n of SM Blvd	55.0	point7	7		4,980.0	970.0	100.00				Average	
		point6	6		4,980.0	100.0	100.00					
Village Loop Dr WB - e of Proj Access 1	55.0	point10	10		20,000.0	1,025.0	100.00				Average	
		point11	11		15,000.0	1,025.0	100.00					
SB Proj Access 2 - s of Village Loop Dr	30.0	point16	16		9,980.0	970.0	100.00				Average	
		point15	15		9,980.0	100.0	100.00					
Rancho Santa Fe Road NB s of SM Blvd	55.0	point21	21		5,020.0	100.0	100.00				Average	
		point22	22		5,020.0	970.0	100.00					
Rancho Santa Fe Road NB n of SM Blvd	55.0	point23	23		5,020.0	1,030.0	100.00				Average	
		point24	24		5,020.0	2,000.0	100.00					
Rancho Santa Fe Road SB n of SM Blvd	55.0	point26	26		4,980.0	2,000.0	100.00				Average	
		point25	25		4,980.0	1,030.0	100.00					
NB Proj Access 2 - s of Village Loop Dr	30.0	point29	29		10,020.0	100.0	100.00				Average	
		point30	30		10,020.0	970.0	100.00					
NB Proj Access 1 - s of Village Loop Dr	30.0	point35	35		15,020.0	100.0	100.00				Average	
		point36	36		15,020.0	970.0	100.00					
SB Proj Access 1 - s of Village Loop Dr	30.0	point37	37		14,980.0	970.0	100.00				Average	
		point38	38		14,980.0	100.0	100.00					
Village Loop Dr EB - w of Proj Access 2	55.0	point39	39		5,000.0	975.0	100.00				Average	
		point3	3		10,000.0	975.0	100.00					
Del Mar Hts Rd WB -w of Carmel Vily Rd	55.0	point40	40		5,000.0	1,025.0	100.00				Average	
		point14	14		100.0	1,025.0	100.00					
Village Loop Dr EB - e of Proj Access 2	55.0	point41	41		10,000.0	975.0	100.00				Average	

INPUT: ROADWAYS

<Project Name?>

		point4	4	15,000.0	975.0	100.00					
Village Loop Dr WB -w of Proj Access 2	55.0	point42	42	10,000.0	1,025.0	100.00				Average	
		point13	13	5,000.0	1,025.0	100.00					
Village Loop Dr EB - e of Proj Access 1	55.0	point43	43	15,000.0	975.0	100.00				Average	
		point5	5	20,000.0	975.0	100.00					
Village Loop Dr WB - e of Proj Access 2	55.0	point44	44	15,000.0	1,025.0	100.00				Average	
		point12	12	10,000.0	1,025.0	100.00					
SR-56 SB	40.0	point45	45	5,000.0	-310.0	100.00				Average	
		point46	46	15,000.0	-310.0	100.00					
SR-56 NB	40.0	point47	47	5,000.0	-420.0	100.00				Average	
		point48	48	15,000.0	-420.0	100.00					

INPUT: TRAFFIC FOR LAeq1h Percentages

<Project Name?>

	point14	14											
Village Loop Dr EB - e of Proj Access 2	point41	41	159	95	35	4	35	1	35	0	0	0	0
	point4	4											
Village Loop Dr WB -w of Proj Access 2	point42	42	829	95	35	4	35	1	35	0	0	0	0
	point13	13											
Village Loop Dr EB - e of Proj Access 1	point43	43	352	95	35	4	35	1	35	0	0	0	0
	point5	5											
Village Loop Dr WB - e of Proj Access 2	point44	44	239	95	35	4	35	1	35	0	0	0	0
	point12	12											
SR-56 SB	point45	45	4505	95	65	2	65	2	65	0	0	1	65
	point46	46											
SR-56 NB	point47	47	4505	95	65	2	65	2	65	0	0	1	65
	point48	48											

INPUT: TERRAIN LINES

Dudek			14 May 2013	
Mike Greene			TNM 2.5	
INPUT: TERRAIN LINES				
PROJECT/CONTRACT:	<Project Name?>			
RUN:	PHR Middle School - Fut w Project			
Terrain Line	Points			
Name	No.	Coordinates (ground)		
		X	Y	Z
		ft	ft	ft
Terrain Line1	1	5,000.0	-230.0	105.00
	2	15,000.0	-230.0	105.00

<Project Name?>

INPUT: ROADWAYS

<Project Name?>

Dudek					14 May 2013					
Mike Greene					TNM 2.5					

INPUT: ROADWAYS

PROJECT/CONTRACT: <Project Name?>

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

RUN: PHR Middle Scl - Fut w Proj - lessthan60

Roadway	Width	Points	No.	Coordinates (pavement)			Flow Control			Segment	
Name		Name		X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Del Mar Hts Rd EB - w of Carmel Vily Rd	55.0	point1	1	100.0	975.0	100.00				Average	
		point2	2	5,000.0	975.0	100.00					
Rancho Santa Fe Rd SB n of SM Blvd	55.0	point7	7	4,980.0	970.0	100.00				Average	
		point6	6	4,980.0	100.0	100.00					
Village Loop Dr WB - e of Proj Access 1	55.0	point10	10	20,000.0	1,025.0	100.00				Average	
		point11	11	15,000.0	1,025.0	100.00					
SB Proj Access 2 - s of Village Loop Dr	30.0	point16	16	9,980.0	970.0	100.00				Average	
		point15	15	9,980.0	100.0	100.00					
Rancho Santa Fe Road NB s of SM Blvd	55.0	point21	21	5,020.0	100.0	100.00				Average	
		point22	22	5,020.0	970.0	100.00					
Rancho Santa Fe Road NB n of SM Blvd	55.0	point23	23	5,020.0	1,030.0	100.00				Average	
		point24	24	5,020.0	2,000.0	100.00					
Rancho Santa Fe Road SB n of SM Blvd	55.0	point26	26	4,980.0	2,000.0	100.00				Average	
		point25	25	4,980.0	1,030.0	100.00					
NB Proj Access 2 - s of Village Loop Dr	30.0	point29	29	10,020.0	100.0	100.00				Average	
		point30	30	10,020.0	970.0	100.00					
NB Proj Access 1 - s of Village Loop Dr	30.0	point35	35	15,020.0	100.0	100.00				Average	
		point36	36	15,020.0	970.0	100.00					
SB Proj Access 1 - s of Village Loop Dr	30.0	point37	37	14,980.0	970.0	100.00				Average	
		point38	38	14,980.0	100.0	100.00					
Village Loop Dr EB - w of Proj Access 2	55.0	point39	39	5,000.0	975.0	100.00				Average	
		point3	3	10,000.0	975.0	100.00					
Del Mar Hts Rd WB -w of Carmel Vily Rd	55.0	point40	40	5,000.0	1,025.0	100.00				Average	
		point14	14	100.0	1,025.0	100.00					
Village Loop Dr EB - e of Proj Access 2	55.0	point41	41	10,000.0	975.0	100.00				Average	

INPUT: ROADWAYS

<Project Name?>

		point4	4	15,000.0	975.0	100.00					
Village Loop Dr WB -w of Proj Access 2	55.0	point42	42	10,000.0	1,025.0	100.00				Average	
		point13	13	5,000.0	1,025.0	100.00					
Village Loop Dr EB - e of Proj Access 1	55.0	point43	43	15,000.0	975.0	100.00				Average	
		point5	5	20,000.0	975.0	100.00					
Village Loop Dr WB - e of Proj Access 2	55.0	point44	44	15,000.0	1,025.0	100.00				Average	
		point12	12	10,000.0	1,025.0	100.00					
SR-56 SB	40.0	point45	45	5,000.0	-310.0	100.00				Average	
		point46	46	15,000.0	-310.0	100.00					
SR-56 NB	40.0	point47	47	5,000.0	-420.0	100.00				Average	
		point48	48	15,000.0	-420.0	100.00					

INPUT: TRAFFIC FOR LAeq1h Percentages

<Project Name?>

	point14	14											
Village Loop Dr EB - e of Proj Access 2	point41	41	159	95	35	4	35	1	35	0	0	0	0
	point4	4											
Village Loop Dr WB -w of Proj Access 2	point42	42	829	95	35	4	35	1	35	0	0	0	0
	point13	13											
Village Loop Dr EB - e of Proj Access 1	point43	43	352	95	35	4	35	1	35	0	0	0	0
	point5	5											
Village Loop Dr WB - e of Proj Access 2	point44	44	239	95	35	4	35	1	35	0	0	0	0
	point12	12											
SR-56 SB	point45	45	4505	95	65	2	65	2	65	0	0	1	65
	point46	46											
SR-56 NB	point47	47	4505	95	65	2	65	2	65	0	0	1	65
	point48	48											

INPUT: BARRIERS

<Project Name?>

Dudek	14 May 2013
Mike Greene	TNM 2.5

INPUT: BARRIERS

PROJECT/CONTRACT:

<Project Name?>

RUN:

PHR Middle Scl - Fut w Proj - lessthan60

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	\$ per	\$ per	Top	Run:Rise	\$ per			X	Y	Z	at	Seg	Ht	Perturbs	On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
				Area	Vol.			Length							ment				tions?
		ft	ft	\$/sq ft	\$/cu yd	ft	ft:ft	\$/ft			ft	ft	ft	ft	ft				
Barrier1	W	0.00	99.99	0.00				0.00	point1	1	4,500.0	1,080.0	110.00	6.00	0.00	0	0		
									point2	2	4,920.0	1,080.0	110.00	6.00	0.00	0	0		
									point3	3	4,920.0	1,500.0	110.00	6.00					

INPUT: TERRAIN LINES

Dudek			14 May 2013	
Mike Greene			TNM 2.5	
INPUT: TERRAIN LINES				
PROJECT/CONTRACT:	<Project Name?>			
RUN:	PHR Mddle Scl - Fut w Proj - lessthan60			
Terrain Line	Points			
Name	No.	Coordinates (ground)		
		X	Y	Z
		ft	ft	ft
Terrain Line1	1	5,000.0	-230.0	105.00
	2	15,000.0	-230.0	105.00

<Project Name?>

TRAFFIC IMPACT STUDY

For

San Dieguito Middle School

in the City of San Diego

Submitted To:

San Dieguito Union High School District

Submitted By:

Darnell & Associates, Inc.

May 9, 2013

Darnell & ASSOCIATES, INC.

TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

May 8, 2013

John Addleman
Director of Planning and Finance Management
San Dieguito Union High School District
710 Encinitas Boulevard,
Encinitas, CA 92024

D&A Ref. No: 120904

Subject: Traffic Study for the Proposed San Dieguito Middle School Located in Pacific Highlands Ranch on Village Center Loop Road in the City of San Diego

Dear Mr. Addleman:

In accordance with your authorization, Darnell & Associates, Inc. (D&A) has prepared the traffic study for the proposed San Dieguito Middle School.

This study analyzes the traffic impacts associated with the proposed project on the project accesses, roadway segments, and intersections in its vicinity under existing and near term cumulative, and daily buildout scenarios.

If you have any questions or require additional information, please feel free to contact this office.

Sincerely,

DARNELL & ASSOCIATES, INC.

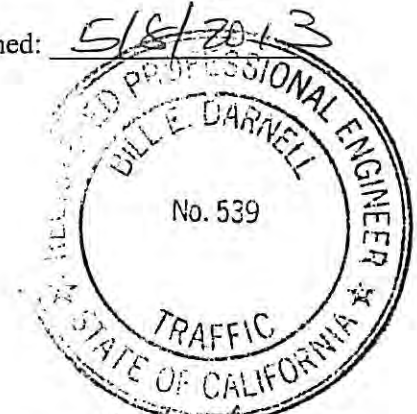


Bill E. Darnell, P.E., T.E.
Firm Principal
RCE: 22338
TR: 539

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Date Signed: 5/8/2013



Date Signed: 5/8/2013

TRAFFIC IMPACT STUDY

for

San Dieguito Middle School

in the City of San Diego

Prepared for:

San Dieguito Union High School District
710 Encinitas Boulevard
Encinitas, CA 92024

Prepared by:

DARNELL & ASSOCIATES, INC.
2870 Fourth Avenue, Suite A
San Diego, California 92103
619-233-9373

May 9, 2013

120904 - San Dieguito Middle School Traffic Study.docx05/13

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- Traffic Counts

APPENDIX B

- Existing Conditions Analysis Worksheets
- Existing Plus Phase 1 Conditions Analysis Worksheets
- Existing Plus Phase 1& 2 Conditions Analysis Worksheets
- Existing Plus Cumulative Plus Phase 1 Conditions Analysis Worksheets
- Existing Plus Cumulative Plus Phase 1& 2 Conditions Analysis Worksheets

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- Figure 3-20 Master Rezoning Subarea Plan
- Pacific Highlands Ranch Town Center Traffic Data
- Future 2030 Traffic Forecasts from Urban Systems Associates, Inc.
June 8, 1998 Future Urbanizing Subarea III Analysis Report
- Excerpts from the Pacific Highlands Ranch
Public Facilities Financing Plan FY 2013

SECTION I - INTRODUCTION

PROJECT DESCRIPTION

The San Dieguito Union High School District proposes to construct a new middle school in Pacific Highlands Ranch on Village Center Loop Road east of Carmel Valley Road. The initial student population of the school is 500 students with the potential to add 500 students by the Year 2020. Figure 1 is a vicinity map showing the general location of the project site. Figure 2 depicts the proposed project site plan. Access to/from the project site is proposed via the existing easterly signalized access for the Canyon Crest High School. The existing access will extend to the Middle School and is designed to accommodate pickup/drop off of students. A bus plaza is proposed next to the project access to accommodate bus pickup and drop off. The buses will utilize the existing Canyon Crest High School main entrance.

CONGESTION MANAGEMENT PROGRAM

Based on the approval of Proposition 111 in 1990, regulations require the preparation, implementation, and annual updating of a Congestion Management Program (CMP) in each of California's urbanized counties. In 1991, San Diego County adopted their initial CMP statutes. One required element of the CMP is a process to evaluate the transportation and traffic impacts of large projects on the regional transportation system. That process is undertaken by local agencies, project applicants, and traffic consultants through a transportation impact report usually conducted as part of the California Environmental Quality Act (CEQA) project review process. Authority for local land use decisions including project approvals and any required mitigation remains the responsibility of local jurisdictions.

The criteria for which a project is subject to the regulations as set forth in the CMP are determined by the trip generation potential for the project. Currently, the threshold is 2,400 average daily trips (ADT) or 200 peak hour trips. Each Phase of the proposed project is estimated to generate 700 new daily trips (at the project driveways), 140 new AM peak hour trips and 84 new PM peak hour trips at the project driveways and is therefore, not subject to CMP guidelines.

LEVEL OF SERVICE

Level of Service (LOS) is a professional industry standard by which the operating conditions of a given roadway segment or intersection are measured. Level of Service is defined on a scale of A to F; where LOS A represents the best operating conditions and LOS F represents the worst operating conditions. LOS A facilities are characterized as having free flowing traffic conditions with no restrictions on maneuvering or operating speeds; traffic volumes are low and travel speeds are high. LOS F facilities are characterized as having forced flow with many stoppages and low operating speeds. The acceptable LOS standard for roadways and intersections in the City of San Diego is LOS D in developed locations.

Table 1 summarizes the level of service ranges.

ANALYSIS METHODOLOGY

Synchro, version 6.0, was utilized to analyze the morning and afternoon peak hour conditions of the intersections in the project vicinity. The signalized intersection methodology defines LOS based on delay using variables such as lane configuration, traffic volumes, and signal timings. The unsignalized

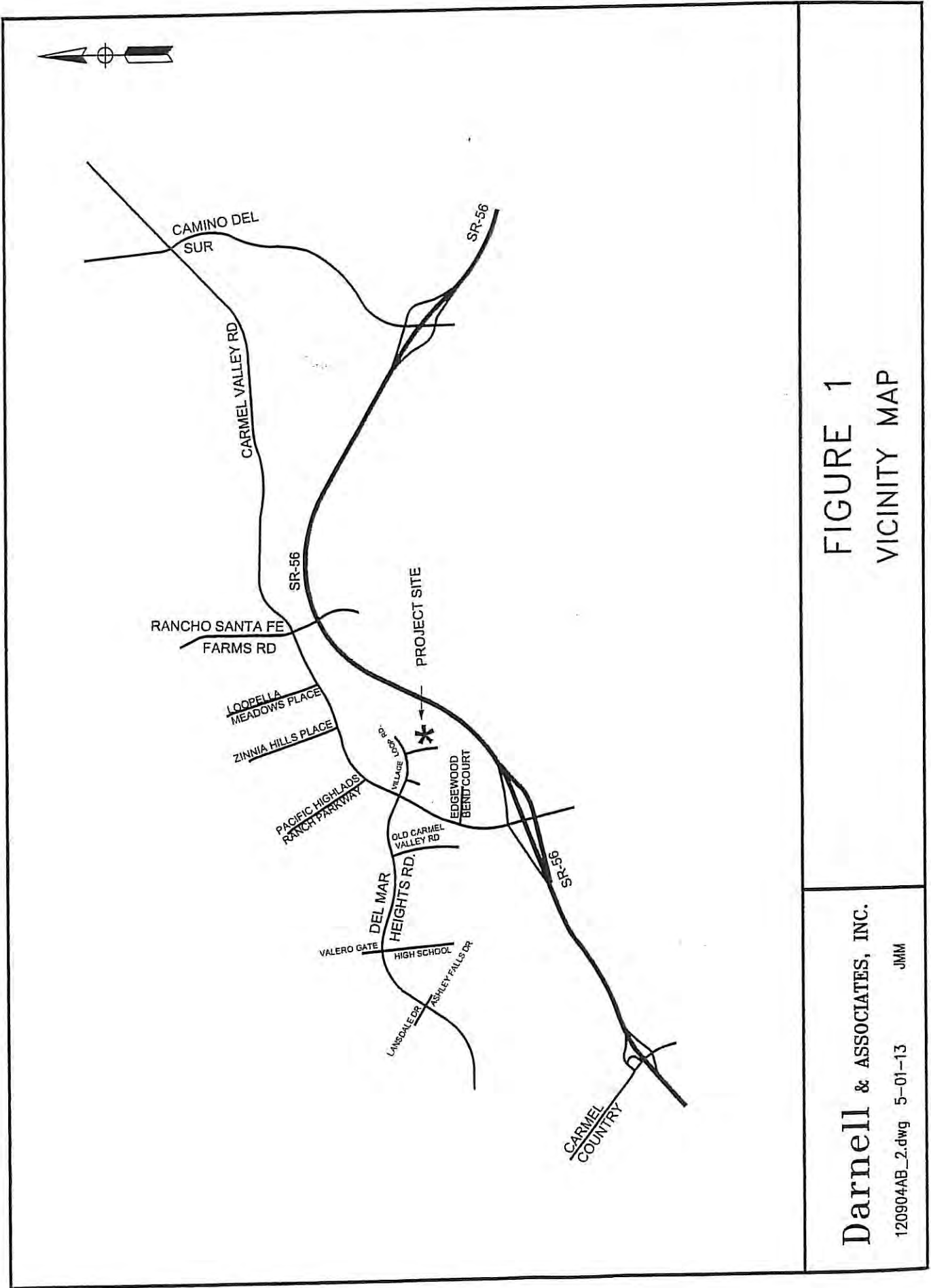


FIGURE 1
VICINITY MAP

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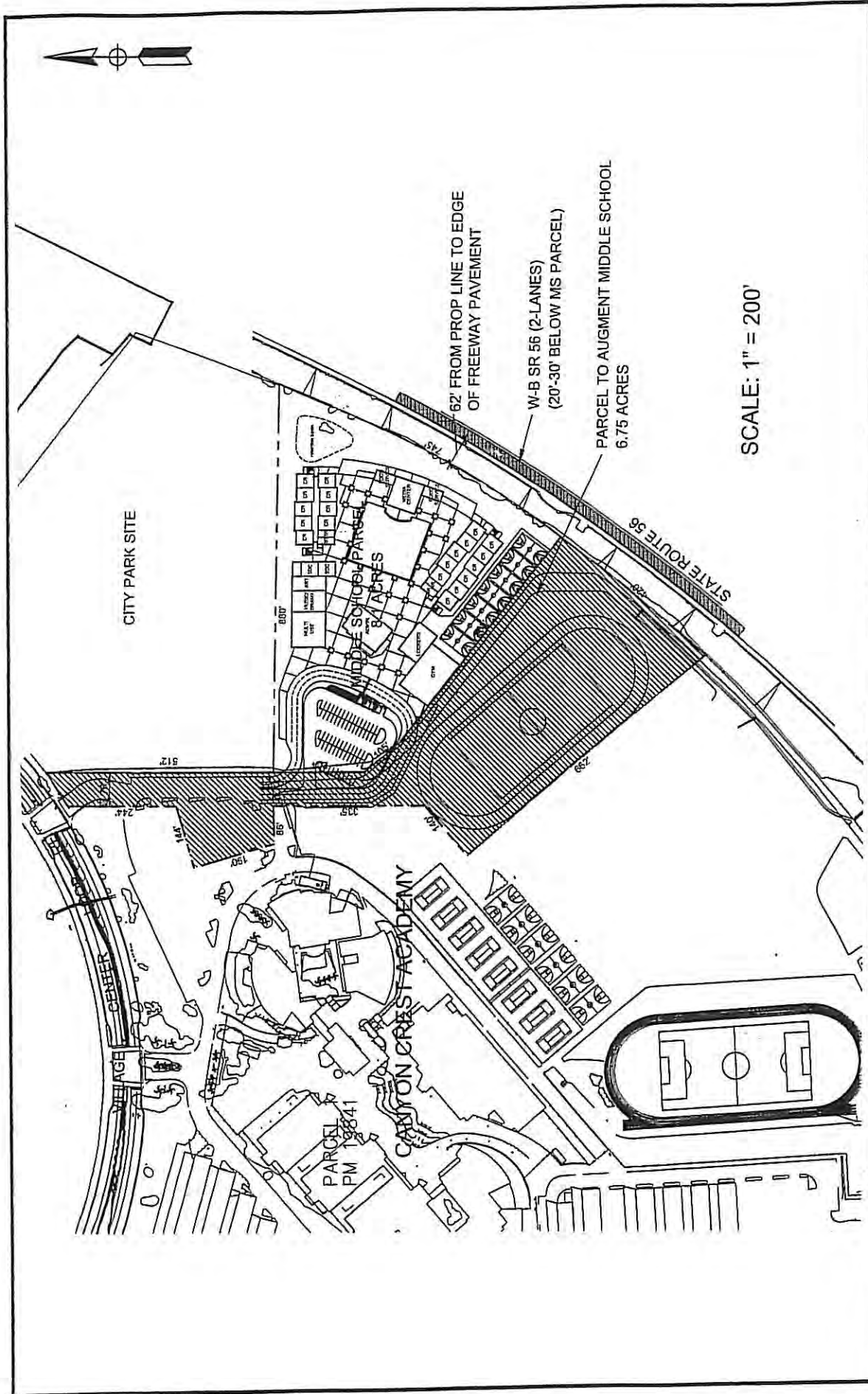


FIGURE 2
SITE PLAN

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Table 1 - Level of Service Ranges		
LOS	Intersections	
	Signalized Avg Control Delay (sec/veh) ¹	Unsignalized Avg Control Delay (sec/veh) ¹
A	Less than or equal to 10.0	Less than or equal to 10.0
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	Greater than 80.0	Greater than 50.1

¹ The delay ranges shown are based on the 2000 Highway Capacity Manual (HCM)
LOS = Level of Service; mph; sec/veh=seconds per vehicle

intersection methodology defines LOS based on the longest delay experienced by any single movement. Since the Synchro program calculates the average delay per vehicle, there may be instances where the Synchro analysis will show a reduction in delay with the addition of more traffic. This phenomenon occurs when the additional traffic is added to a movement that experiences a shorter amount of delay, thereby decreasing the intersection's average delay per vehicle (i.e. a larger amount of vehicles will have to wait a shorter time while only a few vehicles have to wait an extended period of time). It should be noted, however, that even if the addition of traffic results in a lower average intersection delay per vehicle, the total delay at the intersection will gradually increase as more traffic is added to the intersection. The measure of effectiveness utilized in this report is the average intersection delay, not the total intersection delay. The Synchro software is based on the 2000 Highway Capacity Manual (HCM).

Roadway segments were analyzed by comparing the daily traffic volumes to the capacity of the roadway to determine the ratio of volume to capacity (V/C). Capacities are obtained from the City of San Diego Traffic Impact Manual, as shown in Table 2.

Table 2 - Roadway Classifications, Levels of Service & Average Daily Traffic							
Street Classifications	Lanes	Cross Sections	Level of Service				
			A	B	C	D	E
Freeway	6	45,000	45,000	63,000	90,000	110,000	120,000
Freeway	4	30,000	30,000	42,000	60,000	70,000	80,000
Prime Arterial	6	102/122	25,000	35,000	50,000	55,000	60,000
Major Arterial	4	78/98	15,000	21,000	30,000	35,000	40,000
Collector	4	72/92	10,000	14,000	20,000	25,000	30,000
Collector (no center lane)	4	64/84	5,000	7,000	10,000	13,000	15,000
Collector (continuous left)	2	50/70					

xxx/xxx = Curb to curb width (feet/right of way width (feet): based on City of San Diego Street Design Manual, zzz = approximate recommended ADT based on City of San Diego Street Design Manual, NOTES 1. The volumes and average daily level of service listed above are only intended as a general planning guideline, 2. Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators/attractors. Source: City of San Diego Traffic Impact Study Manual - Table 2, Page 8

SCENARIOS STUDIED

The following traffic scenarios were analyzed in this report:

Existing Conditions refers to that condition which exists on the ground today, including existing traffic counts and existing lane configurations at intersections and on roadway segments.

Existing Conditions Plus Project refers to that condition which assumes the addition of other proposed projects in the study area. This scenario does not include the proposed project

Cumulative (With Project) refers to that condition with the proposed project added onto the existing plus other projects' scenario.

Horizon Year (2030) With Project refers to the daily traffic based on forecasts traffic volumes presented in the traffic study for the Future Urbanizing Subarea III prepared by Urban Systems and Associates, Inc Dated June 8, 1998.

REPORT ORGANIZATION

Section I is the Introduction and addresses project description and methodology. Section II addresses the project traffic. Section III evaluates the existing roadway characteristics surrounding the project area. Section IV analyzes the traffic impacts associated with the addition of project traffic for the existing cumulative condition and horizon year 2030 condition. Section V summarizes the mitigation measures and Section VI provides the report's findings and conclusions.

SECTION II – PROJECT TRAFFIC

PROJECT TRAFFIC

The project was included in the Master Environmental Impact Report prepared for the Pacific Highlands Ranch Subarea III dated June 8, 1998 and the Transportation Analysis for the Future Urbanizing Subarea by Urban Systems Associates, Inc, dated June 8, 1998. Figure 3-20- Master Rezoning Subarea presented in Appendix A of this report. Review of Figure 3-20 identifies the proposed Middle School (Junior High School) site as well as the adjacent Canyon Crest High (Senior/Junior) site.

Trip Generation of the proposed Middle School is based on the City of San Diego Land and Development Code Trip Generation Manual published rates. Table 3 presents the trip generation rates and the resulting daily and peak hourly trips generated by the project.

Table 3 – Trip Generation Summary								
Daily Trip Rate		Total (% of Daily)	% In	% Out	Total (% of Daily)	% In	% Out	
1.4 Trips/Student		20%	80%	20%	12%	30%	70%	
Land Use	Density	daily	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Phase 1	500 Students	700	140	112	28	84	25	59
Phase 2	500 Students	700	140	112	28	84	25	59
Total:	1000 Students	1,400	280	224	56	168	50	118

Review of Table 3 shows that the initial opening of the Middle School with 500 students will generate 700 daily vehicle trips, 140 AM peak and 84 PM peak vehicle trips. The addition of the Phase 2 500 students will result in an additional 700 daily vehicle trips, 140 AM peak and 84 PM peak vehicle trips.

It should be noted that the proposed Middle School is planned to accommodate the development within the Subareas III- Pacific Highlands Ranch planned and approved residential units.

PROJECT TRIP DISTRIBUTION

The distribution of project traffic to the surrounding street system was estimated by analyzing project student enrollment projects projections provided by the San Dieguito Union High School District. Figure 3 presents the Phase 1 trip distribution and Figure 4 presents the Phase 2 trip distribution.

Project trip generation presented in Table 3 was then distributed to the surrounding street system using the Figure 3 and Figure 4 trip distribution patterns. Figure 5 presents the resulting project traffic for the development of Phase 1 500 students and Figure 6 presents the traffic for the development of the Phase 2 500 students.

STUDY AREA LIMITS

The study area required by the City of San Diego's Traffic Impact Study Manual identifies that where the project adds 50 or more peak hour trips in either direction to adjacent street traffic.

Additionally, since there are Caltrans freeway ramps in the vicinity, the thresholds for analysis for the State conclude that if a project generates over 100 peak hour trips to a state facility, it should be included; or 100-200 trips to a facility functioning at LOS E/F; or 1-49 trips to facilities already at LOS E/F, where

the potential for risk of traffic incident is increased (non-standard sight distance, increase in access points), or a change in the local circulation network (non-standard design features, etc.). The proposed project does not meet any of the Caltrans criteria to include additional intersections beyond this scope.

To determine the study area limits the project traffic presented in Figures 5 and 6 was reviewed to identify the study area limits based on the above criteria. The analysis identified the following roadways limits and intersection to be analyzed.

Roadway segments to be analyzed are:

Carmel Valley Road at:

- Edgewood Bend Court to Del Mar Heights Road;
- Del Mar Heights Road to Loopella Meadows Place.

Del Mar Heights Road at:

- Carmel Valley Road to West of Old Carmel Valley Road;

Village Center Loop Road:

- Carmel Valley Road to the High School Signal;
- High School Signal to the Project Access Signal.

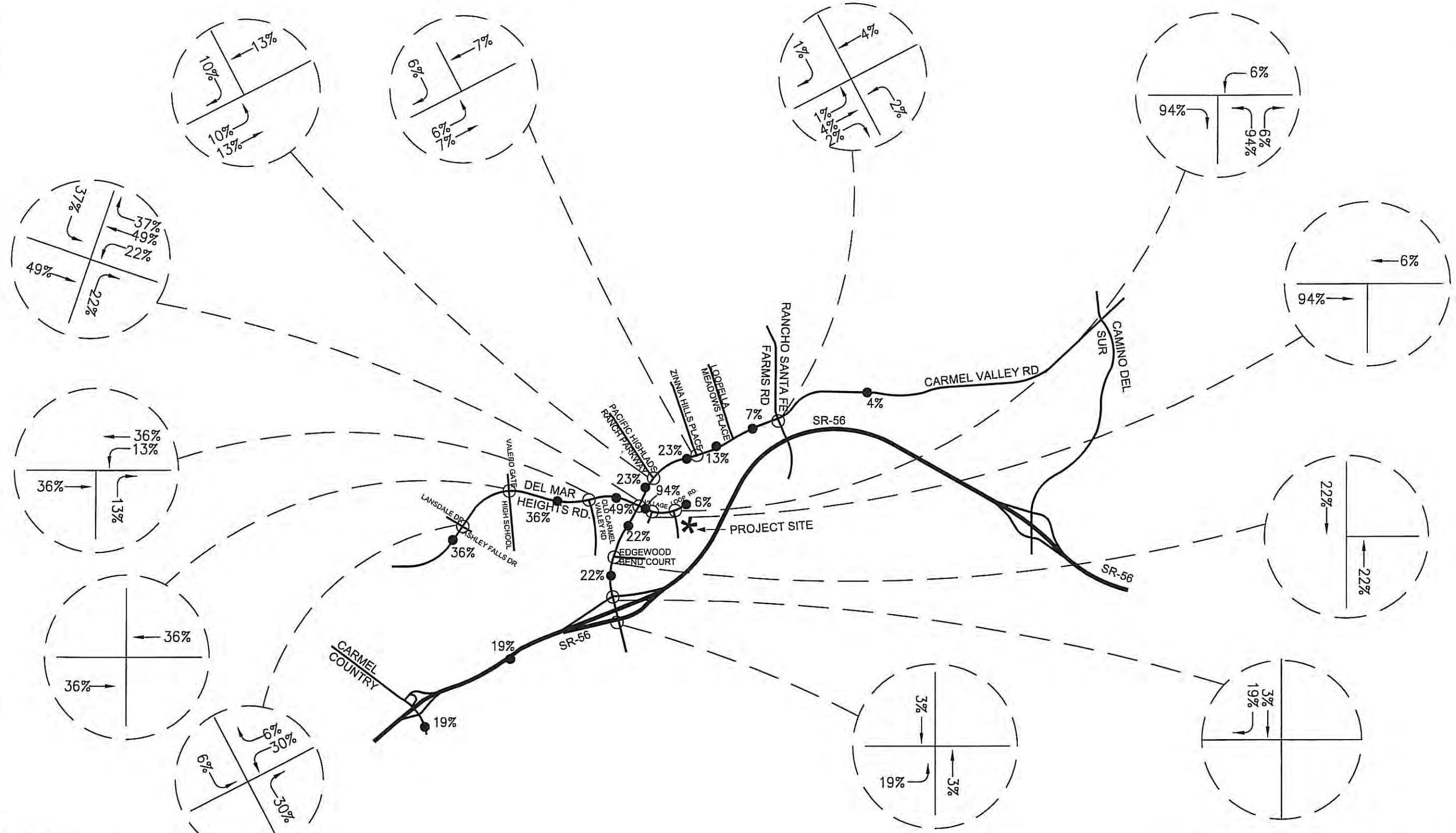
Intersections to be analyzed are:

Carmel Valley Road at:

- Edgewood Bend Court;
- Del Mar Heights Road;
- Pacific Highlands Ranch Parkway;
- Loopella Meadows Place;

Village Center Loop Road at:

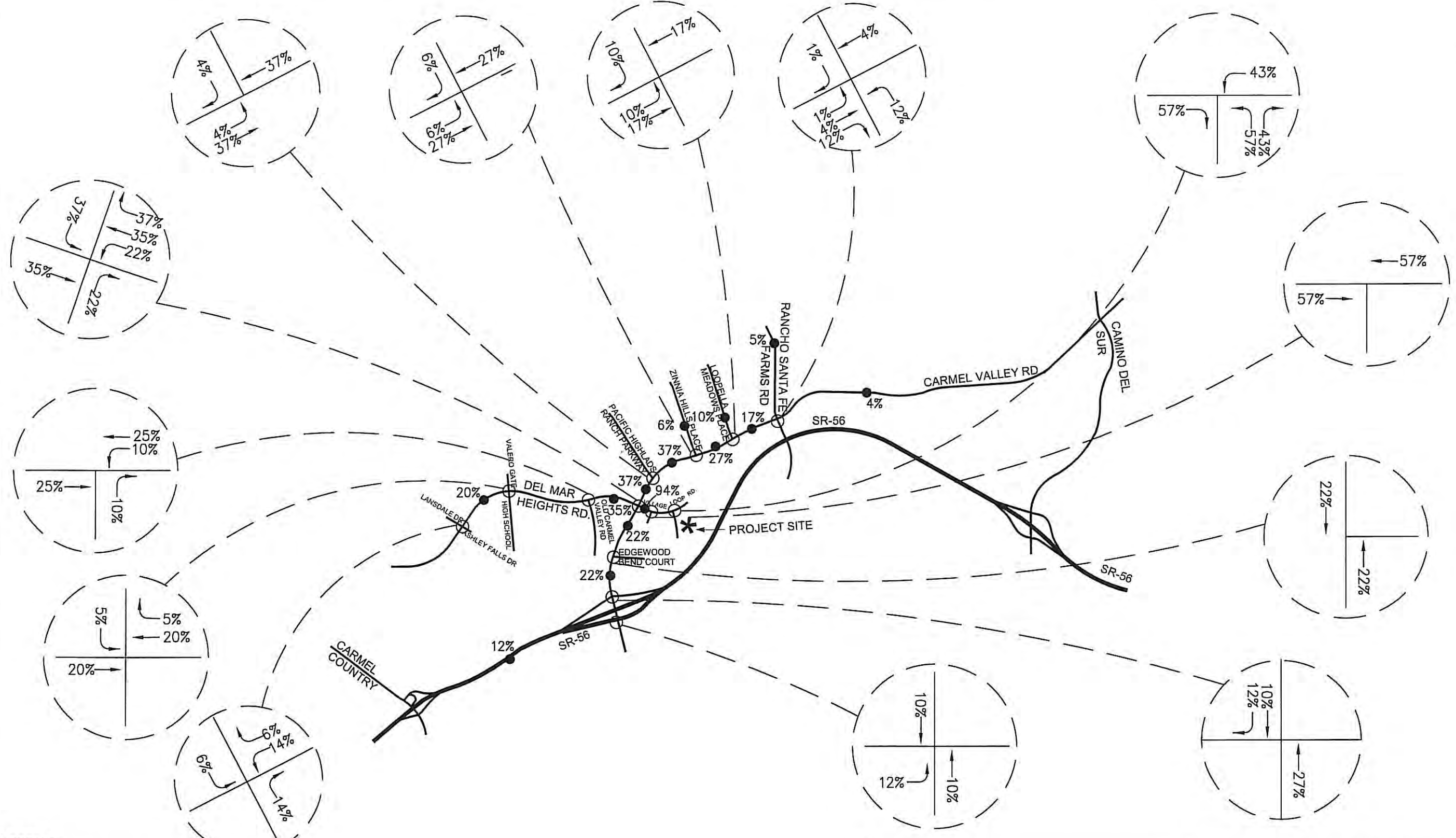
- High School Signal; and
- Project Access Signal.



LEGEND
 * - PROJECT SITE
 ● XX% - DISTRIBUTION PERCENTAGE
 → - DIRECTION OF TRAVEL

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FIGURE 3
 PHASE 1 PROJECT TRAFFIC
 TRIP DISTRIBUTION

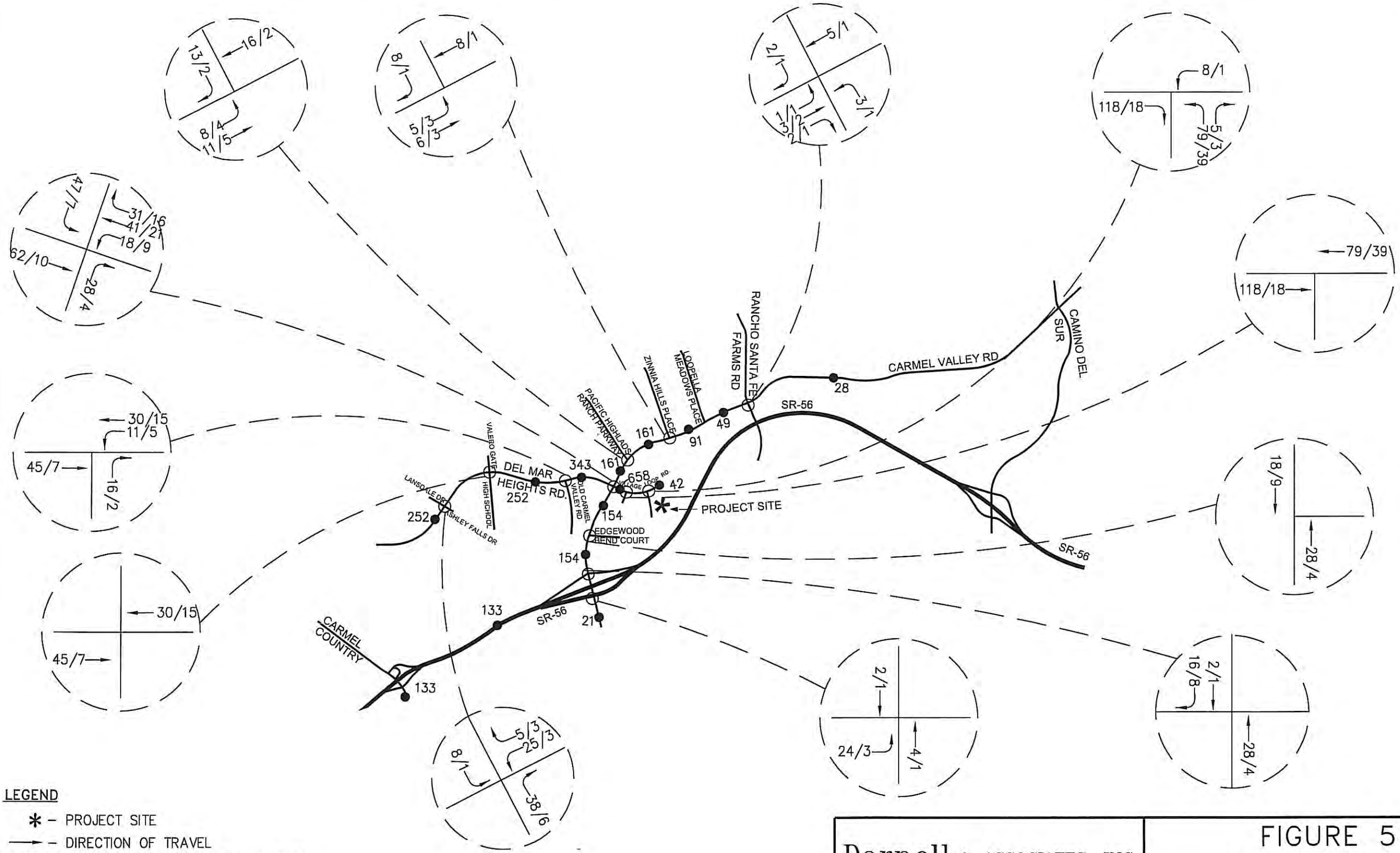


LEGEND

- * - PROJECT SITE
- XX% - DISTRIBUTION PERCENTAGE
- - DIRECTION OF TRAVEL

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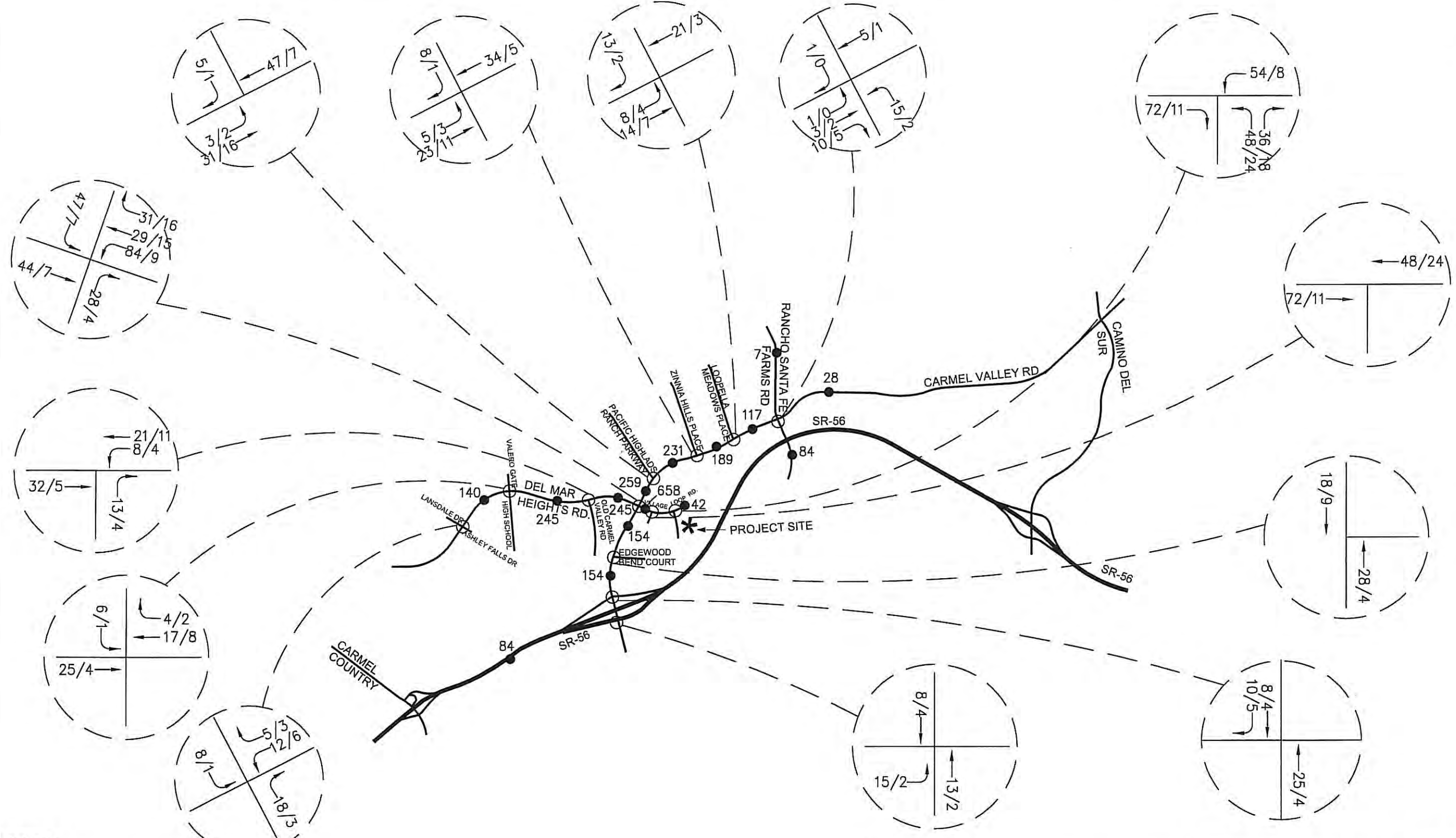
FIGURE 4
 PHASE 2 PROJECT TRAFFIC
 TRIP DISTRIBUTION



LEGEND
 * - PROJECT SITE
 → - DIRECTION OF TRAVEL
 XX/YY - AM/PM PEAK HOUR TURN VOLUMES
 ● Z,ZZZ - AVERAGE DAILY TRAFFIC

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FIGURE 5
 PHASE 1 PROJECT
 TRAFFIC VOLUMES



LEGEND

- * - PROJECT SITE
- XX/YY - AM/PM TRAFFIC
- Z,ZZZ - AVERAGE DAILY TRAFFIC
- - DIRECTION OF TRAVEL

<p>Darnell & ASSOCIATES, INC.</p> <p>120904AB_2.dwg 5-08-13 JMM</p>	<p>FIGURE 6</p> <p>PHASE 2 PROJECT TRAFFIC</p>
--	--

SECTION III - EXISTING CONDITIONS

The existing circulation system is presented on Figure 7. Figure 7 identifies the classification of the existing roadways, traffic control at intersections and travel lanes at each intersection. Carmel Valley Road, Del Mar Heights Road and Village Center Loop Road provides the primary circulation system for the area. State Route 56 (Ted Williams Freeway) is located to the south of the project site and provides east/west regional access between Interstate 5 to the west and Interstate 15 to the east. The project access to I-56 is provided at Carmel Valley Road and Carmel Country. The Carmel Country/SR-56 interchange provides access to the students in the area south of SR-56.

EXISTING ROADWAY CHARACTERISTICS

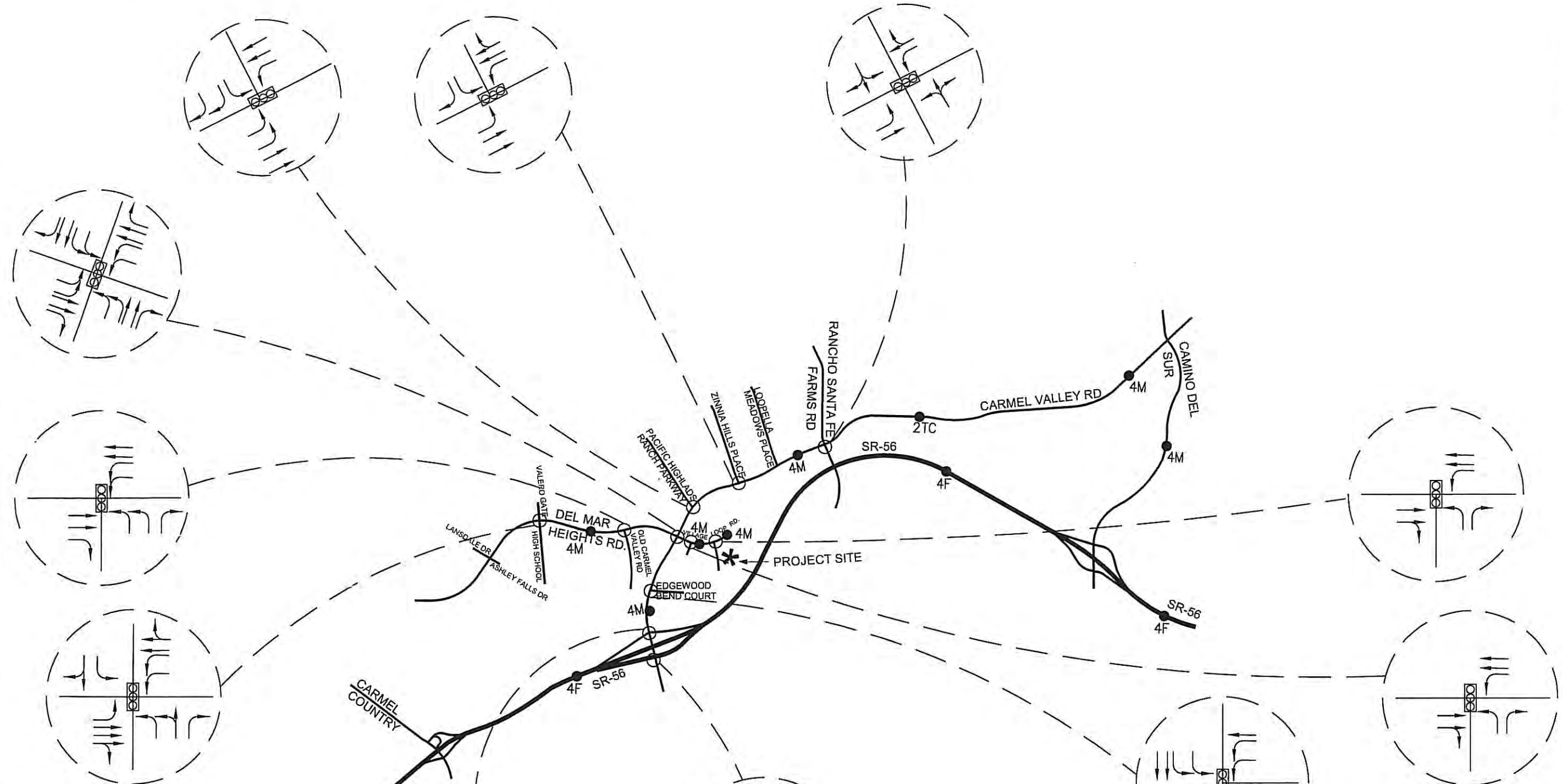
Carmel Valley Road is an east-west roadway providing 4 travel lanes, raised median, bike lanes and additional turning lanes at the intersections for SR-56 to Loopella Meadows Place. East of Loopella Meadows Place the roadway is improved to provide two travel lanes, a bike lane and a center turn lane. The LOS 'E' capacity of the road is 40,000 west of Loopella Meadows Place and 15,000 east of Loopella Meadows Road. Carmel Valley Road between Loopella Meadows Place and Rancho Santa Fe Farms Road is scheduled and funded to be widened to 4-lane Major Road standards with a LOS 'E' capacity from the Pacific Highlands Ranch Public Facilities Financing Plan are included in Appendix "C" of this report.

Del Mar Heights Road is an east-west roadway that is presently providing 4 travel lanes, raised median, bike lanes and additional turning lanes at the intersection. The LOS 'E' capacity of the road is 40,000. Del Mar Road terminates at Carmel Valley Road.

Village Center Loop Road is constructed to provide 4 travel lanes, bike lanes and a raised median east of Carmel Valley Road. Presently the roadway is constructed to east of Peppergrass Creek Gate Access. The road is planned for future extension to Carmel Valley Road opposite of Zinnia Hills Place. The LOS 'E' capacity of the roadway is 40,000.

EXISTING TRAFFIC VOLUMES

Existing traffic counts were collected in January 2013. The daily and peak hourly intersection turning volumes are presented on Figure 8. The traffic volumes shown in Figure 8 were analyzed and the results are presented on Table 4. Review of Table 4 identifies that each roadway segment is presently operating at LOS 'B' or better and SR-56 is operating at LOS 'D'.

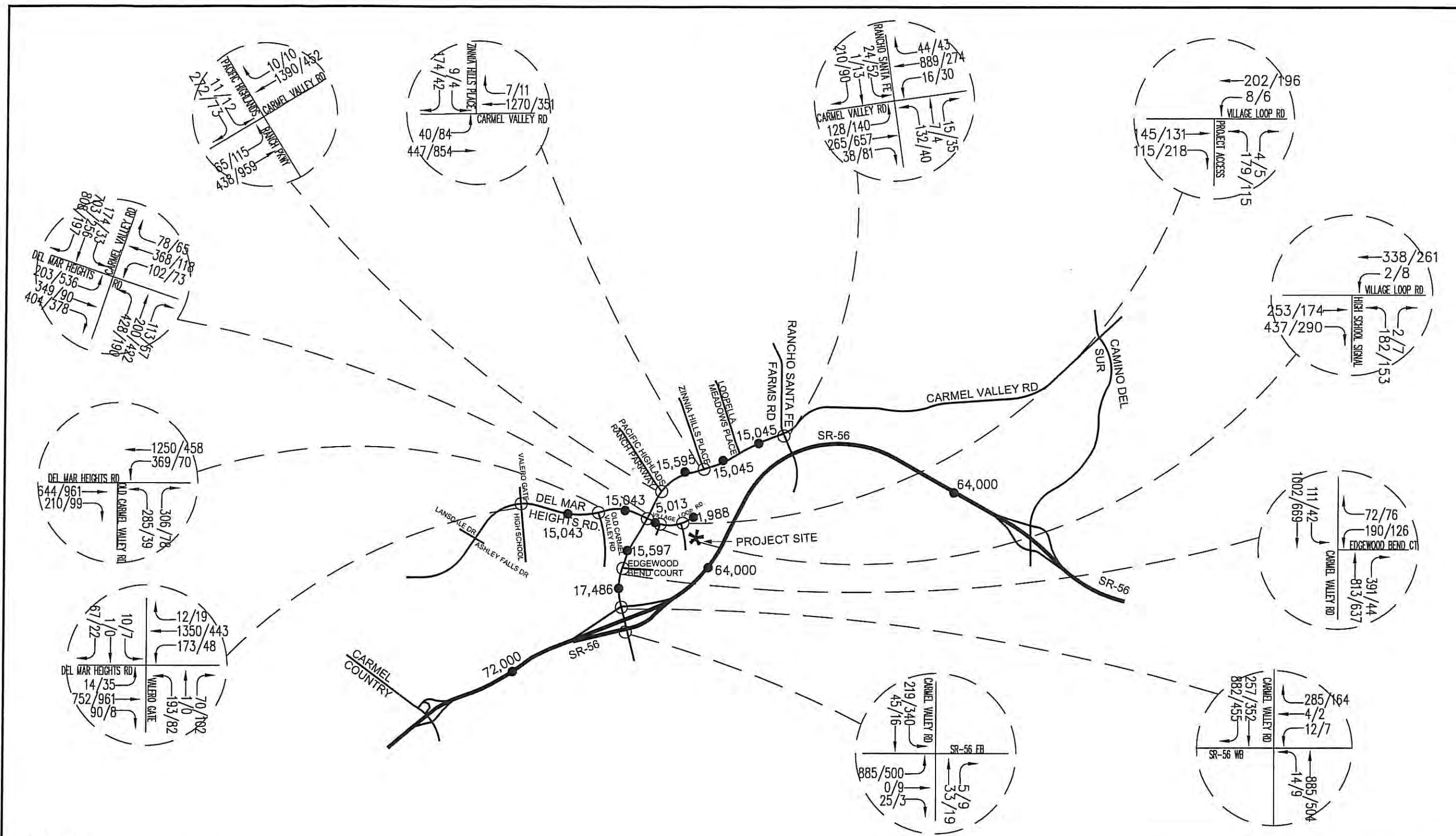


LEGEND

- * - PROJECT SITE
- 4F - FOUR LANE FREEWAY
- 4C - FOUR-LANE COLLECTOR
- 4M - FOUR-LANE MAJOR ARTERIAL
- 2TC - TOWN COLLECTOR WITH CENTER TURN LANE
- - DIRECTION OF TRAVEL
- ⊠ - STOP SIGN
- ⊠ - TRAFFIC SIGNAL

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FIGURE 7
 EXISTING CONDITIONS



LEGEND
 XX/YY - AM/PM PEAK HOUR TURN VOLUMES
 ● Z,ZZZ - AVERAGE DAILY TRAFFIC
 * - PROJECT SITE
 → - DIRECTION OF TRAVEL

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FIGURE 8
 EXISTING TRAFFIC VOLUMES

Table 4 – Existing Conditions Roadway Segment Daily LOS Summary

Roadway Segment	Class	Capacity (LOS E)	ADT	V/C	LOS
Carmel Valley Road					
SR-56 to Edgewood Court	4M	40,000	17,486	0.437	B
Edgewood Court to Del Mar Heights Rd.	4M	40,000	15,597	0.390	B
Del Mar Heights Rd. to Pacific Highlands Rancho Pkwy	4M	40,000	15,595	0.390	B
Pacific Highlands Rd. to Zinnia Hills Pl.	4M	40,000	15,045	0.376	B
Zinna Place to Loopella Meadows Rd	4M	40,000	15,045	0.376	B
Loopella Meadows Rd. to Rancho Santa Fe Farms Rd.	4M	15,000	15,045	1.003	E
Del Mar Heights Road					
W/O Carmel Valley Rd.	4M	40,000	15,943	0.398	B
W/O Old Carmel Valley Rd.	4M	40,000	15,045	0.376	B
Village Loop Center Drive					
Carmel Valley to High School Signal	4M	40,000	5,013	0.125	A
High School Signal to Project Access Signal	4M	40,000	1,968	0.049	A
E/O Project Access	4M	40,000	1,968	0.049	A
W/O Carmel Valley Road	4F	80,000	72,000	0.90	D
E/O Carmel Valley Road	4F	80,000	64,000	0.80	D
ADT= Average Daily Traffic; LOS= Level of Service; V/C = Volume-to LOS E Capacity Ratio; 4-Fwy = 4-Lane Freeway; 4-Toll = 4-Lane Toll Facility; 6P = 6-Lane Prime Arterial; 4M (m) = Modified 4-Lane Major Road; 4M = 4-Lane Major Arterial; 4C = 4-Lane Collector; TC = Town Collector; LC = Light Collector; I/C Cul-De-Sac= Industrial/Commercial Cul-De-Sac, > C = ADT exceeds the recommended capacity for LOS C, <C = ADT is less than the recommended capacity for LOS C.					

EXISTING INTERSECTION CONDITIONS

The key study intersections were analyzed using the Synchro 6 software. The results are presented on Table 5. Review of Table 5 shows all of the intersections are operating at LOS 'D' or better.

Table 5 – Existing Conditions Intersection Daily LOS Summary							
Intersections	Jurisdiction	Traffic Control	Critical Movement	Existing			
				AM Peak		PM Peak	
				Delay (sec)	LOS	Delay (sec)	LOS
Carmel Valley Road @ Edgewood Court	City	Signal	Int.	8.7	A	7.4	A
Carmel Valley Road @ Del Mar Heights Road	City	Signal	Int.	41.7	D	18.8	B
Carmel Valley Road @ Pacific Highlands Ranch Parkway	City	Signal	Int.	8.4	A	5.6	A
Carmel Valley Road @ Zinnia Hills Place	City	Signal	Int.	15.4	B	16.9	B
Del Mar Heights Road @ Old Carmel Valley Road	City	Signal	Int.	18.1	B	15.6	B
Del Mar Heights Road @ Valero Gate	City	Signal	Int.	20.5	C	27.7	C
Village Center Loop Road@ High School Signal	City	Signal	Int.	10.2	B	10.9	B
Village Center Loop Road @ Project Access Signal	City	Signal	Int.	10.5	B	11.3	B

LOS=Level of Service; Delay is measured in seconds/vehicle; sig=signalized; TWSC = Two-Way Stop-Controlled; OWSC=One Way Stop Controlled; Int = Intersection; NB = Northbound Approach; SB = Southbound Approach; NBL = Northbound Left; NBL-T = Northbound Left-Through; SBX = South Bay Expressway; E-W = East-West Roadway; N-S = North-South Roadway; Bold = Jurisdiction which significance criteria is based on Delay = Increase (decrease) in delay; Occasionally adding traffic to a critical movement optimizes the intersection resulting in a decrease in delay.

SECTION IV - IMPACTS

LEVELS OF SIGNIFICANCE STANDARDS

This study utilizes the City of San Diego’s significance thresholds, which were adopted in January 2007, to assess the traffic impact on the roadways and intersections located within the project vicinity. The City’s significance criteria for facilities operating at LOS E and F are shown in Table 6.

Since the City of San Diego considers LOS D to be an acceptable level of service, the City of San Diego’s CEQA thresholds were only applied to roadway segments and intersections that were found to be operating at LOS E and LOS F. Impacts are also significant if the project traffic causes a facility to go from an acceptable LOS D to an unacceptable LOS E or F condition.

Table 6 - City of San Diego CEQA Significance Thresholds			
LOS with Project	Allowable Increase/Decrease Due to Project Impacts		
	Intersections	Roadway Segments	
	Delay (sec)	V/C	Speed (mph)
E	2.0	0.02	1
F	1.0	0.01	0.5

ADT = average daily traffic; LOS = level of service; V/C = volume to capacity; sec = seconds of delay per vehicle, mph = miles per hour

EXISTING PLUS PROJECT TRAFFIC

The project traffic volumes on Figure 5 and 6 were added to the existing traffic volumes presented on Figure 8 to show the Existing Plus Phase 1 Project Conditions. Figure 9 presents the daily and peak hourly volumes for this condition. Figure 10 was then prepared to show the Existing Plus Phase 1 and Phase 2 traffic conditions.

Roadway Segment Analysis

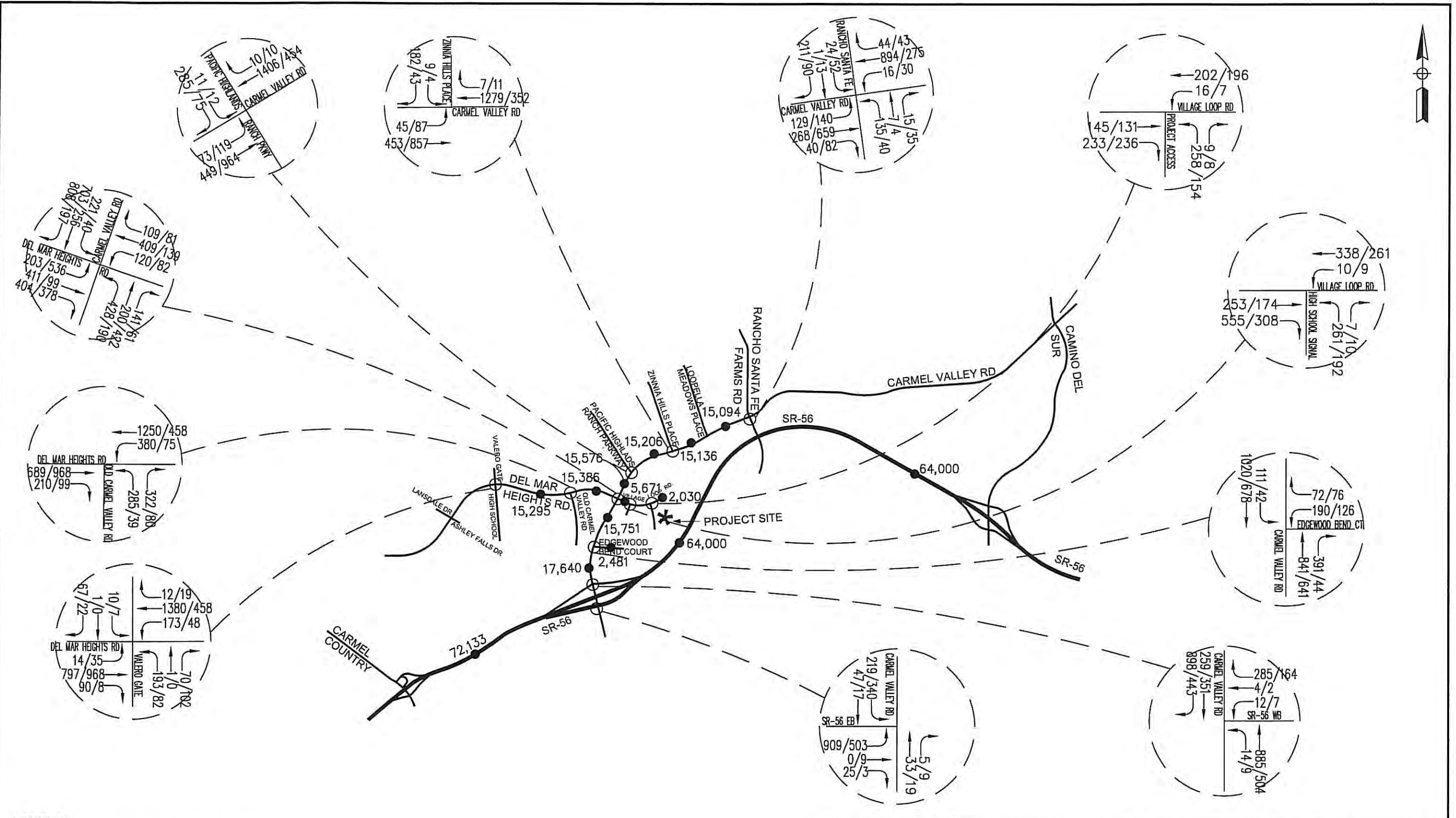
The daily conditions on the key roadway segments were analyzed. Tables 7 and 8 present the results of the Existing Plus Phase 1 and Existing Plus Phases I and 2 conditions.

Review of Tables 7 and 8 shows that each roadway will operate at LOS ‘B’ or better with Phase 1 and Phases 1 and 2 added to the existing traffic conditions except Carmel Valley Road between Loopella Meadows Place to Rancho Santa Fe Farms Road. This segment of Carmel Valley Road is scheduled and funded to be widened to 4-Lane Major Standards in 2013. Therefore the project will not create and significant impact.

Intersection Impact Analysis

The intersection volumes presented on Figure 10 were analyzed with the Synchro 6 software and the results are presented in Tables 9 for the Existing Plus Phase 1 and Table 10 for the Existing Plus Phase 1 and 2. Review of Tables 9 and 10 each intersection is operating at a LOS ‘C’ or better and the Carmel Valley Road/Del Mar Heights Road-Village Center Loop Road is operating at LOS ‘D’ in the AM peak for each conditions. Therefore it can be concluded that the project will not create any significant impact.

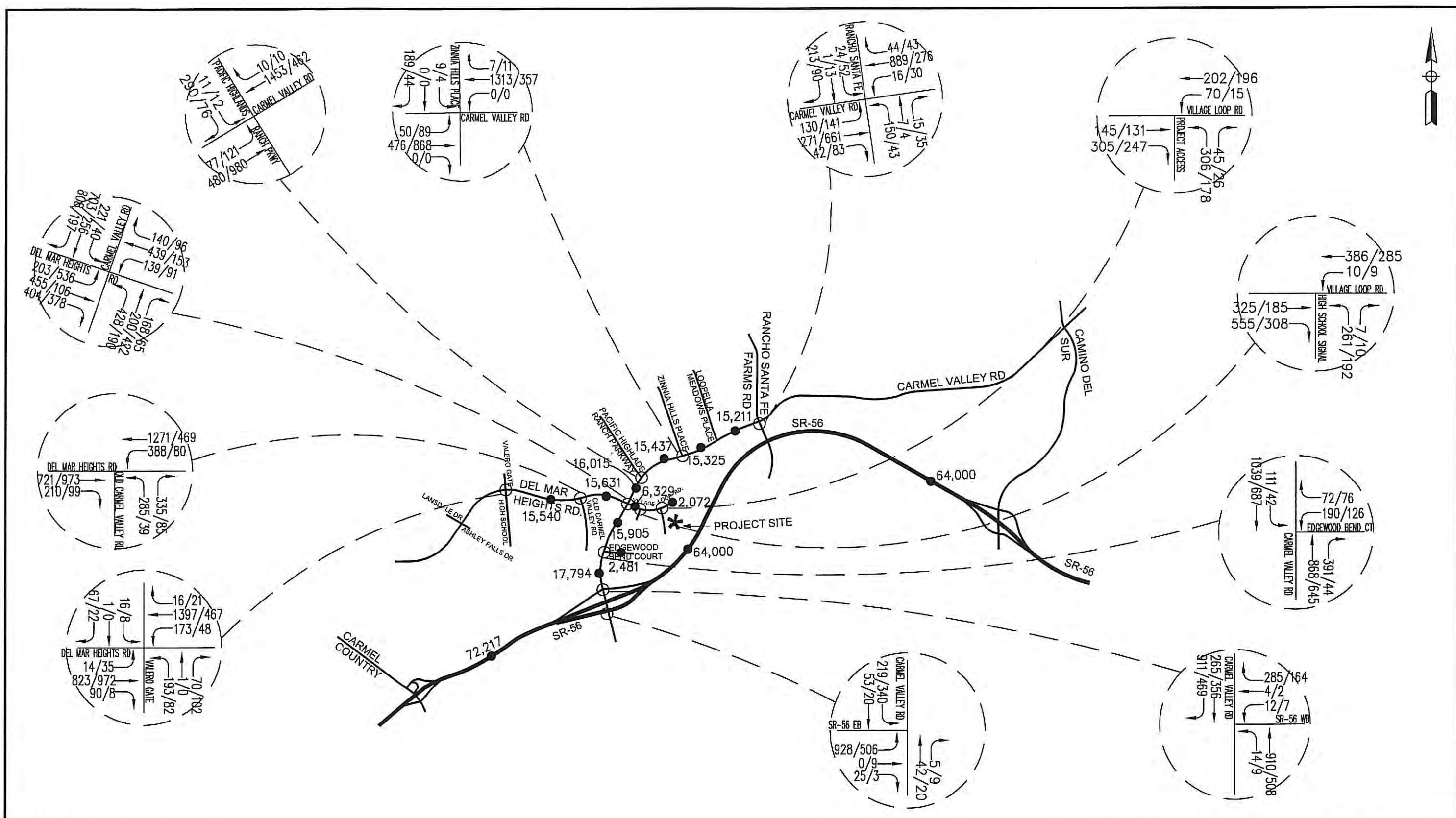
Pacific Highlands Ranch Town Center is an approved project located between Carmel Valley Road and Village Center Loop Road. The project is a mixed use project including Restaurants, Retail, Residential, and Cinema Uses. The project is expected to generate 17236 daily, 612 AM peak and 1,619 PM peak vehicle trips. The Town Center project was assigned to the existing street system. Appendix C contains a copy of a January 21, 2008 memo prepared by Urban Systems Associates, Inc.



LEGEND
 XX/YY - AM/PM PEAK HOUR TURN VOLUMES
 ● Z,ZZZ - AVERAGE DAILY TRAFFIC
 * - PROJECT SITE
 → - DIRECTION OF TRAVEL

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FIGURE 9
 EXISTING + PHASE 1
 PROJECT TRAFFIC



LEGEND
 XX/YY - AM/PM PEAK HOUR TURN VOLUMES
 ● Z,ZZZ - AVERAGE DAILY TRAFFIC
 * - PROJECT SITE
 → - DIRECTION OF TRAVEL

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FIGURE 10
 EXISTING PLUS PHASE 1 + 2
 PROJECT TRAFFIC

Table 7 – Existing Plus Phase 1 Project Conditions Roadway Segment Daily LOS Summary

Roadway Segment	Class	Capacity (LOS E)	Existing			Existing + Phase 1 Project					
			ADT	V/C	LOS	Proj. Trips	ADT	V/C	LOS	DV/C	Sig
Carmel Valley Road											
Edgewood Court to Del Mar Heights Rd.	4M	40,000	15,597	0.390	B	154	15,751	0.394	B	0.004	No
Del Mar Heights Rd. to Pacific Highlands Rancho Parkway	4M	40,000	15,595	0.390	B	161	15,756	0.394	B	0.004	No
Pacific Highlands Rd. to Zinnia Hills Place	4M	40,000	15,045	0.376	B	161	15,206	0.380	B	0.004	No
Zinnia Hills Place to Loopella Meadows Place	4M	40,000	15,045	0.376	B	91	15,136	0.378	B	0.002	No
Loopella Meadows Place to Rancho Santa Fe Farms Rd. (a)	4M	15,000	15,045	1.003	E	49	15,094	1.006	E	0.003	No
Del Mar Heights Road											
W/O Carmel Valley Rd.	4M	40,000	15,043	0.376	B	343	15,386	0.385	B	0.009	No
W/O Old Carmel Valley Rd.	4M	40,000	15,043	0.376	B	252	15,295	0.382	B	0.006	No
Village Center Loop Road											
Carmel Valley to High School Signal	4M	40,000	5,013	0.125	A	658	5,671	0.142	A	0.016	No
High School Signal to Project Access Signal	4M	40,000	1,988	0.050	A	42	2,030	0.051	A	0.001	No
E/O Project Access	4M	40,000	1,988	0.050	A	42	2,030	0.051	A	0.001	No

City = Capacity of City segments is based on the upper limits of LOS E per the City of San Diego; SBX = South Bay Expressway County = Capacity of County segments is based on the upper limits of LOS E per the County of San Diego; **Bold** = Jurisdiction which capacity is based on; ADT = Average Daily Traffic; LOS = Level of Service; V/C = Volume to LOS E Capacity Ratio; 4-Fwy = 4-Lane Freeway; 4-Toll = 4-Lane Toll Facility; 6P = 6-Lane Prime Arterial; 4M (m) = Modified 4-Lane Major Road; 4M = 4-Lane Major Arterial; 4C = 4-Lane Collector; TC = Town Collector; LC = Light Collector; I/C Cul-De-Sac = Industrial/Commercial Cul-De-Sac; > C = ADT exceeds the recommended capacity for LOS C, < C = ADT is less than the recommended capacity for LOS C, (a) Carmel Valley Road between Loopella Meadows Road and Rancho Santa Fe Farme Road is widened to 4M standards by FY 2013 by Funded and Scheduled CIP Project.

Table 8 – Existing Plus Phase 1 and Phase 2 Project Conditions Roadway Segment Daily LOS Summary

Roadway Segment	Class	Capacity (LOS E)	Existing		Existing + Phase 1 and Phase 2 Project				Sig		
			ADT	V/C	LOS	Proj. Trips	ADT	V/C		LOS	DV/C
Carmel Valley Road											
Edgewood Court to Del Mar Heights Rd.	4M	40,000	15,597	0.390	B	308	15,905	0.398	B	0.008	No
Del Mar Heights Rd. to Pacific Highlands Rancho Parkway	4M	40,000	15,595	0.390	B	420	16,015	0.400	B	0.011	No
Pacific Highlands Rd. to Zinnia Hills Place	4M	40,000	15,045	0.376	B	392	15,437	0.386	B	0.010	No
Zinnia Hills Place to Loopella Meadows Place	4M	40,000	15,045	0.376	B	280	15,325	0.383	B	0.007	No
Loopella Meadows Place to Rancho Santa Fe Farms Rd. (a)	4M	40,000	15,045	0.376	B	166	15,211	0.380	B	0.004	No
Del Mar Heights Road											
W/O Carmel Valley Rd.	4M	40,000	15,043	0.376	B	588	15,631	0.391	B	0.015	No
W/O Old Carmel Valley Rd.	4M	40,000	15,043	0.376	B	497	15,540	0.389	B	0.012	No
Village Center Loop Road											
Carmel Valley to High School Signal	4M	40,000	5,013	0.125	A	1,316	6,329	0.158	A	0.033	No
High School Signal to Project Access Signal	4M	40,000	1,988	0.050	A	84	2,072	0.052	A	0.002	No
E/O Project Access	4M	40,000	1,988	0.050	A	84	2,072	0.052	A	0.002	No

City = Capacity of City segments is based on the upper limits of LOS E per the City of San Diego; SBX = South Bay Expressway County = Capacity of County segments is based on the upper limits of LOS E per the County of San Diego; Bold = Jurisdiction which capacity is based on; ADT= Average Daily Traffic; LOS= Level of Service; V/C = Volume-to LOS E Capacity Ratio; 4-Fwy = 4-Lane Freeway; 4-Toll = 4-Lane Toll Facility; 6P = 6-Lane Prime Arterial; 4M (m) = Modified 4-Lane Major Road; 4M = 4-Lane Major Road; 4C = 4-Lane Collector; TC = Town Collector; LC = Light Collector; I/C Cul-De-Sac= Industrial/Commercial Cul-De-Sac, > C = ADT exceeds the recommended capacity for LOS C, <C = ADT is less than the recommended capacity for LOS C, Proj = Project, (a) Carmel Valley Road between Loopella Meadows Road and Rancho Santa Fe Farms Road is widened to 4M standards by FY 2013 by Funded and Scheduled CIP Project.

Table 9 – Existing Plus Phase 1 Project Conditions Intersection Daily LOS Summary

Intersections	Jurisdiction	Traffic Control	Critical Movement	Existing						Existing + Phase 1 Project					
				AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
				Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Carmel Valley Road @ Edgewood Court	City	Signal	Int.	8.7	A	7.4	A	8.7	A	0.0	No	7.3	A	(0.1)	No
Carmel Valley Road @ Del Mar Heights Road	City	Signal	Int.	41.7	D	18.8	B	42.6	D	0.9	No	20.5	C	1.7	No
Carmel Valley Road @ Pacific Highlands Ranch Parkway	City	Signal	Int.	8.4	A	5.6	A	10.1	B	1.7	No	5.6	A	0.0	No
Carmel Valley Road @ Zinnia Hills Place	City	Signal	Int.	15.4	B	16.9	B	14.1	B	(1.3)	No	17.1	B	0.2	Yes
Del Mar Heights Road @ Old Carmel Valley Road	City	Signal	Int.	18.1	B	15.6	B	18.4	B	0.3	No	18.2	B	2.6	No
Del Mar Heights Road @ Valero Gate	City	Signal	Int.	20.5	C	27.7	C	30.9	C	10.4	No	27.8	C	0.1	No
Village Center Loop Road @ High School Signal	City	Signal	Int.	10.2	B	10.9	B	10.1	B	(0.1)	No	10.9	B	0.0	No
Village Center Loop Road @ Project Access Signal	City	Signal	Int.	10.5	B	11.3	B	11.7	B	1.2	No	10.9	B	(0.4)	No

LOS=Level of Service; Delay is measured in seconds/vehicle; sig=signalized; TWSC=Two-Way Stop-Controlled; Int=Intersection; NB=Northbound Approach; SB=Southbound Approach; NBL=Northbound Left; NBL-T=Northbound Left-Through; SBX=South Bay Expressway; E-W=East-West Roadway; N-S=North-South Roadway; Bold = Jurisdiction which significance criteria is based on Delay = Increase (decrease) in delay; Occasionally adding traffic to a critical movement optimizes the intersection resulting in a decrease in delay

Table 10 – Existing Plus Phase 1 and Phase 2 Project Conditions Intersection Daily LOS Summary

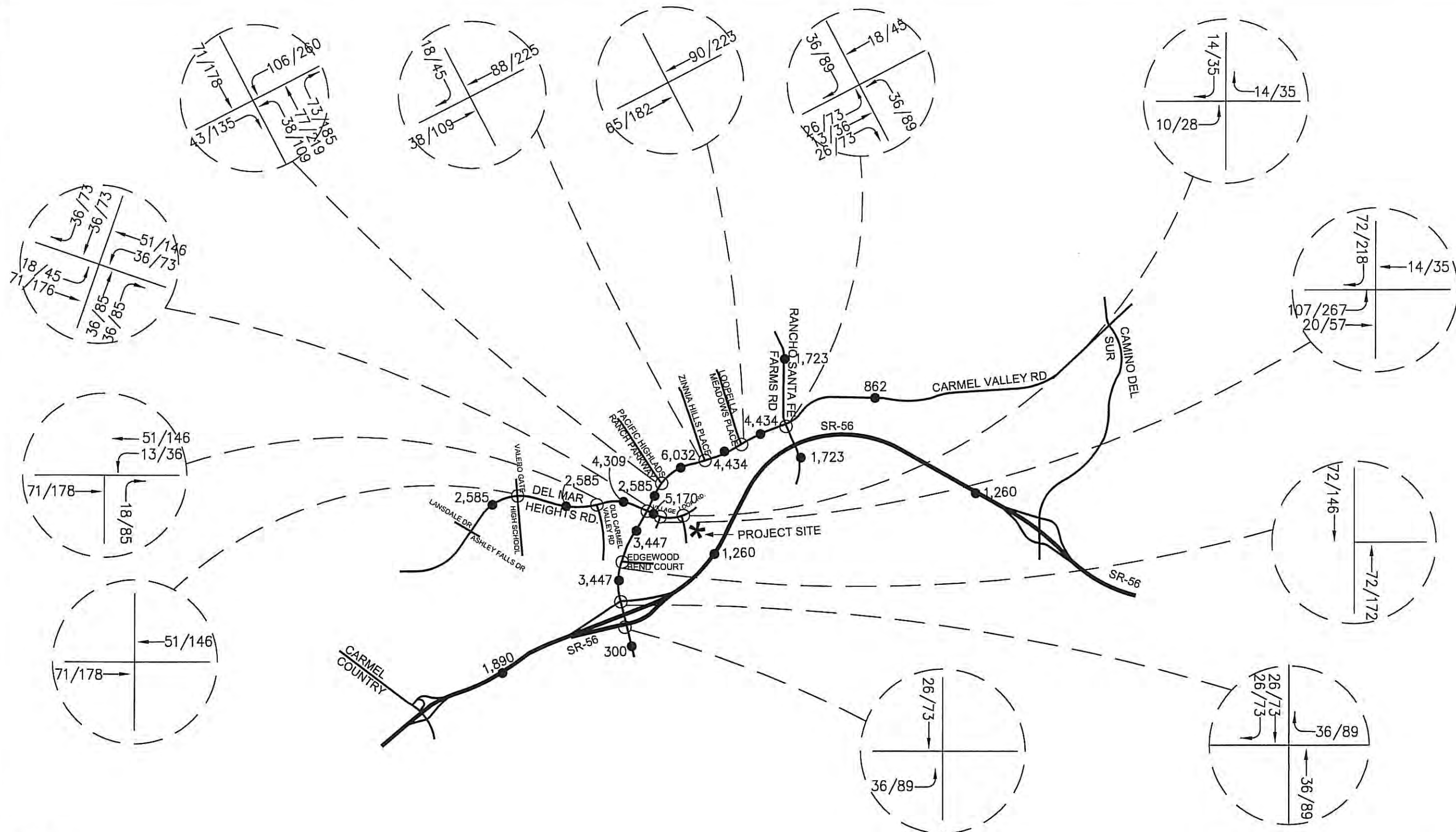
Intersections	Jurisdiction	Traffic Control	Critical Movement	Existing						Existing + Phase 1 and Phase 2 Project					
				AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
				Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Carmel Valley Road @ Edgewood Court	City	Signal	Int.	8.7	A	7.4	A	8.7	A	0.0	No	7.4	A	0.0	No
Carmel Valley Road @ Del Mar Heights Road	City	Signal	Int.	41.7	D	18.8	B	43.0	D	1.3	No	18.8	B	0.0	No
Carmel Valley Road @ Pacific Highlands Ranch Parkway	City	Signal	Int.	8.4	A	5.6	A	10.3	B	1.9	No	7.3	A	1.7	No
Carmel Valley Road @ Zinnia Hills Place	City	Signal	Int.	15.4	B	16.9	B	15.5	B	0.1	No	16.6	B	(0.3)	No
Del Mar Heights Road @ Old Carmel Valley Road	City	Signal	Int.	18.1	B	15.6	B	18.6	B	0.5	No	18.3	B	2.7	No
Del Mar Heights Road @ Valero Gate	City	Signal	Int.	20.5	C	27.7	C	32.1	C	11.6	No	23.6	C	(4.1)	No
Village Center Loop Road @ High School Signal	City	Signal	Int.	10.2	B	10.9	B	12.0	B	1.8	No	11.2	B	0.3	No
Village Center Loop Road @ Project Access Signal	City	Signal	Int.	10.5	B	11.3	B	13.1	B	2.6	No	10.6	B	(0.7)	No

LOS=Level of Service; Delay is measured in seconds/vehicle; sig=signalized; TWSC=Two-Way Stop-Controlled; Int=Intersection; NB=Northbound Approach; SB=Southbound Approach; NBL=Northbound Left; NBL-T=Northbound Left-Through; SBX=South Bay Expressway; E-W=East-West Roadway; N-S=North-South Roadway; Bold = Jurisdiction which significance criteria is based on Delay = Increase (decrease) in delay; Occasionally adding traffic to a critical movement optimizes the intersection resulting in a decrease in delay

Figure 11 was prepared showing the distribution of the Pacific Highlands Ranch Town Center project traffic. The traffic presented on Figure 11 was then added to the existing plus Phase 1 and Phase 1 plus Phase 2 project traffic. The resulting volumes are presented on Figures 12 and 13 respectively.

Tables 11 and 12 were then prepared analyzing the cumulative impacts of the Phase 1 and Phase 2 traffic. Review of Tables 11 and 12 identify that each of the roadway segments will operate at LOS 'B' or better. Therefore the project does not create any significant impact on the surrounding roadway segments.

The peak hour traffic volumes presented on Figures 11 and 12 for the key study area intersections were also analyzed to determine project cumulative impacts. The results are presented on Tables 13 and 14 respectively for cumulative plus Phase 1 and 2 conditions. Review of Tables 13 and 14 identify that each of the key intersections will operate at a LOS 'C' or better except Carmel Valley Road at Del Mar Heights Road at LOS 'D' in the AM peak and the Carmel Valley Road at Pacific Highlands Ranch Parkway intersection will operate at a LOS 'D' in the PM peak. However, each of the intersections will operate at a LOS 'D' or better and therefore the project will not create any significant impacts.

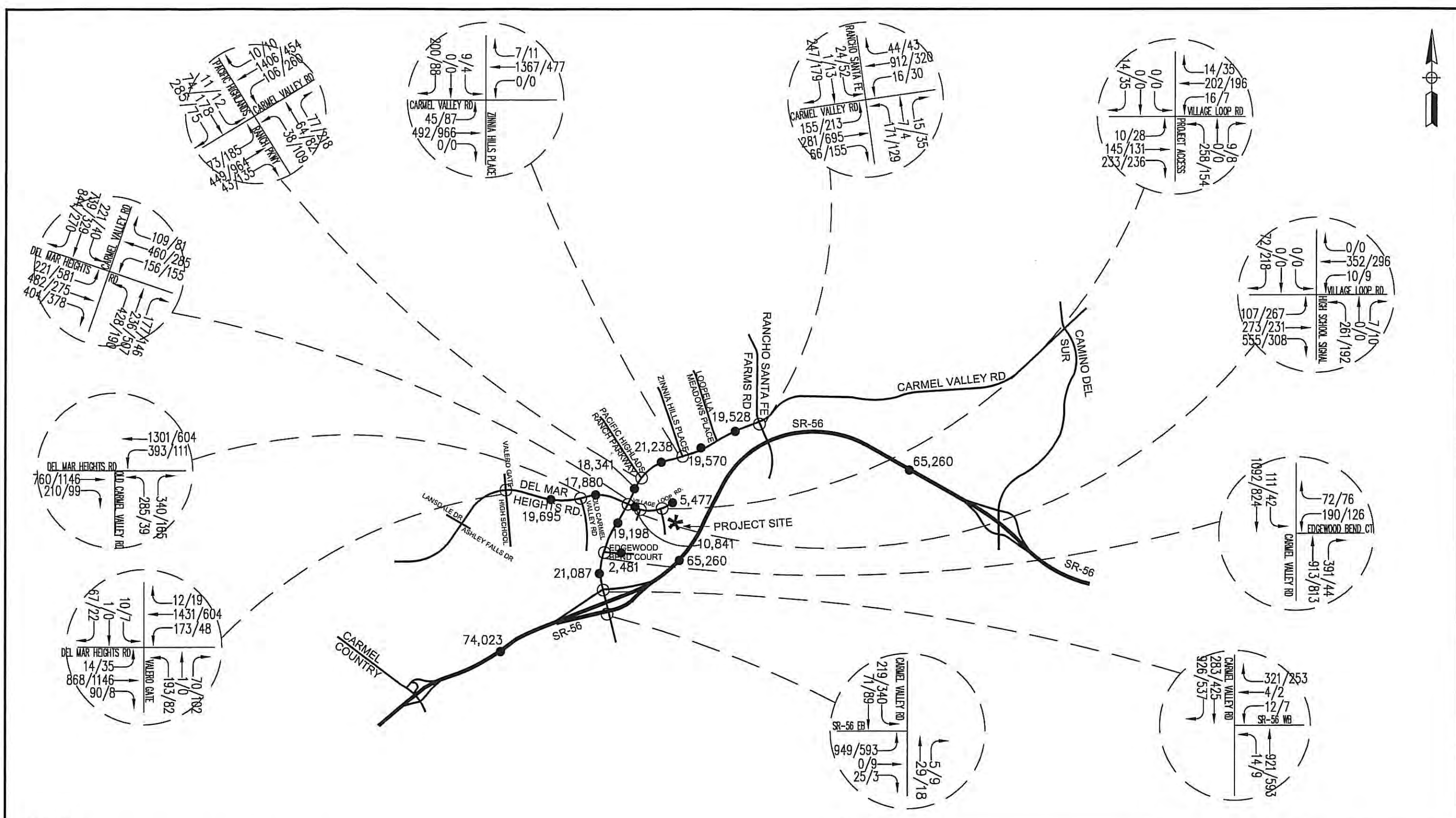


LEGEND

- * - PROJECT SITE
- XX/YY - AM/PM TRAFFIC
- Z,ZZZ - AVERAGE DAILY TRAFFIC
- - DIRECTION OF TRAVEL

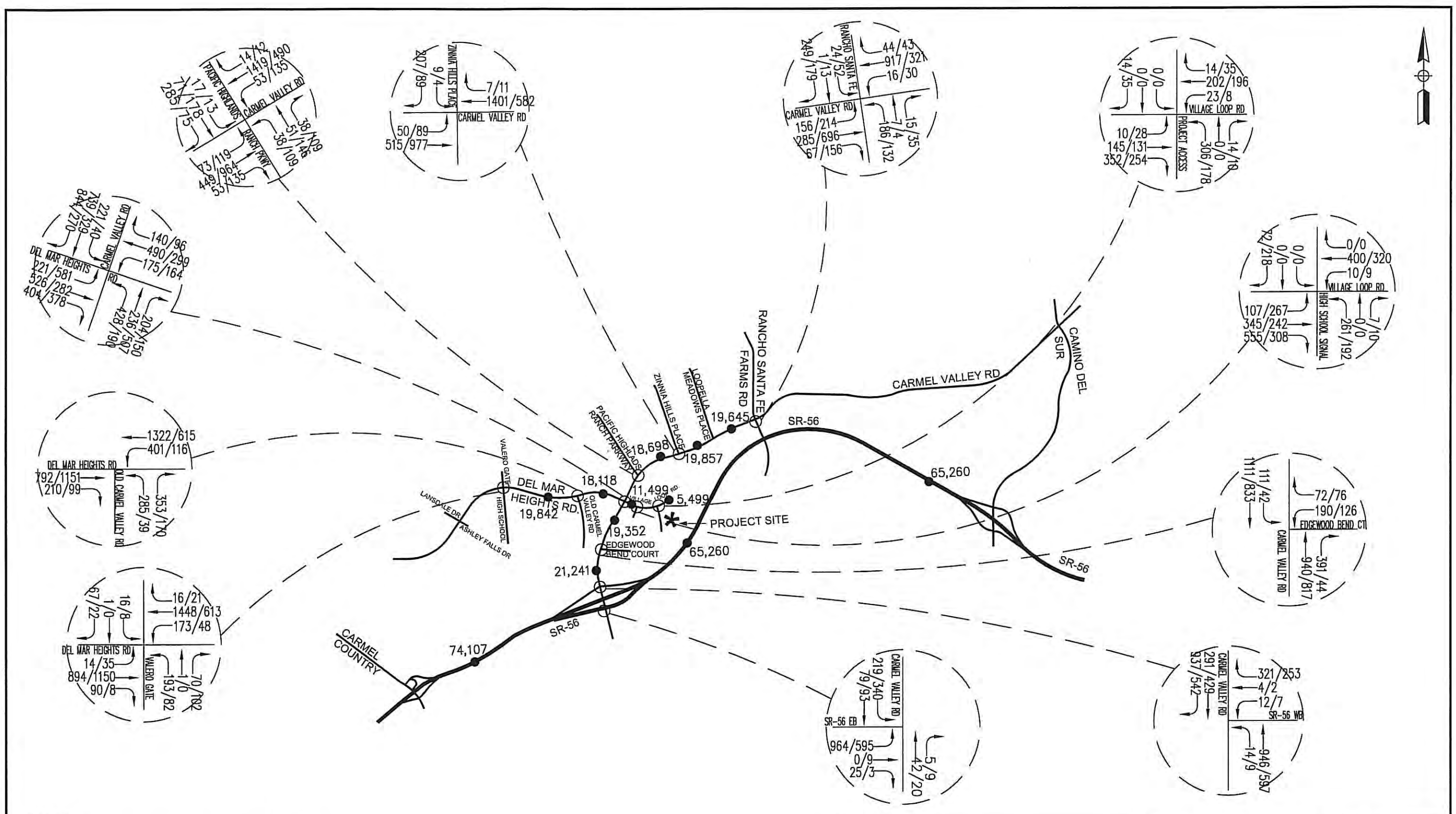
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FIGURE 11
 CUMULATIVE PROJECTS TRAFFIC



LEGEND
 XX/YY - AM/PM PEAK HOUR TURN VOLUMES
 ● Z,ZZZ - AVERAGE DAILY TRAFFIC
 * - PROJECT SITE
 → - DIRECTION OF TRAVEL

Darnell & ASSOCIATES, INC. 120904AB_2.dwg 5-08-13 JMM	FIGURE 12 EXISTING + PHASE 1 + CUMULATIVE PROJECT TRAFFIC
---	--



LEGEND
 XX/YY - AM/PM PEAK HOUR TURN VOLUMES
 ● Z,ZZZ - AVERAGE DAILY TRAFFIC
 * - PROJECT SITE
 → - DIRECTION OF TRAVEL

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FIGURE 13
 EXISTING PLUS PHASE 1 + 2
 + CUMULATIVE PROJECT TRAFFIC

Table 11 – Cumulative Plus Phase 1 Project Conditions Roadway Segment Daily LOS Summary

Roadway Segment	Class	Capacity (LOS E)	Existing			Cumulative + Phase 1 Project				Sig	
			ADT	V/C	LOS	Cum. + Proj. Trips	ADT	V/C	LOS		DV/C
Carmel Valley Road											
Edgewood Court to Del Mar Heights Rd.	4M	40,000	15,597	0.390	B	3,601	19,198	0.480	B	0.090	No
Del Mar Heights Rd. to Pacific Highlands Rancho Parkway	4M	40,000	15,595	0.390	B	2,746	18,341	0.459	B	0.069	No
Pacific Highlands Rd. to Zinnia Hills Place	4M	40,000	15,045	0.376	B	6,193	21,238	0.531	B	0.155	No
Zinnia Hills Place to Loopella Meadows Place	4M	40,000	15,045	0.376	B	4,525	19,570	0.489	B	0.113	No
Loopella Meadows Place to Rancho Santa Fe Farms Rd. (a)	4M	40,000	15,045	0.376	B	4,483	19,528	0.488	B	0.112	No
Del Mar Heights Road											
W/O Carmel Valley Rd.	4M	40,000	15,043	0.376	B	4,652	19,695	0.492	B	0.116	No
W/O Old Carmel Valley Rd.	4M	40,000	15,043	0.376	B	2,837	17,880	0.447	B	0.012	No
Village Center Loop Road											
Carmel Valley to High School Signal	4M	40,000	5,013	0.125	A	5,828	10,841	0.271	A	0.033	No
High School Signal to Project Access Signal	4M	40,000	1,988	0.050	A	3,489	5,477	0.137	A	0.002	No
E/O Project Access	4M	40,000	1,988	0.050	A	3,489	5,477	0.137	A	0.002	No

City = Capacity of City segments is based on the upper limits of LOS E per the City of San Diego; SBX = South Bay Expressway County = Capacity of County segments is based on the upper limits of LOS E per the County of San Diego; **Bold** = Jurisdiction which capacity is based on; ADT = Average Daily Traffic; LOS = Level of Service; V/C = Volume-to LOS E Capacity Ratio; 4-Fwy = 4-Lane Freeway; 4-Toll = 4-Lane Toll Facility; 6P = 6-Lane Prime Arterial; 4M (m) = Modified 4-Lane Major Road; 4M = 4-Lane Major Arterial; 4C = 4-Lane Collector; TC = Town Collector; LC = Light Collector; I/C Cul-De-Sac = Industrial/Commercial Cul-De-Sac; > C = ADT exceeds the recommended capacity for LOS C, <C = ADT is less than the recommended capacity for LOS C, <C = ADT is less than the recommended capacity for LOS C, Cum = Cumulative, Proj = Project, (a) Carmel Valley Road between Loopella Meadows Road and Rancho Santa Fe Farms Road is widened to 4M standards by FY 2013 by Funded and Scheduled CIP Project.

Table 12 – Cumulative Plus Phase 1 and Phase 2 Project Conditions Roadway Segment Daily LOS Summary

Roadway Segment	Class	Capacity (LOS E)	Existing			Cumulative + Phase 1 and Phase 2 Project				Sig	
			ADT	V/C	LOS	Cum. + Proj. Trips	ADT	V/C	LOS		DV/C
Carmel Valley Road											
Edgewood Court to Del Mar Heights Rd.	4M	40,000	15,597	0.390	B	3,755	19,352	0.484	B	0.094	No
Del Mar Heights Rd. to Pacific Highlands Rancho Parkway	4M	40,000	15,595	0.390	B	3,103	18,698	0.467	B	0.078	No
Pacific Highlands Rd. to Zinnia Hills Place	4M	40,000	15,045	0.376	B	6,494	21,539	0.538	B	0.162	No
Zinnia Hills Place to Loopella Meadows Place	4M	40,000	15,045	0.376	B	4,812	19,857	0.496	B	0.120	No
Loopella Meadows Place to Rancho Santa Fe Farms Rd. (a)	4M	40,000	15,045	0.376	B	4,600	19,645	0.383	B	0.006	No
Del Mar Heights Road											
W/O Carmel Valley Rd.	4M	40,000	15,043	0.376	B	4,799	19,842	0.496	B	0.120	No
W/O Old Carmel Valley Rd.	4M	40,000	15,043	0.376	B	3,075	18,118	0.453	B	0.077	No
Village Center Loop Road											
Carmel Valley to High School Signal	4M	40,000	5,013	0.125	A	6,486	11,499	0.287	A	0.162	No
High School Signal to Project Access Signal	4M	40,000	1,988	0.050	A	3,531	5,519	0.138	A	0.088	No
E/O Project Access	4M	40,000	1,988	0.050	A	3,531	5,519	0.138	A	0.088	No

City = Capacity of City segments is based on the upper limits of LOS E per the City of San Diego; SBX = South Bay Expressway County = Capacity of County segments is based on the upper limits of LOS E per the County of San Diego; **Bold** = Jurisdiction which capacity is based on; ADT = Average Daily Traffic; LOS = Level of Service; V/C = Volume-to LOS E Capacity Ratio; 4-Fwy = 4-Lane Freeway; 4-Toll = 4-Lane Toll Facility; 6P = 6-Lane Prime Arterial; 4M (m) = Modified 4-Lane Major Road; 4M = 4-Lane Major Arterial; 4C = 4-Lane Collector; TC = Town Collector; LC = Light Collector; I/C Cul-De-Sac = Industrial/Commercial Cul-De-Sac; > C = ADT exceeds the recommended capacity for LOS C, <C = ADT is less than the recommended capacity for LOS C, Cum = Cumulative, Proj = Project, (a) Carmel Valley Road between Loopella Meadows Road and Rancho Santa Fe Farms Road is widened to 4M standards by FY 2013 by Funded and Scheduled CIP Project.

Table 13 – Cumulative Plus Phase 1 Project Conditions Intersection Daily LOS Summary

Intersections	Existing										Cumulative + Phase 1 Project													
	Jurisdiction		Traffic Control	Critical Movement	AM Peak		PM Peak		LOS		Delay (sec)		AM Peak		PM Peak		LOS		Delay (sec)		PM Peak			
	City	State			Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	Sig.
Carmel Valley Road @ Edgewood Court	City		Signal	Int.	8.7	A	7.4	A	A	8.8	A	0.1	No	7.2	A	(0.2)	No							
Carmel Valley Road @ Del Mar Heights Road	City		Signal	Int.	41.7	D	18.8	B	B	48.0	D	3.7	No	22.3	C	3.5	No							
Carmel Valley Road @ Pacific Highlands Ranch Parkway	City		Signal	Int.	8.4	A	5.6	A	A	19.1	B	8.5	No	29.3	C	23.7	No							
Carmel Valley Road @ Zinnia Hills Place	City		Signal	Int.	15.4	B	16.9	B	B	22.6	C	9.6	No	21.5	C	4.6	No							
Del Mar Heights Road @ Old Carmel Valley Road	City		Signal	Int.	18.1	B	15.6	B	B	18.8	B	0.7	No	19.4	B	3.8	No							
Del Mar Heights Road @ Valero Gate/ High School Signal	City		Signal	Int.	20.5	C	27.7	C	C	29.4	C	4.1	No	24.0	C	(3.7)	No							
Village Center Loop Road @ High School Signal	City		Signal	Int.	10.2	B	10.9	C	C	20.7	C	10.5	No	13.3	B	2.4	No							
Village Center Loop Road @ Project Access Signal	City		Signal	Int.	10.5	B	11.3	B	B	20.3	B	9.8	No	12.3	B	1.0	No							

LOS=Level of Service; Delay is measured in seconds/vehicle; sig=signalized; TWSC = Two-Way Stop-Controlled; OWSC=One Way Stop-Controlled; Int = Intersection; NB = Northbound Approach; SB = Southbound Approach; NBL = Northbound Left; NBL-T = Northbound Left-Through; SBX = South Bay Expressway; E-W = East-West Roadway; N-S = North-South Roadway; Bold = Jurisdiction which significance criteria is based on Delay = Increase (decrease) in delay; Occasionally adding traffic to a critical movement optimizes the intersection resulting in a decrease in delay

Table 14 – Cumulative Plus Phase 1 and Phase 2 Project Conditions Intersection Daily LOS Summary

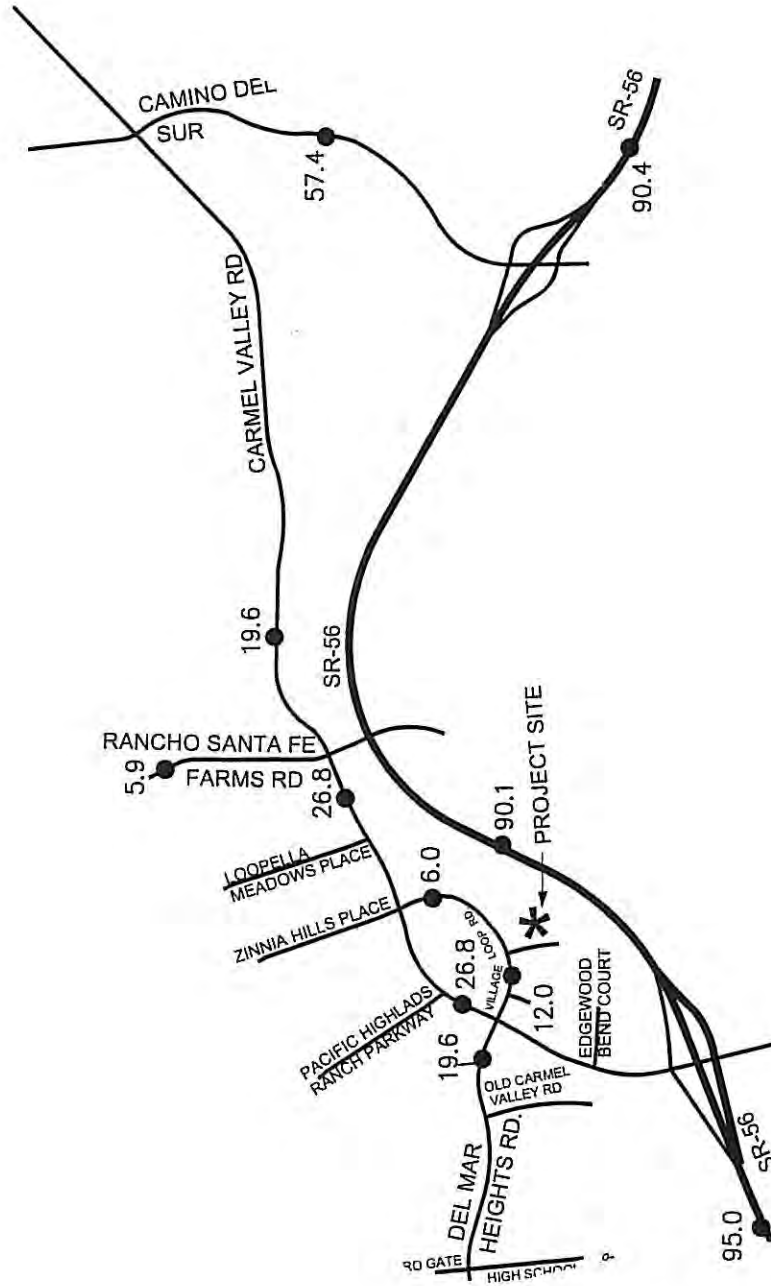
Intersections	Existing										Cumulative + Phase 1 and Phase 2 Project													
	Jurisdiction		Traffic Control	Critical Movement	AM Peak		PM Peak		LOS		Delay (sec)		AM Peak		PM Peak		LOS		Delay (sec)		PM Peak			
	City	State			Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	Sig.		
Carmel Valley Road @ Edgewood Court	City		Signal	Int.	8.7	A	7.4	A	A	8.8	A	0.1	No	7.2	A	(0.2)	No							
Carmel Valley Road @ Del Mar Heights Road	City		Signal	Int.	41.7	D	18.8	B	B	48.9	D	7.2	No	22.5	C	3.7	No							
Carmel Valley Road @ Pacific Highlands Ranch Parkway	City		Signal	Int.	8.4	A	5.6	A	A	18.6	B	8.7	No	22.2	C	16.6	No							
Carmel Valley Road @ Zinnia Hills Place	City		Signal	Int.	15.4	B	16.9	B	B	16.4	B	10.3	No	22.1	C	5.2	No							
Del Mar Heights Road @ Old Carmel Valley Road	City		Signal	Int.	18.1	B	15.6	B	B	19.1	B	1	No	19.5	B	3.9	No							
Del Mar Heights Road @ Valero Gate/ High School Signal	City		Signal	Int.	20.5	C	27.7	C	C	34.3	C	5.2	No	24.0	C	(3.7)	No							
Village Center Loop Road @ High School Signal	City		Signal	Int.	10.2	B	10.9	B	B	16.8	B	6.6	No	16.7	B	5.8	No							
Village Center Loop Road @ Project Access Signal	City		Signal	Int.	10.5	B	11.3	B	B	13.4	B	2.9	No	12.5	B	1.2	No							

LOS=Level of Service; Delay is measured in seconds/vehicle; sig=signalized; TWSC = Two-Way Stop-Controlled; OWSC=One Way Stop-Controlled; Int = Intersection; NB = Northbound Approach; SB = Southbound Approach; NBL = Northbound Left; NBL-T = Northbound Left-Through; SBX = South Bay Expressway; E-W = East-West Roadway; N-S = North-South Roadway; Bold = Jurisdiction which significance criteria is based on Delay = Increase (decrease) in delay; Occasionally adding traffic to a critical movement optimizes the intersection resulting in a decrease in delay

HORIZON YEAR 2030 CONDITIONS

Future traffic forecasts for the area were assembled from SANDAG. Reviews of the future forecasts provided by SANDAG identified future volumes on SR-56 equal to or are less than the existing traffic conditions. Therefore we assembled the future daily traffic volumes from the June 8, 1998 Transportation Analysis prepare by Urban Systems Associates, Inc. Copies of experts from the report are presented in Appendix C. Figure 14 presents the future forecasts utilized in this report. The daily forecasts are provided for Air and Noise Studies. Table 15 presents the daily capacity analysis for the Year 2030 Conditions. Review of Table 15 shows that each of the roadways will operate at LOS 'D' or better. Therefore does not create any significant impacts.

Table 15 – Future Year 2030 Roadway Segment Conditions							
Roadway Segment	Existing + Phase 1 Project						
	Class	Capacity (LOS E)	Proj. Trips	ADT	V/C	LOS	Sig
Carmel Valley Road							
·SR-56 to Edgewood Court	4M	50,000	154	29,700	0.74	D	No
·Edgewood Court to Del Mar Heights Rd.	4M	50,000	154	29,700	0.74	D	No
·Del Mar Heights Rd. to Pacific Highlands Rancho Pkwy	4M	40,000	161	26,000	0.65	C	No
·Pacific Highlands Rd. to Zinnia Hills Place	4M	40,000	161	26,000	0.65	C	No
Del Mar Heights Road							
·W/O Carmel Valley Rd.	4M	40,000	343	19,600	0.49	B	No
·W/O Old Carmel Valley Rd.	4M	40,000	252	19,100	0.48	B	No
Village Center Loop Road							
·Carmel Valley to High School Signal	4M	40,000	658	12,000	0.30	A	No
·High School Signal to Project Access Signal	4M	40,000	358	12,000	0.30	A	No
·E/O Project Access	4M	40,000	42	6,000	0.15	A	No
SR-56							
W/O Carmel Valley Road	6F	120,000	-	95,000	0.79	D	No
E/O Carmel Valley Road	6F	120,000	-	95,000	0.75	D	No
City = Capacity of City segments is based on the upper limits of LOS E per the City of San Diego; SBX = South Bay Expressway County = Capacity of County segments is based on the upper limits of LOS E per the County of San Diego; Bold = Jurisdiction which capacity is based on; ADT= Average Daily Traffic; LOS= Level of Service; V/C = Volume-to-LOS E Capacity Ratio; 6-Fwy = 6-Lane Freeway; 4-Toll = 4-Lane Toll Facility; 6P = 6-Lane Prime Arterial; 4M (m) = Modified 4-Lane Major Road; 4M = 4-Lane Major Arterial; 4C = 4-Lane Collector; TC = Town Collector; LC = Light Collector; I/C Cul-De-Sac= Industrial/Commercial Cul-De-Sac, > C = ADT exceeds the recommended capacity for LOS C, <C = ADT is less than the recommended capacity for LOS C							



LEGEND

● XX.X = DAILY TRAFFIC IN THOUSANDS

SOURCE: TRANSPORTATION ANALYSIS FOR THE FUTURE URBANIZING SUBAREA 111 DATED JUNE 8, 1998, PREPARED BY URBAN SYSTEMS ASSOCIATES INC.

FIGURE 14
FUTURE CONDITIONS

Darnell & ASSOCIATES, INC.

120904AB_2.dwg 5-08-13

JMM

SECTION V – MITIGATION MEASURES

The analysis of adding project traffic to the existing surrounding roadways and intersections for Existing Plus Project and Cumulative Conditions concluded that the project did not create any significant impacts that would not require any mitigation.

Access to the project site will require construction of the access road from Village Center Loop Road to the School. The final access road improvements may require minor modifications of the traffic signal at Village Center Loop Road to accommodate the proposed access.

The project is within the Pacific Highlands Ranch Public Facilities Financing Plan and Facilities Benefit Assessment District and will be required to pay the current Facilities Benefit Area (FBA) Fees in accordance with the latest plan. Excerpts from the latest 2013 plan are presented in Appendix C.

SECTION VI - SUMMARY OF FINDINGS AND CONCLUSIONS

- The proposed development of the San Dieguito Middle School will accommodate 500 students with Phase 1 development. The school is planned to allow expansion as needed up to an additional 500 students by the Year 2020.
- The proposed Middle School site was included in the Master Environmental Impact Report for Pacific Highlands Ranch (Subarea III) Subarea Plan in the North City Future Urbanizing Area (NCUFA) dated June 8, 1998. A copy of Figure 3-20 Master Rezoning Subarea Plan 1 showing the Middle School site is presented in Appendix C.
- Phase 1 development of the school with 500 students will generate 700 daily, 140 AM peak and 84 PM peak vehicles that will be added to the surrounding street system. Expansion of the Middle School to add up to an additional 500 students by the Year 2020 will add up to 700 daily, 140 AM peak and 84 PM peak vehicles to the surrounding street system.
- Each of the intersections and roadway segments analyzed can accommodate the addition of the initial Phase 1-500 students and the future Phase 2-500 student's traffic.
- The analysis of the existing plus project traffic conditions and cumulative plus project traffic volumes on the surrounding circulation system found each of the intersections to operate at LOS 'D' or better and would not create any significant impact.
- The project is within the Pacific Highlands Ranch Public Facilities Benefit Assessment District and will be required to pay the current Facilities Benefit Area Fees (FBA).
- Access to and from the project site will require modification of the existing site access to accommodate the onsite access, drop-off, pickup, parking and Bus loading areas. Review of the concept plan found it to be satisfactory. The provisions of two lanes in and two lanes out may require widening of the entrance at Village Center Loop Road and necessary modifications to the existing traffic signal.

APPENDIX A
➤ **Traffic Counts**

TUESDAY - JANUARY 15, 2013

CITY: SAN DIEGUITO

PROJECT: CA13-0118-01

EDGEWOOD BEND W-O FIRE STATION ACCESS

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			0	0	12:00			27	42			
00:15			0	0	12:15			3	18			
00:30			0	0	12:30			3	9			
00:45			0	0	12:45			4	37	4	73	110
01:00			0	0	13:00			2	6			
01:15			0	0	13:15			10	2			
01:30			0	0	13:30			16	11			
01:45			1	1	0	0	1	13	41	18	37	78
02:00			0	1	14:00			6	19			
02:15			0	1	14:15			5	26			
02:30			0	0	14:30			9	38			
02:45			0	0	0	2	2	15	35	44	127	162
03:00			0	0	15:00			53	205			
03:15			0	0	15:15			81	101			
03:30			0	0	15:30			29	33			
03:45			0	0	0	0		10	173	25	364	537
04:00			0	0	16:00			7	18			
04:15			0	0	16:15			7	20			
04:30			0	0	16:30			2	16			
04:45			0	0	0	0		11	27	18	72	99
05:00			0	0	17:00			19	12			
05:15			1	2	17:15			27	35			
05:30			3	1	17:30			19	44			
05:45			2	6	2	5	11	18	83	12	103	186
06:00			2	1	18:00			1	18			
06:15			4	3	18:15			6	9			
06:30			4	1	18:30			5	11			
06:45			13	23	8	13	36	11	23	16	54	77
07:00			18	7	19:00			3	9			
07:15			15	6	19:15			2	5			
07:30			42	12	19:30			0	4			
07:45			156	231	22	47	278	0	5	2	20	25
08:00			391	66	20:00			0	1			
08:15			25	58	20:15			1	0			
08:30			9	22	20:30			3	1			
08:45			5	430	18	164	594	1	5	0	2	7
09:00			5	12	21:00			1	0			
09:15			3	18	21:15			0	0			
09:30			15	11	21:30			0	1	1	2	3
09:45			17	40	9	50	90	0	1	1	2	3
10:00			3	16	22:00			0	0			
10:15			3	11	22:15			0	1			
10:30			4	5	22:30			0	2			
10:45			3	13	4	36	49	0	0	0	3	3
11:00			5	6	23:00			0	0			
11:15			10	5	23:15			0	0			
11:30			9	4	23:30			0	0			
11:45			50	74	44	59	133	0	0	0	0	0

Total Vol.			818	376	1194			430	857	1287
								Daily Totals		
						NB	SB	EB	WB	Combined
								1248	1233	2481
								PM		
Split %			68.5%	31.5%	48.1%			33.4%	66.6%	51.9%
Peak Hour			07:30	07:45	07:30			14:45	14:30	14:45
Volume			614	168	772			178	388	561
P.H.F.			0.39	0.64	0.42			0.55	0.47	0.54

TUESDAY - JANUARY 15, 2013

CITY: SAN DIEGUITO

PROJECT: CA13-0118-01

CARMEL VALLEY BTN EDGEWOOD BEND & DEL MAR HIEGHTS

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00	6	4			12:00	98	70					
00:15	10	4			12:15	98	72					
00:30	8	4			12:30	91	80					
00:45	4	28	3	15	43	12:45	94	381	73	295	676	
01:00	7	1			13:00	81	97					
01:15	3	7			13:15	87	80					
01:30	4	1			13:30	103	77					
01:45	6	20	0	9	29	13:45	136	407	88	342	749	
02:00	5	1			14:00	127	59					
02:15	2	1			14:15	132	115					
02:30	1	0			14:30	153	210					
02:45	1	9	2	4	13	14:45	144	556	137	521	1077	
03:00	2	2			15:00	151	125					
03:15	0	2			15:15	205	158					
03:30	1	0			15:30	212	155					
03:45	2	5	1	5	10	15:45	147	715	117	555	1270	
04:00	2	0			16:00	132	111					
04:15	4	1			16:15	150	134					
04:30	0	7			16:30	154	126					
04:45	2	8	6	14	22	16:45	163	599	137	508	1107	
05:00	5	8			17:00	153	134					
05:15	2	10			17:15	160	149					
05:30	6	27			17:30	161	170					
05:45	11	24	18	63	87	17:45	175	649	162	615	1264	
06:00	31	41			18:00	168	129					
06:15	20	43			18:15	187	109					
06:30	43	60			18:30	205	93					
06:45	67	161	80	224	385	18:45	213	773	96	427	1200	
07:00	130	132			19:00	197	126					
07:15	134	189			19:15	139	80					
07:30	134	217			19:30	123	59					
07:45	243	641	275	813	1454	19:45	105	564	58	323	887	
08:00	324	331			20:00	88	58					
08:15	172	298			20:15	94	80					
08:30	132	206			20:30	91	60					
08:45	117	745	211	1046	1791	20:45	66	339	27	225	564	
09:00	111	234			21:00	84	36					
09:15	102	173			21:15	57	29					
09:30	88	149			21:30	63	31					
09:45	67	368	140	696	1064	21:45	42	246	11	107	353	
10:00	80	122			22:00	66	6					
10:15	54	85			22:15	50	14					
10:30	67	93			22:30	36	12					
10:45	65	266	79	379	645	22:45	29	181	9	41	222	
11:00	68	66			23:00	12	10					
11:15	74	66			23:15	14	7					
11:30	102	90			23:30	11	10					
11:45	75	319	59	281	600	23:45	16	53	5	32	85	
Total Vol.		2594		3549		6143		5463		3991		9454

Daily Totals

NB	SB	EB	WB	Combined
8057	7540			15597

PM

AM	PM	Combined
39.4%	57.8%	60.6%

Split %	42.2%	57.8%	39.4%
Peak Hour	07:30	07:30	07:30
Volume	873	1121	1994
P.H.F.	0.67	0.85	0.76

18:15	14:30	14:45
802	630	1287
0.96	0.75	0.88

TUESDAY - JANUARY 15, 2013

CITY: SAN DIEGUITO

PROJECT: CA13-0118-01

CARMEL VALLEY W-O RANCHO SANTA FE FARMS

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00	5	3			12:00			80	91			
00:15	3	2			12:15			94	88			
00:30	4	1			12:30			101	70			
00:45	6	18	2	8	12:45	26		103	378	77	326	704
01:00	7	1			13:00			88	101			
01:15	5	0			13:15			92	84			
01:30	4	0			13:30			95	78			
01:45	3	19	1	2	13:45	21		111	386	84	347	733
02:00	4	2			14:00			114	95			
02:15	2	1			14:15			125	121			
02:30	1	0			14:30			135	110			
02:45	2	9	0	3	14:45	12		114	488	101	427	915
03:00	3	2			15:00			141	94			
03:15	0	1			15:15			218	126			
03:30	2	0			15:30			106	135			
03:45	4	9	2	5	15:45	14		182	647	114	469	1116
04:00	2	1			16:00			167	141			
04:15	5	2			16:15			151	98			
04:30	2	5			16:30			170	91			
04:45	3	12	3	11	16:45	23		218	706	77	407	1113
05:00	8	4			17:00			235	84			
05:15	2	7			17:15			205	82			
05:30	4	18			17:30			248	101			
05:45	10	24	22	51	17:45	75		319	1007	95	362	1369
06:00	18	28			18:00			305	84			
06:15	16	30			18:15			275	77			
06:30	22	51			18:30			268	84			
06:45	48	104	66	175	18:45	279		241	1089	68	313	1402
07:00	68	89			19:00			221	51			
07:15	66	151			19:15			119	48			
07:30	71	242			19:30			121	62			
07:45	118	323	318	800	19:45	1123		88	549	66	227	776
08:00	141	309			20:00			96	41			
08:15	162	321			20:15			103	42			
08:30	142	319			20:30			91	30			
08:45	135	580	251	1200	20:45	1780		84	374	21	134	508
09:00	110	244			21:00			70	19			
09:15	80	221			21:15			44	21			
09:30	79	140			21:30			68	22			
09:45	68	337	127	732	21:45	1069		41	223	23	85	308
10:00	70	132			22:00			51	15			
10:15	68	88			22:15			42	9			
10:30	72	97			22:30			35	12			
10:45	80	290	80	397	22:45	687		40	168	5	41	209
11:00	55	110			23:00			22	4			
11:15	81	99			23:15			18	8			
11:30	99	84			23:30			12	6			
11:45	72	307	90	383	23:45	690		19	71	4	22	93
Total Vol.		2032	3767		5799				6086		3160	9246

		Daily Totals			Combined
NB	SB	EB	WB		
				15045	

Split %	AM				PM			
	35.0%	65.0%	38.5%		65.8%	34.2%	61.5%	
Peak Hour	08:00	07:45	11:45	11:45	07:45	17:45	15:15	17:45
Volume	580	1267	275	249	1830	1167	516	1507
P.H.F.	0.90	0.99	0.68	0.68	0.95	0.91	0.91	0.91

TUESDAY - JANUARY 15, 2013

CITY: SAN DIEGUITO

PROJECT: CA13-0118-01

CARMEL VALLEY BTN SR-56 & EDGEWOOD BEND

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
00:00	5	3			12:00	116	108			
00:15	11	4			12:15	96	99			
00:30	7	4			12:30	90	120			
00:45	4	27	3	14	12:45	93	395	93	420	
01:00	7	1			13:00	84	124			
01:15	4	7			13:15	98	135			
01:30	4	1			13:30	103	125			
01:45	7	22	1	10	13:45	115	400	141	525	
02:00	4	1			14:00	97	162			
02:15	2	1			14:15	105	165			
02:30	1	0			14:30	161	262			
02:45	1	8	2	4	14:45	157	520	178	767	
03:00	1	2			15:00	191	159			
03:15	0	2			15:15	215	307			
03:30	2	0			15:30	210	235			
03:45	1	4	1	5	15:45	146	762	156	857	
04:00	2	0			16:00	143	151			
04:15	5	1			16:15	142	156			
04:30	0	7			16:30	168	147			
04:45	2	9	6	14	16:45	161	614	162	616	
05:00	6	9			17:00	147	149			
05:15	3	10			17:15	169	169			
05:30	10	25			17:30	141	198			
05:45	11	30	18	62	17:45	165	622	179	695	
06:00	34	42			18:00	166	142			
06:15	23	41			18:15	187	108			
06:30	54	62			18:30	207	92			
06:45	80	191	80	225	18:45	219	779	105	447	
07:00	138	136			19:00	194	123			
07:15	157	187			19:15	135	89			
07:30	180	223			19:30	122	65			
07:45	388	863	280	826	19:45	102	553	57	334	
08:00	468	354			20:00	84	59			
08:15	146	316			20:15	95	82			
08:30	143	224			20:30	87	59			
08:45	129	886	227	1121	20:45	71	337	26	226	
09:00	111	217			21:00	78	42			
09:15	99	188			21:15	57	29			
09:30	91	147			21:30	61	32			
09:45	80	381	165	717	21:45	39	235	11	114	
10:00	80	141			22:00	65	9			
10:15	59	116			22:15	49	15			
10:30	67	111			22:30	35	13			
10:45	65	271	101	469	22:45	30	179	9	46	
11:00	77	104			23:00	12	11			
11:15	82	99			23:15	14	7			
11:30	83	157			23:30	14	12			
11:45	111	353	81	441	23:45	15	55	5	35	
Total Vol.		3045	3908			6953	5451	5082		10533
							NB	SB	Daily Totals	Combined
							8496	8990	EB	WB
									PM	
Split %		43.8%	56.2%				51.8%	48.2%		60.2%
Peak Hour		07:15	07:45				18:15	14:30		14:45
Volume		1193	1174				807	906		1652
P.H.F.		0.64	0.83				0.95	0.74		0.79

TUESDAY - JANUARY 15, 2013

CITY: SAN DIEGUITO

PROJECT: CA13-0118-01

CARMEL VALLEY E-O DEL MAR HIEGHTS

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	6	5			12:00	89	94		
00:15	9	4			12:15	92	80		
00:30	9	4			12:30	116	83		
00:45	3	27	2	15	12:45	100	397	79	336
01:00	9	0			13:00	96	102		
01:15	2	3			13:15	95	85		
01:30	2	0			13:30	101	71		
01:45	5	18	0	3	13:45	106	398	94	352
02:00	3	1			14:00	121	103		
02:15	2	0			14:15	132	115		
02:30	0	1			14:30	136	115		
02:45	3	8	2	4	14:45	125	514	103	436
03:00	2	2			15:00	155	113		
03:15	0	1			15:15	203	145		
03:30	1	0			15:30	231	125		
03:45	2	5	1	4	15:45	197	786	116	499
04:00	4	0			16:00	157	121		
04:15	6	1			16:15	168	100		
04:30	0	7			16:30	180	113		
04:45	1	11	4	12	16:45	227	732	76	410
05:00	7	8			17:00	220	69		
05:15	2	6			17:15	225	93		
05:30	2	21			17:30	294	105		
05:45	13	24	14	49	17:45	295	1034	103	370
06:00	15	27			18:00	292	95		
06:15	14	33			18:15	301	80		
06:30	28	52			18:30	251	72		
06:45	51	108	60	172	18:45	243	1087	67	314
07:00	77	110			19:00	234	58		
07:15	70	162			19:15	134	60		
07:30	76	235			19:30	126	55		
07:45	122	345	323	830	19:45	99	593	59	232
08:00	152	304			20:00	95	52		
08:15	168	340			20:15	120	38		
08:30	137	315			20:30	92	34		
08:45	126	583	247	1206	20:45	71	378	21	145
09:00	118	250			21:00	82	34		
09:15	79	205			21:15	46	25		
09:30	91	151			21:30	74	32		
09:45	73	361	140	746	21:45	40	242	13	104
10:00	84	121			22:00	57	8		
10:15	67	95			22:15	49	12		
10:30	74	117			22:30	33	9		
10:45	78	303	85	418	22:45	30	169	4	33
11:00	59	106			23:00	20	9		
11:15	84	89			23:15	14	5		
11:30	94	104			23:30	11	6		
11:45	67	304	95	394	23:45	14	59	5	25
Total Vol.		2097	3853			5950	6389	3256	
									9645
								Daily Totals	
							NB	SB	EB
							8486	7109	WB
									Combined
									15595
								PM	
Split %		AM					66.2%	33.8%	61.8%
		35.2%	64.8%						
Peak Hour		08:00	07:45				17:30	15:15	17:30
Volume		583	1282				1182	507	1565
P.H.F.		0.87	0.94				0.99	0.87	0.98

TUESDAY - JANUARY 15, 2013

CITY: SAN DIEGUITO

PROJECT: CA13-0118-01

DEL MAR HIEGHTS W-O CARMEL VALLEY

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			1	2	12:00			68	85			
00:15			3	5	12:15			58	71			
00:30			5	4	12:30			99	77			
00:45			4	13	2	13	26	72	297	71	304	601
01:00			5	1	13:00			85	57			
01:15			5	3	13:15			80	58			
01:30			1	1	13:30			70	70			
01:45			2	13	2	7	20	62	297	100	285	582
02:00			1	3	14:00			64	101			
02:15			2	1	14:15			183	139			
02:30			0	1	14:30			275	178			
02:45			2	5	1	6	11	187	709	145	563	1272
03:00			0	0	15:00			222	116			
03:15			1	0	15:15			238	207			
03:30			1	0	15:30			168	217			
03:45			0	2	0	0	2	153	781	129	669	1450
04:00			2	0	16:00			140	133			
04:15			1	1	16:15			154	88			
04:30			0	0	16:30			154	111			
04:45			3	6	4	5	11	234	682	103	435	1117
05:00			2	1	17:00			221	93			
05:15			5	1	17:15			248	128			
05:30			7	11	17:30			294	173			
05:45			12	26	10	23	49	281	1044	133	527	1571
06:00			19	27	18:00			269	107			
06:15			15	24	18:15			244	86			
06:30			19	32	18:30			216	86			
06:45			36	89	41	124	213	178	907	91	370	1277
07:00			47	84	19:00			203	70			
07:15			81	144	19:15			88	85			
07:30			96	199	19:30			57	49			
07:45			233	457	348	775	1232	48	396	48	252	648
08:00			378	481	20:00			69	48			
08:15			202	477	20:15			73	96			
08:30			102	301	20:30			46	63			
08:45			115	797	197	1456	2253	35	223	27	234	457
09:00			114	159	21:00			52	43			
09:15			74	154	21:15			38	33			
09:30			80	90	21:30			33	26			
09:45			83	351	90	493	844	20	143	16	118	261
10:00			67	62	22:00			21	20			
10:15			55	48	22:15			14	13			
10:30			55	60	22:30			23	16			
10:45			67	244	53	223	467	13	71	11	60	131
11:00			42	61	23:00			16	7			
11:15			63	44	23:15			6	5			
11:30			51	96	23:30			9	4			
11:45			71	227	65	266	493	3	34	5	21	55

Total Vol. 2230 3391 5621 5584 3838 9422

		Daily Totals		
NB	SB	EB	WB	Combined
		7814	7229	15043

Split %	AM			PM		
	39.7%	60.3%	37.4%	59.3%	40.7%	62.6%

Peak Hour	07:45	07:45	07:45	17:15	15:15	17:15
Volume	915	1607	2522	1092	686	1633
P.H.F.	0.61	0.84	0.73	0.93	0.79	0.87

TUESDAY - JANUARY 15, 2013

CITY: SAN DIEGUITO

PROJECT: CA13-0118-01

VILLAGE LOOP E-O CARMEL VALLEY

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			0	0	12:00			13	32			
00:15			2	2	12:15			8	20			
00:30			2	0	12:30			15	22			
00:45			0	4	0	2	6	16	52	19	93	145
01:00			0	0	13:00			19	28			
01:15			1	1	13:15			31	38			
01:30			1	1	13:30			41	100			
01:45			1	3	1	3	6	23	114	26	192	306
02:00			1	1	14:00			12	31			
02:15			0	0	14:15			27	28			
02:30			0	0	14:30			43	28			
02:45			0	1	0	1	2	123	205	36	123	328
03:00			0	0	15:00			181	211			
03:15			1	0	15:15			76	160			
03:30			0	1	15:30			44	63			
03:45			0	1	0	1	2	30	331	47	481	812
04:00			0	0	16:00			21	16			
04:15			0	0	16:15			22	26			
04:30			0	0	16:30			32	27			
04:45			0	0	1	1	1	21	96	17	86	182
05:00			0	1	17:00			49	32			
05:15			0	3	17:15			50	97			
05:30			1	6	17:30			41	40			
05:45			0	1	4	14	15	36	176	27	196	372
06:00			0	6	18:00			40	13			
06:15			2	10	18:15			81	28			
06:30			8	7	18:30			76	31			
06:45			13	23	14	37	60	52	249	26	98	347
07:00			17	29	19:00			21	25			
07:15			49	41	19:15			19	16			
07:30			185	102	19:30			18	6			
07:45			369	620	215	387	1007	11	69	8	55	124
08:00			126	121	20:00			33	130			
08:15			24	35	20:15			16	39			
08:30			19	44	20:30			9	6			
08:45			12	181	35	235	416	14	72	7	182	254
09:00			14	22	21:00			17	2			
09:15			26	29	21:15			10	9			
09:30			31	21	21:30			7	0			
09:45			16	87	25	97	184	11	45	1	12	57
10:00			9	18	22:00			11	2			
10:15			10	22	22:15			7	2			
10:30			7	30	22:30			2	2			
10:45			15	41	20	90	131	2	22	1	7	29
11:00			17	15	23:00			2	0			
11:15			29	22	23:15			3	3			
11:30			47	28	23:30			1	0			
11:45			24	117	33	98	215	3	9	0	3	12

Total Vol. 1079 966 2045 1440 1528 2968

Split %	AM			PM		
	NB	SB	Combined	NB	SB	Combined
	52.8%	47.2%	40.8%	48.5%	51.5%	59.2%

Peak Hour	AM			PM		
	07:15	07:15	07:15	14:45	15:00	14:45
Volume	729	479	1208	424	481	894
P.H.F.	0.49	0.56	0.52	0.59	0.57	0.57

TUESDAY - JANUARY 15, 2013

CITY: SAN DIEGUITO

PROJECT: CA13-0118-01

VILLAGE LOOP BTN 2ND ACCESS TO SCHOOL & PEPPER CROSS CREEK

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			1	0	12:00			9	14			
00:15			0	0	12:15			8	6			
00:30			2	1	12:30			3	20			
00:45			2	5	0	1	6	6	26	11	51	77
01:00			0	0	13:00			11	5			
01:15			0	0	13:15			8	4			
01:30			1	0	13:30			10	8			
01:45			1	2	0	0	2	19	48	20	37	85
02:00			0	1	14:00			10	8			
02:15			1	0	14:15			7	17			
02:30			0	0	14:30			13	21			
02:45			0	1	0	1	2	20	50	15	61	111
03:00			0	0	15:00			35	14			
03:15			0	0	15:15			72	66			
03:30			1	0	15:30			35	25			
03:45			0	1	0	0	1	21	163	19	124	287
04:00			0	0	16:00			20	15			
04:15			0	0	16:15			13	5			
04:30			0	0	16:30			17	18			
04:45			0	0	0	0		19	69	12	50	119
05:00			0	1	17:00			16	8			
05:15			0	0	17:15			22	11			
05:30			0	3	17:30			35	19			
05:45			1	1	4	8	9	25	98	9	47	145
06:00			0	4	18:00			25	20			
06:15			0	5	18:15			18	10			
06:30			2	8	18:30			19	12			
06:45			3	5	14	31	36	20	82	15	57	139
07:00			0	14	19:00			24	17			
07:15			5	21	19:15			16	19			
07:30			5	25	19:30			15	8			
07:45			23	33	55	115	148	17	72	6	50	122
08:00			43	83	20:00			10	5			
08:15			40	45	20:15			13	3			
08:30			7	19	20:30			12	5			
08:45			7	97	23	170	267	9	44	5	18	62
09:00			6	17	21:00			13	4			
09:15			6	12	21:15			16	2			
09:30			12	16	21:30			11	11			
09:45			8	32	24	69	101	7	47	0	17	64
10:00			7	10	22:00			12	1			
10:15			4	6	22:15			10	4			
10:30			3	10	22:30			7	0			
10:45			4	18	9	35	53	2	31	2	7	38
11:00			7	11	23:00			2	1			
11:15			10	6	23:15			2	1			
11:30			18	18	23:30			3	4			
11:45			17	52	10	45	97	2	9	2	8	17

Total Vol. 247 475 **722** 739 527 **1266**

Daily Totals

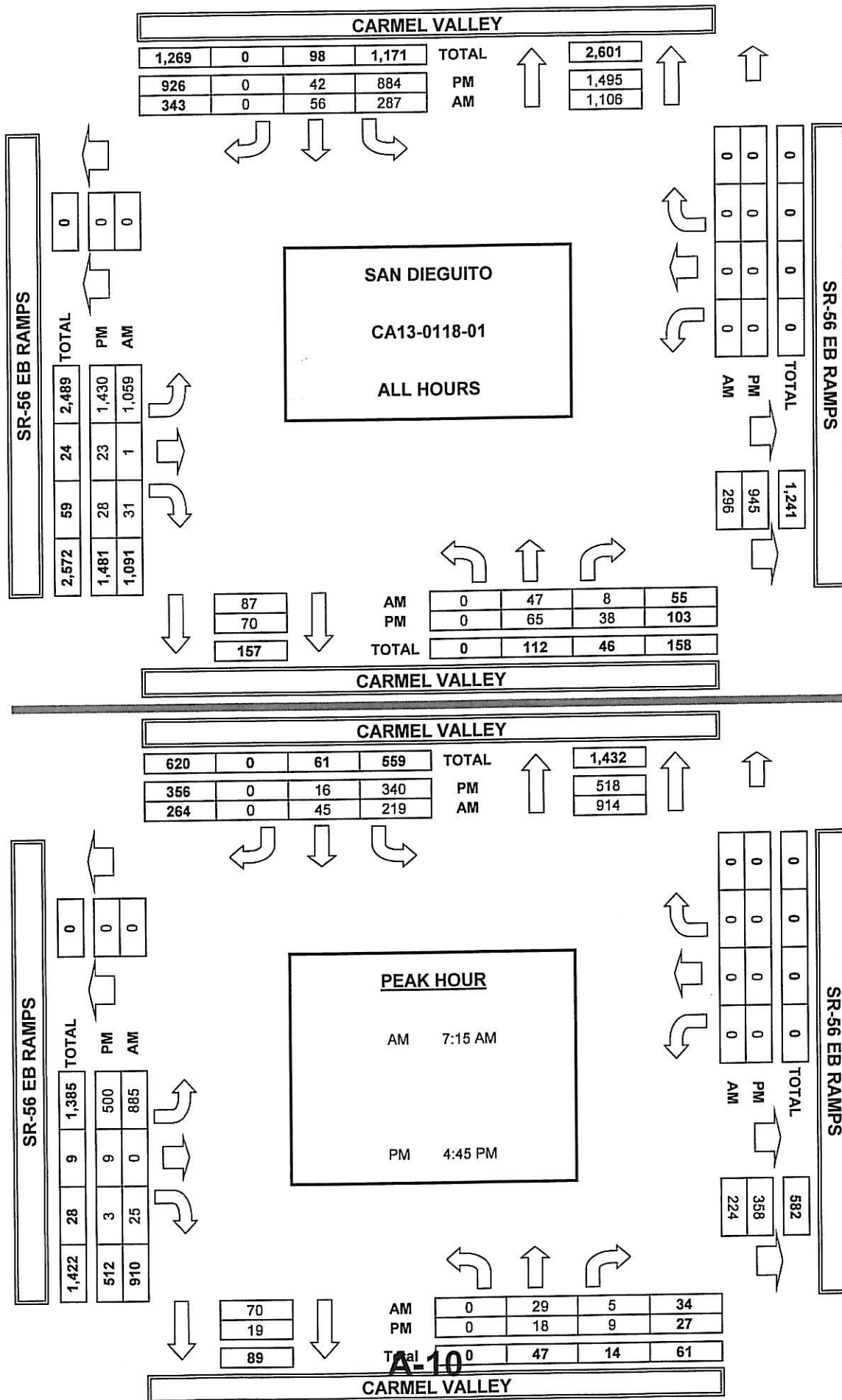
NB	SB	EB	WB	Combined
		986	1002	1988

AM
 Split % 34.2% 65.8% **36.3%**

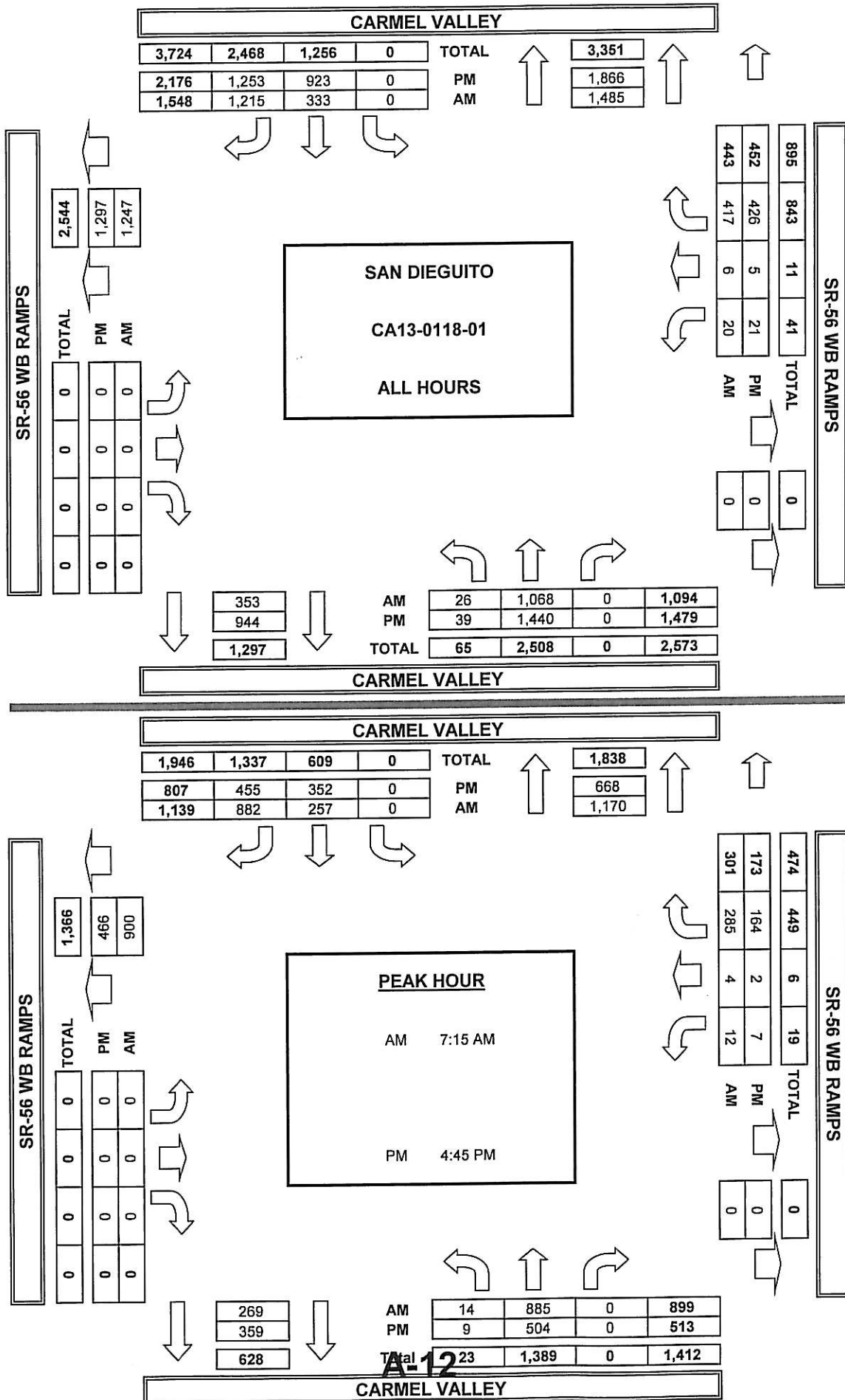
PM
 Split % 58.4% 41.6% **63.7%**

Peak Hour	07:45	07:30	07:30	15:00	15:15	15:00
Volume	113	208	319	163	125	287
P.H.F.	0.66	0.63	0.63	0.57	0.47	0.52

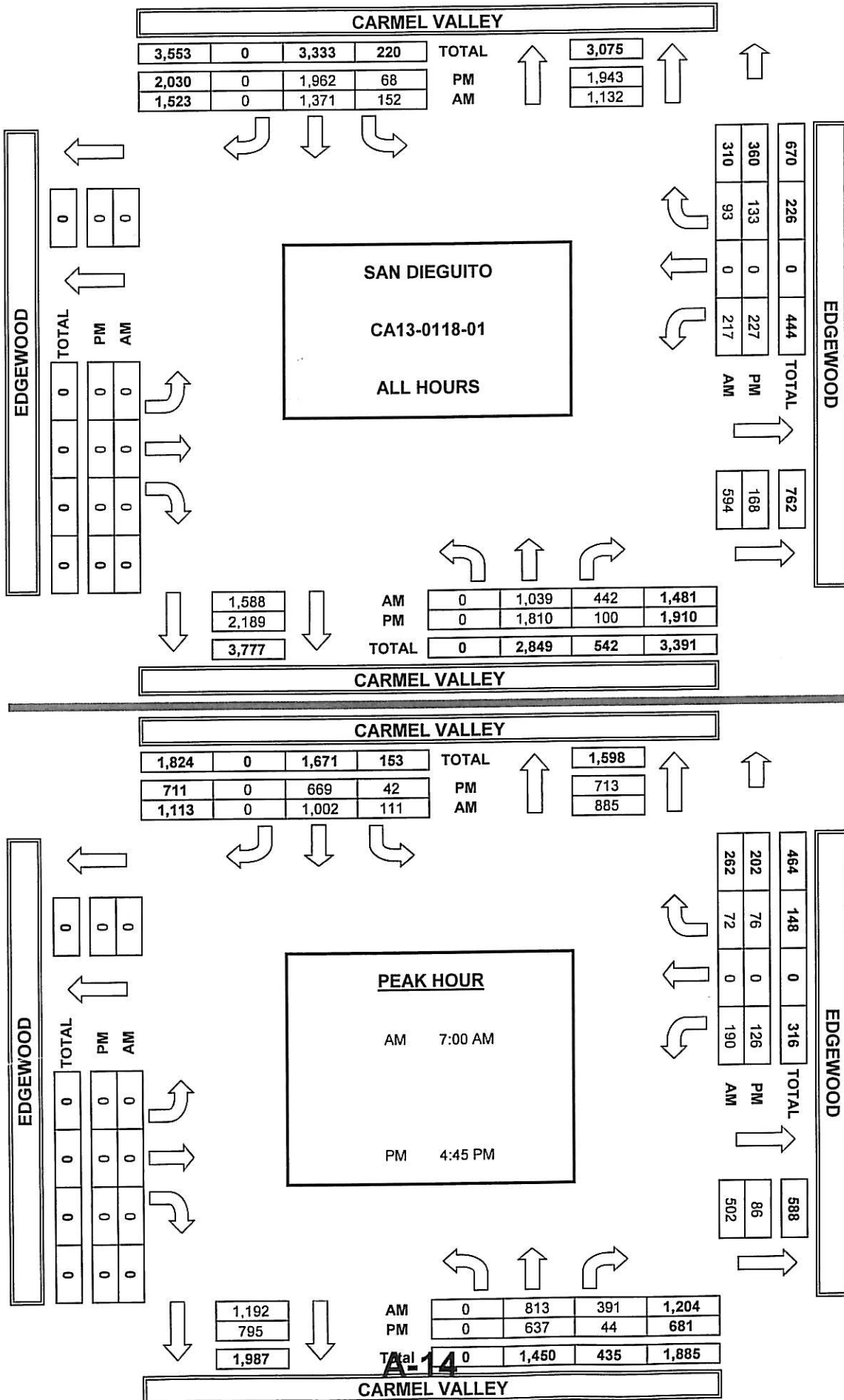
PACIFIC TRAFFIC DATA SERVICES
TURNING MOVEMENT COUNTS



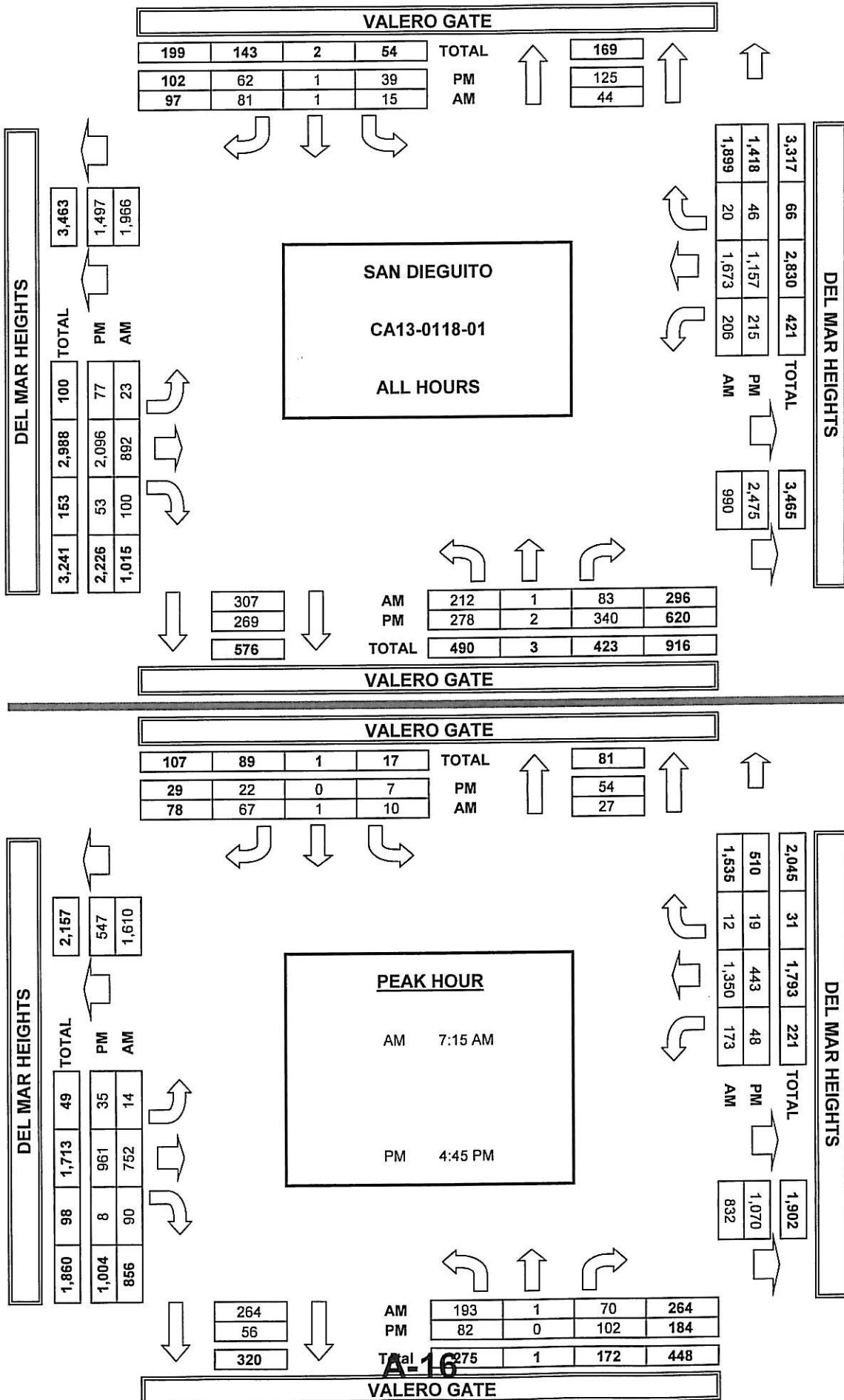
PACIFIC TRAFFIC DATA SERVICES
TURNING MOVEMENT COUNTS



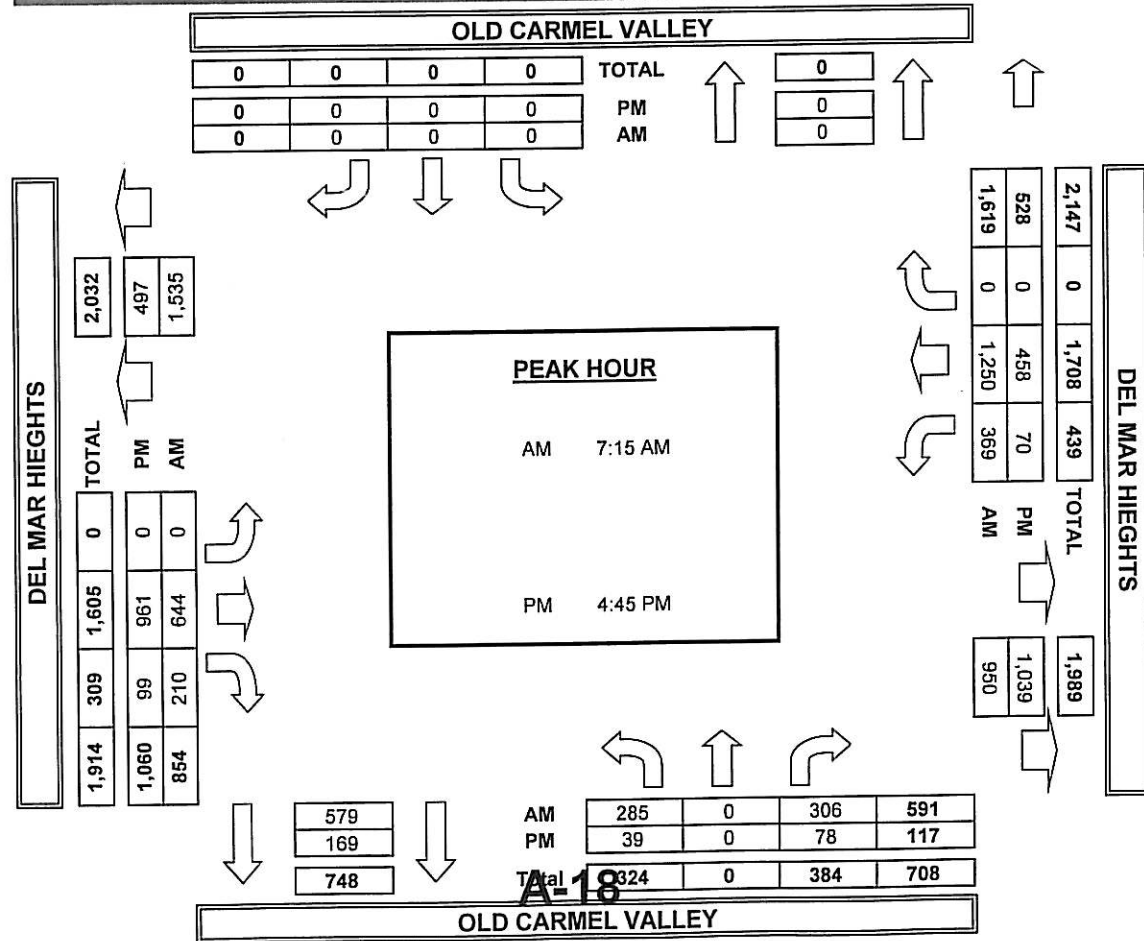
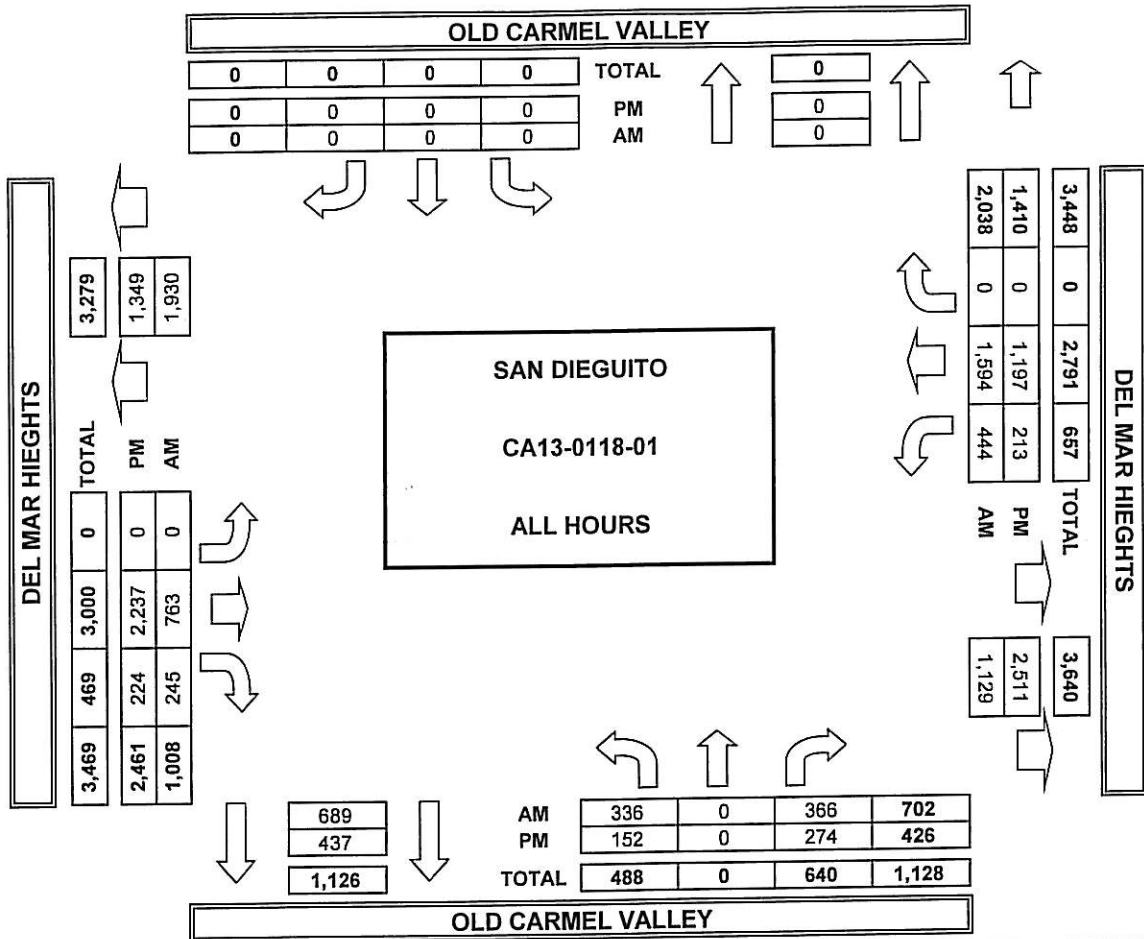
PACIFIC TRAFFIC DATA SERVICES
TURNING MOVEMENT COUNTS



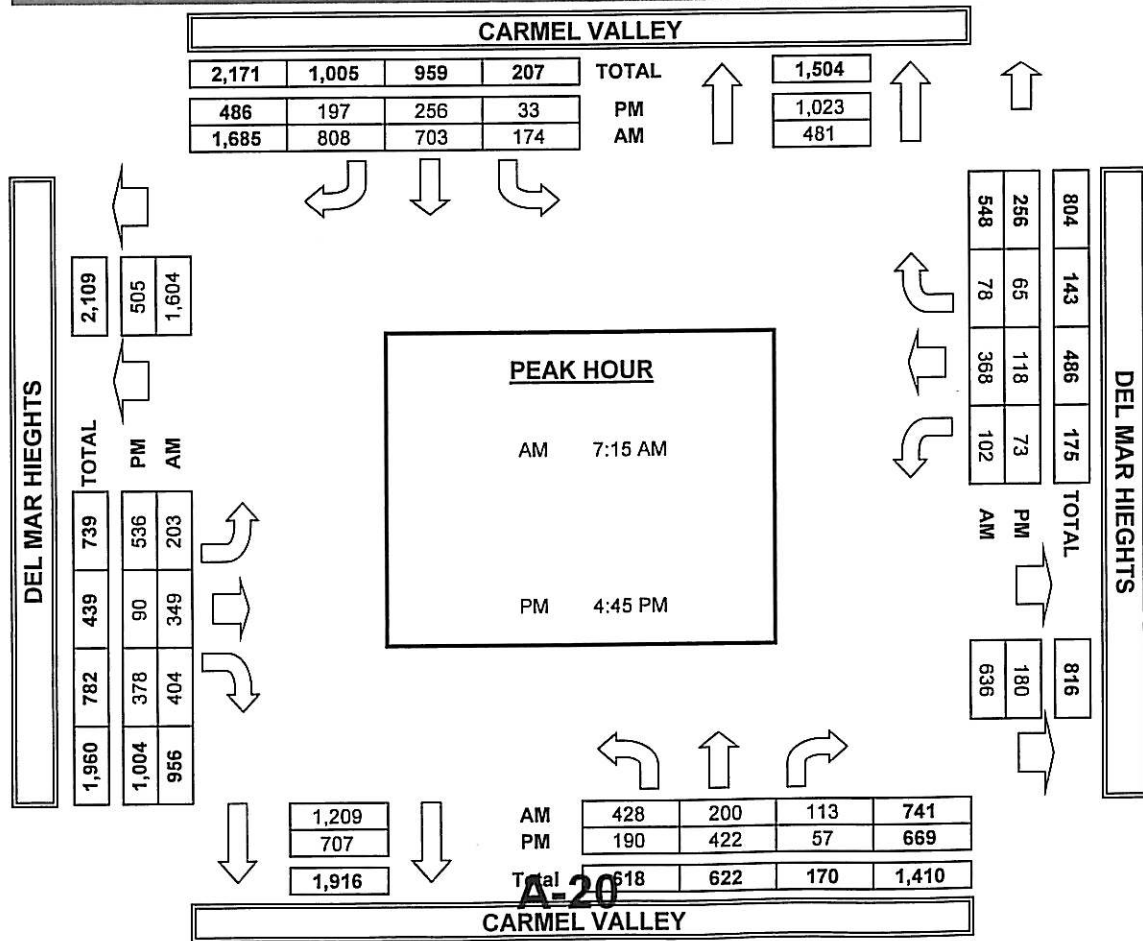
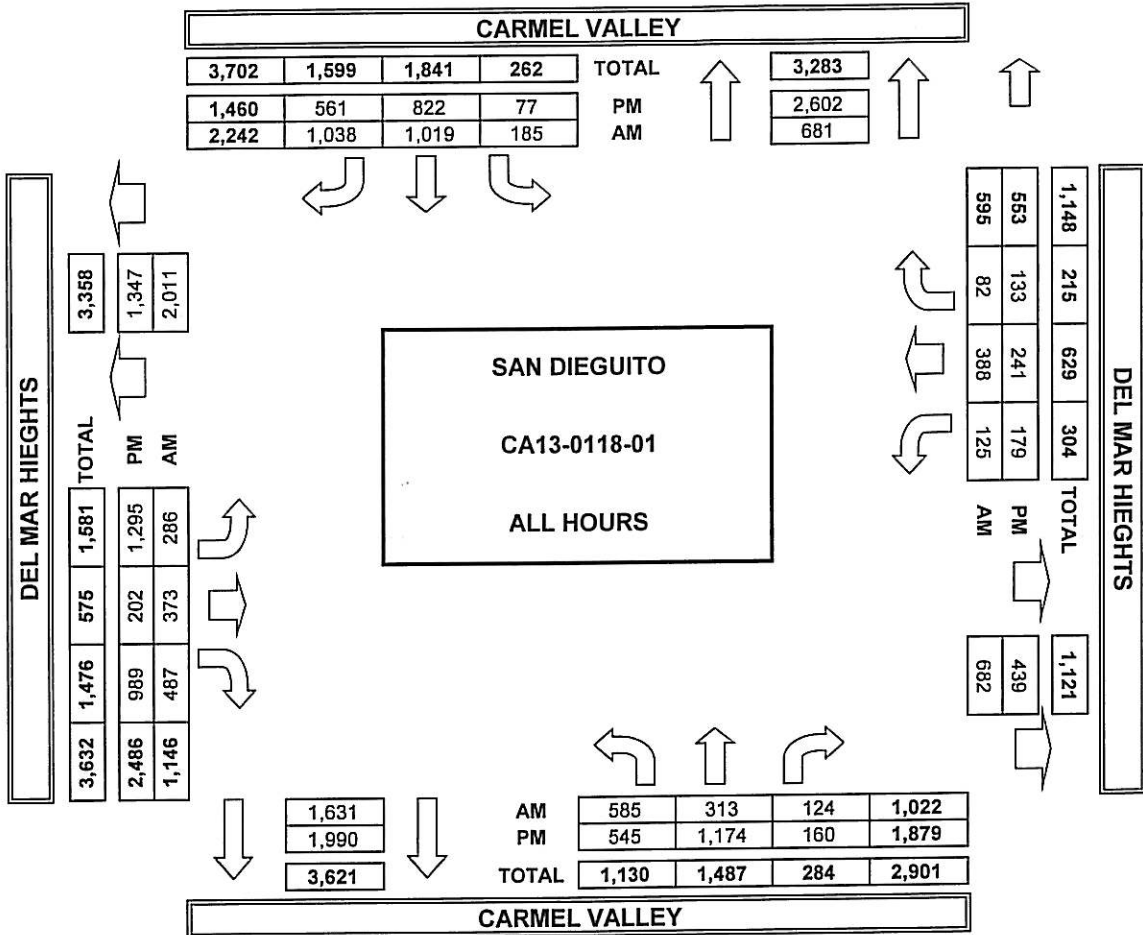
PACIFIC TRAFFIC DATA SERVICES
TURNING MOVEMENT COUNTS



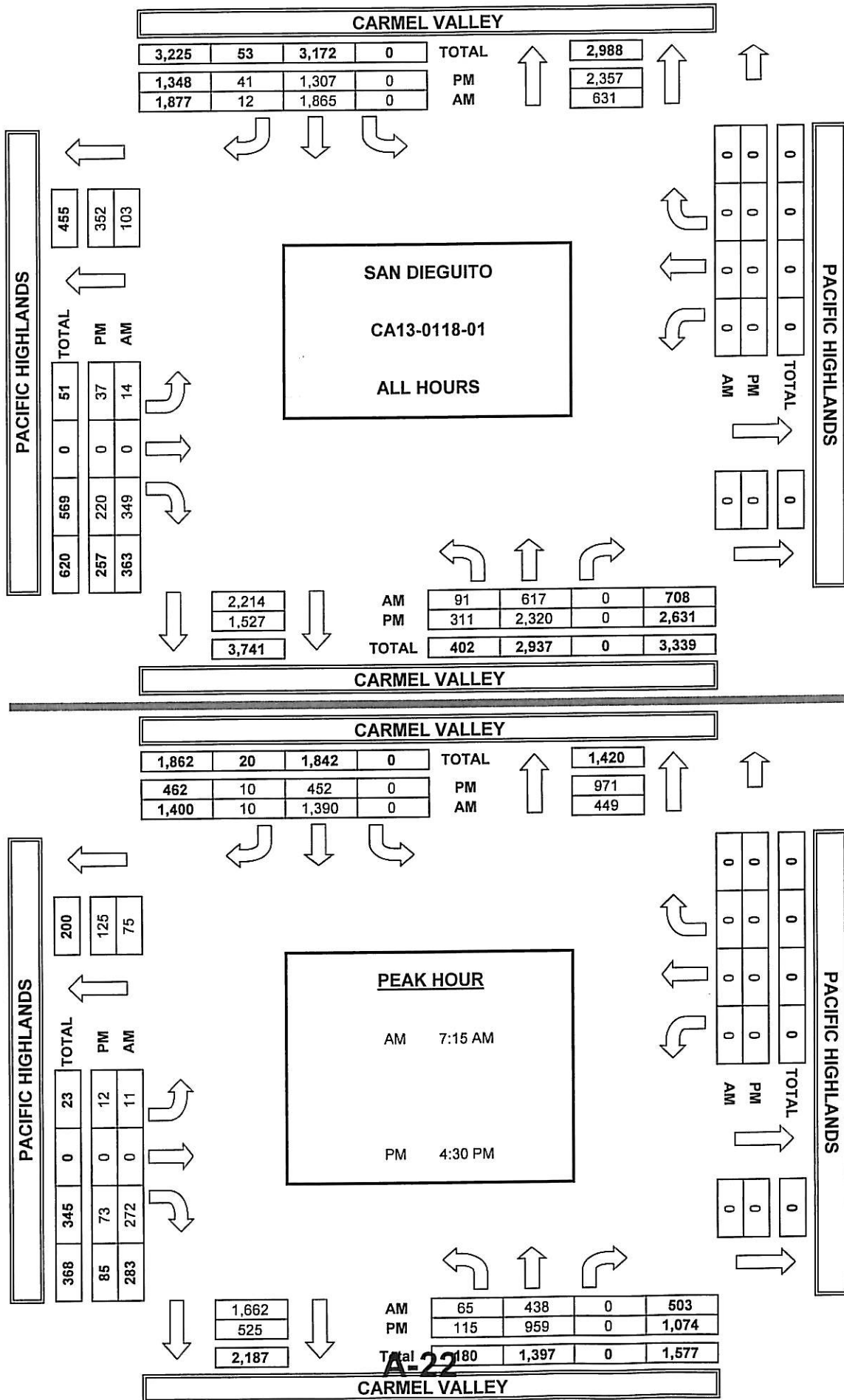
PACIFIC TRAFFIC DATA SERVICES
TURNING MOVEMENT COUNTS



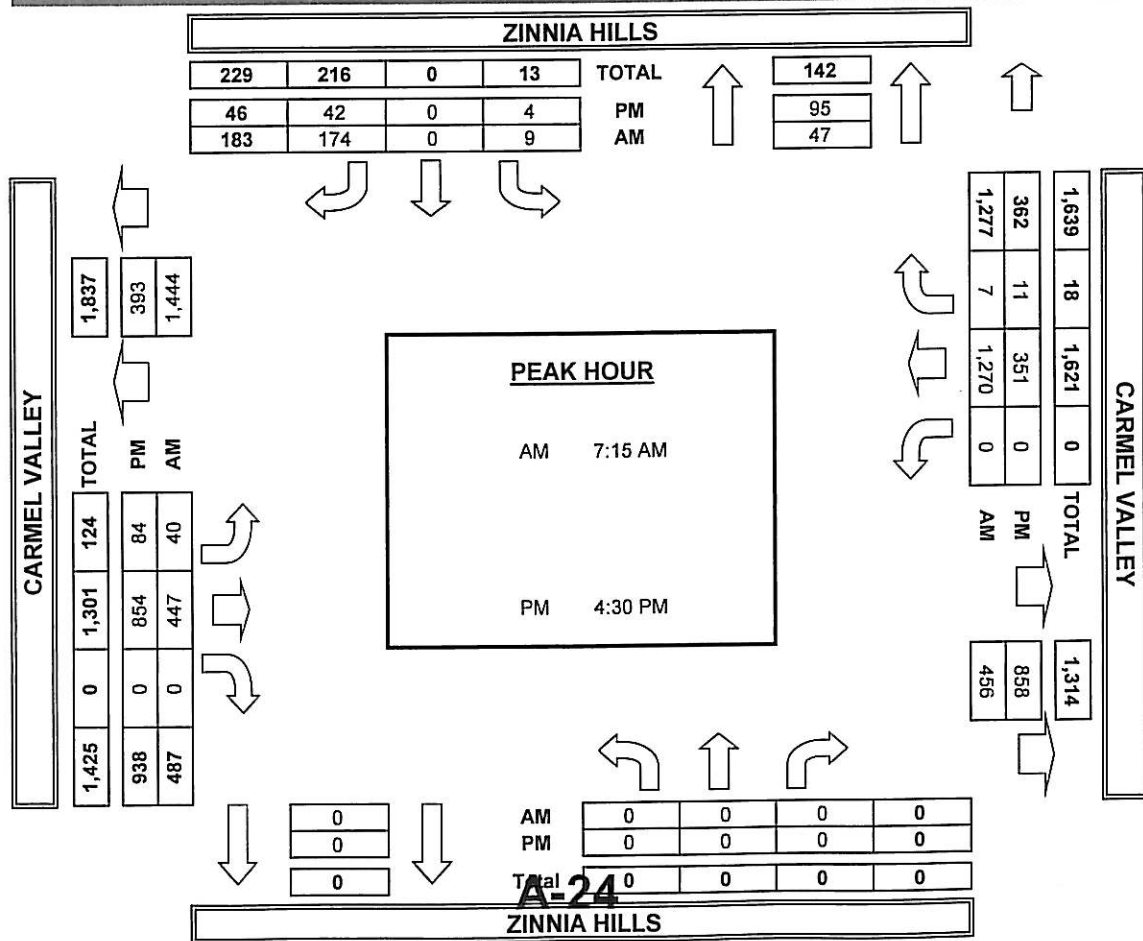
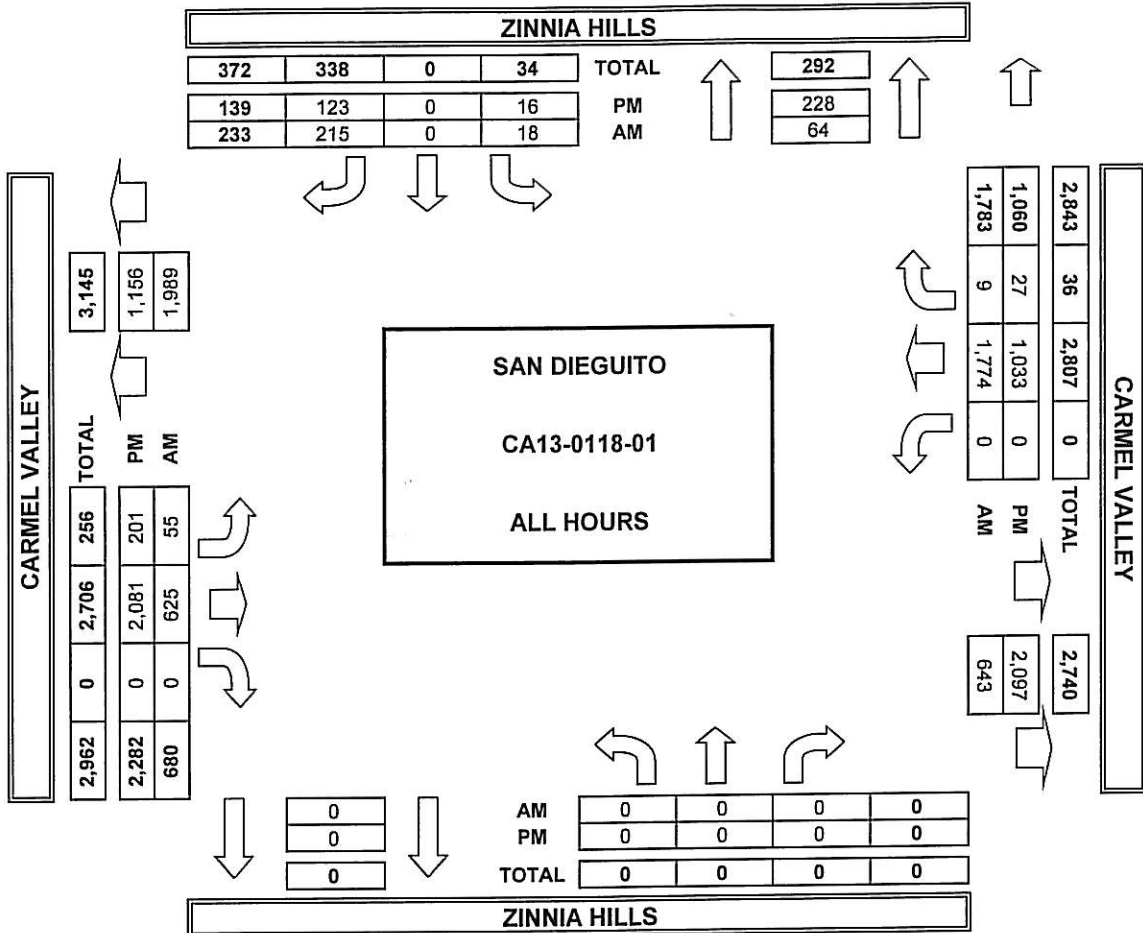
PACIFIC TRAFFIC DATA SERVICES
TURNING MOVEMENT COUNTS



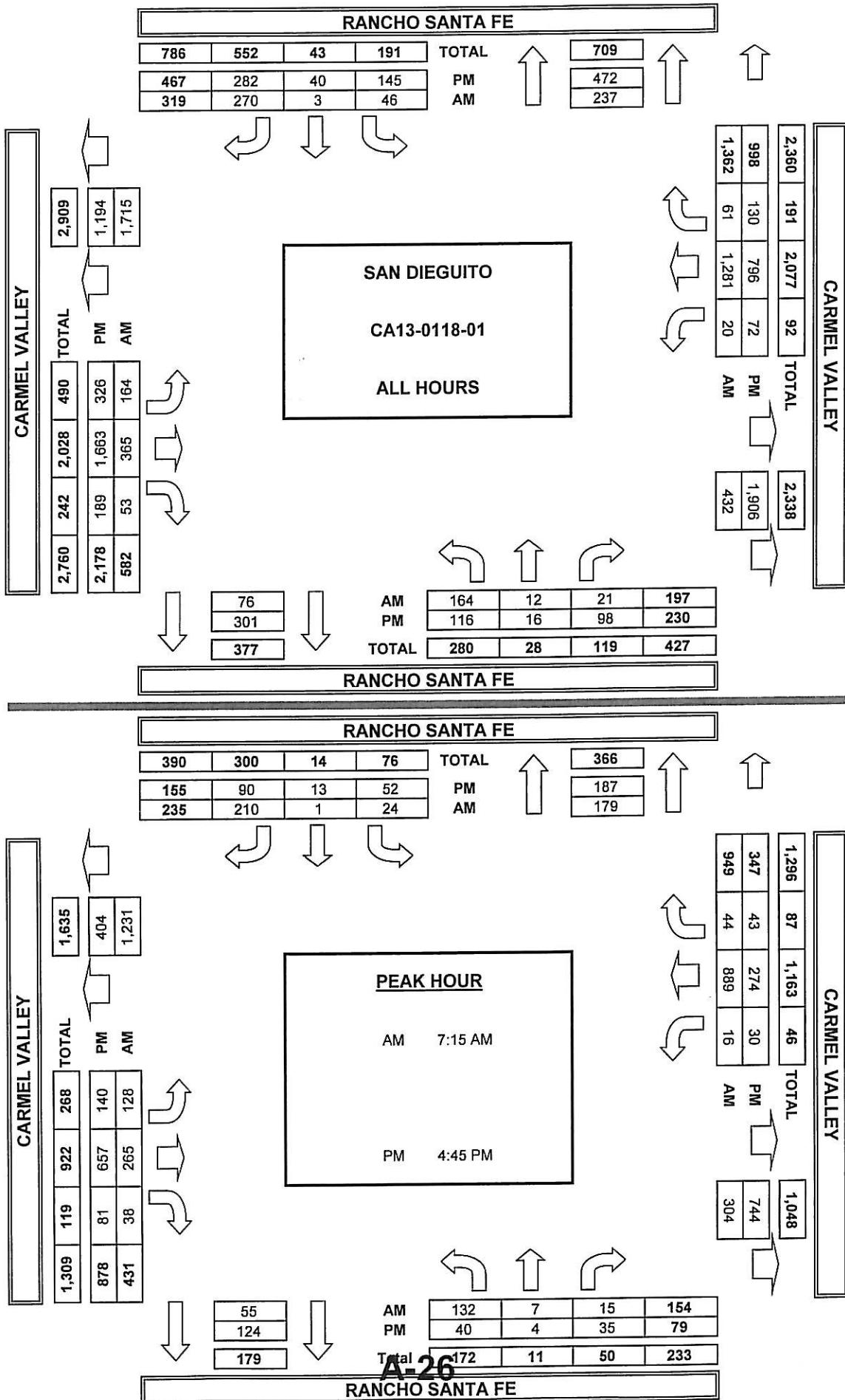
PACIFIC TRAFFIC DATA SERVICES
TURNING MOVEMENT COUNTS



PACIFIC TRAFFIC DATA SERVICES
TURNING MOVEMENT COUNTS



PACIFIC TRAFFIC DATA SERVICES
TURNING MOVEMENT COUNTS



APPENDIX B

- Existing Conditions Analysis Worksheets
 - Existing Plus Phase 1 Conditions Analysis Worksheets
 - Existing Plus Phase 1& 2 Conditions Analysis Worksheets
- Existing Plus Cumulative Plus Phase 1 Conditions Analysis Worksheets
- Existing Plus Cumulative Plus Phase 1& 2 Conditions Analysis Worksheets

➤ Existing Conditions Analysis Worksheets

Lanes, Volumes, Timings
 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

5/2/2013
 EXISTING AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Frts			0.850					0.982				
Flt Protected	0.950	0.950								0.950		
Satd. Flow (prot)	1681	1681	1583	0	0	0	0	3476	0	3433	1863	0
Flt Permitted	0.950	0.950								0.950		
Satd. Flow (perm)	1681	1681	1583	0	0	0	0	3476	0	3433	1863	0
Satd. Flow (RTOR)			27					5				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	885	0	25	0	0	0	0	33	5	219	45	0
Adj. Flow (vph)	962	0	27	0	0	0	0	36	5	238	49	0
Lane Group Flow (vph)	481	481	27	0	0	0	0	41	0	238	49	0
Turn Type	Prot		Perm							Prot		
Protected Phases	7	4						2		1	6	
Permitted Phases			4									
Total Split (s)	47.0	47.0	47.0	0.0	0.0	0.0	0.0	23.0	0.0	20.0	43.0	0.0
Act Effct Green (s)	43.1	43.1	43.1					19.0		11.1	34.1	
Actuated g/C Ratio	0.51	0.51	0.51					0.22		0.13	0.40	
v/c Ratio	0.57	0.57	0.03					0.05		0.53	0.07	
Control Delay	18.3	18.3	4.8					24.7		39.0	15.8	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.0	
Total Delay	18.3	18.3	4.8					24.7		39.0	15.8	
LOS	B	B	A					C		D	B	
Approach Delay		18.0						24.7			35.1	
Approach LOS		B						C			D	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 85.2
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.57
 Intersection Signal Delay: 21.9
 Intersection Capacity Utilization 45.7%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

ø1	ø2	ø4
20 s	23 s	47 s
ø6	ø7	
43 s	47 s	

Lanes, Volumes, Timings
 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

7/9/2013
 EXISTING PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Frnt			0.850					0.952				
Flt Protected	0.950	0.954								0.950		
Satd. Flow (prot)	1681	1688	1583	0	0	0	0	3369	0	3433	1863	0
Flt Permitted	0.950	0.954								0.950		
Satd. Flow (perm)	1681	1688	1583	0	0	0	0	3369	0	3433	1863	0
Satd. Flow (RTOR)			3					10				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	500	9	-3	0	0	0	0	19	9	340	16	0
Adj. Flow (vph)	543	10	3	0	0	0	0	21	10	370	17	0
Lane Group Flow (vph)	272	281	3	0	0	0	0	31	0	370	17	0
Turn Type	Prot		Perm							Prot		
Protected Phases	7	4						2		1	6	
Permitted Phases			4									
Total Split (s)	36.0	36.0	36.0	0.0	0.0	0.0	0.0	27.0	0.0	27.0	54.0	0.0
Act Effct Green (s)	32.0	32.0	32.0					31.1		14.9	50.0	
Actuated g/C Ratio	0.36	0.36	0.36					0.35		0.17	0.56	
v/c Ratio	0.45	0.47	0.01					0.03		0.65	0.02	
Control Delay	25.3	25.6	13.0					16.3		36.6	9.1	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.0	
Total Delay	25.3	25.6	13.0					16.3		36.6	9.1	
LOS	C	C	B					B		D	A	
Approach Delay		25.4						16.3			35.4	
Approach LOS		C						B			D	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 29.1
 Intersection Capacity Utilization 25.8%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

27 s	27 s						36 s				
54 s							36 s				

Lanes, Volumes, Timings
 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD

5/2/2013
 EXISTING AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	1.00	1.00	0.95	0.95
Fr _t						0.850					0.922	0.850
Flt Protected					0.963		0.950					
Satd. Flow (prot)	0	0	0	0	1794	2787	1770	3539	0	0	1632	1504
Flt Permitted					0.963		0.950					
Satd. Flow (perm)	0	0	0	0	1794	2787	1770	3539	0	0	1632	1504
Satd. Flow (RTOR)						298					94	654
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	0	0	0	12	4	285	14	885	0	0	257	882
Adj. Flow (vph)	0	0	0	13	4	310	15	962	0	0	279	959
Lane Group Flow (vph)	0	0	0	0	17	310	15	962	0	0	584	654
Turn Type				Prot		Perm	Prot					Perm
Protected Phases				3	8		5	2			6	
Permitted Phases						8						6
Total Split (s)	0.0	0.0	0.0	25.0	25.0	25.0	13.0	65.0	0.0	0.0	52.0	52.0
Act Effect Green (s)					17.6	17.6	6.4	62.3			60.1	60.1
Actuated g/C Ratio					0.20	0.20	0.07	0.71			0.68	0.68
v/c Ratio					0.05	0.39	0.13	0.38			0.51	0.53
Control Delay					27.2	5.7	43.7	6.3			9.2	2.5
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					27.2	5.7	43.7	6.3			9.2	2.5
LOS					C	A	D	A			A	A
Approach Delay					6.8			6.9			5.7	
Approach LOS					A			A			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 88
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 6.3
 Intersection Capacity Utilization 56.4%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD

65 s							25 s				
13 s			52 s				25 s				

Lanes, Volumes, Timings
 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD

5/2/2013
 EXISTING PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	1.00	1.00	0.95	0.95
Frts						0.850					0.993	0.850
Flt Protected					0.962		0.950					
Satd. Flow (prot)	0	0	0	0	1792	2787	1770	3539	0	0	1757	1504
Flt Permitted					0.962		0.950					
Satd. Flow (perm)	0	0	0	0	1792	2787	1770	3539	0	0	1757	1504
Satd. Flow (RTOR)						178					4	475
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	0	0	0	7	2	164	9	504	0	0	352	455
Adj. Flow (vph)	0	0	0	8	2	178	10	548	0	0	383	495
Lane Group Flow (vph)	0	0	0	0	10	178	10	548	0	0	403	475
Turn Type				Prot		Perm	Prot					Perm
Protected Phases				3	8		5	2			6	
Permitted Phases						8						6
Total Split (s)	0.0	0.0	0.0	29.0	29.0	29.0	17.0	61.0	0.0	0.0	44.0	44.0
Act Effct Green (s)					17.0	17.0	6.1	64.4			62.2	62.2
Actuated g/C Ratio					0.19	0.19	0.06	0.72			0.69	0.69
v/c Ratio					0.03	0.26	0.09	0.22			0.33	0.40
Control Delay					24.0	5.1	43.1	5.7			8.9	2.2
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					24.0	5.1	43.1	5.7			8.9	2.2
LOS					C	A	D	A			A	A
Approach Delay					6.1			6.3			5.3	
Approach LOS					A			A			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 89.5
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.40
 Intersection Signal Delay: 5.7
 Intersection Capacity Utilization 44.4%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD

ø2	ø3
61 s	29 s
ø5	ø8
17 s	29 s
ø6	
44 s	

Lanes, Volumes, Timings
 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD

5/2/2013
 EXISTING AM

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.95	1.00	0.97	0.95
Frts		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Satd. Flow (RTOR)		78		425		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	190	72	813	391	111	1002
Adj. Flow (vph)	207	78	884	425	121	1089
Lane Group Flow (vph)	207	78	884	425	121	1089
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	28.0	28.0	43.0	43.0	19.0	62.0
Act Effct Green (s)	10.0	10.0	50.0	50.0	8.2	60.3
Actuated g/C Ratio	0.13	0.13	0.64	0.64	0.10	0.77
v/c Ratio	0.47	0.29	0.39	0.36	0.35	0.40
Control Delay	34.2	10.7	8.5	1.9	34.6	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	10.7	8.5	1.9	34.6	3.7
LOS	C	B	A	A	C	A
Approach Delay	27.7		6.3			6.8
Approach LOS	C		A			A

Intersection Summary

















Cycle Length: 90
 Actuated Cycle Length: 78.3
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 8.7
 Intersection Capacity Utilization 41.2%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD

ø1	ø2	
19 s	43 s	
ø6	ø8	
62 s	28 s	

Lanes, Volumes, Timings
 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD

5/2/2013
 EXISTING PM

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 		 		 	 
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.95	1.00	0.97	0.95
Fr't		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Satd. Flow (RTOR)		83		48		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	126	76	637	44	42	669
Adj. Flow (vph)	137	83	692	48	46	727
Lane Group Flow (vph)	137	83	692	48	46	727
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	31.0	31.0	40.0	40.0	19.0	59.0
Act Effect Green (s)	8.6	8.6	56.0	56.0	6.8	63.3
Actuated g/C Ratio	0.11	0.11	0.70	0.70	0.08	0.79
v/c Ratio	0.37	0.34	0.28	0.04	0.17	0.26
Control Delay	31.9	11.4	5.8	2.2	31.9	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.9	11.4	5.8	2.2	31.9	2.6
LOS	C	B	A	A	C	A
Approach Delay	24.1		5.5			4.3
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 80.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.37
 Intersection Signal Delay: 7.4
 Intersection Capacity Utilization 29.0%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD

Lanes, Volumes, Timings
 39: Del Mar Heights Rd. & CARMEL VALLEY RD

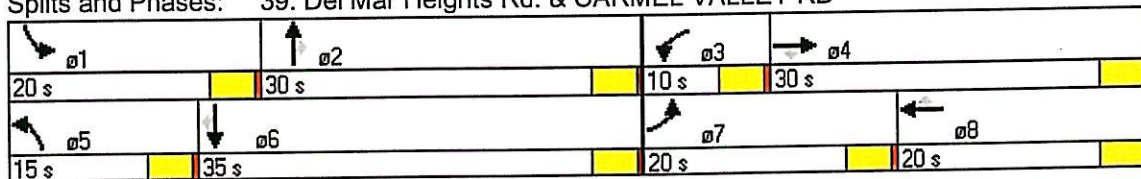
5/2/2013
 EXISTING AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frts			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			324			85			123			359
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	203	349	404	102	368	78	428	200	113	174	703	808
Adj. Flow (vph)	221	379	439	111	400	85	465	217	123	189	764	878
Lane Group Flow (vph)	221	379	439	111	400	85	465	217	123	189	764	878
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	20.0	30.0	30.0	10.0	20.0	20.0	15.0	30.0	30.0	20.0	35.0	35.0
Act Effct Green (s)	10.5	20.8	20.8	6.0	14.1	14.1	11.0	32.4	32.4	9.8	31.1	31.1
Actuated g/C Ratio	0.13	0.25	0.25	0.07	0.17	0.17	0.13	0.39	0.39	0.12	0.38	0.38
v/c Ratio	0.51	0.43	0.68	0.46	0.66	0.25	1.02	0.16	0.18	0.47	0.57	1.07
Control Delay	38.4	28.1	14.0	45.0	38.1	9.3	84.8	18.6	4.9	38.5	23.6	70.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.4	28.1	14.0	45.0	38.1	9.3	84.8	18.6	4.9	38.5	23.6	70.9
LOS	D	C	B	D	D	A	F	B	A	D	C	E
Approach Delay		24.3			35.3			54.7			47.8	
Approach LOS		C			D			D			D	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 82.9
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.07
 Intersection Signal Delay: 41.7
 Intersection Capacity Utilization 82.4%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 39: Del Mar Heights Rd. & CARMEL VALLEY RD



Lanes, Volumes, Timings
 39: Del Mar Heights Rd. & CARMEL VALLEY RD

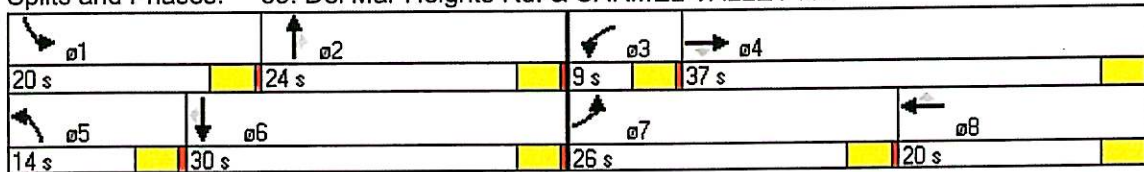
5/2/2013
 EXISTING PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Fr't			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			411			71			62			214
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	536	90	378	73	118	65	190	422	57	33	256	197
Adj. Flow (vph)	583	98	411	79	128	71	207	459	62	36	278	214
Lane Group Flow (vph)	583	98	411	79	128	71	207	459	62	36	278	214
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	26.0	37.0	37.0	9.0	20.0	20.0	14.0	24.0	24.0	20.0	30.0	30.0
Act Effct Green (s)	14.8	19.0	19.0	5.2	7.6	7.6	8.4	12.8	12.8	6.5	14.1	14.1
Actuated g/C Ratio	0.26	0.34	0.34	0.09	0.13	0.13	0.14	0.23	0.23	0.12	0.25	0.25
v/c Ratio	0.64	0.08	0.51	0.26	0.28	0.26	0.42	0.57	0.15	0.09	0.31	0.38
Control Delay	23.1	14.5	4.5	31.8	27.3	11.0	27.9	23.6	7.5	28.3	22.8	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	14.5	4.5	31.8	27.3	11.0	27.9	23.6	7.5	28.3	22.8	6.4
LOS	C	B	A	C	C	B	C	C	A	C	C	A
Approach Delay		15.4			24.4			23.4			16.5	
Approach LOS		B			C			C			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 56
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 18.8
 Intersection Capacity Utilization 47.0%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 39: Del Mar Heights Rd. & CARMEL VALLEY RD



4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	0.95
Frt			0.850								0.999	
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	0	2787	0	0	0	3433	3539	0	1863	3536	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	0	2787	0	0	0	3433	3539	0	1863	3536	0
Satd. Flow (RTOR)			278								1	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	11	0	272	0	0	0	65	438	0	0	1390	10
Adj. Flow (vph)	12	0	296	0	0	0	71	476	0	0	1511	11
Lane Group Flow (vph)	12	0	296	0	0	0	71	476	0	0	1522	0
Turn Type	Prot		custom				Prot			Prot		
Protected Phases	4						5	2		1	6	
Permitted Phases			4									
Total Split (s)	23.0	0.0	23.0	0.0	0.0	0.0	12.0	56.0	0.0	11.0	55.0	0.0
Act Effct Green (s)	7.7		7.7				7.4	39.6			34.5	
Actuated g/C Ratio	0.15		0.15				0.14	0.78			0.68	
v/c Ratio	0.05		0.46				0.15	0.17			0.63	
Control Delay	29.0		8.2				29.1	2.3			9.3	
Queue Delay	0.0		0.0				0.0	0.0			0.0	
Total Delay	29.0		8.2				29.1	2.3			9.3	
LOS	C		A				C	A			A	
Approach Delay								5.8			9.3	
Approach LOS								A			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 50.9
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 8.4
 Intersection Capacity Utilization 54.9%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD

ø1	ø2	ø4
11 s	56 s	23 s
ø5	ø6	
12 s	55 s	

Lanes, Volumes, Timings
 4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD

5/2/2013
 EXISTING PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	0.95
Frts			0.850								0.997	
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	0	2787	0	0	0	3433	3539	0	1863	3529	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	0	2787	0	0	0	3433	3539	0	1863	3529	0
Satd. Flow (RTOR)			79								3	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	12	0	73	0	0	0	115	959	0	0	452	10
Adj. Flow (vph)	13	0	79	0	0	0	125	1042	0	0	491	11
Lane Group Flow (vph)	13	0	79	0	0	0	125	1042	0	0	502	0
Turn Type	Prot		custom				Prot			Prot		
Protected Phases	4						5	2		1	6	
Permitted Phases			4									
Total Split (s)	24.0	0.0	24.0	0.0	0.0	0.0	24.0	42.0	0.0	24.0	42.0	0.0
Act Effct Green (s)	6.3		6.3				6.9	21.7			16.6	
Actuated g/C Ratio	0.20		0.20				0.22	0.78			0.59	
v/c Ratio	0.04		0.13				0.17	0.38			0.24	
Control Delay	14.4		5.7				13.2	3.3			8.2	
Queue Delay	0.0		0.0				0.0	0.0			0.0	
Total Delay	14.4		5.7				13.2	3.3			8.2	
LOS	B		A				B	A			A	
Approach Delay								4.4			8.2	
Approach LOS								A			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 28
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.38
 Intersection Signal Delay: 5.6
 Intersection Capacity Utilization 43.2%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD

ø1	ø2	ø4
24 s	42 s	24 s
ø5	ø6	
24 s	42 s	

Lanes, Volumes, Timings
 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE

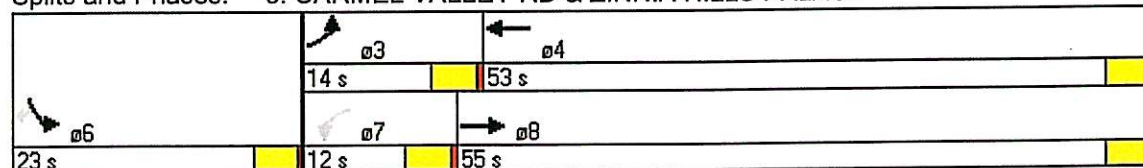
5/2/2013
 EXISTING AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frts					0.999							0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	3539	0	1863	3536	0	0	0	0	1770	0	1583
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1770	3539	0	1863	3536	0	0	0	0	1770	0	1583
Satd. Flow (RTOR)					1							184
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	40	447	0	0	1270	7	0	0	0	9	0	174
Adj. Flow (vph)	43	486	0	0	1380	8	0	0	0	10	0	189
Lane Group Flow (vph)	43	486	0	0	1388	0	0	0	0	10	0	189
Turn Type	Prot			custom						Prot		custom
Protected Phases	3	8			4					6		
Permitted Phases				7								6
Total Split (s)	14.0	55.0	0.0	12.0	53.0	0.0	0.0	0.0	0.0	23.0	0.0	23.0
Act Effct Green (s)	7.3	40.0			33.7					20.4		20.4
Actuated g/C Ratio	0.10	0.58			0.49					0.30		0.30
v/c Ratio	0.24	0.24			0.80					0.02		0.32
Control Delay	37.7	6.3			19.0					26.2		7.0
Queue Delay	0.0	0.0			0.0					0.0		0.0
Total Delay	37.7	6.3			19.0					26.2		7.0
LOS	D	A			B					C		A
Approach Delay		8.8			19.0							
Approach LOS		A			B							

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 69
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 15.4
 Intersection Capacity Utilization 52.8%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE



Lanes, Volumes, Timings
 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE

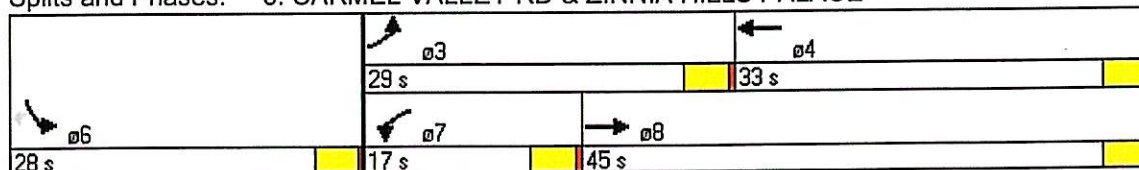
5/2/2013
 EXISTING PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frts					0.995							0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	3539	0	1863	3522	0	0	0	0	1770	0	1583
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1770	3539	0	1863	3522	0	0	0	0	1770	0	1583
Satd. Flow (RTOR)					4							46
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	84	854	0	0	351	11	0	0	0	4	0	42
Adj. Flow (vph)	91	928	0	0	382	12	0	0	0	4	0	46
Lane Group Flow (vph)	91	928	0	0	394	0	0	0	0	4	0	46
Turn Type	Prot			Prot						Prot		custom
Protected Phases	3	8		7	4					6		
Permitted Phases												6
Total Split (s)	29.0	45.0	0.0	17.0	33.0	0.0	0.0	0.0	0.0	28.0	0.0	28.0
Act Effct Green (s)	8.3	21.4			13.8					24.4		24.4
Actuated g/C Ratio	0.14	0.40			0.26					0.45		0.45
v/c Ratio	0.36	0.66			0.43					0.00		0.06
Control Delay	26.6	15.3			19.9					11.2		4.7
Queue Delay	0.0	0.0			0.0					0.0		0.0
Total Delay	26.6	15.3			19.9					11.2		4.7
LOS	C	B			B					B		A
Approach Delay		16.3			19.9							
Approach LOS		B			B							

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 53.9
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 16.9
 Intersection Capacity Utilization 40.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE



Lanes, Volumes, Timings
 3: CARMEL VALLEY RD & RANCHO SANTA FE RD

5/2/2013
 EXISTING AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.981			0.993			0.987			0.879	
Fl _t Protected	0.950			0.950				0.959			0.995	
Satd. Flow (prot)	1770	1827	0	1770	1850	0	0	1763	0	0	1629	0
Fl _t Permitted	0.950			0.950				0.424			0.959	
Satd. Flow (perm)	1770	1827	0	1770	1850	0	0	780	0	0	1570	0
Satd. Flow (RTOR)		13			4			6			178	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	128	265	38	16	889	44	132	7	15	24	1	210
Adj. Flow (vph)	139	288	41	17	966	48	143	8	16	26	1	228
Lane Group Flow (vph)	139	329	0	17	1014	0	0	167	0	0	255	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Total Split (s)	11.0	56.0	0.0	8.0	53.0	0.0	26.0	26.0	0.0	26.0	26.0	0.0
Act Effect Green (s)	7.0	56.8		4.0	49.0			22.0			22.0	
Actuated g/C Ratio	0.08	0.63		0.04	0.54			0.24			0.24	
v/c Ratio	1.01	0.28		0.23	1.00			0.86			0.49	
Control Delay	123.1	8.6		49.8	51.7			69.9			13.2	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	123.1	8.6		49.8	51.7			69.9			13.2	
LOS	F	A		D	D			E			B	
Approach Delay		42.6			51.7			69.9			13.2	
Approach LOS		D			D			E			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 45.9
 Intersection Capacity Utilization 92.8%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service F

Splits and Phases: 3: CARMEL VALLEY RD & RANCHO SANTA FE RD

26 s	8 s	56 s									
26 s	11 s	53 s									

Lanes, Volumes, Timings
 3: CARMEL VALLEY RD & RANCHO SANTA FE RD

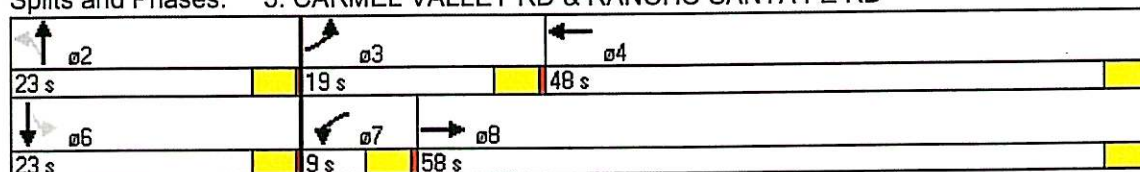
5/2/2013
 EXISTING PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frts		0.984			0.980			0.940			0.922	
Flt Protected	0.950			0.950				0.975			0.983	
Satd. Flow (prot)	1770	1833	0	1770	1825	0	0	1707	0	0	1688	0
Flt Permitted	0.950			0.950				0.804			0.882	
Satd. Flow (perm)	1770	1833	0	1770	1825	0	0	1408	0	0	1515	0
Satd. Flow (RTOR)		12			12			38			70	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	140	657	81	30	274	43	40	4	35	52	13	90
Adj. Flow (vph)	152	714	88	33	298	47	43	4	38	57	14	98
Lane Group Flow (vph)	152	802	0	33	345	0	0	85	0	0	169	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	3	8		7	4			2			6	
Permitted Phases							2			6		
Total Split (s)	19.0	58.0	0.0	9.0	48.0	0.0	23.0	23.0	0.0	23.0	23.0	0.0
Act Effct Green (s)	10.4	32.2		5.2	23.1			20.5			20.5	
Actuated g/C Ratio	0.16	0.50		0.07	0.36			0.32			0.32	
v/c Ratio	0.55	0.87		0.25	0.52			0.18			0.32	
Control Delay	36.4	24.1		41.3	18.5			16.5			17.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	36.4	24.1		41.3	18.5			16.5			17.1	
LOS	D	C		D	B			B			B	
Approach Delay		26.1			20.5			16.5			17.1	
Approach LOS		C			C			B			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 64.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 23.3
 Intersection Capacity Utilization 62.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 3: CARMEL VALLEY RD & RANCHO SANTA FE RD



Lanes, Volumes, Timings
 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD

5/2/2013
 EXISTING AM

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↙↘	↑↑	↙↘	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Fr't		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Satd. Flow (RTOR)		228				333
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	644	210	369	1250	285	306
Adj. Flow (vph)	700	228	401	1359	310	333
Lane Group Flow (vph)	700	228	401	1359	310	333
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	35.0	35.0	26.0	61.0	29.0	29.0
Act Effct Green (s)	20.4	20.4	13.4	37.9	25.5	25.5
Actuated g/C Ratio	0.29	0.29	0.19	0.53	0.36	0.36
v/c Ratio	0.69	0.37	0.62	0.72	0.25	0.43
Control Delay	26.8	4.9	32.0	14.9	19.3	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.8	4.9	32.0	14.9	19.3	4.8
LOS	C	A	C	B	B	A
Approach Delay	21.4			18.8	11.8	
Approach LOS	C			B	B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 71.5
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 18.1
 Intersection Capacity Utilization 49.4%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD

↖ φ2	↙ φ3	→ φ4
29 s	26 s	35 s
	← φ8	
	61 s	

Lanes, Volumes, Timings
 9: Del Mar Heights Rd & OLD CARMEL VALLEY RD

5/2/2013
 EXISTING PM

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↙↙	↑↑	↙↙	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Satd. Flow (RTOR)		108				85
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	961	99	70	458	39	78
Adj. Flow (vph)	1045	108	76	498	42	85
Lane Group Flow (vph)	1045	108	76	498	42	85
Turn Type		Perm	Prot			Perm
Protected Phases	4		3		2	
Permitted Phases		4		8		2
Total Split (s)	47.0	47.0	17.0	64.0	26.0	26.0
Act Effct Green (s)	25.1	25.1	6.9	31.1	23.3	23.3
Actuated g/C Ratio	0.40	0.40	0.10	0.50	0.37	0.37
v/c Ratio	0.74	0.15	0.21	0.28	0.03	0.13
Control Delay	19.7	3.5	31.8	8.6	18.8	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	3.5	31.8	8.6	18.8	6.3
LOS	B	A	C	A	B	A
Approach Delay	18.2			11.6	10.5	
Approach LOS	B			B	B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 62.8
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 15.6
 Intersection Capacity Utilization 40.0%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 9: Del Mar Heights Rd & OLD CARMEL VALLEY RD

↖ φ2	↙ φ3	→ φ4
26 s	17 s	47 s
	← φ8	
	64 s	

Lanes, Volumes, Timings
 13: Del Mar Heights Rd. & VALERO GATE

5/2/2013
 EXISTING AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	0.91	0.97	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Fr't		0.984			0.999				0.850		0.852	
Flt Protected	0.950			0.950			0.950	0.953		0.950		
Satd. Flow (prot)	1770	5004	0	3433	3536	0	1681	1686	1583	1770	1587	0
Flt Permitted	0.950			0.950			0.950	0.953		0.950		
Satd. Flow (perm)	1770	5004	0	3433	3536	0	1681	1686	1583	1770	1587	0
Satd. Flow (RTOR)		31			1				76		73	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	14	752	90	173	1350	12	193	1	70	10	1	67
Adj. Flow (vph)	15	817	98	188	1467	13	210	1	76	11	1	73
Lane Group Flow (vph)	15	915	0	188	1480	0	105	106	76	11	74	0
Turn Type	Prot			Prot			Split		Perm	Split		
Protected Phases	7	4		3	8		2	2		1	1	
Permitted Phases									2			
Total Split (s)	8.0	46.0	0.0	13.0	51.0	0.0	21.0	21.0	21.0	10.0	10.0	0.0
Act Effct Green (s)	4.1	27.8		8.2	35.9		18.0	18.0	18.0	5.9	5.9	
Actuated g/C Ratio	0.05	0.39		0.11	0.51		0.25	0.25	0.25	0.08	0.08	
v/c Ratio	0.16	0.46		0.49	0.83		0.25	0.25	0.17	0.08	0.38	
Control Delay	44.1	17.0		37.6	19.7		28.8	28.8	8.8	37.8	16.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	44.1	17.0		37.6	19.7		28.8	28.8	8.8	37.8	16.5	
LOS	D	B		D	B		C	C	A	D	B	
Approach Delay		17.4			21.7			23.5			19.3	
Approach LOS		B			C			C			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 70.9
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 20.5
 Intersection Capacity Utilization 63.1%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 13: Del Mar Heights Rd. & VALERO GATE

10 s	21 s	13 s	46 s
		8 s	51 s

Lanes, Volumes, Timings
 13: Del Mar Heights Rd & VALERO GATE

5/2/2013
 EXISTING PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	0.91	0.97	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frnt		0.999			0.994				0.850		0.850	
Flt Protected	0.950			0.950			0.950	0.950		0.950		
Satd. Flow (prot)	1770	5080	0	3433	3518	0	1681	1681	1583	1770	1583	0
Flt Permitted	0.950			0.950			0.950	0.950		0.950		
Satd. Flow (perm)	1770	5080	0	3433	3518	0	1681	1681	1583	1770	1583	0
Satd. Flow (RTOR)		1			5				111		450	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	35	961	8	48	443	19	82	0	102	7	0	22
Adj. Flow (vph)	38	1045	9	52	482	21	89	0	111	8	0	24
Lane Group Flow (vph)	38	1054	0	52	503	0	45	44	111	8	24	0
Turn Type	Prot			Prot			Split		Perm	Split		
Protected Phases	7	4		3	8		2	2		1	1	
Permitted Phases									2			
Total Split (s)	13.0	32.0	0.0	11.0	30.0	0.0	24.0	24.0	24.0	23.0	23.0	0.0
Act Effct Green (s)	7.2	23.0		6.4	22.3		20.3	20.3	20.3	19.3	19.3	
Actuated g/C Ratio	0.09	0.28		0.08	0.28		0.25	0.25	0.25	0.24	0.24	
v/c Ratio	0.25	0.73		0.20	0.52		0.11	0.10	0.23	0.02	0.03	
Control Delay	41.8	29.6		40.2	27.0		27.8	27.8	7.5	28.1	0.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	41.8	29.6		40.2	27.0		27.8	27.8	7.5	28.1	0.1	
LOS	D	C		D	C		C	C	A	C	A	
Approach Delay		30.0			28.3			16.5			7.1	
Approach LOS		C			C			B			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 80.8
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 27.7
 Intersection Capacity Utilization 41.0%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 13: Del Mar Heights Rd & VALERO GATE

23 s	24 s	11 s	32 s
		13 s	30 s

Lanes, Volumes, Timings
 26: Village Loop Rd. & High School Signal

5/2/2013
 EXISTING AM

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Fr _t	0.905					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3203	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3203	0	1770	3539	1770	1583
Satd. Flow (RTOR)	475					2
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	253	437	2	338	182	2
Adj. Flow (vph)	275	475	2	367	198	2
Lane Group Flow (vph)	750	0	2	367	198	2
Turn Type			Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Total Split (s)	34.0	0.0	27.0	61.0	29.0	29.0
Act Effct Green (s)	11.3		5.7	12.8	25.6	25.6
Actuated g/C Ratio	0.24		0.10	0.27	0.55	0.55
v/c Ratio	0.66		0.01	0.38	0.20	0.00
Control Delay	8.8		24.5	13.9	8.3	7.0
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	8.8		24.5	13.9	8.3	7.0
LOS	A		C	B	A	A
Approach Delay	8.8			14.0	8.3	
Approach LOS	A			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 46.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 10.2
 Intersection Capacity Utilization 37.8%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 26: Village Loop Rd. & High School Signal

↖ ø2	↘ ø3	→ ø4
29 s	27 s	34 s
	← ø8	
	61 s	

Lanes, Volumes, Timings
 26: Village Loop Rd & Village Loop Dr & High School Signal

5/2/2013
 EXISTING PM

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Fr _t	0.906					0.850
Fl _t Protected			0.950		0.950	
Satd. Flow (prot)	3207	0	1770	3539	1770	1583
Fl _t Permitted			0.950		0.950	
Satd. Flow (perm)	3207	0	1770	3539	1770	1583
Satd. Flow (RTOR)	315					8
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	174	290	8	261	153	7
Adj. Flow (vph)	189	315	9	284	166	8
Lane Group Flow (vph)	504	0	9	284	166	8
Turn Type			Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Total Split (s)	36.0	0.0	22.0	58.0	32.0	32.0
Act Effct Green (s)	9.5		5.9	11.2	28.5	28.5
Actuated g/C Ratio	0.20		0.11	0.23	0.60	0.60
v/c Ratio	0.57		0.05	0.34	0.16	0.01
Control Delay	9.5		24.4	15.6	6.6	4.7
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	9.5		24.4	15.6	6.6	4.7
LOS	A		C	B	A	A
Approach Delay	9.5			15.9	6.5	
Approach LOS	A			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 47.8
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.57
 Intersection Signal Delay: 10.9
 Intersection Capacity Utilization 29.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 26: Village Loop Rd & Village Loop Dr & High School Signal

↖ ø2	↘ ø3	→ ø4
32 s	22 s	36 s
	← ø8	
	58 s	

Lanes, Volumes, Timings
 28: Village Loop Rd. & PROJECT ACCESS

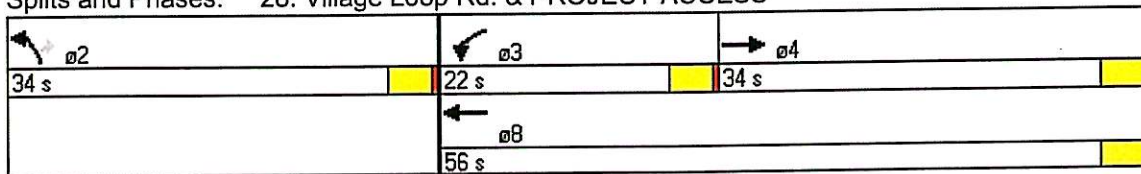
5/2/2013
 EXISTING AM

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.866					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3065	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3065	0	1770	3539	1770	1583
Satd. Flow (RTOR)	125					4
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	14	115	8	202	179	4
Adj. Flow (vph)	15	125	9	220	195	4
Lane Group Flow (vph)	140	0	9	220	195	4
Turn Type			Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Total Split (s)	34.0	0.0	22.0	56.0	34.0	34.0
Act Effct Green (s)	8.0		6.0	10.0	34.4	34.4
Actuated g/C Ratio	0.15		0.10	0.19	0.65	0.65
v/c Ratio	0.24		0.05	0.33	0.17	0.00
Control Delay	7.1		23.2	17.2	5.0	3.8
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	7.1		23.2	17.2	5.0	3.8
LOS	A		C	B	A	A
Approach Delay	7.1			17.4	5.0	
Approach LOS	A			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 52.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.33
 Intersection Signal Delay: 10.5
 Intersection Capacity Utilization 23.2%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 28: Village Loop Rd. & PROJECT ACCESS



	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.906					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3207	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3207	0	1770	3539	1770	1583
Satd. Flow (RTOR)	237					5
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	131	218	6	196	115	5
Adj. Flow (vph)	142	237	7	213	125	5
Lane Group Flow (vph)	379	0	7	213	125	5
Turn Type			Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Total Split (s)	34.0	0.0	22.0	56.0	34.0	34.0
Act Effct Green (s)	8.3		5.8	10.0	30.9	30.9
Actuated g/C Ratio	0.17		0.10	0.20	0.63	0.63
v/c Ratio	0.51		0.04	0.29	0.11	0.01
Control Delay	10.2		24.2	16.5	5.5	4.4
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	10.2		24.2	16.5	5.5	4.4
LOS	B		C	B	A	A
Approach Delay	10.2			16.8	5.5	
Approach LOS	B			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 49
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.51
 Intersection Signal Delay: 11.3
 Intersection Capacity Utilization 23.7%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 28: Village Loop Rd & PROJECT ACCESS

↖ ø2 34 s	↘ ø3 22 s	→ ø4 34 s
	← ø8 56 s	

- Existing Plus Phase 1 Conditions Analysis Worksheets

Lanes, Volumes, Timings
 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

5/2/2013
 EXISTING AM+ PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Frts			0.850					0.982				
Flt Protected	0.950	0.950								0.950		
Satd. Flow (prot)	1681	1681	1583	0	0	0	0	3476	0	3433	1863	0
Flt Permitted	0.950	0.950								0.950		
Satd. Flow (perm)	1681	1681	1583	0	0	0	0	3476	0	3433	1863	0
Satd. Flow (RTOR)			27					5				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	909	0	25	0	0	0	0	33	5	219	47	0
Adj. Flow (vph)	988	0	27	0	0	0	0	36	5	238	51	0
Lane Group Flow (vph)	494	494	27	0	0	0	0	41	0	238	51	0
Turn Type	Prot		Perm							Prot		
Protected Phases	7	4						2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	47.0	47.0	0.0	0.0	0.0	0.0	24.0	0.0	19.0	43.0	0.0
Act Effct Green (s)	43.0	43.0	43.0					23.5		11.5	39.0	
Actuated g/C Ratio	0.48	0.48	0.48					0.26		0.13	0.43	
v/c Ratio	0.62	0.62	0.04					0.05		0.54	0.06	
Control Delay	21.5	21.5	5.0					24.0		41.1	15.2	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.0	
Total Delay	21.5	21.5	5.0					24.0		41.1	15.2	
LOS	C	C	A					C		D	B	
Approach Delay		21.1						24.0			36.6	
Approach LOS		C						C			D	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 24.5
 Intersection Capacity Utilization 46.3%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

ø1	ø2	ø4
19 s	24 s	47 s
ø6	ø7	
43 s	8 s	

Lanes, Volumes, Timings
 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

5/2/2013
 EXISTING+PHASE 1 PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Frts			0.850					0.952				
Flt Protected	0.950	0.954								0.950		
Satd. Flow (prot)	1681	1688	1583	0	0	0	0	3369	0	3433	1863	0
Flt Permitted	0.950	0.954								0.950		
Satd. Flow (perm)	1681	1688	1583	0	0	0	0	3369	0	3433	1863	0
Satd. Flow (RTOR)			3					10				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	503	9	3	0	0	0	0	19	9	340	17	0
Adj. Flow (vph)	547	10	3	0	0	0	0	21	10	370	18	0
Lane Group Flow (vph)	274	283	3	0	0	0	0	31	0	370	18	0
Turn Type	Prot		Perm							Prot		
Protected Phases	7	4						2		1	6	
Permitted Phases			4									
Total Split (s)	36.0	36.0	36.0	0.0	0.0	0.0	0.0	26.0	0.0	28.0	54.0	0.0
Act Effct Green (s)	32.0	32.0	32.0					22.0		24.0	50.0	
Actuated g/C Ratio	0.36	0.36	0.36					0.24		0.27	0.56	
v/c Ratio	0.46	0.47	0.01					0.04		0.40	0.02	
Control Delay	25.4	25.7	13.0					20.0		28.7	9.1	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.0	
Total Delay	25.4	25.7	13.0					20.0		28.7	9.1	
LOS	C	C	B					B		C	A	
Approach Delay		25.5						20.0			27.8	
Approach LOS		C						B			C	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 26.2
 Intersection Capacity Utilization 25.8%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

ø1	ø2	ø4
28 s	26 s	36 s
ø6		ø7
54 s		36 s

Lanes, Volumes, Timings
 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD

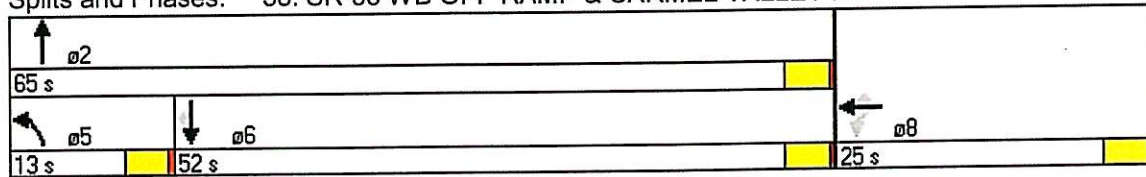
5/2/2013
 EXISTING AM+ PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	1.00	1.00	0.95	0.95
Fr _t						0.850					0.921	0.850
Flt Protected					0.963		0.950					
Satd. Flow (prot)	0	0	0	0	1794	2787	1770	3539	0	0	1630	1504
Flt Permitted					0.963		0.950					
Satd. Flow (perm)	0	0	0	0	1794	2787	1770	3539	0	0	1630	1504
Satd. Flow (RTOR)						298					94	666
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	0	0	0	12	4	285	14	885	0	0	259	898
Adj. Flow (vph)	0	0	0	13	4	310	15	962	0	0	282	976
Lane Group Flow (vph)	0	0	0	0	17	310	15	962	0	0	592	666
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Total Split (s)	0.0	0.0	0.0	25.0	25.0	25.0	13.0	65.0	0.0	0.0	52.0	52.0
Act Effect Green (s)					7.0	7.0	6.2	25.7			24.4	24.4
Actuated g/C Ratio					0.17	0.17	0.13	0.62			0.59	0.59
v/c Ratio					0.06	0.43	0.07	0.44			0.59	0.58
Control Delay					20.0	6.1	24.4	4.5			8.0	2.8
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					20.0	6.1	24.4	4.5			8.0	2.8
LOS					B	A	C	A			A	A
Approach Delay					6.8			4.8			5.3	
Approach LOS					A			A			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 41.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 5.3
 Intersection Capacity Utilization 57.1%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD



Lanes, Volumes, Timings
 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD

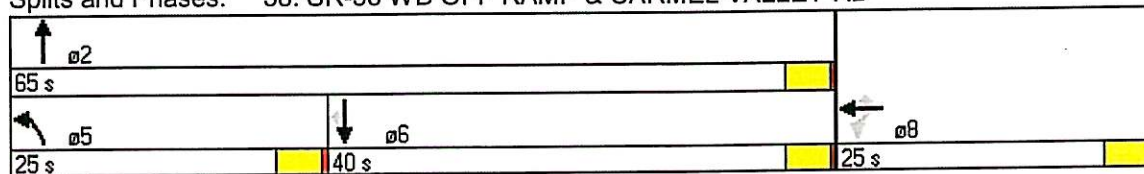
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 EXISTING+PHASE 1 PM













Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	1.00	1.00	0.95	0.95
Frts						0.850						0.850
Flt Protected					0.962		0.950					
Satd. Flow (prot)	0	0	0	0	1792	2787	1770	3539	0	0	1770	1504
Flt Permitted					0.962		0.950					
Satd. Flow (perm)	0	0	0	0	1792	2787	1770	3539	0	0	1770	1504
Satd. Flow (RTOR)						178						482
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	0	0	0	7	2	164	9	504	0	0	351	443
Adj. Flow (vph)	0	0	0	8	2	178	10	548	0	0	382	482
Lane Group Flow (vph)	0	0	0	0	10	178	10	548	0	0	382	482
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Total Split (s)	0.0	0.0	0.0	25.0	25.0	25.0	25.0	65.0	0.0	0.0	40.0	40.0
Act Effct Green (s)					6.5	6.5	21.0	61.0			36.0	36.0
Actuated g/C Ratio					0.09	0.09	0.28	0.81			0.48	0.48
v/c Ratio					0.06	0.44	0.02	0.19			0.45	0.50
Control Delay					32.3	9.4	20.7	1.9			15.6	3.3
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					32.3	9.4	20.7	1.9			15.6	3.3
LOS					C	A	C	A			B	A
Approach Delay					10.6			2.2			8.7	
Approach LOS					B			A			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 75.5
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.50
 Intersection Signal Delay: 6.7
 Intersection Capacity Utilization 44.1%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD








						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Satd. Flow (RTOR)		78		425		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	190	72	841	391	111	1020
Adj. Flow (vph)	207	78	914	425	121	1109
Lane Group Flow (vph)	207	78	914	425	121	1109
Turn Type	custom		Perm		Prot	
Protected Phases	3		2		1	6
Permitted Phases		8		2		
Total Split (s)	28.0	28.0	43.0	43.0	19.0	62.0
Act Effct Green (s)	10.0	10.0	50.0	50.0	8.2	60.3
Actuated g/C Ratio	0.13	0.13	0.64	0.64	0.10	0.77
v/c Ratio	0.47	0.29	0.40	0.36	0.35	0.41
Control Delay	34.2	10.7	8.6	1.9	34.6	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	10.7	8.6	1.9	34.6	3.7
LOS	C	B	A	A	C	A
Approach Delay	27.7		6.5			6.8
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 78.3
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 8.7
 Intersection Capacity Utilization 42.0%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD

 ø1	 ø2	 ø3
19 s	43 s	28 s
 ø6		 ø8
62 s		28 s

Lanes, Volumes, Timings
 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD

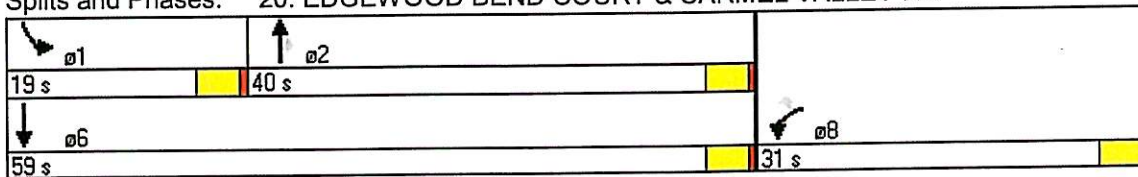
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 EXISTING+PHASE 1 PM

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Satd. Flow (RTOR)		83		48		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	126	76	641	44	42	678
Adj. Flow (vph)	137	83	697	48	46	737
Lane Group Flow (vph)	137	83	697	48	46	737
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	31.0	31.0	40.0	40.0	19.0	59.0
Act Effct Green (s)	8.6	8.6	56.0	56.0	6.8	63.3
Actuated g/C Ratio	0.11	0.11	0.70	0.70	0.08	0.79
v/c Ratio	0.37	0.34	0.28	0.04	0.17	0.26
Control Delay	31.9	11.4	5.8	2.2	31.9	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.9	11.4	5.8	2.2	31.9	2.6
LOS	C	B	A	A	C	A
Approach Delay	24.1		5.5			4.3
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 80.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.37
 Intersection Signal Delay: 7.3
 Intersection Capacity Utilization 29.1%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD



Lanes, Volumes, Timings
 39: Del Mar Heights Rd. & CARMEL VALLEY RD

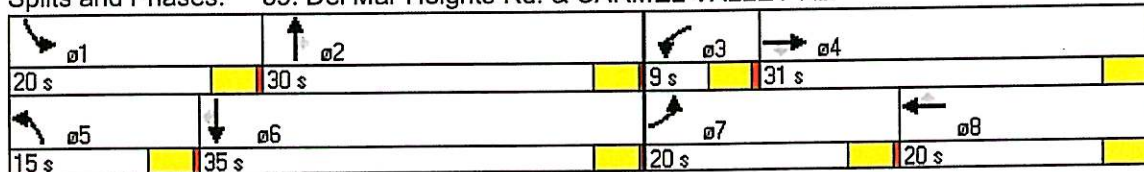
5/2/2013
 EXISTING AM+ PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			320			118			153			353
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	203	411	404	120	409	109	428	200	141	221	703	808
Adj. Flow (vph)	221	447	439	130	445	118	465	217	153	240	764	878
Lane Group Flow (vph)	221	447	439	130	445	118	465	217	153	240	764	878
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	20.0	31.0	31.0	9.0	20.0	20.0	15.0	30.0	30.0	20.0	35.0	35.0
Act Effct Green (s)	10.6	20.3	20.3	5.0	14.8	14.8	11.0	31.1	31.1	11.0	31.1	31.1
Actuated g/C Ratio	0.13	0.24	0.24	0.06	0.18	0.18	0.13	0.37	0.37	0.13	0.37	0.37
v/c Ratio	0.51	0.52	0.70	0.63	0.71	0.31	1.02	0.16	0.22	0.53	0.58	1.08
Control Delay	38.7	29.3	14.5	54.5	39.5	8.6	87.4	19.8	4.9	38.5	23.9	74.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	29.3	14.5	54.5	39.5	8.6	87.4	19.8	4.9	38.5	23.9	74.8
LOS	D	C	B	D	D	A	F	B	A	D	C	E
Approach Delay		25.3			37.0			54.7			49.5	
Approach LOS		C			D			D			D	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 83.5
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.08
 Intersection Signal Delay: 42.6
 Intersection Capacity Utilization 83.5%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 39: Del Mar Heights Rd. & CARMEL VALLEY RD



Lanes, Volumes, Timings
 39: Del Mar Heights Rd. & CARMEL VALLEY RD

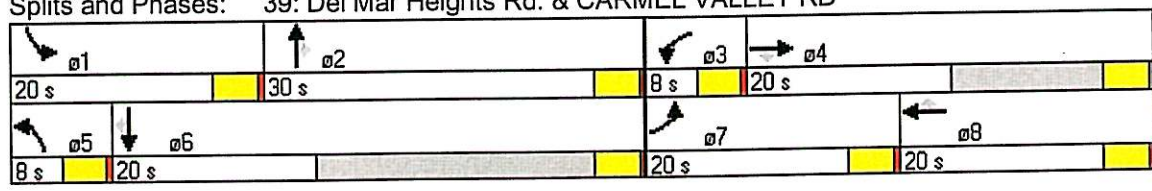
5/2/2013
 EXISTING+PHASE 1 PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frts			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			411			88			66			214
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	536	99	378	82	139	81	190	422	61	40	256	197
Adj. Flow (vph)	583	108	411	89	151	88	207	459	66	43	278	214
Lane Group Flow (vph)	583	108	411	89	151	88	207	459	66	43	278	214
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	20.0	20.0	20.0	8.0	20.0	20.0	8.0	30.0	30.0	20.0	20.0	20.0
Act Effct Green (s)	15.1	18.3	18.3	4.1	7.8	7.8	4.2	12.8	12.8	6.5	15.0	15.0
Actuated g/C Ratio	0.27	0.33	0.33	0.07	0.13	0.13	0.07	0.23	0.23	0.12	0.27	0.27
v/c Ratio	0.63	0.09	0.52	0.36	0.32	0.30	0.80	0.57	0.16	0.11	0.29	0.37
Control Delay	23.6	14.9	4.8	33.1	26.2	9.9	56.7	23.2	6.9	26.6	18.1	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.6	14.9	4.8	33.1	26.2	9.9	56.7	23.2	6.9	26.6	18.1	5.1
LOS	C	B	A	C	C	A	E	C	A	C	B	A
Approach Delay		15.7			23.7			31.2			13.6	
Approach LOS		B			C			C			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 56.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 20.5
 Intersection Capacity Utilization 47.5%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 39: Del Mar Heights Rd. & CARMEL VALLEY RD



4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD EXISTING AM+ PHASE 1

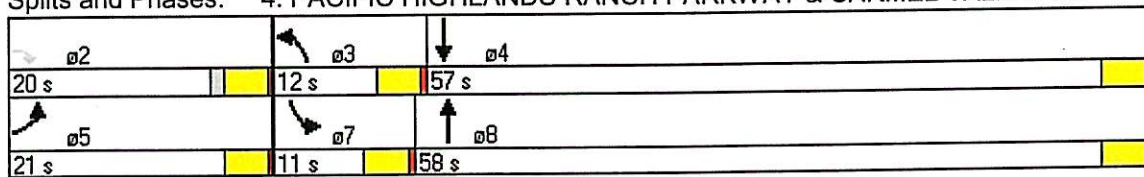
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	0.95
Frts			0.850								0.999	
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	0	2787	0	0	0	3433	3539	0	1863	3536	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	0	2787	0	0	0	3433	3539	0	1863	3536	0
Satd. Flow (RTOR)			275								1	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	11	0	285	0	0	0	73	449	0	0	1406	10
Adj. Flow (vph)	12	0	310	0	0	0	79	488	0	0	1528	11
Lane Group Flow (vph)	12	0	310	0	0	0	79	488	0	0	1539	0
Turn Type	Prot		custom				Prot			Prot		
Protected Phases	5						3	8		7	4	
Permitted Phases			2									
Total Split (s)	21.0	0.0	20.0	0.0	0.0	0.0	12.0	58.0	0.0	11.0	57.0	0.0
Act Effct Green (s)	7.2		7.8				7.0	37.5			32.1	
Actuated g/C Ratio	0.12		0.14				0.12	0.68			0.59	
v/c Ratio	0.06		0.49				0.19	0.20			0.74	
Control Delay	32.8		9.4				30.3	2.8			11.3	
Queue Delay	0.0		0.0				0.0	0.0			0.0	
Total Delay	32.8		9.4				30.3	2.8			11.3	
LOS	C		A				C	A			B	
Approach Delay								6.6			11.3	
Approach LOS								A			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 54.8
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 10.1
 Intersection Capacity Utilization 55.8%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD



4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD EXISTING+PHASE 1 PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	0.95
Frt			0.850								0.997	
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	0	2787	0	0	0	3433	3539	0	1863	3529	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	0	2787	0	0	0	3433	3539	0	1863	3529	0
Satd. Flow (RTOR)			82								3	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	12	0	75	0	0	0	119	964	0	0	454	10
Adj. Flow (vph)	13	0	82	0	0	0	129	1048	0	0	493	11
Lane Group Flow (vph)	13	0	82	0	0	0	129	1048	0	0	504	0
Turn Type	Prot		custom				Prot			Prot		
Protected Phases	5						3	8		7	4	
Permitted Phases			2									
Total Split (s)	23.0	0.0	23.0	0.0	0.0	0.0	24.0	43.0	0.0	24.0	43.0	0.0
Act Effct Green (s)	6.3		6.3				6.9	21.9			16.8	
Actuated g/C Ratio	0.20		0.20				0.22	0.78			0.60	
v/c Ratio	0.04		0.13				0.17	0.38			0.24	
Control Delay	14.5		5.6				13.3	3.3			8.2	
Queue Delay	0.0		0.0				0.0	0.0			0.0	
Total Delay	14.5		5.6				13.3	3.3			8.2	
LOS	B		A				B	A			A	
Approach Delay								4.4			8.3	
Approach LOS								A			A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 28.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 5.6

Intersection LOS: A

Intersection Capacity Utilization 43.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD

ø2	ø3	ø4
23 s	24 s	43 s
ø5	ø7	ø8
23 s	24 s	43 s

Lanes, Volumes, Timings
 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE

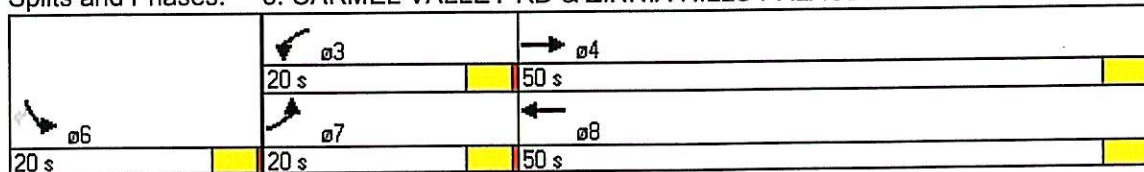
5/2/2013
 EXISTING AM+ PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frts					0.999							0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	3539	0	1863	3536	0	0	0	0	1770	0	1583
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1770	3539	0	1863	3536	0	0	0	0	1770	0	1583
Satd. Flow (RTOR)					1							198
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	45	453	0	0	1279	7	0	0	0	9	0	182
Adj. Flow (vph)	49	492	0	0	1390	8	0	0	0	10	0	198
Lane Group Flow (vph)	49	492	0	0	1398	0	0	0	0	10	0	198
Turn Type	Prot			Prot						Prot		custom
Protected Phases	7	4		3	8					6		
Permitted Phases												6
Total Split (s)	20.0	50.0	0.0	20.0	50.0	0.0	0.0	0.0	0.0	20.0	0.0	20.0
Act Effct Green (s)	7.5	38.3			32.0					17.3		17.3
Actuated g/C Ratio	0.11	0.60			0.50					0.27		0.27
v/c Ratio	0.25	0.23			0.79					0.02		0.35
Control Delay	35.0	5.4			17.4					26.2		6.9
Queue Delay	0.0	0.0			0.0					0.0		0.0
Total Delay	35.0	5.4			17.4					26.2		6.9
LOS	D	A			B					C		A
Approach Delay		8.0			17.4							
Approach LOS		A			B							

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 64.3
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 14.1
 Intersection Capacity Utilization 53.5%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE



Lanes, Volumes, Timings
 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE

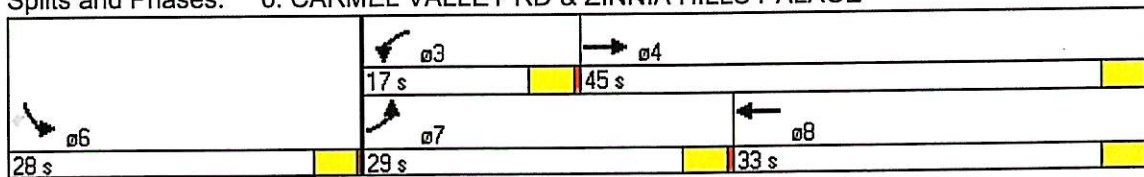
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 EXISTING+PHASE 1 PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.995							0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	3539	0	1863	3522	0	0	0	0	1770	0	1583
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1770	3539	0	1863	3522	0	0	0	0	1770	0	1583
Satd. Flow (RTOR)					4							47
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	87	857	0	0	352	11	0	0	0	4	0	43
Adj. Flow (vph)	95	932	0	0	383	12	0	0	0	4	0	47
Lane Group Flow (vph)	95	932	0	0	395	0	0	0	0	4	0	47
Turn Type	Prot			Prot						Prot		custom
Protected Phases	7	4		3	8					6		
Permitted Phases												6
Total Split (s)	29.0	45.0	0.0	17.0	33.0	0.0	0.0	0.0	0.0	28.0	0.0	28.0
Act Effct Green (s)	8.4	22.4			12.4					24.3		24.3
Actuated g/C Ratio	0.15	0.41			0.23					0.44		0.44
v/c Ratio	0.37	0.64			0.49					0.01		0.06
Control Delay	26.2	14.8			21.8					11.5		4.7
Queue Delay	0.0	0.0			0.0					0.0		0.0
Total Delay	26.2	14.8			21.8					11.5		4.7
LOS	C	B			C					B		A
Approach Delay		15.9			21.8							
Approach LOS		B			C							

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 54.9
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 17.1
 Intersection Capacity Utilization 40.4%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE



Lanes, Volumes, Timings
 3: CARMEL VALLEY RD & RANCHO SANTA FE RD

5/2/2013
 EXISTING AM+ PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.981			0.993			0.987			0.879	
Flt Protected	0.950			0.950				0.959			0.995	
Satd. Flow (prot)	1770	1827	0	1770	1850	0	0	1763	0	0	1629	0
Flt Permitted	0.950			0.950				0.422			0.959	
Satd. Flow (perm)	1770	1827	0	1770	1850	0	0	776	0	0	1570	0
Satd. Flow (RTOR)		14			4			5			177	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	129	268	40	16	894	44	135	7	15	24	1	211
Adj. Flow (vph)	140	291	43	17	972	48	147	8	16	26	1	229
Lane Group Flow (vph)	140	334	0	17	1020	0	0	171	0	0	256	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Total Split (s)	11.0	56.0	0.0	8.0	53.0	0.0	26.0	26.0	0.0	26.0	26.0	0.0
Act Effect Green (s)	7.0	56.8		4.0	49.0			22.0			22.0	
Actuated g/C Ratio	0.08	0.63		0.04	0.54			0.24			0.24	
v/c Ratio	1.01	0.29		0.23	1.01			0.89			0.49	
Control Delay	124.8	8.6		49.8	53.2			75.5			13.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	124.8	8.6		49.8	53.2			75.5			13.4	
LOS	F	A		D	D			E			B	
Approach Delay		42.9			53.2			75.5			13.4	
Approach LOS		D			D			E			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 47.4
 Intersection Capacity Utilization 93.4%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service F

Splits and Phases: 3: CARMEL VALLEY RD & RANCHO SANTA FE RD

26 s	8 s	56 s									
26 s	11 s	53 s									

Lanes, Volumes, Timings
 3: CARMEL VALLEY RD & RANCHO SANTA FE RD

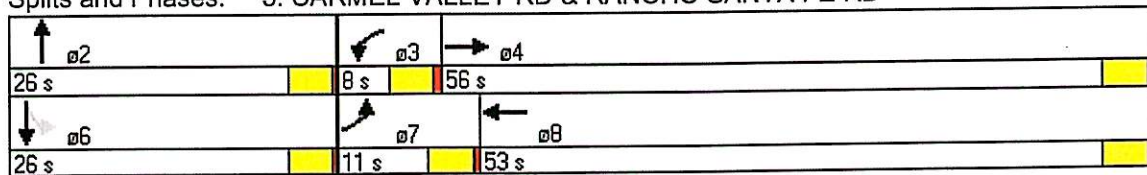
5/2/2013
 EXISTING+PHASE 1 PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.983			0.980			0.940			0.922	
Fl _t Protected	0.950			0.950				0.975			0.983	
Satd. Flow (prot)	1770	1831	0	1770	1825	0	0	1707	0	0	1688	0
Fl _t Permitted	0.950			0.950				0.831			0.878	
Satd. Flow (perm)	1770	1831	0	1770	1825	0	0	1455	0	0	1508	0
Satd. Flow (RTOR)		12			14			32			73	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	140	659	82	30	275	43	40	4	35	52	13	90
Adj. Flow (vph)	152	716	89	33	299	47	43	4	38	57	14	98
Lane Group Flow (vph)	152	805	0	33	346	0	0	85	0	0	169	0
Turn Type	Prot			Prot						Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases										6		
Total Split (s)	11.0	56.0	0.0	8.0	53.0	0.0	0.0	26.0	0.0	26.0	26.0	0.0
Act Effect Green (s)	7.4	34.1		4.1	25.0			0.0			23.2	
Actuated g/C Ratio	0.11	0.50		0.06	0.37			0.00			0.34	
v/c Ratio	0.79	0.88		0.33	0.51			2.66			0.30	
Control Delay	66.4	26.3		47.7	16.9			842.2			15.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	66.4	26.3		47.7	16.9			842.2			15.6	
LOS	E	C		D	B			F			B	
Approach Delay		32.7			19.6			842.2			15.6	
Approach LOS		C			B			F			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 68.2
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 2.66
 Intersection Signal Delay: 71.0
 Intersection Capacity Utilization 63.1%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service B

Splits and Phases: 3: CARMEL VALLEY RD & RANCHO SANTA FE RD



Lanes, Volumes, Timings
 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD

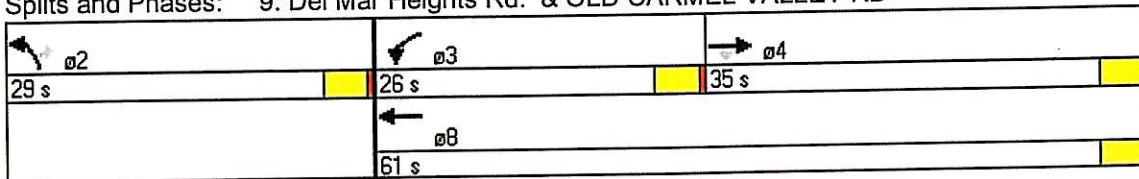
5/2/2013
 EXISTING AM+ PHASE 1

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↙↙	↑↑	↙↙	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Frts		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Satd. Flow (RTOR)		228				350
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	689	210	380	1250	285	322
Adj. Flow (vph)	749	228	413	1359	310	350
Lane Group Flow (vph)	749	228	413	1359	310	350
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	35.0	35.0	26.0	61.0	29.0	29.0
Act Effct Green (s)	21.5	21.5	13.9	39.5	25.5	25.5
Actuated g/C Ratio	0.29	0.29	0.19	0.54	0.35	0.35
v/c Ratio	0.72	0.36	0.63	0.71	0.26	0.45
Control Delay	27.4	4.8	32.8	14.4	20.1	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.4	4.8	32.8	14.4	20.1	4.9
LOS	C	A	C	B	C	A
Approach Delay	22.1			18.7	12.0	
Approach LOS	C			B	B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 73.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 18.4
 Intersection Capacity Utilization 49.4%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD



Lanes, Volumes, Timings
 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD

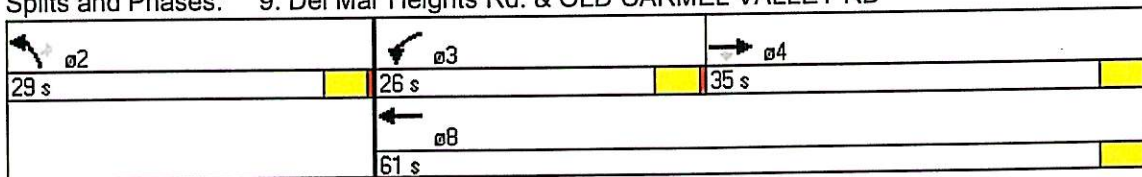
5/2/2013
 EXISTING+PHASE 1 PM

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↘↙	↑
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Fr _t		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Satd. Flow (RTOR)		108				87
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	968	99	75	458	39	80
Adj. Flow (vph)	1052	108	82	498	42	87
Lane Group Flow (vph)	1052	108	82	498	42	87
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	35.0	35.0	26.0	61.0	29.0	29.0
Act Effct Green (s)	26.0	26.0	7.1	34.6	25.7	25.7
Actuated g/C Ratio	0.38	0.38	0.10	0.50	0.37	0.37
v/c Ratio	0.78	0.16	0.24	0.28	0.03	0.13
Control Delay	23.8	4.1	32.6	9.5	17.2	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	4.1	32.6	9.5	17.2	5.4
LOS	C	A	C	A	B	A
Approach Delay	22.0			12.7	9.2	
Approach LOS	C			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 68.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 18.2
 Intersection Capacity Utilization 42.1%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD



Lanes, Volumes, Timings
 13: Del Mar Heights Rd. & VALERO GATE

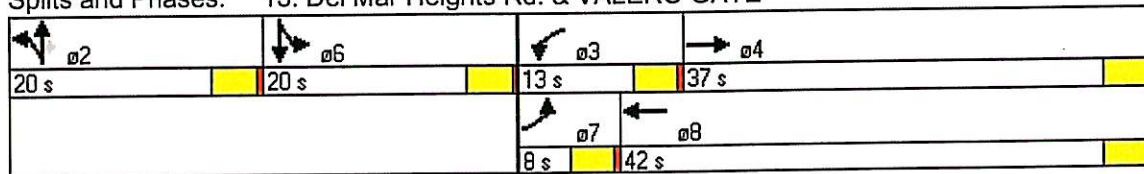
5/2/2013
 EXISTING AM+ PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	0.91	0.97	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frnt		0.985			0.999				0.850		0.852	
Flt Protected	0.950			0.950			0.950	0.953		0.950		
Satd. Flow (prot)	1770	5009	0	3433	3536	0	1681	1686	1583	1770	1587	0
Flt Permitted	0.950			0.950			0.950	0.953		0.950		
Satd. Flow (perm)	1770	5009	0	3433	3536	0	1681	1686	1583	1770	1587	0
Satd. Flow (RTOR)		24			1				76		73	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	14	797	90	173	1380	12	193	1	70	10	1	67
Adj. Flow (vph)	15	866	98	188	1500	13	210	1	76	11	1	73
Lane Group Flow (vph)	15	964	0	188	1513	0	105	106	76	11	74	0
Turn Type	Prot			Prot			Split		Perm	Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Total Split (s)	8.0	37.0	0.0	13.0	42.0	0.0	20.0	20.0	20.0	20.0	20.0	0.0
Act Effct Green (s)	4.0	27.0		8.6	38.1		16.0	16.0	16.0	16.0	16.0	
Actuated g/C Ratio	0.04	0.32		0.10	0.46		0.19	0.19	0.19	0.19	0.19	
v/c Ratio	0.19	0.59		0.53	0.94		0.33	0.33	0.21	0.03	0.20	
Control Delay	47.1	24.8		42.0	35.1		33.2	33.2	9.5	29.2	9.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	47.1	24.8		42.0	35.1		33.2	33.2	9.5	29.2	9.8	
LOS	D	C		D	D		C	C	A	C	A	
Approach Delay		25.1			35.9			26.9			12.3	
Approach LOS		C			D			C			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 83.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 30.9
 Intersection Capacity Utilization 63.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 13: Del Mar Heights Rd. & VALERO GATE



Lanes, Volumes, Timings
 13: Del Mar Heights Rd. & VALERO GATE

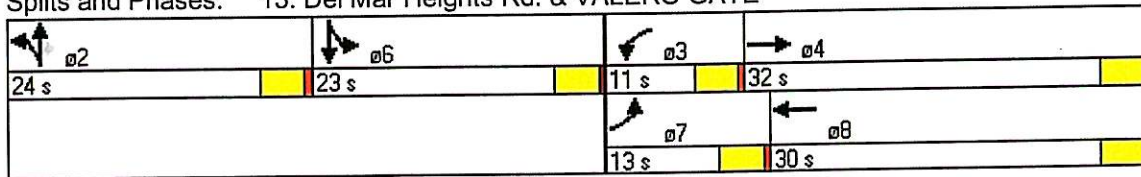
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 EXISTING+PHASE 1 PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	0.91	0.97	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frts		0.999			0.994				0.850		0.850	
Flt Protected	0.950			0.950			0.950	0.950		0.950		
Satd. Flow (prot)	1770	5080	0	3433	3518	0	1681	1681	1583	1770	1583	0
Flt Permitted	0.950			0.950			0.950	0.950		0.950		
Satd. Flow (perm)	1770	5080	0	3433	3518	0	1681	1681	1583	1770	1583	0
Satd. Flow (RTOR)		1			5				111		446	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	35	968	8	48	458	19	82	0	102	7	0	22
Adj. Flow (vph)	38	1052	9	52	498	21	89	0	111	8	0	24
Lane Group Flow (vph)	38	1061	0	52	519	0	45	44	111	8	24	0
Turn Type	Prot			Prot			Split		Perm	Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Total Split (s)	13.0	32.0	0.0	11.0	30.0	0.0	24.0	24.0	24.0	23.0	23.0	0.0
Act Effct Green (s)	7.2	23.0		6.4	22.3		20.3	20.3	20.3	19.3	19.3	
Actuated g/C Ratio	0.09	0.28		0.08	0.28		0.25	0.25	0.25	0.24	0.24	
v/c Ratio	0.25	0.73		0.20	0.53		0.11	0.10	0.23	0.02	0.03	
Control Delay	41.9	29.7		40.2	27.3		27.8	27.9	7.5	28.1	0.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	41.9	29.7		40.2	27.3		27.8	27.9	7.5	28.1	0.1	
LOS	D	C		D	C		C	C	A	C	A	
Approach Delay		30.1			28.4			16.5			7.1	
Approach LOS		C			C			B			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 80.8
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 27.8
 Intersection Capacity Utilization 41.2%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 13: Del Mar Heights Rd. & VALERO GATE



Lanes, Volumes, Timings
 26: Village Loop Rd. & HIGH SCHOOL SIGNAL

5/2/2013
 EXISTING AM+ PHASE 1

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.897					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3175	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3175	0	1770	3539	1770	1583
Satd. Flow (RTOR)	603					8
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	253	555	10	338	261	7
Adj. Flow (vph)	275	603	11	367	284	8
Lane Group Flow (vph)	878	0	11	367	284	8
Turn Type			Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Total Split (s)	35.0	0.0	25.0	60.0	30.0	30.0
Act Effect Green (s)	12.2		6.0	13.8	26.8	26.8
Actuated g/C Ratio	0.25		0.11	0.28	0.55	0.55
v/c Ratio	0.71		0.06	0.37	0.29	0.01
Control Delay	8.6		26.1	14.0	9.5	6.4
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	8.6		26.1	14.0	9.5	6.4
LOS	A		C	B	A	A
Approach Delay	8.6			14.3	9.5	
Approach LOS	A			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 48.8
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 10.1
 Intersection Capacity Utilization 46.0%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 26: Village Loop Rd. & HIGH SCHOOL SIGNAL

↖ ø2 30 s	↘ ø3 25 s	→ ø4 35 s
	← ø8 60 s	

Lanes, Volumes, Timings
 26: Village Loop Rd. & HIGH SCHOOL SIGNAL

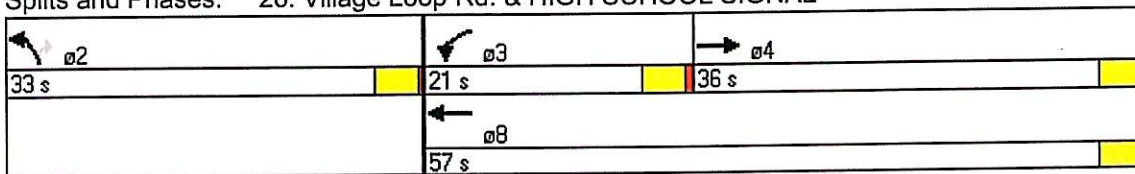
5/2/2013
 EXISTING+PHASE 1 PM

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.904					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3199	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3199	0	1770	3539	1770	1583
Satd. Flow (RTOR)	335					11
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	174	308	9	261	192	10
Adj. Flow (vph)	189	335	10	284	209	11
Lane Group Flow (vph)	524	0	10	284	209	11
Turn Type			Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Total Split (s)	36.0	0.0	21.0	57.0	33.0	33.0
Act Effct Green (s)	9.6		5.9	11.3	29.5	29.5
Actuated g/C Ratio	0.20		0.10	0.23	0.60	0.60
v/c Ratio	0.58		0.05	0.35	0.20	0.01
Control Delay	9.6		25.0	16.1	6.8	4.4
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	9.6		25.0	16.1	6.8	4.4
LOS	A		C	B	A	A
Approach Delay	9.6			16.4	6.6	
Approach LOS	A			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 49
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 10.9
 Intersection Capacity Utilization 32.0%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 26: Village Loop Rd. & HIGH SCHOOL SIGNAL



Lanes, Volumes, Timings
 28: Village Loop Rd. & PROJECT ACCESS

5/2/2013
 EXISTING AM+ PHASE 1

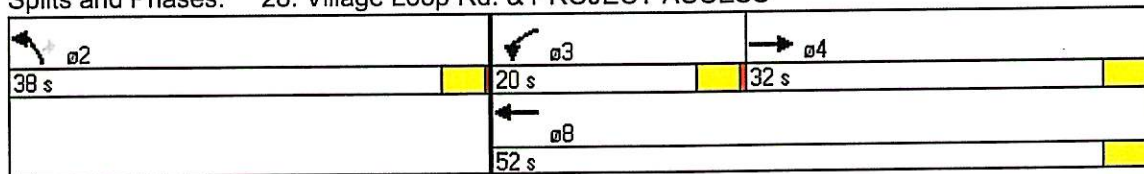
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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.908					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3214	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3214	0	1770	3539	1770	1583
Satd. Flow (RTOR)	253					10
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	145	233	16	202	258	9
Adj. Flow (vph)	158	253	17	220	280	10
Lane Group Flow (vph)	411	0	17	220	280	10
Turn Type			Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Total Split (s)	32.0	0.0	20.0	52.0	38.0	38.0
Act Effct Green (s)	8.8		6.1	10.6	34.5	34.5
Actuated g/C Ratio	0.17		0.10	0.20	0.65	0.65
v/c Ratio	0.55		0.10	0.31	0.24	0.01
Control Delay	11.5		27.2	18.5	6.0	3.9
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	11.5		27.2	18.5	6.0	3.9
LOS	B		C	B	A	A
Approach Delay	11.5			19.1	6.0	
Approach LOS	B			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 53.2
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 11.7
 Intersection Capacity Utilization 34.3%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 28: Village Loop Rd. & PROJECT ACCESS



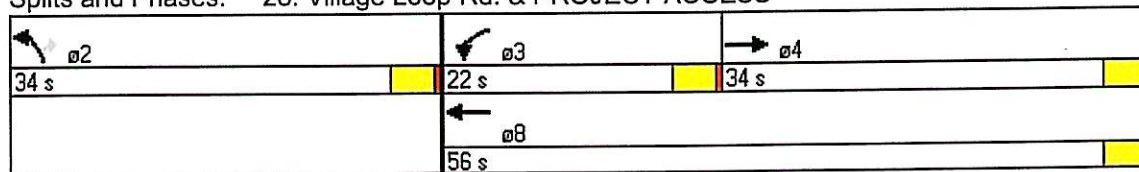
	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Fr _t	0.903					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3196	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3196	0	1770	3539	1770	1583
Satd. Flow (RTOR)	257					9
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	131	236	7	196	154	8
Adj. Flow (vph)	142	257	8	213	167	9
Lane Group Flow (vph)	399	0	8	213	167	9
Turn Type			Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Total Split (s)	34.0	0.0	22.0	56.0	34.0	34.0
Act Effct Green (s)	8.4		5.8	10.1	30.7	30.7
Actuated g/C Ratio	0.17		0.10	0.21	0.63	0.63
v/c Ratio	0.53		0.04	0.29	0.15	0.01
Control Delay	10.0		24.3	16.5	5.7	4.0
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	10.0		24.3	16.5	5.7	4.0
LOS	A		C	B	A	A
Approach Delay	10.0			16.8	5.6	
Approach LOS	A			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 48.9
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 10.9
 Intersection Capacity Utilization 26.4%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 28: Village Loop Rd. & PROJECT ACCESS



➤ Existing Plus Phase 1& 2 Conditions Analysis Worksheets

Lanes, Volumes, Timings
40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

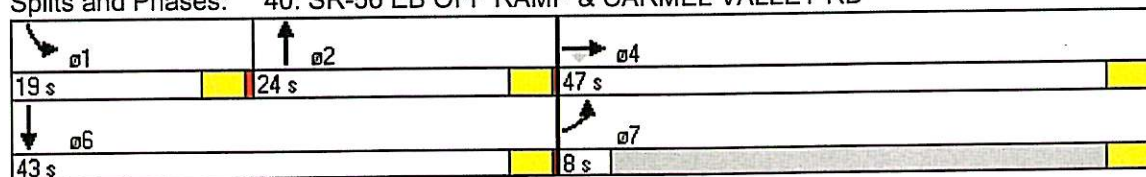
5/2/2013
EXISTING AM+ PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Frts			0.850					0.985				
Fit Protected	0.950	0.950								0.950		
Satd. Flow (prot)	1681	1681	1583	0	0	0	0	3486	0	3433	1863	0
Fit Permitted	0.950	0.950								0.950		
Satd. Flow (perm)	1681	1681	1583	0	0	0	0	3486	0	3433	1863	0
Satd. Flow (RTOR)			27					5				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	928	0	25	0	0	0	0	42	5	219	53	0
Adj. Flow (vph)	1009	0	27	0	0	0	0	46	5	238	58	0
Lane Group Flow (vph)	505	504	27	0	0	0	0	51	0	238	58	0
Turn Type	Prot		Perm							Prot		
Protected Phases	7	4						2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	47.0	47.0	0.0	0.0	0.0	0.0	24.0	0.0	19.0	43.0	0.0
Act Effct Green (s)	43.0	43.0	43.0					23.5		11.5	39.0	
Actuated g/C Ratio	0.48	0.48	0.48					0.26		0.13	0.43	
v/c Ratio	0.63	0.63	0.04					0.06		0.54	0.07	
Control Delay	21.9	21.9	5.0					24.5		41.1	15.3	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.0	
Total Delay	21.9	21.9	5.0					24.5		41.1	15.3	
LOS	C	C	A					C		D	B	
Approach Delay		21.5						24.5			36.1	
Approach LOS		C						C			D	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 24.7
 Intersection Capacity Utilization 46.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD



Lanes, Volumes, Timings
 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

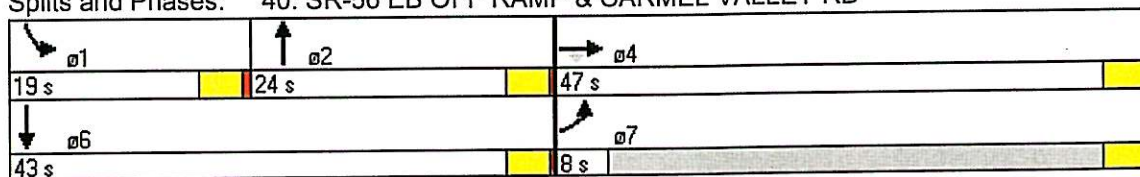
5/2/2013
 EXISTING PM+ PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Frts			0.850					0.953				
Flt Protected	0.950	0.954								0.950		
Satd. Flow (prot)	1681	1688	1583	0	0	0	0	3373	0	3433	1863	0
Flt Permitted	0.950	0.954								0.950		
Satd. Flow (perm)	1681	1688	1583	0	0	0	0	3373	0	3433	1863	0
Satd. Flow (RTOR)			3					10				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	506	9	3	0	0	0	0	20	9	340	20	0
Adj. Flow (vph)	550	10	3	0	0	0	0	22	10	370	22	0
Lane Group Flow (vph)	275	285	3	0	0	0	0	32	0	370	22	0
Turn Type	Prot		Perm							Prot		
Protected Phases	7	4						2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	47.0	47.0	0.0	0.0	0.0	0.0	24.0	0.0	19.0	43.0	0.0
Act Effect Green (s)	43.0	43.0	43.0					21.2		13.8	39.0	
Actuated g/C Ratio	0.48	0.48	0.48					0.24		0.15	0.43	
v/c Ratio	0.34	0.35	0.00					0.04		0.70	0.03	
Control Delay	16.2	16.4	8.7					21.3		43.8	14.8	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.0	
Total Delay	16.2	16.4	8.7					21.3		43.8	14.8	
LOS	B	B	A					C		D	B	
Approach Delay		16.2						21.3			42.2	
Approach LOS		B						C			D	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 26.7
 Intersection Capacity Utilization 42.3%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD



Lanes, Volumes, Timings
 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD

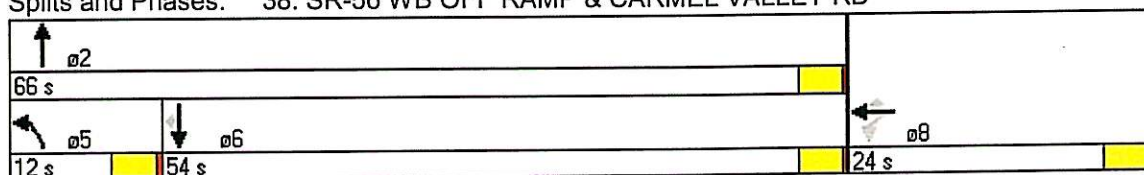
5/2/2013
 EXISTING AM+ PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	1.00	1.00	0.95	0.95
Frts						0.850					0.921	0.850
Flt Protected					0.963		0.950					
Satd. Flow (prot)	0	0	0	0	1794	2787	1770	3539	0	0	1630	1504
Flt Permitted					0.963		0.950					
Satd. Flow (perm)	0	0	0	0	1794	2787	1770	3539	0	0	1630	1504
Satd. Flow (RTOR)						291					100	670
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	0	0	0	12	4	285	14	910	0	0	265	911
Adj. Flow (vph)	0	0	0	13	4	310	15	989	0	0	288	990
Lane Group Flow (vph)	0	0	0	0	17	310	15	989	0	0	608	670
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Total Split (s)	0.0	0.0	0.0	24.0	24.0	24.0	12.0	66.0	0.0	0.0	54.0	54.0
Act Effct Green (s)					7.1	7.1	6.3	63.1			60.9	60.9
Actuated g/C Ratio					0.09	0.09	0.07	0.81			0.78	0.78
v/c Ratio					0.10	0.60	0.12	0.35			0.47	0.51
Control Delay					33.0	10.7	37.9	2.6			5.0	2.0
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					33.0	10.7	37.9	2.6			5.0	2.0
LOS					C	B	D	A			A	A
Approach Delay					11.9			3.1			3.4	
Approach LOS					B			A			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 78.2
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 4.3
 Intersection Capacity Utilization 57.6%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD



Lanes, Volumes, Timings
 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD

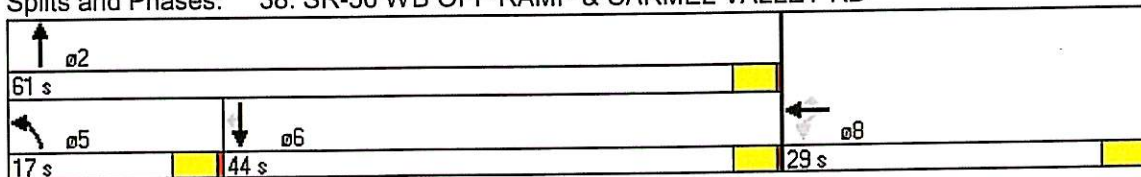
5/2/2013
 EXISTING PM+ PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	1.00	1.00	0.95	0.95
Fr _t						0.850					0.992	0.850
Flt Protected					0.962		0.950					
Satd. Flow (prot)	0	0	0	0	1792	2787	1770	3539	0	0	1755	1504
Flt Permitted					0.962		0.950					
Satd. Flow (perm)	0	0	0	0	1792	2787	1770	3539	0	0	1755	1504
Satd. Flow (RTOR)						178					4	487
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	0	0	0	7	2	164	9	508	0	0	356	469
Adj. Flow (vph)	0	0	0	8	2	178	10	552	0	0	387	510
Lane Group Flow (vph)	0	0	0	0	10	178	10	552	0	0	410	487
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Total Split (s)	0.0	0.0	0.0	29.0	29.0	29.0	17.0	61.0	0.0	0.0	44.0	44.0
Act Effct Green (s)					6.6	6.6	6.2	64.1			61.8	61.8
Actuated g/C Ratio					0.08	0.08	0.07	0.81			0.78	0.78
v/c Ratio					0.07	0.45	0.08	0.19			0.30	0.38
Control Delay					30.4	9.3	34.0	1.9			3.9	1.4
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					30.4	9.3	34.0	1.9			3.9	1.4
LOS					C	A	C	A			A	A
Approach Delay					10.4			2.5			2.6	
Approach LOS					B			A			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 78.8
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.45
 Intersection Signal Delay: 3.4
 Intersection Capacity Utilization 44.9%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD

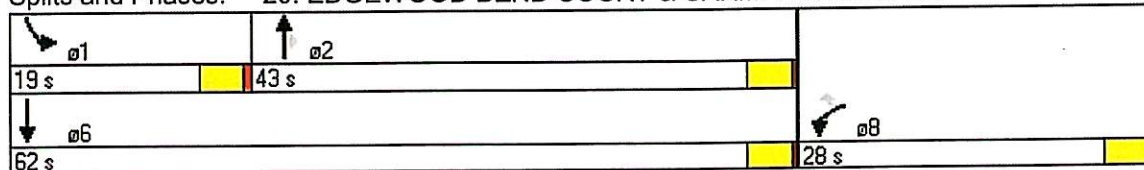


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.95	1.00	0.97	0.95
Fr _t		0.850		0.850		
Fl _t Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Fl _t Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Satd. Flow (RTOR)		78		425		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	190	72	868	391	111	1039
Adj. Flow (vph)	207	78	943	425	121	1129
Lane Group Flow (vph)	207	78	943	425	121	1129
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	28.0	28.0	43.0	43.0	19.0	62.0
Act Effct Green (s)	10.0	10.0	50.0	50.0	8.2	60.3
Actuated g/C Ratio	0.13	0.13	0.64	0.64	0.10	0.77
v/c Ratio	0.47	0.29	0.42	0.36	0.35	0.41
Control Delay	34.2	10.7	8.7	1.9	34.6	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	10.7	8.7	1.9	34.6	3.8
LOS	C	B	A	A	C	A
Approach Delay	27.7		6.6			6.7
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 78.3
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 8.7
 Intersection Capacity Utilization 42.7%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD



Lanes, Volumes, Timings
 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD

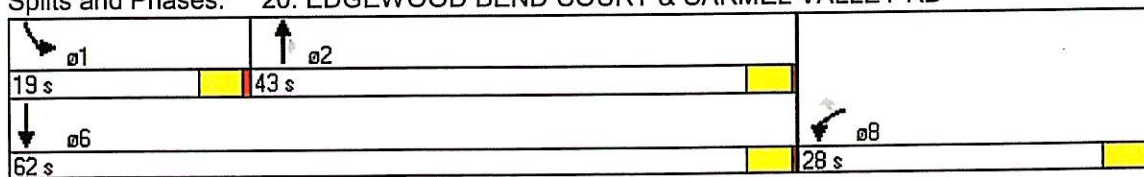
5/2/2013
 EXISTING PM+ PHASE 1+2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.95	1.00	0.97	0.95
Fr't		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Satd. Flow (RTOR)		83		48		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	126	76	645	44	42	687
Adj. Flow (vph)	137	83	701	48	46	747
Lane Group Flow (vph)	137	83	701	48	46	747
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	28.0	28.0	43.0	43.0	19.0	62.0
Act Effct Green (s)	8.7	8.7	58.9	58.9	6.8	66.2
Actuated g/C Ratio	0.10	0.10	0.71	0.71	0.08	0.80
v/c Ratio	0.38	0.34	0.28	0.04	0.17	0.26
Control Delay	33.6	11.8	5.6	2.1	33.5	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	11.8	5.6	2.1	33.5	2.6
LOS	C	B	A	A	C	A
Approach Delay	25.3		5.4			4.3
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 83.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.38
 Intersection Signal Delay: 7.4
 Intersection Capacity Utilization 29.3%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD



Lanes, Volumes, Timings
 39: Del Mar Heights Rd. & CARMEL VALLEY RD

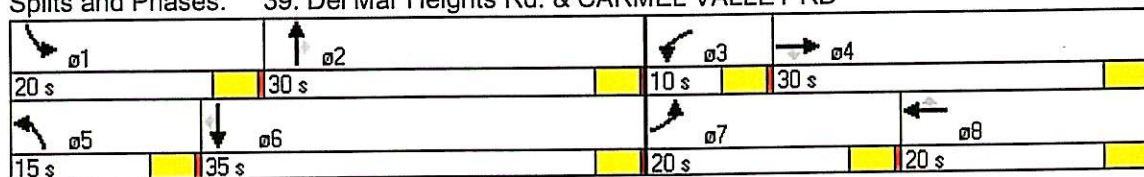
5/2/2013
 EXISTING AM+ PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frts			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			314			152			183			349
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	203	455	404	139	439	140	428	200	168	221	703	808
Adj. Flow (vph)	221	495	439	151	477	152	465	217	183	240	764	878
Lane Group Flow (vph)	221	495	439	151	477	152	465	217	183	240	764	878
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	20.0	30.0	30.0	10.0	20.0	20.0	15.0	30.0	30.0	20.0	35.0	35.0
Act Effct Green (s)	10.6	19.8	19.8	6.0	15.2	15.2	11.0	31.0	31.0	11.1	31.1	31.1
Actuated g/C Ratio	0.13	0.24	0.24	0.07	0.18	0.18	0.13	0.37	0.37	0.13	0.37	0.37
v/c Ratio	0.51	0.59	0.72	0.61	0.75	0.37	1.03	0.17	0.26	0.53	0.58	1.09
Control Delay	38.8	31.4	15.7	50.7	40.7	8.3	89.0	19.9	4.8	38.7	24.1	77.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	31.4	15.7	50.7	40.7	8.3	89.0	19.9	4.8	38.7	24.1	77.3
LOS	D	C	B	D	D	A	F	B	A	D	C	E
Approach Delay		26.9			36.3			53.8			50.8	
Approach LOS		C			D			D			D	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 83.9
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.09
 Intersection Signal Delay: 43.0
 Intersection Capacity Utilization 84.4%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 39: Del Mar Heights Rd. & CARMEL VALLEY RD



Lanes, Volumes, Timings
 39: Del Mar Heights Rd. & CARMEL VALLEY RD

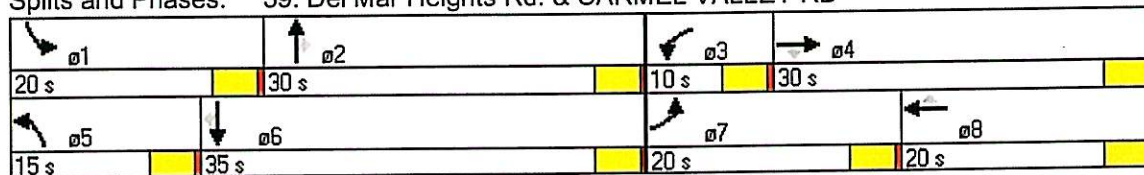
5/2/2013
 EXISTING PM+ PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frts			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			411			104			71			214
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	536	106	378	91	153	96	190	422	65	40	256	197
Adj. Flow (vph)	583	115	411	99	166	104	207	459	71	43	278	214
Lane Group Flow (vph)	583	115	411	99	166	104	207	459	71	43	278	214
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	20.0	30.0	30.0	10.0	20.0	20.0	15.0	30.0	30.0	20.0	35.0	35.0
Act Effct Green (s)	15.1	17.1	17.1	6.0	8.0	8.0	8.6	12.8	12.8	6.5	13.7	13.7
Actuated g/C Ratio	0.27	0.30	0.30	0.10	0.14	0.14	0.15	0.23	0.23	0.12	0.24	0.24
v/c Ratio	0.64	0.11	0.54	0.28	0.34	0.34	0.41	0.57	0.17	0.11	0.32	0.39
Control Delay	23.9	16.4	5.2	29.3	26.3	9.7	26.6	23.4	6.8	26.9	22.7	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	16.4	5.2	29.3	26.3	9.7	26.6	23.4	6.8	26.9	22.7	6.4
LOS	C	B	A	C	C	A	C	C	A	C	C	A
Approach Delay		16.2			22.4			22.7			16.5	
Approach LOS		B			C			C			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 56.4
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 18.8
 Intersection Capacity Utilization 47.9%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 39: Del Mar Heights Rd. & CARMEL VALLEY RD



4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RDEXISTING AM+ PHASE 1+2

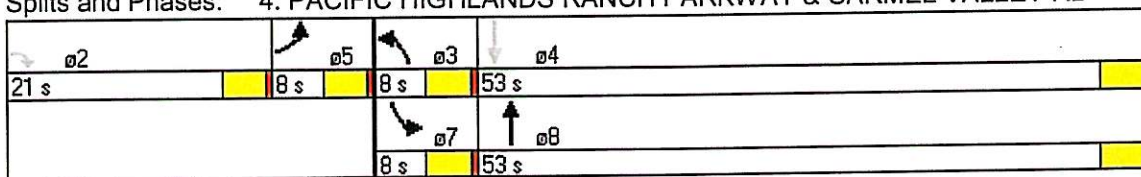
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	0.95
Frts			0.850								0.999	
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	0	2787	0	0	0	3433	3539	0	1863	3536	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	0	2787	0	0	0	3433	3539	0	1863	3536	0
Satd. Flow (RTOR)			301								1	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	11	0	290	0	0	0	77	480	0	0	1453	10
Adj. Flow (vph)	12	0	315	0	0	0	84	522	0	0	1579	11
Lane Group Flow (vph)	12	0	315	0	0	0	84	522	0	0	1590	0
Turn Type	Prot		custom				Prot			Prot		
Protected Phases	5						3	8		7		
Permitted Phases			2								4	
Total Split (s)	8.0	0.0	21.0	0.0	0.0	0.0	8.0	53.0	0.0	8.0	53.0	0.0
Act Effct Green (s)	4.4		7.4				4.3	35.2			31.3	
Actuated g/C Ratio	0.07		0.14				0.08	0.67			0.59	
v/c Ratio	0.09		0.49				0.32	0.22			0.76	
Control Delay	36.3		8.0				34.1	3.5			11.6	
Queue Delay	0.0		0.0				0.0	0.0			0.0	
Total Delay	36.3		8.0				34.1	3.5			11.6	
LOS	D		A				C	A			B	
Approach Delay								7.8			11.6	
Approach LOS								A			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 52.9
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 10.3
 Intersection Capacity Utilization 57.3%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD



4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RDEXISTING PM+ PHASE 1+2

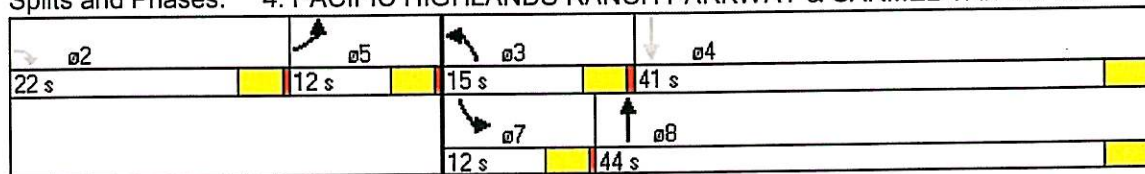
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	0.95
Frts			0.850								0.997	
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	0	2787	0	0	0	3433	3539	0	1863	3529	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	0	2787	0	0	0	3433	3539	0	1863	3529	0
Satd. Flow (RTOR)			83								3	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	12	0	76	0	0	0	121	980	0	0	462	10
Adj. Flow (vph)	13	0	83	0	0	0	132	1065	0	0	502	11
Lane Group Flow (vph)	13	0	83	0	0	0	132	1065	0	0	513	0
Turn Type	Prot		custom				Prot			Prot		
Protected Phases	5						3	8		7		
Permitted Phases			2								4	
Total Split (s)	12.0	0.0	22.0	0.0	0.0	0.0	15.0	44.0	0.0	12.0	41.0	0.0
Act Effect Green (s)	6.7		6.5				7.3	23.6			18.3	
Actuated g/C Ratio	0.17		0.19				0.21	0.76			0.59	
v/c Ratio	0.04		0.14				0.18	0.40			0.25	
Control Delay	20.8		6.9				15.9	4.8			9.9	
Queue Delay	0.0		0.0				0.0	0.0			0.0	
Total Delay	20.8		6.9				15.9	4.8			9.9	
LOS	C		A				B	A			A	
Approach Delay								6.0			9.9	
Approach LOS								A			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 31.2
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.40
 Intersection Signal Delay: 7.3
 Intersection Capacity Utilization 43.8%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD



Lanes, Volumes, Timings
 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE

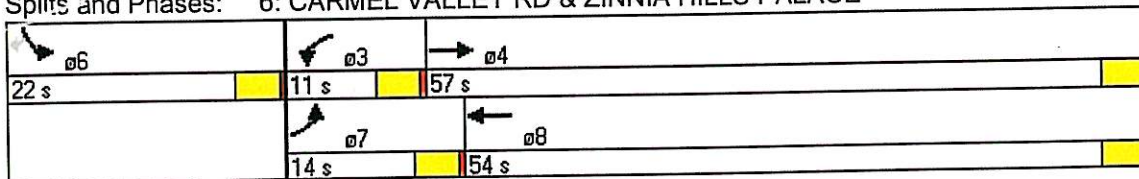
5/2/2013
 EXISTING AM+ PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.999							0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	3539	0	1863	3536	0	0	0	0	1770	0	1583
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1770	3539	0	1863	3536	0	0	0	0	1770	0	1583
Satd. Flow (RTOR)					1							164
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	50	476	0	0	1313	7	0	0	0	9	0	189
Adj. Flow (vph)	54	517	0	0	1427	8	0	0	0	10	0	205
Lane Group Flow (vph)	54	517	0	0	1435	0	0	0	0	10	0	205
Turn Type	Prot			Prot						Prot		custom
Protected Phases	7	4		3	8					6		
Permitted Phases												6
Total Split (s)	14.0	57.0	0.0	11.0	54.0	0.0	0.0	0.0	0.0	22.0	0.0	22.0
Act Effct Green (s)	7.6	41.2			34.8					19.5		19.5
Actuated g/C Ratio	0.10	0.59			0.50					0.28		0.28
v/c Ratio	0.29	0.25			0.81					0.02		0.36
Control Delay	38.8	5.9			18.6					27.4		10.7
Queue Delay	0.0	0.0			0.0					0.0		0.0
Total Delay	38.8	5.9			18.6					27.4		10.7
LOS	D	A			B					C		B
Approach Delay		9.0			18.6							
Approach LOS		A			B							

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 69.3
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 15.5
 Intersection Capacity Utilization 54.9%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE



Lanes, Volumes, Timings
 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE

5/2/2013
 EXISTING PM+ PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.996						0.853	
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	3539	0	1863	3525	0	0	0	0	1770	1589	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1770	3539	0	1863	3525	0	0	0	0	1770	1589	0
Satd. Flow (RTOR)					4						48	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	89	868	0	0	357	11	0	0	0	4	1	44
Adj. Flow (vph)	97	943	0	0	388	12	0	0	0	4	1	48
Lane Group Flow (vph)	97	943	0	0	400	0	0	0	0	4	49	0
Turn Type	Prot			Prot						Prot		
Protected Phases	7	4		3	8					1	6	
Permitted Phases												
Total Split (s)	23.0	46.0	0.0	17.0	40.0	0.0	0.0	0.0	0.0	27.0	27.0	0.0
Act Effct Green (s)	8.4	22.3			12.3					23.3	23.3	
Actuated g/C Ratio	0.15	0.41			0.23					0.43	0.43	
v/c Ratio	0.37	0.64			0.49					0.01	0.07	
Control Delay	25.6	14.3			21.3					11.5	4.8	
Queue Delay	0.0	0.0			0.0					0.0	0.0	
Total Delay	25.6	14.3			21.3					11.5	4.8	
LOS	C	B			C					B	A	
Approach Delay		15.3			21.3						5.3	
Approach LOS		B			C						A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 53.8
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 16.6
 Intersection Capacity Utilization 40.7%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE

27 s	17 s	46 s									
27 s	23 s	40 s									

Lanes, Volumes, Timings
 3: CARMEL VALLEY RD & RANCHO SANTA FE RD

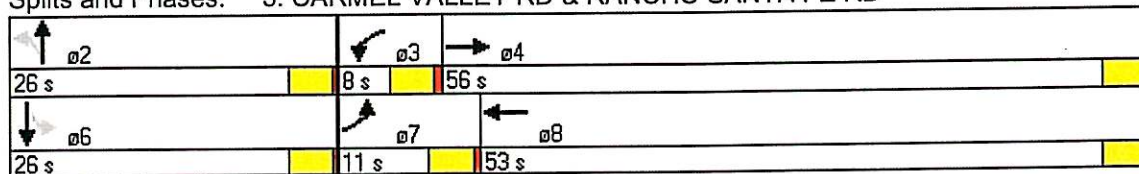
5/2/2013
 EXISTING AM+ PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.980			0.993			0.988			0.879	
Fl _t Protected	0.950			0.950				0.958			0.995	
Satd. Flow (prot)	1770	1825	0	1770	1850	0	0	1763	0	0	1629	0
Fl _t Permitted	0.950			0.950				0.415			0.961	
Satd. Flow (perm)	1770	1825	0	1770	1850	0	0	764	0	0	1573	0
Satd. Flow (RTOR)		15			4			5			178	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	130	271	42	16	889	44	150	7	15	24	1	213
Adj. Flow (vph)	141	295	46	17	966	48	163	8	16	26	1	232
Lane Group Flow (vph)	141	341	0	17	1014	0	0	187	0	0	259	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Total Split (s)	11.0	56.0	0.0	8.0	53.0	0.0	26.0	26.0	0.0	26.0	26.0	0.0
Act Effct Green (s)	7.0	56.8		4.0	49.0			22.0			22.0	
Actuated g/C Ratio	0.08	0.63		0.04	0.54			0.24			0.24	
v/c Ratio	1.02	0.29		0.23	1.00			0.98			0.50	
Control Delay	126.5	8.6		49.8	51.7			96.2			13.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	126.5	8.6		49.8	51.7			96.2			13.5	
LOS	F	A		D	D			F			B	
Approach Delay		43.1			51.7			96.2			13.5	
Approach LOS		D			D			F			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.02
 Intersection Signal Delay: 48.8
 Intersection Capacity Utilization 94.1%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service F

Splits and Phases: 3: CARMEL VALLEY RD & RANCHO SANTA FE RD



Lanes, Volumes, Timings
 3: CARMEL VALLEY RD & RANCHO SANTA FE RD

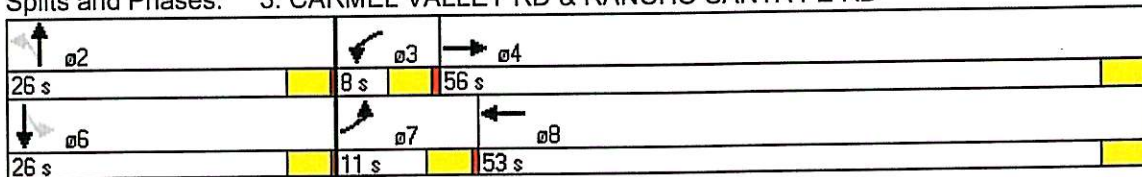
5/2/2013
 EXISTING PM+ PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.983			0.980			0.942			0.922	
Flt Protected	0.950			0.950				0.974			0.983	
Satd. Flow (prot)	1770	1831	0	1770	1825	0	0	1709	0	0	1688	0
Flt Permitted	0.950			0.950				0.816			0.876	
Satd. Flow (perm)	1770	1831	0	1770	1825	0	0	1432	0	0	1504	0
Satd. Flow (RTOR)		12			14			38			73	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	141	661	83	30	276	43	43	4	35	52	13	90
Adj. Flow (vph)	153	718	90	33	300	47	47	4	38	57	14	98
Lane Group Flow (vph)	153	808	0	33	347	0	0	89	0	0	169	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Total Split (s)	11.0	56.0	0.0	8.0	53.0	0.0	26.0	26.0	0.0	26.0	26.0	0.0
Act Effct Green (s)	7.4	34.2		4.1	25.1			23.2			23.2	
Actuated g/C Ratio	0.11	0.50		0.06	0.37			0.34			0.34	
v/c Ratio	0.80	0.88		0.33	0.51			0.17			0.30	
Control Delay	67.3	26.4		47.8	16.9			15.9			15.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	67.3	26.4		47.8	16.9			15.9			15.6	
LOS	E	C		D	B			B			B	
Approach Delay		32.9			19.6			15.9			15.6	
Approach LOS		C			B			B			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 68.4
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 27.0
 Intersection Capacity Utilization 63.1%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 3: CARMEL VALLEY RD & RANCHO SANTA FE RD



	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↘↘	↑↑	↘↘	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Fr't		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Satd. Flow (RTOR)		228				364
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	721	210	388	1271	285	335
Adj. Flow (vph)	784	228	422	1382	310	364
Lane Group Flow (vph)	784	228	422	1382	310	364
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	35.0	35.0	26.0	61.0	29.0	29.0
Act Effct Green (s)	22.4	22.4	14.2	40.7	25.5	25.5
Actuated g/C Ratio	0.30	0.30	0.19	0.55	0.34	0.34
v/c Ratio	0.73	0.36	0.64	0.71	0.26	0.47
Control Delay	27.8	4.7	33.3	14.3	20.7	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.8	4.7	33.3	14.3	20.7	5.0
LOS	C	A	C	B	C	A
Approach Delay	22.6			18.8	12.2	
Approach LOS	C			B	B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 74.3
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 18.6
 Intersection Capacity Utilization 49.9%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD

↖ φ2	↙ φ3	→ φ4
29 s	26 s	35 s
	← φ8	
	61 s	

Lanes, Volumes, Timings
 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD

5/2/2013
 EXISTING PM+ PHASE 1+2

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↘↙	↑
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Satd. Flow (RTOR)		108				92
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	973	99	80	469	39	85
Adj. Flow (vph)	1058	108	87	510	42	92
Lane Group Flow (vph)	1058	108	87	510	42	92
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	35.0	35.0	26.0	61.0	29.0	29.0
Act Effect Green (s)	26.2	26.2	7.2	34.9	25.7	25.7
Actuated g/C Ratio	0.38	0.38	0.10	0.51	0.37	0.37
v/c Ratio	0.79	0.16	0.25	0.28	0.03	0.14
Control Delay	24.0	4.1	32.7	9.5	17.3	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	4.1	32.7	9.5	17.3	5.3
LOS	C	A	C	A	B	A
Approach Delay	22.1			12.9	9.1	
Approach LOS	C			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 68.8
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 18.3
 Intersection Capacity Utilization 43.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD

↖ ø2 29 s	↘ ø3 26 s	→ ø4 35 s
	← ø8 61 s	

Lanes, Volumes, Timings
 13: Del Mar Heights Rd. & VALERO GATE

5/2/2013
 EXISTING AM+ PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	0.91	0.97	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Fr _t		0.985			0.998				0.850		0.852	
Flt Protected	0.950			0.950			0.950	0.953		0.950		
Satd. Flow (prot)	1770	5009	0	3433	3532	0	1681	1686	1583	1770	1587	0
Flt Permitted	0.950			0.950			0.950	0.953		0.950		
Satd. Flow (perm)	1770	5009	0	3433	3532	0	1681	1686	1583	1770	1587	0
Satd. Flow (RTOR)		23			1				76		73	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	14	823	90	173	1397	16	193	1	70	16	1	67
Adj. Flow (vph)	15	895	98	188	1518	17	210	1	76	17	1	73
Lane Group Flow (vph)	15	993	0	188	1535	0	105	106	76	17	74	0
Turn Type	Prot			Prot			Split		Perm	Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Total Split (s)	8.0	37.0	0.0	13.0	42.0	0.0	20.0	20.0	20.0	20.0	20.0	0.0
Act Effect Green (s)	4.0	27.0		8.6	38.1		16.0	16.0	16.0	16.0	16.0	
Actuated g/C Ratio	0.04	0.32		0.10	0.46		0.19	0.19	0.19	0.19	0.19	
v/c Ratio	0.19	0.61		0.53	0.95		0.33	0.33	0.21	0.05	0.20	
Control Delay	47.1	25.1		42.0	37.4		33.2	33.2	9.5	29.4	9.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	47.1	25.1		42.0	37.4		33.2	33.2	9.5	29.4	9.8	
LOS	D	C		D	D		C	C	A	C	A	
Approach Delay		25.4			37.9			26.9			13.5	
Approach LOS		C			D			C			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 83.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 32.1
 Intersection Capacity Utilization 64.5%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 13: Del Mar Heights Rd. & VALERO GATE

ø2	ø6	ø3	ø4
20 s	20 s	13 s	37 s
		ø7	ø8
		8 s	42 s

Lanes, Volumes, Timings
13: Del Mar Heights Rd. & VALERO GATE

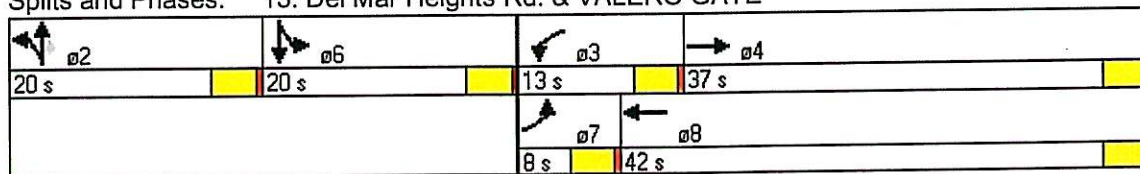
5/2/2013
EXISTING PM+ PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	0.91	0.97	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frts		0.999			0.994				0.850		0.850	
Flt Protected	0.950			0.950			0.950	0.950		0.950		
Satd. Flow (prot)	1770	5080	0	3433	3518	0	1681	1681	1583	1770	1583	0
Flt Permitted	0.950			0.950			0.950	0.950		0.950		
Satd. Flow (perm)	1770	5080	0	3433	3518	0	1681	1681	1583	1770	1583	0
Satd. Flow (RTOR)		1			6				111		394	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	35	972	8	48	467	21	82	0	102	8	0	22
Adj. Flow (vph)	38	1057	9	52	508	23	89	0	111	9	0	24
Lane Group Flow (vph)	38	1066	0	52	531	0	45	44	111	9	24	0
Turn Type	Prot			Prot			Split		Perm	Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Total Split (s)	8.0	37.0	0.0	13.0	42.0	0.0	20.0	20.0	20.0	20.0	20.0	0.0
Act Effect Green (s)	4.0	22.2		6.6	24.0		16.4	16.4	16.4	16.4	16.4	
Actuated g/C Ratio	0.05	0.30		0.09	0.33		0.22	0.22	0.22	0.22	0.22	
v/c Ratio	0.41	0.69		0.18	0.46		0.12	0.12	0.25	0.02	0.04	
Control Delay	52.1	25.3		36.2	20.4		28.4	28.4	8.3	28.1	0.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	52.1	25.3		36.2	20.4		28.4	28.4	8.3	28.1	0.1	
LOS	D	C		D	C		C	C	A	C	A	
Approach Delay		26.2			21.8			17.3			7.7	
Approach LOS		C			C			B			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 73.4
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 23.6
 Intersection Capacity Utilization 41.2%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 13: Del Mar Heights Rd. & VALERO GATE



Lanes, Volumes, Timings
 26: Village Loop Rd. & HIGH SCHOOL SIGNAL

5/2/2013
 EXISTING AM+ PHASE 1+2

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.905					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3203	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3203	0	1770	3539	1770	1583
Satd. Flow (RTOR)	585					8
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	325	555	10	386	261	7
Adj. Flow (vph)	353	603	11	420	284	8
Lane Group Flow (vph)	956	0	11	420	284	8
Turn Type			Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Total Split (s)	41.0	0.0	15.0	56.0	34.0	34.0
Act Effct Green (s)	14.7		6.0	16.3	30.9	30.9
Actuated g/C Ratio	0.26		0.09	0.29	0.56	0.56
v/c Ratio	0.75		0.07	0.40	0.29	0.01
Control Delay	10.8		30.2	15.7	10.3	6.9
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	10.8		30.2	15.7	10.3	6.9
LOS	B		C	B	B	A
Approach Delay	10.8			16.0	10.2	
Approach LOS	B			B	B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 55.5
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 12.0
 Intersection Capacity Utilization 48.0%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 26: Village Loop Rd. & HIGH SCHOOL SIGNAL

Lanes, Volumes, Timings
 26: Village Loop Rd. & HIGH SCHOOL SIGNAL

5/2/2013
 EXISTING PM+ PHASE 1+2

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.906					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3207	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3207	0	1770	3539	1770	1583
Satd. Flow (RTOR)	335					11
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	185	308	9	285	192	10
Adj. Flow (vph)	201	335	10	310	209	11
Lane Group Flow (vph)	536	0	10	310	209	11
Turn Type			Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Total Split (s)	36.0	0.0	21.0	57.0	33.0	33.0
Act Effect Green (s)	9.9		5.9	11.6	29.5	29.5
Actuated g/C Ratio	0.20		0.10	0.24	0.60	0.60
v/c Ratio	0.59		0.05	0.37	0.20	0.01
Control Delay	9.8		25.2	16.2	6.9	4.5
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	9.8		25.2	16.2	6.9	4.5
LOS	A		C	B	A	A
Approach Delay	9.8			16.5	6.7	
Approach LOS	A			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 49.3
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 11.2
 Intersection Capacity Utilization 32.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 26: Village Loop Rd. & HIGH SCHOOL SIGNAL

↖ ø2 33 s	↘ ø3 21 s	→ ø4 36 s
	← ø8 57 s	

Lanes, Volumes, Timings
 28: Village Loop Rd. & PROJECT ACCESS

5/2/2013
 EXISTING AM+ PHASE 1+2

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.898					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3178	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3178	0	1770	3539	1770	1583
Satd. Flow (RTOR)	332					49
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	145	305	70	202	306	45
Adj. Flow (vph)	158	332	76	220	333	49
Lane Group Flow (vph)	490	0	76	220	333	49
Turn Type			Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Total Split (s)	30.0	0.0	22.0	52.0	38.0	38.0
Act Effct Green (s)	9.5		8.0	16.8	34.9	34.9
Actuated g/C Ratio	0.16		0.13	0.28	0.58	0.58
v/c Ratio	0.63		0.34	0.22	0.32	0.05
Control Delay	12.3		30.6	15.6	10.1	3.6
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	12.3		30.6	15.6	10.1	3.6
LOS	B		C	B	B	A
Approach Delay	12.3			19.4	9.2	
Approach LOS	B			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 59.9
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 13.1
 Intersection Capacity Utilization 44.7%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 28: Village Loop Rd. & PROJECT ACCESS

↘ ø2	↙ ø3	→ ø4
38 s	22 s	30 s
	← ø8	
	52 s	

Lanes, Volumes, Timings
 28: Village Loop Rd. & PROJECT ACCESS

5/2/2013
 EXISTING PM+ PHASE 1+2

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Fr't	0.902					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3192	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3192	0	1770	3539	1770	1583
Satd. Flow (RTOR)	268					28
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	131	247	15	196	178	26
Adj. Flow (vph)	142	268	16	213	193	28
Lane Group Flow (vph)	410	0	16	213	193	28
Turn Type			Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Total Split (s)	34.0	0.0	22.0	56.0	34.0	34.0
Act Effct Green (s)	8.6		6.1	10.3	30.7	30.7
Actuated g/C Ratio	0.17		0.11	0.21	0.62	0.62
v/c Ratio	0.53		0.09	0.29	0.17	0.03
Control Delay	9.7		25.0	16.3	6.1	3.3
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	9.7		25.0	16.3	6.1	3.3
LOS	A		C	B	A	A
Approach Delay	9.7			16.9	5.7	
Approach LOS	A			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 49.2
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 10.6
 Intersection Capacity Utilization 29.0%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 28: Village Loop Rd. & PROJECT ACCESS

- Existing Plus Cumulative Plus Phase 1 Conditions Analysis Worksheets

Lanes, Volumes, Timings
 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

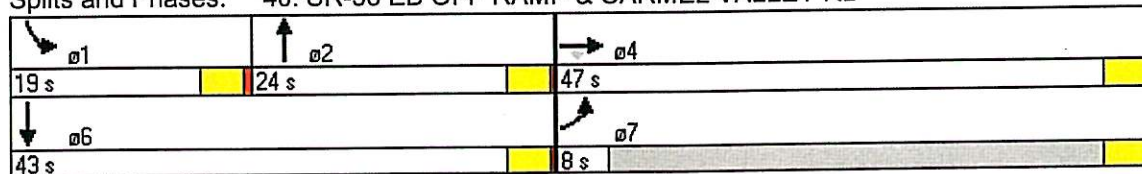
5/2/2013
 CUMULATIVE AM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Frts			0.850					0.980				
Flt Protected	0.950	0.950								0.950		
Satd. Flow (prot)	1681	1681	1583	0	0	0	0	3468	0	3433	1863	0
Flt Permitted	0.950	0.950								0.950		
Satd. Flow (perm)	1681	1681	1583	0	0	0	0	3468	0	3433	1863	0
Satd. Flow (RTOR)			27					5				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	949	0	25	0	0	0	0	29	5	219	71	0
Adj. Flow (vph)	1032	0	27	0	0	0	0	32	5	238	77	0
Lane Group Flow (vph)	516	516	27	0	0	0	0	37	0	238	77	0
Turn Type	Prot		Perm							Prot		
Protected Phases	7	4						2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	47.0	47.0	0.0	0.0	0.0	0.0	24.0	0.0	19.0	43.0	0.0
Act Effct Green (s)	43.0	43.0	43.0					23.5		11.5	39.0	
Actuated g/C Ratio	0.48	0.48	0.48					0.26		0.13	0.43	
v/c Ratio	0.64	0.64	0.04					0.04		0.54	0.10	
Control Delay	22.3	22.3	5.0					23.7		41.1	15.6	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.0	
Total Delay	22.3	22.3	5.0					23.7		41.1	15.6	
LOS	C	C	A					C		D	B	
Approach Delay		21.9						23.7			34.9	
Approach LOS		C						C			C	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 24.8
 Intersection Capacity Utilization 47.5%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD



Lanes, Volumes, Timings
 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

5/2/2013
 CUMULATIVE PM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘					↕		↖	↗	↘
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Frts			0.850					0.950				
Flt Protected	0.950	0.954								0.950		
Satd. Flow (prot)	1681	1688	1583	0	0	0	0	3362	0	3433	1863	0
Flt Permitted	0.950	0.954								0.950		
Satd. Flow (perm)	1681	1688	1583	0	0	0	0	3362	0	3433	1863	0
Satd. Flow (RTOR)			3					10				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	593	9	3	0	0	0	0	18	9	340	89	0
Adj. Flow (vph)	645	10	3	0	0	0	0	20	10	370	97	0
Lane Group Flow (vph)	323	332	3	0	0	0	0	30	0	370	97	0
Turn Type	Prot		Perm							Prot		
Protected Phases	7	4						2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	47.0	47.0	0.0	0.0	0.0	0.0	24.0	0.0	19.0	43.0	0.0
Act Effct Green (s)	43.0	43.0	43.0					21.2		13.8	39.0	
Actuated g/C Ratio	0.48	0.48	0.48					0.24		0.15	0.43	
v/c Ratio	0.40	0.41	0.00					0.04		0.70	0.12	
Control Delay	17.1	17.3	8.7					20.9		43.8	15.8	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.0	
Total Delay	17.1	17.3	8.7					20.9		43.8	15.8	
LOS	B	B	A					C		D	B	
Approach Delay		17.1						20.9			38.0	
Approach LOS		B						C			D	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 25.7
 Intersection Capacity Utilization 42.3%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

↖ φ1	↕ φ2	→ φ4
19 s	24 s	47 s
↓ φ6	↗ φ7	
43 s	8 s	

Lanes, Volumes, Timings
 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD

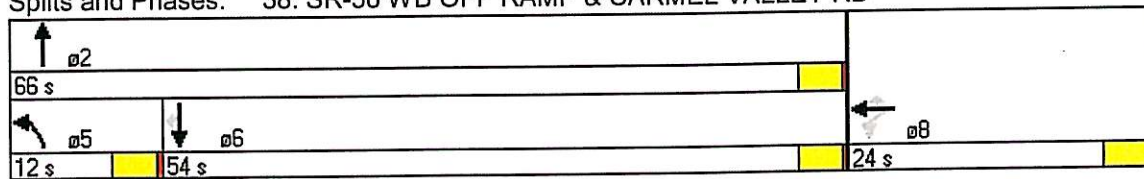
5/2/2013
 CUMULATIVE AM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	1.00	1.00	0.95	0.95
Frt						0.850					0.924	0.850
Flt Protected					0.963		0.950					
Satd. Flow (prot)	0	0	0	0	1794	2787	1770	3539	0	0	1635	1504
Flt Permitted					0.963		0.950					
Satd. Flow (perm)	0	0	0	0	1794	2787	1770	3539	0	0	1635	1504
Satd. Flow (RTOR)											91	694
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	0	0	0	12	4	321	14	921	0	0	283	926
Adj. Flow (vph)	0	0	0	13	4	349	15	1001	0	0	308	1007
Lane Group Flow (vph)	0	0	0	0	17	349	15	1001	0	0	621	694
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Total Split (s)	0.0	0.0	0.0	24.0	24.0	24.0	12.0	66.0	0.0	0.0	54.0	54.0
Act Effct Green (s)					8.0	8.0	6.3	62.7			60.5	60.5
Actuated g/C Ratio					0.10	0.10	0.07	0.80			0.77	0.77
v/c Ratio					0.09	0.65	0.12	0.36			0.49	0.53
Control Delay					32.1	13.7	38.6	2.9			5.6	2.1
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					32.1	13.7	38.6	2.9			5.6	2.1
LOS					C	B	D	A			A	A
Approach Delay					14.5			3.4			3.8	
Approach LOS					B			A			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 78.7
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 5.1
 Intersection Capacity Utilization 58.2%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD



Lanes, Volumes, Timings
 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD

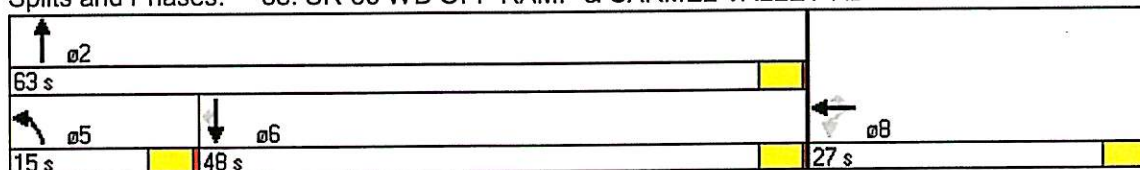
5/2/2013
 CUMULATIVE PM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	1.00	1.00	0.95	0.95
Fr't						0.850					0.995	0.850
Flt Protected					0.962		0.950					
Satd. Flow (prot)	0	0	0	0	1792	2787	1770	3539	0	0	1761	1504
Flt Permitted					0.962		0.950					
Satd. Flow (perm)	0	0	0	0	1792	2787	1770	3539	0	0	1761	1504
Satd. Flow (RTOR)						275					3	567
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	0	0	0	7	2	253	9	593	0	0	425	537
Adj. Flow (vph)	0	0	0	8	2	275	10	645	0	0	462	584
Lane Group Flow (vph)	0	0	0	0	10	275	10	645	0	0	479	567
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Total Split (s)	0.0	0.0	0.0	27.0	27.0	27.0	15.0	63.0	0.0	0.0	48.0	48.0
Act Effct Green (s)					6.7	6.7	6.1	61.0			58.9	58.9
Actuated g/C Ratio					0.09	0.09	0.07	0.80			0.78	0.78
v/c Ratio					0.06	0.55	0.08	0.23			0.35	0.44
Control Delay					31.0	9.0	35.3	2.1			4.4	1.6
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					31.0	9.0	35.3	2.1			4.4	1.6
LOS					C	A	D	A			A	A
Approach Delay					9.8			2.6			2.9	
Approach LOS					A			A			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 75.8
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 3.8
 Intersection Capacity Utilization 49.9%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD



Lanes, Volumes, Timings
 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD

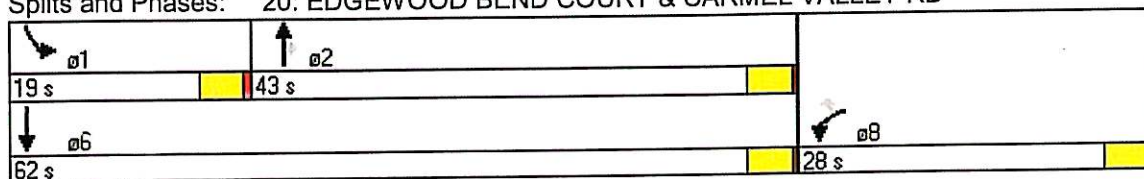
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 CUMULATIVE AM PHASE 1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.95	1.00	0.97	0.95
Frnt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Satd. Flow (RTOR)		78		425		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	190	72	913	391	111	1092
Adj. Flow (vph)	207	78	992	425	121	1187
Lane Group Flow (vph)	207	78	992	425	121	1187
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	28.0	28.0	43.0	43.0	19.0	62.0
Act Effct Green (s)	10.0	10.0	50.0	50.0	8.2	60.3
Actuated g/C Ratio	0.13	0.13	0.64	0.64	0.10	0.77
v/c Ratio	0.47	0.29	0.44	0.36	0.35	0.44
Control Delay	34.2	10.7	8.9	1.9	34.6	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	10.7	8.9	1.9	34.6	3.9
LOS	C	B	A	A	C	A
Approach Delay	27.7		6.8			6.7
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 78.3
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 8.8
 Intersection Capacity Utilization 44.0%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.95	1.00	0.97	0.95
Frts		0.850		0.850		
Fit Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Fit Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Satd. Flow (RTOR)		83		48		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	126	76	813	44	42	824
Adj. Flow (vph)	137	83	884	48	46	896
Lane Group Flow (vph)	137	83	884	48	46	896
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	28.0	28.0	43.0	43.0	19.0	62.0
Act Effct Green (s)	8.7	8.7	58.9	58.9	6.8	66.2
Actuated g/C Ratio	0.10	0.10	0.71	0.71	0.08	0.80
v/c Ratio	0.38	0.34	0.35	0.04	0.17	0.32
Control Delay	33.6	11.8	6.0	2.1	33.5	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	11.8	6.0	2.1	33.5	2.7
LOS	C	B	A	A	C	A
Approach Delay	25.3		5.8			4.3
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 83.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.38
 Intersection Signal Delay: 7.2
 Intersection Capacity Utilization 33.8%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD

	ø1		ø2		
19 s		43 s			
	ø6		ø8		
62 s		28 s			

Lanes, Volumes, Timings
 39: Del Mar Heights Rd. & CARMEL VALLEY RD

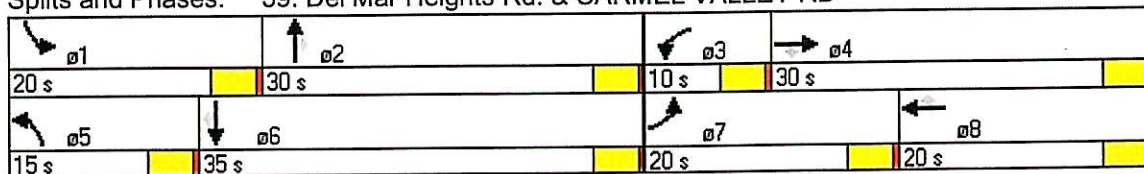
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 CUMULATIVE AM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			307			118			192			347
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	221	482	404	156	460	109	428	236	177	221	739	844
Adj. Flow (vph)	240	524	439	170	500	118	465	257	192	240	803	917
Lane Group Flow (vph)	240	524	439	170	500	118	465	257	192	240	803	917
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	20.0	30.0	30.0	10.0	20.0	20.0	15.0	30.0	30.0	20.0	35.0	35.0
Act Effect Green (s)	11.1	20.5	20.5	6.0	15.4	15.4	11.0	31.0	31.0	11.1	31.1	31.1
Actuated g/C Ratio	0.13	0.24	0.24	0.07	0.18	0.18	0.13	0.37	0.37	0.13	0.37	0.37
v/c Ratio	0.53	0.61	0.71	0.70	0.78	0.31	1.04	0.20	0.27	0.53	0.62	1.14
Control Delay	39.0	31.7	16.0	55.8	42.5	8.6	91.8	20.4	4.7	39.0	25.1	98.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	31.7	16.0	55.8	42.5	8.6	91.8	20.4	4.7	39.0	25.1	98.9
LOS	D	C	B	E	D	A	F	C	A	D	C	F
Approach Delay		27.4			40.3			53.4			61.3	
Approach LOS		C			D			D			E	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 84.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay: 48.0
 Intersection Capacity Utilization 87.2%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 39: Del Mar Heights Rd. & CARMEL VALLEY RD



Lanes, Volumes, Timings
 39: Del Mar Heights Rd. & CARMEL VALLEY RD

5/2/2013
 CUMULATIVE PM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Fr't			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			411			88			159			293
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	581	275	378	155	285	81	190	507	146	40	329	270
Adj. Flow (vph)	632	299	411	168	310	88	207	551	159	43	358	293
Lane Group Flow (vph)	632	299	411	168	310	88	207	551	159	43	358	293
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	20.0	30.0	30.0	10.0	20.0	20.0	15.0	30.0	30.0	20.0	35.0	35.0
Act Effct Green (s)	16.3	21.2	21.2	6.1	11.0	11.0	8.9	16.1	16.1	6.4	13.6	13.6
Actuated g/C Ratio	0.25	0.32	0.32	0.09	0.17	0.17	0.13	0.24	0.24	0.10	0.21	0.21
v/c Ratio	0.75	0.26	0.52	0.53	0.52	0.26	0.45	0.64	0.31	0.13	0.49	0.53
Control Delay	32.1	18.2	5.0	38.3	29.4	8.9	31.1	26.2	5.8	31.2	26.1	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	18.2	5.0	38.3	29.4	8.9	31.1	26.2	5.8	31.2	26.1	7.1
LOS	C	B	A	D	C	A	C	C	A	C	C	A
Approach Delay		20.7			28.8			23.7			18.4	
Approach LOS		C			C			C			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 66.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 22.3
 Intersection Capacity Utilization 55.1%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 39: Del Mar Heights Rd. & CARMEL VALLEY RD

20 s	30 s	10 s	30 s
15 s	35 s	20 s	20 s

4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RDCUMULATIVE AM PHASE 1

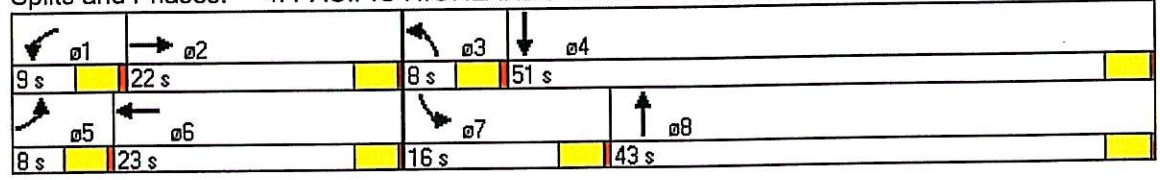
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frts		0.881			0.918			0.987			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3118	0	1770	3249	0	3433	3493	0	1770	3536	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3118	0	1770	3249	0	3433	3493	0	1770	3536	0
Satd. Flow (RTOR)		136			84			14			1	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	11	74	285	38	64	77	73	449	43	106	1406	10
Adj. Flow (vph)	12	80	310	41	70	84	79	488	47	115	1528	11
Lane Group Flow (vph)	12	390	0	41	154	0	79	535	0	115	1539	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	8.0	22.0	0.0	9.0	23.0	0.0	8.0	43.0	0.0	16.0	51.0	0.0
Act Effct Green (s)	4.7	11.6		5.7	14.5		4.6	31.6		9.4	34.9	
Actuated g/C Ratio	0.07	0.18		0.08	0.23		0.07	0.49		0.14	0.54	
v/c Ratio	0.10	0.58		0.28	0.19		0.34	0.31		0.47	0.80	
Control Delay	43.8	22.5		43.4	13.9		42.4	12.9		39.8	17.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	43.8	22.5		43.4	13.9		42.4	12.9		39.8	17.4	
LOS	D	C		D	B		D	B		D	B	
Approach Delay		23.1			20.1			16.7			18.9	
Approach LOS		C			C			B			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 64.2
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 19.1
 Intersection Capacity Utilization 70.4%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD



4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RDCUMULATIVE PM PHASE 1

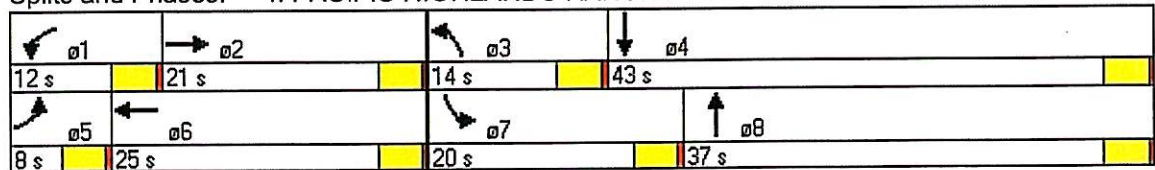
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.955			0.891			0.982			0.997	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3380	0	1770	3153	0	3433	3476	0	1770	3529	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3380	0	1770	3153	0	3433	3476	0	1770	3529	0
Satd. Flow (RTOR)		64			237			19			3	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	12	178	75	109	82	218	185	964	135	260	454	10
Adj. Flow (vph)	13	193	82	118	89	237	201	1048	147	283	493	11
Lane Group Flow (vph)	13	275	0	118	326	0	201	1195	0	283	504	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	8.0	21.0	0.0	12.0	25.0	0.0	14.0	37.0	0.0	20.0	43.0	0.0
Act Effct Green (s)	4.1	10.3		7.7	17.7		9.1	30.6		15.2	36.7	
Actuated g/C Ratio	0.05	0.13		0.10	0.23		0.12	0.39		0.20	0.47	
v/c Ratio	0.15	0.54		0.69	0.36		0.50	0.86		0.82	0.30	
Control Delay	45.2	29.7		59.4	9.5		39.4	30.5		52.9	14.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	45.2	29.7		59.4	9.5		39.4	30.5		52.9	14.2	
LOS	D	C		E	A		D	C		D	B	
Approach Delay		30.4			22.7			31.8			28.1	
Approach LOS		C			C			C			C	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 77.5
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 29.3
 Intersection Capacity Utilization 72.0%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD



Lanes, Volumes, Timings
 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE

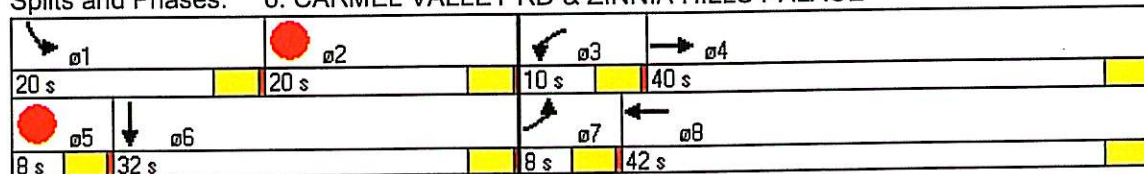
5/2/2013
 CUMULATIVE AM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frts					0.999						0.850	
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	3539	0	1863	3536	0	0	0	0	1770	1583	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1770	3539	0	1863	3536	0	0	0	0	1770	1583	0
Satd. Flow (RTOR)					1						205	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	45	492	0	0	1367	7	0	0	0	9	0	200
Adj. Flow (vph)	49	535	0	0	1486	8	0	0	0	10	0	217
Lane Group Flow (vph)	49	535	0	0	1494	0	0	0	0	10	217	0
Turn Type	Prot			Prot						Prot		
Protected Phases	7	4		3	8					1	6	
Permitted Phases												
Total Split (s)	8.0	40.0	0.0	10.0	42.0	0.0	0.0	0.0	0.0	20.0	32.0	0.0
Act Effct Green (s)	4.0	44.3			38.1					16.0	28.0	
Actuated g/C Ratio	0.05	0.55			0.47					0.20	0.35	
v/c Ratio	0.57	0.27			0.89					0.03	0.32	
Control Delay	65.0	9.9			28.3					27.1	5.0	
Queue Delay	0.0	0.0			0.0					0.0	0.0	
Total Delay	65.0	9.9			28.3					27.1	5.0	
LOS	E	A			C					C	A	
Approach Delay		14.5			28.3						6.0	
Approach LOS		B			C						A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 80.4
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 22.6
 Intersection Capacity Utilization 57.1%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE



Lanes, Volumes, Timings
 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE

5/2/2013
 CUMULATIVE PM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frts					0.997						0.850	
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	3539	0	1863	3529	0	0	0	0	1770	1583	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1770	3539	0	1863	3529	0	0	0	0	1770	1583	0
Satd. Flow (RTOR)					3						378	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	87	966	0	0	477	11	0	0	0	4	0	88
Adj. Flow (vph)	95	1050	0	0	518	12	0	0	0	4	0	96
Lane Group Flow (vph)	95	1050	0	0	530	0	0	0	0	4	96	0
Turn Type	Prot			Prot						Prot		
Protected Phases	7	4		3	8					1	6	
Permitted Phases												
Total Split (s)	8.0	40.0	0.0	10.0	42.0	0.0	0.0	0.0	0.0	20.0	32.0	0.0
Act Effct Green (s)	4.0	24.7			16.6					16.1	28.3	
Actuated g/C Ratio	0.07	0.40			0.27					0.26	0.46	
v/c Ratio	0.81	0.73			0.55					0.01	0.10	
Control Delay	80.3	18.5			20.7					19.8	0.2	
Queue Delay	0.0	0.0			0.0					0.0	0.0	
Total Delay	80.3	18.5			20.7					19.8	0.2	
LOS	F	B			C					B	A	
Approach Delay		23.6			20.7						1.0	
Approach LOS		C			C						A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 61
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 21.5
 Intersection Capacity Utilization 45.5%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE

ø1	ø2	ø3	ø4
20 s	20 s	10 s	40 s
ø5	ø6	ø7	ø8
8 s	32 s	8 s	42 s

Lanes, Volumes, Timings
 3: CARMEL VALLEY RD & RANCHO SANTA FE RD

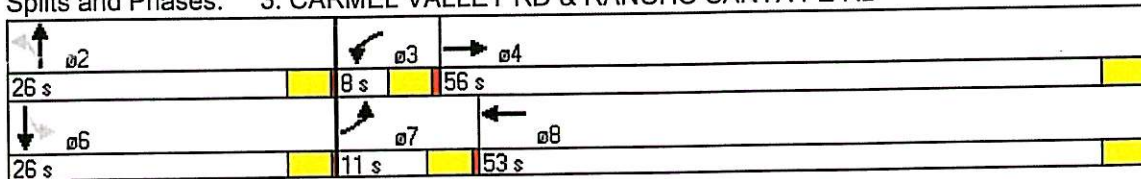
5/2/2013
 CUMULATIVE AM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.993			0.990			0.877	
Flt Protected	0.950			0.950				0.958			0.996	
Satd. Flow (prot)	1770	1809	0	1770	1850	0	0	1767	0	0	1627	0
Flt Permitted	0.950			0.950				0.362			0.965	
Satd. Flow (perm)	1770	1809	0	1770	1850	0	0	668	0	0	1576	0
Satd. Flow (RTOR)		22			4			4			172	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	155	281	66	16	912	44	171	7	15	24	1	247
Adj. Flow (vph)	168	305	72	17	991	48	186	8	16	26	1	268
Lane Group Flow (vph)	168	377	0	17	1039	0	0	210	0	0	295	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Total Split (s)	11.0	56.0	0.0	8.0	53.0	0.0	26.0	26.0	0.0	26.0	26.0	0.0
Act Effct Green (s)	7.0	56.8		4.0	49.0			22.0			22.0	
Actuated g/C Ratio	0.08	0.63		0.04	0.54			0.24			0.24	
v/c Ratio	1.22	0.33		0.23	1.03			1.27			0.57	
Control Delay	184.8	8.8		49.8	58.5			190.1			17.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	184.8	8.8		49.8	58.5			190.1			17.3	
LOS	F	A		D	E			F			B	
Approach Delay		63.1			58.3			190.1			17.3	
Approach LOS		E			E			F			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.27
 Intersection Signal Delay: 67.0
 Intersection Capacity Utilization 100.0%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service F

Splits and Phases: 3: CARMEL VALLEY RD & RANCHO SANTA FE RD



Lanes, Volumes, Timings
 3: CARMEL VALLEY RD & RANCHO SANTA FE RD

5/2/2013
 CUMULATIVE PM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.973			0.982			0.972			0.901	
Flt Protected	0.950			0.950				0.963			0.989	
Satd. Flow (prot)	1770	1812	0	1770	1829	0	0	1744	0	0	1660	0
Flt Permitted	0.950			0.950				0.471			0.909	
Satd. Flow (perm)	1770	1812	0	1770	1829	0	0	853	0	0	1526	0
Satd. Flow (RTOR)		21			12			14			145	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	213	695	155	30	320	43	129	4	35	52	13	179
Adj. Flow (vph)	232	755	168	33	348	47	140	4	38	57	14	195
Lane Group Flow (vph)	232	923	0	33	395	0	0	182	0	0	266	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Total Split (s)	11.0	56.0	0.0	8.0	53.0	0.0	26.0	26.0	0.0	26.0	26.0	0.0
Act Effct Green (s)	7.3	42.1		4.1	34.7			23.0			23.0	
Actuated g/C Ratio	0.09	0.54		0.05	0.45			0.30			0.30	
v/c Ratio	1.39	0.93		0.37	0.48			0.69			0.48	
Control Delay	239.8	32.9		53.2	15.1			44.1			16.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	239.8	32.9		53.2	15.1			44.1			16.4	
LOS	F	C		D	B			D			B	
Approach Delay		74.4			18.0			44.1			16.4	
Approach LOS		E			B			D			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 77.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.39
 Intersection Signal Delay: 52.2
 Intersection Capacity Utilization 86.6%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 3: CARMEL VALLEY RD & RANCHO SANTA FE RD

26 s	8 s	56 s									
26 s	11 s	53 s									

Lanes, Volumes, Timings
 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD

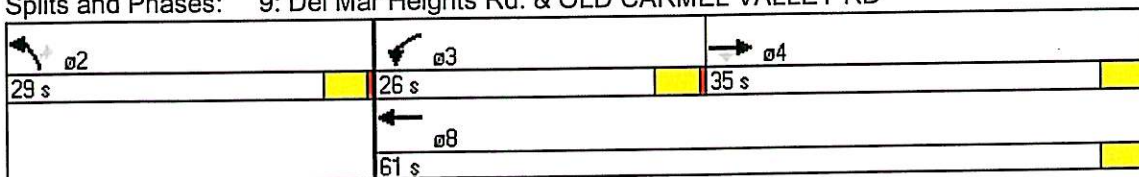
5/2/2013
 CUMULATIVE AM PHASE 1







	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↙↘	↑↑	↙↘	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Satd. Flow (RTOR)		228				370
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	760	210	393	1301	285	340
Adj. Flow (vph)	826	228	427	1414	310	370
Lane Group Flow (vph)	826	228	427	1414	310	370
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	35.0	35.0	26.0	61.0	29.0	29.0
Act Effct Green (s)	24.0	24.0	14.5	42.6	25.4	25.4
Actuated g/C Ratio	0.32	0.32	0.19	0.56	0.33	0.33
v/c Ratio	0.74	0.35	0.65	0.71	0.27	0.48
Control Delay	27.9	4.6	34.2	14.2	21.5	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.9	4.6	34.2	14.2	21.5	5.2
LOS	C	A	C	B	C	A
Approach Delay	22.9			18.8	12.6	
Approach LOS	C			B	B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 76.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 18.8
 Intersection Capacity Utilization 50.8%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD







						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑	↑↑	↑
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Fr't		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Satd. Flow (RTOR)		108				179
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	1146	99	111	604	39	165
Adj. Flow (vph)	1246	108	121	657	42	179
Lane Group Flow (vph)	1246	108	121	657	42	179
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	35.0	35.0	26.0	61.0	29.0	29.0
Act Effct Green (s)	31.2	31.2	8.0	40.9	25.1	25.1
Actuated g/C Ratio	0.42	0.42	0.11	0.55	0.34	0.34
v/c Ratio	0.84	0.15	0.34	0.34	0.04	0.27
Control Delay	26.7	4.0	34.0	9.5	18.1	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.7	4.0	34.0	9.5	18.1	4.6
LOS	C	A	C	A	B	A
Approach Delay	24.9			13.3	7.2	
Approach LOS	C			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 74.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 19.4
 Intersection Capacity Utilization 48.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD

 ø2	 ø3	 ø4
29 s	26 s	35 s
	 ø8	
	61 s	

Lanes, Volumes, Timings
 13: Del Mar Heights Rd. & VALERO GATE

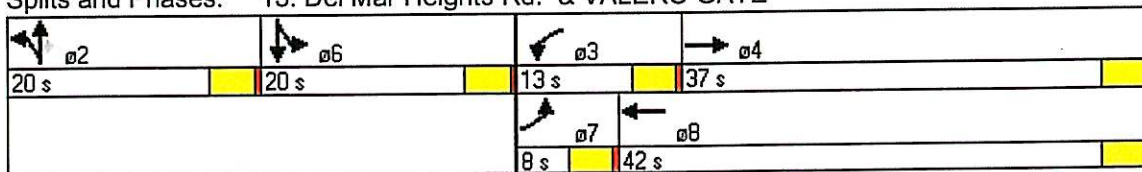
5/2/2013
 CUMULATIVE AM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	0.91	0.97	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frts		0.986			0.999				0.850		0.852	
Flt Protected	0.950			0.950			0.950	0.953		0.950		
Satd. Flow (prot)	1770	5014	0	3433	3536	0	1681	1686	1583	1770	1587	0
Flt Permitted	0.950			0.950			0.950	0.953		0.950		
Satd. Flow (perm)	1770	5014	0	3433	3536	0	1681	1686	1583	1770	1587	0
Satd. Flow (RTOR)		22			1				71		68	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	14	868	90	173	1431	12	193	1	70	10	1	67
Adj. Flow (vph)	14	886	92	177	1460	12	197	1	71	10	1	68
Lane Group Flow (vph)	14	978	0	177	1472	0	99	99	71	10	69	0
Turn Type	Prot			Prot			Split		Perm	Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Total Split (s)	8.0	37.0	0.0	13.0	42.0	0.0	20.0	20.0	20.0	20.0	20.0	0.0
Act Effct Green (s)	4.0	27.1		8.5	38.1		16.0	16.0	16.0	16.0	16.0	
Actuated g/C Ratio	0.04	0.32		0.10	0.46		0.19	0.19	0.19	0.19	0.19	
v/c Ratio	0.18	0.60		0.51	0.91		0.31	0.31	0.20	0.03	0.19	
Control Delay	46.6	24.9		41.4	32.1		32.9	32.8	9.6	29.2	10.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	46.6	24.9		41.4	32.1		32.9	32.8	9.6	29.2	10.0	
LOS	D	C		D	C		C	C	A	C	A	
Approach Delay		25.2			33.1			26.7			12.4	
Approach LOS		C			C			C			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 83.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 29.4
 Intersection Capacity Utilization 65.3%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 13: Del Mar Heights Rd. & VALERO GATE



Lanes, Volumes, Timings
 13: Del Mar Heights Rd. & VALERO GATE

5/2/2013
 CUMULATIVE PM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	0.91	0.97	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Fr't		0.999			0.995				0.850		0.850	
Flt Protected	0.950			0.950			0.950	0.950		0.950		
Satd. Flow (prot)	1770	5080	0	3433	3522	0	1681	1681	1583	1770	1583	0
Flt Permitted	0.950			0.950			0.950	0.950		0.950		
Satd. Flow (perm)	1770	5080	0	3433	3522	0	1681	1681	1583	1770	1583	0
Satd. Flow (RTOR)		1			4				111		340	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	35	1146	8	48	604	19	82	0	102	7	0	22
Adj. Flow (vph)	38	1246	9	52	657	21	89	0	111	8	0	24
Lane Group Flow (vph)	38	1255	0	52	678	0	45	44	111	8	24	0
Turn Type	Prot			Prot			Split		Perm	Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases		4							2			
Total Split (s)	8.0	37.0	0.0	13.0	42.0	0.0	20.0	20.0	20.0	20.0	20.0	0.0
Act Effct Green (s)	4.0	26.1		6.7	27.9		16.4	16.4	16.4	16.4	16.4	
Actuated g/C Ratio	0.05	0.34		0.08	0.36		0.21	0.21	0.21	0.21	0.21	
v/c Ratio	0.43	0.73		0.18	0.53		0.13	0.12	0.26	0.02	0.04	
Control Delay	55.8	25.5		38.2	20.8		30.3	30.3	8.7	29.9	0.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	55.8	25.5		38.2	20.8		30.3	30.3	8.7	29.9	0.1	
LOS	E	C		D	C		C	C	A	C	A	
Approach Delay		26.4			22.1			18.3			7.6	
Approach LOS		C			C			B			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 77.3
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 24.0
 Intersection Capacity Utilization 44.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 13: Del Mar Heights Rd. & VALERO GATE

ø2	ø6	ø3	ø4
20 s	20 s	13 s	37 s
		ø7	ø8
		8 s	42 s

Lanes, Volumes, Timings
 26: Village Loop Rd. & HIGH SCHOOL SIGNAL

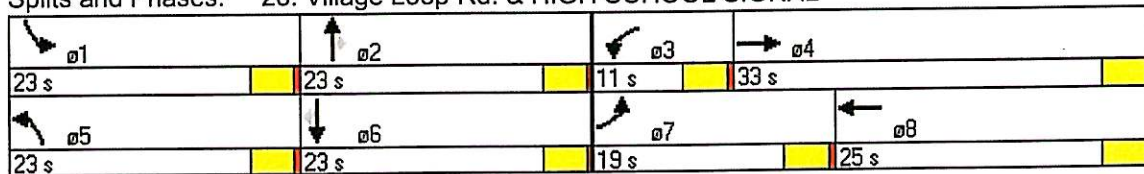
5/2/2013
 CUMULATIVE AM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frnt		0.899							0.850			0.850
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1770	3182	0	1770	3539	0	0	1770	1583	0	1863	1583
Flt Permitted	0.950			0.950				0.757				
Satd. Flow (perm)	1770	3182	0	1770	3539	0	0	1410	1583	0	1863	1583
Satd. Flow (RTOR)		603							8			357
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	107	273	555	10	352	0	261	0	7	0	0	72
Adj. Flow (vph)	116	297	603	11	383	0	284	0	8	0	0	78
Lane Group Flow (vph)	116	900	0	11	383	0	0	284	8	0	0	78
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	19.0	33.0	0.0	11.0	25.0	0.0	23.0	23.0	23.0	23.0	23.0	23.0
Act Effct Green (s)	10.2	23.1		6.1	13.3			19.4	19.4			19.4
Actuated g/C Ratio	0.13	0.30		0.07	0.18			0.26	0.26			0.26
v/c Ratio	0.50	0.65		0.09	0.62			0.63	0.02			0.12
Control Delay	39.8	9.3		40.0	34.4			35.5	15.3			0.3
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0			0.0
Total Delay	39.8	9.3		40.0	34.4			35.5	15.3			0.3
LOS	D	A		D	C			D	B			A
Approach Delay		12.8			34.6			34.9				
Approach LOS		B			C			C				

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 76
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 20.7
 Intersection Capacity Utilization 53.2%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 26: Village Loop Rd. & HIGH SCHOOL SIGNAL



Lanes, Volumes, Timings
 26: Village Loop Rd. & HIGH SCHOOL SIGNAL

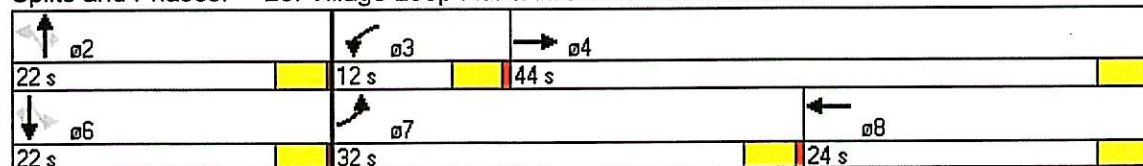
5/2/2013
 CUMULATIVE PM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.914							0.850			0.850
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1770	3235	0	1770	3539	0	0	1770	1583	0	1863	1583
Flt Permitted	0.950			0.950				0.757				
Satd. Flow (perm)	1770	3235	0	1770	3539	0	0	1410	1583	0	1863	1583
Satd. Flow (RTOR)		335							11			691
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	267	231	308	9	296	0	192	0	10	0	0	218
Adj. Flow (vph)	290	251	335	10	322	0	209	0	11	0	0	237
Lane Group Flow (vph)	290	586	0	10	322	0	0	209	11	0	0	237
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Total Split (s)	32.0	44.0	0.0	12.0	24.0	0.0	22.0	22.0	22.0	22.0	22.0	22.0
Act Effct Green (s)	13.8	26.2		6.0	10.1			18.3	18.3			18.3
Actuated g/C Ratio	0.25	0.48		0.10	0.19			0.34	0.34			0.34
v/c Ratio	0.65	0.34		0.06	0.49			0.44	0.02			0.24
Control Delay	25.5	4.4		28.1	23.3			20.3	9.6			0.6
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0			0.0
Total Delay	25.5	4.4		28.1	23.3			20.3	9.6			0.6
LOS	C	A		C	C			C	A			A
Approach Delay		11.4			23.4			19.7				
Approach LOS		B			C			B				

Intersection Summary

Cycle Length: 78
 Actuated Cycle Length: 54.5
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 13.3
 Intersection Capacity Utilization 43.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 26: Village Loop Rd. & HIGH SCHOOL SIGNAL



Lanes, Volumes, Timings
28: Village Loop Rd. & PROJECT ACCESS

5/2/2013
CUMULATIVE AM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frts		0.908			0.990				0.850			0.850
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1770	3214	0	1770	3504	0	0	1770	1583	0	1863	1583
Flt Permitted	0.950			0.950				0.757				
Satd. Flow (perm)	1770	3214	0	1770	3504	0	0	1410	1583	0	1863	1583
Satd. Flow (RTOR)		253			7				10			440
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	10	145	233	16	202	14	258	0	9	0	0	14
Adj. Flow (vph)	11	158	253	17	220	15	280	0	10	0	0	15
Lane Group Flow (vph)	11	411	0	17	235	0	0	280	10	0	0	15
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	14.0	26.0	0.0	14.0	26.0	0.0	26.0	24.0	24.0	26.0	24.0	24.0
Act Effct Green (s)	6.0	9.7		6.2	9.8			22.2	20.2			20.2
Actuated g/C Ratio	0.08	0.15		0.08	0.15			0.34	0.31			0.31
v/c Ratio	0.08	0.60		0.11	0.45			0.47	0.02			0.02
Control Delay	33.8	14.5		34.1	28.2			22.1	11.7			0.1
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0			0.0
Total Delay	33.8	14.5		34.1	28.2			22.1	11.7			0.1
LOS	C	B		C	C			C	B			A
Approach Delay		15.0			28.6			21.8				
Approach LOS		B			C			C				

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 66.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 20.3
 Intersection Capacity Utilization 34.3%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 28: Village Loop Rd. & PROJECT ACCESS

26 s	24 s	14 s	26 s
26 s	24 s	14 s	26 s

Lanes, Volumes, Timings
 29: Village Loop Rd. & PROJECT ACCESS

5/2/2013
 CUMULATIVE PM PHASE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.903			0.977				0.850			0.850
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1770	3196	0	1770	3458	0	0	1770	1583	0	1863	1583
Flt Permitted	0.950			0.950				0.757				
Satd. Flow (perm)	1770	3196	0	1770	3458	0	0	1410	1583	0	1863	1583
Satd. Flow (RTOR)		257			24				9			697
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	28	131	236	7	196	35	154	0	8	0	0	35
Adj. Flow (vph)	30	142	257	8	213	38	167	0	9	0	0	38
Lane Group Flow (vph)	30	399	0	8	251	0	0	167	9	0	0	38
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2		6		6
Permitted Phases							2		2			
Total Split (s)	22.0	34.0	0.0	21.0	33.0	0.0	35.0	35.0	35.0	35.0	35.0	35.0
Act Effct Green (s)	6.5	11.0		5.9	8.8			31.7	31.7			31.7
Actuated g/C Ratio	0.11	0.21		0.10	0.17			0.60	0.60			0.60
v/c Ratio	0.15	0.46		0.05	0.42			0.20	0.01			0.03
Control Delay	26.1	8.7		27.3	20.9			7.7	4.9			0.1
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0			0.0
Total Delay	26.1	8.7		27.3	20.9			7.7	4.9			0.1
LOS	C	A		C	C			A	A			A
Approach Delay		9.9			21.1			7.6				
Approach LOS		A			C			A				

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 52.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.46
 Intersection Signal Delay: 12.3
 Intersection Capacity Utilization 33.1%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 29: Village Loop Rd. & PROJECT ACCESS

ø2	ø3	ø4
35 s	21 s	34 s
ø6	ø7	ø8
35 s	22 s	33 s

➤ Existing Plus Cumulative Plus Phase 1 & 2 Conditions Analysis Worksheets

Lanes, Volumes, Timings
 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

5/2/2013
 CUMULATIVE AM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Frts			0.850					0.985				
Flt Protected	0.950	0.950								0.950		
Satd. Flow (prot)	1681	1681	1583	0	0	0	0	3486	0	3433	1863	0
Flt Permitted	0.950	0.950								0.950		
Satd. Flow (perm)	1681	1681	1583	0	0	0	0	3486	0	3433	1863	0
Satd. Flow (RTOR)			27					5				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	964	0	25	0	0	0	0	42	5	219	79	0
Adj. Flow (vph)	1048	0	27	0	0	0	0	46	5	238	86	0
Lane Group Flow (vph)	524	524	27	0	0	0	0	51	0	238	86	0
Turn Type	Prot		Perm							Prot		
Protected Phases	7	4						2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	47.0	47.0	0.0	0.0	0.0	0.0	24.0	0.0	19.0	43.0	0.0
Act Effct Green (s)	43.0	43.0	43.0					23.5		11.5	39.0	
Actuated g/C Ratio	0.48	0.48	0.48					0.26		0.13	0.43	
v/c Ratio	0.65	0.65	0.04					0.06		0.54	0.11	
Control Delay	22.6	22.6	5.0					24.5		41.1	15.7	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.0	
Total Delay	22.6	22.6	5.0					24.5		41.1	15.7	
LOS	C	C	A					C		D	B	
Approach Delay		22.2						24.5			34.4	
Approach LOS		C						C			C	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 25.0
 Intersection Capacity Utilization 47.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

19 s	24 s	47 s
43 s	8 s	

Lanes, Volumes, Timings
 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

5/2/2013
 CUMULATIVE PM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘					↕		↖	↗	↘
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Frts			0.850					0.953				
Flt Protected	0.950	0.954								0.950		
Satd. Flow (prot)	1681	1688	1583	0	0	0	0	3373	0	3433	1863	0
Flt Permitted	0.950	0.954								0.950		
Satd. Flow (perm)	1681	1688	1583	0	0	0	0	3373	0	3433	1863	0
Satd. Flow (RTOR)			3					10				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	595	9	3	0	0	0	0	20	9	340	93	0
Adj. Flow (vph)	647	10	3	0	0	0	0	22	10	370	101	0
Lane Group Flow (vph)	324	333	3	0	0	0	0	32	0	370	101	0
Turn Type	Prot		Perm							Prot		
Protected Phases	7	4						2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	47.0	47.0	0.0	0.0	0.0	0.0	24.0	0.0	19.0	43.0	0.0
Act Effct Green (s)	43.0	43.0	43.0					21.2		13.8	39.0	
Actuated g/C Ratio	0.48	0.48	0.48					0.24		0.15	0.43	
v/c Ratio	0.40	0.41	0.00					0.04		0.70	0.13	
Control Delay	17.1	17.3	8.7					21.3		43.8	15.9	
Queue Delay	0.0	0.0	0.0					0.0		0.0	0.0	
Total Delay	17.1	17.3	8.7					21.3		43.8	15.9	
LOS	B	B	A					C		D	B	
Approach Delay		17.2						21.3			37.8	
Approach LOS		B						C			D	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 25.6
 Intersection Capacity Utilization 42.3%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 40: SR-56 EB OFF RAMP & CARMEL VALLEY RD

↖ φ1	↕ φ2	→ φ4
19 s	24 s	47 s
↓ φ6	↗ φ7	
43 s	8 s	

Lanes, Volumes, Timings
 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD

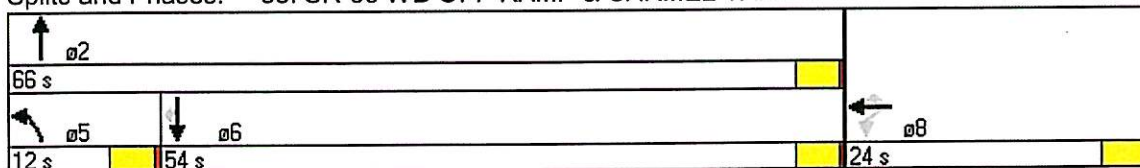
5/2/2013
 CUMULATIVE AM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	1.00	1.00	0.95	0.95
Frts						0.850					0.925	0.850
Flt Protected					0.963		0.950					
Satd. Flow (prot)	0	0	0	0	1794	2787	1770	3539	0	0	1637	1504
Flt Permitted					0.963		0.950					
Satd. Flow (perm)	0	0	0	0	1794	2787	1770	3539	0	0	1637	1504
Satd. Flow (RTOR)						270					89	706
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	0	0	0	12	4	321	14	946	0	0	291	937
Adj. Flow (vph)	0	0	0	13	4	349	15	1028	0	0	316	1018
Lane Group Flow (vph)	0	0	0	0	17	349	15	1028	0	0	628	706
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Total Split (s)	0.0	0.0	0.0	24.0	24.0	24.0	12.0	66.0	0.0	0.0	54.0	54.0
Act Effct Green (s)					8.3	8.3	6.3	62.7			60.5	60.5
Actuated g/C Ratio					0.11	0.11	0.07	0.79			0.77	0.77
v/c Ratio					0.09	0.65	0.12	0.37			0.49	0.54
Control Delay					31.8	14.9	38.9	3.1			5.8	2.2
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					31.8	14.9	38.9	3.1			5.8	2.2
LOS					C	B	D	A			A	A
Approach Delay					15.7			3.6			3.9	
Approach LOS					B			A			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 79
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 5.4
 Intersection Capacity Utilization 58.7%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD



Lanes, Volumes, Timings
 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD

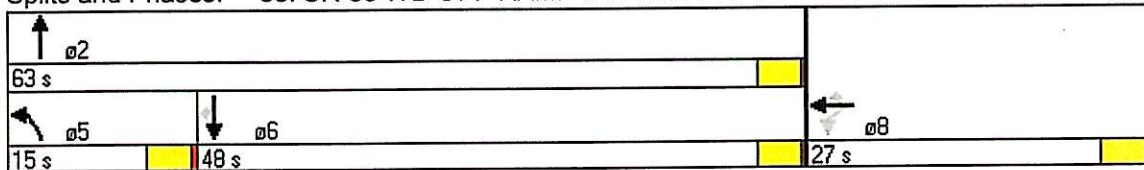
5/2/2013
 CUMULATIVE PM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	1.00	1.00	0.95	0.95
Friction						0.850					0.995	0.850
Flt Protected					0.962		0.950					
Satd. Flow (prot)	0	0	0	0	1792	2787	1770	3539	0	0	1761	1504
Flt Permitted					0.962		0.950					
Satd. Flow (perm)	0	0	0	0	1792	2787	1770	3539	0	0	1761	1504
Satd. Flow (RTOR)						275					3	572
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	0	0	0	7	2	253	9	597	0	0	429	542
Adj. Flow (vph)	0	0	0	8	2	275	10	649	0	0	466	589
Lane Group Flow (vph)	0	0	0	0	10	275	10	649	0	0	483	572
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Total Split (s)	0.0	0.0	0.0	27.0	27.0	27.0	15.0	63.0	0.0	0.0	48.0	48.0
Act Effct Green (s)					6.7	6.7	6.1	61.0			58.9	58.9
Actuated g/C Ratio					0.09	0.09	0.07	0.80			0.78	0.78
v/c Ratio					0.06	0.55	0.08	0.23			0.35	0.44
Control Delay					31.0	9.0	35.3	2.1			4.4	1.7
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					31.0	9.0	35.3	2.1			4.4	1.7
LOS					C	A	D	A			A	A
Approach Delay					9.8			2.6			2.9	
Approach LOS					A			A			A	

Intersection Summary

















Cycle Length: 90
 Actuated Cycle Length: 75.8
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 3.8
 Intersection Capacity Utilization 50.2%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 38: SR-56 WB OFF RAMP & CARMEL VALLEY RD



Lanes, Volumes, Timings
 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD

5/2/2013
 CUMULATIVE AM PHASE 1+2

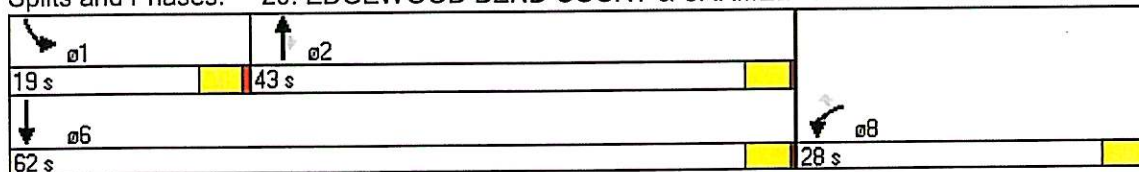
						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 		 		 	 
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.95	1.00	0.97	0.95
Fr't		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Satd. Flow (RTOR)		78		425		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	190	72	940	391	111	1111
Adj. Flow (vph)	207	78	1022	425	121	1208
Lane Group Flow (vph)	207	78	1022	425	121	1208
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	28.0	28.0	43.0	43.0	19.0	62.0
Act Effct Green (s)	10.0	10.0	50.0	50.0	8.2	60.3
Actuated g/C Ratio	0.13	0.13	0.64	0.64	0.10	0.77
v/c Ratio	0.47	0.29	0.45	0.36	0.35	0.44
Control Delay	34.2	10.7	9.1	1.9	34.6	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	10.7	9.1	1.9	34.6	3.9
LOS	C	B	A	A	C	A
Approach Delay	27.7		7.0			6.7
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 78.3
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 8.8
 Intersection Capacity Utilization 44.7%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD



Lanes, Volumes, Timings
 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD

5/2/2013
 CUMULATIVE PM PHASE 1+2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Satd. Flow (RTOR)		83		48		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	126	76	817	44	42	833
Adj. Flow (vph)	137	83	888	48	46	905
Lane Group Flow (vph)	137	83	888	48	46	905
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	28.0	28.0	43.0	43.0	19.0	62.0
Act Effct Green (s)	8.7	8.7	58.9	58.9	6.8	66.2
Actuated g/C Ratio	0.10	0.10	0.71	0.71	0.08	0.80
v/c Ratio	0.38	0.34	0.35	0.04	0.17	0.32
Control Delay	33.6	11.8	6.1	2.1	33.5	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	11.8	6.1	2.1	33.5	2.8
LOS	C	B	A	A	C	A
Approach Delay	25.3		5.9			4.3
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 83.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.38
 Intersection Signal Delay: 7.2
 Intersection Capacity Utilization 34.0%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 20: EDGEWOOD BEND COURT & CARMEL VALLEY RD

ø1	ø2		
19 s	43 s		
ø6		ø8	
62 s		28 s	

Lanes, Volumes, Timings
 39: Del Mar Heights Rd. & CARMEL VALLEY RD

5/2/2013
 CUMULATIVE AM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frts			0.850			0.850			0.850			0.850
Fit Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Fit Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			305			152			222			345
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	221	526	404	175	490	140	428	236	204	221	739	844
Adj. Flow (vph)	240	572	439	190	533	152	465	257	222	240	803	917
Lane Group Flow (vph)	240	572	439	190	533	152	465	257	222	240	803	917
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	20.0	30.0	30.0	10.0	20.0	20.0	15.0	30.0	30.0	20.0	35.0	35.0
Act Effct Green (s)	11.1	21.0	21.0	6.0	15.9	15.9	11.0	30.9	30.9	11.1	31.1	31.1
Actuated g/C Ratio	0.13	0.25	0.25	0.07	0.19	0.19	0.13	0.36	0.36	0.13	0.37	0.37
v/c Ratio	0.53	0.66	0.71	0.78	0.81	0.36	1.04	0.20	0.31	0.53	0.62	1.15
Control Delay	39.2	32.6	15.8	63.1	44.2	8.2	93.7	20.6	4.7	39.2	25.4	101.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.2	32.6	15.8	63.1	44.2	8.2	93.7	20.6	4.7	39.2	25.4	101.4
LOS	D	C	B	E	D	A	F	C	A	D	C	F
Approach Delay		28.0			42.1			52.9			62.7	
Approach LOS		C			D			D			E	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 85.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.15
 Intersection Signal Delay: 48.6
 Intersection Capacity Utilization 88.0%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 39: Del Mar Heights Rd. & CARMEL VALLEY RD

20 s	30 s	10 s	30 s
15 s	35 s	20 s	20 s

Lanes, Volumes, Timings
 39: Del Mar Heights Rd. & CARMEL VALLEY RD

5/2/2013
 CUMULATIVE PM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frts			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			411			104			163			293
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	581	282	378	164	299	96	190	507	150	40	329	270
Adj. Flow (vph)	632	307	411	178	325	104	207	551	163	43	358	293
Lane Group Flow (vph)	632	307	411	178	325	104	207	551	163	43	358	293
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	20.0	30.0	30.0	10.0	20.0	20.0	15.0	30.0	30.0	20.0	35.0	35.0
Act Effct Green (s)	16.3	21.5	21.5	6.1	11.3	11.3	9.0	16.2	16.2	6.4	13.6	13.6
Actuated g/C Ratio	0.25	0.32	0.32	0.09	0.17	0.17	0.14	0.24	0.24	0.10	0.20	0.20
v/c Ratio	0.75	0.27	0.52	0.57	0.54	0.29	0.45	0.64	0.32	0.13	0.50	0.53
Control Delay	32.4	18.3	4.9	39.6	29.5	8.7	31.2	26.3	5.8	31.4	26.3	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.4	18.3	4.9	39.6	29.5	8.7	31.2	26.3	5.8	31.4	26.3	7.1
LOS	C	B	A	D	C	A	C	C	A	C	C	A
Approach Delay		20.8			28.9			23.7			18.5	
Approach LOS		C			C			C			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 66.4
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 22.5
 Intersection Capacity Utilization 55.5%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 39: Del Mar Heights Rd. & CARMEL VALLEY RD

20 s	30 s	10 s	30 s
15 s	35 s	20 s	20 s

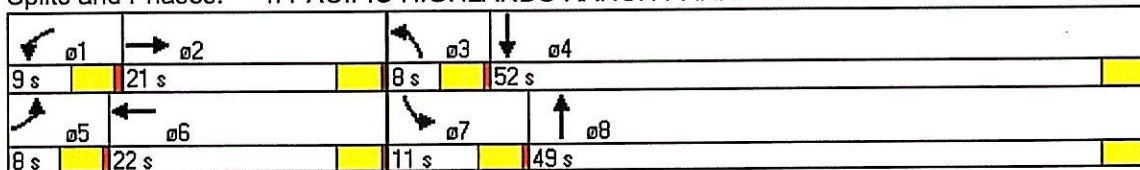
4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD CUMULATIVE AM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.880			0.936			0.984			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3115	0	1770	3313	0	3433	3483	0	1770	3536	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3115	0	1770	3313	0	3433	3483	0	1770	3536	0
Satd. Flow (RTOR)		132			41			20			2	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	17	71	285	38	51	38	73	449	53	53	1419	14
Adj. Flow (vph)	18	77	310	41	55	41	79	488	58	58	1542	15
Lane Group Flow (vph)	18	387	0	41	96	0	79	546	0	58	1557	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	8.0	21.0	0.0	9.0	22.0	0.0	8.0	49.0	0.0	11.0	52.0	0.0
Act Effct Green (s)	4.6	11.6		5.7	13.4		4.6	34.3		7.0	35.7	
Actuated g/C Ratio	0.07	0.18		0.08	0.21		0.07	0.53		0.10	0.55	
v/c Ratio	0.15	0.58		0.28	0.13		0.34	0.30		0.32	0.80	
Control Delay	44.3	23.1		44.1	18.3		42.9	10.5		42.0	17.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	44.3	23.1		44.1	18.3		42.9	10.5		42.0	17.3	
LOS	D	C		D	B		D	B		D	B	
Approach Delay		24.1			26.0			14.6			18.2	
Approach LOS		C			C			B			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 65
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 18.6
 Intersection Capacity Utilization 68.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD



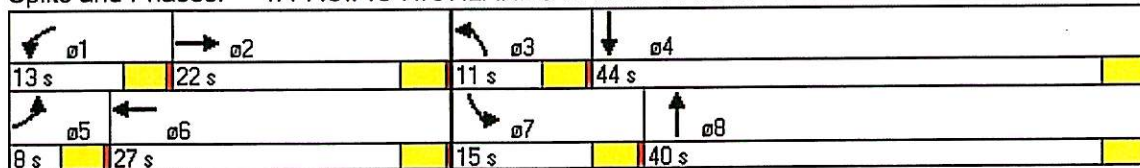
4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD CUMULATIVE PM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Fr't		0.955			0.936			0.982			0.996	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3380	0	1770	3313	0	3433	3476	0	1770	3525	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3380	0	1770	3313	0	3433	3476	0	1770	3525	0
Satd. Flow (RTOR)		65			118			20			3	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	13	178	75	109	146	109	119	964	135	135	490	12
Adj. Flow (vph)	14	193	82	118	159	118	129	1048	147	147	533	13
Lane Group Flow (vph)	14	275	0	118	277	0	129	1195	0	147	546	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	8.0	22.0	0.0	13.0	27.0	0.0	11.0	40.0	0.0	15.0	44.0	0.0
Act Effct Green (s)	5.5	11.1		9.7	18.7		8.2	36.2		10.9	38.7	
Actuated g/C Ratio	0.07	0.16		0.14	0.27		0.12	0.54		0.16	0.57	
v/c Ratio	0.11	0.46		0.48	0.28		0.32	0.64		0.53	0.27	
Control Delay	42.7	27.1		43.3	14.9		38.5	20.3		42.6	13.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	42.7	27.1		43.3	14.9		38.5	20.3		42.6	13.0	
LOS	D	C		D	B		D	C		D	B	
Approach Delay		27.9			23.4			22.1			19.2	
Approach LOS		C			C			C			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 67.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 22.2
 Intersection Capacity Utilization 65.1%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 4: PACIFIC HIGHLANDS RANCH PARKWAY & CARMEL VALLEY RD



Lanes, Volumes, Timings
 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE

5/2/2013
 CUMULATIVE AM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frts					0.999						0.850	
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	3539	0	1863	3536	0	0	0	0	1770	1583	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1770	3539	0	1863	3536	0	0	0	0	1770	1583	0
Satd. Flow (RTOR)					1						124	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	50	515	0	0	1401	7	0	0	0	9	0	207
Adj. Flow (vph)	54	560	0	0	1523	8	0	0	0	10	0	225
Lane Group Flow (vph)	54	560	0	0	1531	0	0	0	0	10	225	0
Turn Type	Prot			Prot						Prot		
Protected Phases	7	4		3	8					1	6	
Permitted Phases												
Total Split (s)	12.0	58.0	0.0	9.0	55.0	0.0	0.0	0.0	0.0	23.0	23.0	0.0
Act Effct Green (s)	7.1	44.4			38.4					20.3	20.3	
Actuated g/C Ratio	0.09	0.61			0.52					0.28	0.28	
v/c Ratio	0.33	0.26			0.83					0.02	0.43	
Control Delay	42.6	6.1			19.1					27.8	16.7	
Queue Delay	0.0	0.0			0.0					0.0	0.0	
Total Delay	42.6	6.1			19.1					27.8	16.7	
LOS	D	A			B					C	B	
Approach Delay		9.4			19.1						17.1	
Approach LOS		A			B						B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 73.2
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 16.4
 Intersection Capacity Utilization 61.0%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE

23 s	9 s	58 s									
23 s	12 s	55 s									

Lanes, Volumes, Timings
 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE

5/2/2013
 CUMULATIVE PM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frts					0.997						0.850	
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	3539	0	1863	3529	0	0	0	0	1770	1583	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1770	3539	0	1863	3529	0	0	0	0	1770	1583	0
Satd. Flow (RTOR)					3						323	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	89	977	0	0	582	11	0	0	0	4	0	89
Adj. Flow (vph)	97	1062	0	0	633	12	0	0	0	4	0	97
Lane Group Flow (vph)	97	1062	0	0	645	0	0	0	0	4	97	0
Turn Type	Prot			Prot						Prot		
Protected Phases	7	4		3	8					1	6	
Permitted Phases												
Total Split (s)	8.0	40.0	0.0	10.0	42.0	0.0	0.0	0.0	0.0	20.0	32.0	0.0
Act Effct Green (s)	4.0	25.6			17.6					16.1	28.2	
Actuated g/C Ratio	0.06	0.41			0.28					0.26	0.46	
v/c Ratio	0.84	0.72			0.64					0.01	0.11	
Control Delay	86.6	18.2			22.1					20.0	0.2	
Queue Delay	0.0	0.0			0.0					0.0	0.0	
Total Delay	86.6	18.2			22.1					20.0	0.2	
LOS	F	B			C					B	A	
Approach Delay		23.9			22.1						1.0	
Approach LOS		C			C						A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 61.9
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 22.1
 Intersection Capacity Utilization 45.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 6: CARMEL VALLEY RD & ZINNIA HILLS PALACE

ø1	ø2	ø3	ø4
20 s	20 s	10 s	40 s
ø5	ø6	ø7	ø8
8 s	32 s	8 s	42 s

3: CARMEL VALLEY RD & RANCHO SANTA FE RD

CUMULATIVE AM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.971			0.993			0.990			0.877	
Flt Protected	0.950			0.950				0.957			0.996	
Satd. Flow (prot)	1770	1809	0	1770	1850	0	0	1765	0	0	1627	0
Flt Permitted	0.950			0.950				0.356			0.966	
Satd. Flow (perm)	1770	1809	0	1770	1850	0	0	657	0	0	1578	0
Satd. Flow (RTOR)		22			4			4			171	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	156	285	67	16	917	44	186	7	15	24	1	249
Adj. Flow (vph)	170	310	73	17	997	48	202	8	16	26	1	271
Lane Group Flow (vph)	170	383	0	17	1045	0	0	226	0	0	298	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Total Split (s)	11.0	56.0	0.0	8.0	53.0	0.0	26.0	26.0	0.0	26.0	26.0	0.0
Act Effct Green (s)	7.0	56.8		4.0	49.0			22.0			22.0	
Actuated g/C Ratio	0.08	0.63		0.04	0.54			0.24			0.24	
v/c Ratio	1.23	0.33		0.23	1.04			1.38			0.58	
Control Delay	189.8	8.9		49.8	60.2			233.7			17.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	189.8	8.9		49.8	60.2			233.7			17.7	
LOS	F	A		D	E			F			B	
Approach Delay		64.5			60.1			233.7			17.7	
Approach LOS		E			E			F			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.38
 Intersection Signal Delay: 73.7
 Intersection Capacity Utilization 101.3%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service G

Splits and Phases: 3: CARMEL VALLEY RD & RANCHO SANTA FE RD

26 s	8 s	56 s									
26 s	11 s	53 s									

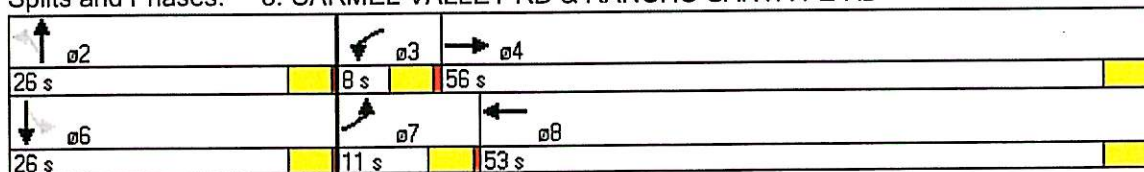
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.972			0.982			0.972			0.901	
Flt Protected	0.950			0.950				0.963			0.989	
Satd. Flow (prot)	1770	1811	0	1770	1829	0	0	1744	0	0	1660	0
Flt Permitted	0.950			0.950				0.470			0.909	
Satd. Flow (perm)	1770	1811	0	1770	1829	0	0	851	0	0	1526	0
Satd. Flow (RTOR)		21			12			14			145	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	214	696	156	30	321	43	132	4	35	52	13	179
Adj. Flow (vph)	233	757	170	33	349	47	143	4	38	57	14	195
Lane Group Flow (vph)	233	927	0	33	396	0	0	185	0	0	266	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Total Split (s)	11.0	56.0	0.0	8.0	53.0	0.0	26.0	26.0	0.0	26.0	26.0	0.0
Act Effct Green (s)	7.3	42.4		4.1	35.1			23.0			23.0	
Actuated g/C Ratio	0.09	0.54		0.05	0.45			0.30			0.30	
v/c Ratio	1.40	0.93		0.37	0.48			0.71			0.48	
Control Delay	245.6	33.0		53.3	15.1			45.4			16.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	245.6	33.0		53.3	15.1			45.4			16.5	
LOS	F	C		D	B			D			B	
Approach Delay		75.7			18.0			45.4			16.5	
Approach LOS		E			B			D			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 77.9
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.40
 Intersection Signal Delay: 53.1
 Intersection Capacity Utilization 87.0%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 3: CARMEL VALLEY RD & RANCHO SANTA FE RD



Lanes, Volumes, Timings
 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD

5/2/2013
 CUMULATIVE AM PHASE 1+2

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑	↑↑	↑↑	↑
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Fr t		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Satd. Flow (RTOR)		228				384
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	792	210	401	1322	285	353
Adj. Flow (vph)	861	228	436	1437	310	384
Lane Group Flow (vph)	861	228	436	1437	310	384
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	35.0	35.0	26.0	61.0	29.0	29.0
Act Effct Green (s)	24.8	24.8	15.0	43.9	25.4	25.4
Actuated g/C Ratio	0.32	0.32	0.19	0.57	0.33	0.33
v/c Ratio	0.76	0.34	0.65	0.72	0.28	0.49
Control Delay	28.8	4.6	34.3	14.1	22.2	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.8	4.6	34.3	14.1	22.2	5.3
LOS	C	A	C	B	C	A
Approach Delay	23.7			18.8	12.8	
Approach LOS	C			B	B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 77.4
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 19.1
 Intersection Capacity Utilization 51.5%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD

↖ ø2	↖ ø3	→ ø4
29 s	26 s	35 s
	← ø8	
	61 s	

Lanes, Volumes, Timings
 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD

5/2/2013
 CUMULATIVE PM PHASE 1+2

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↖↙	↑↑	↖↙	↑
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Fr't		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Satd. Flow (RTOR)		108				185
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	1151	99	116	615	39	170
Adj. Flow (vph)	1251	108	126	668	42	185
Lane Group Flow (vph)	1251	108	126	668	42	185
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Total Split (s)	35.0	35.0	26.0	61.0	29.0	29.0
Act Effct Green (s)	31.2	31.2	8.1	40.9	25.1	25.1
Actuated g/C Ratio	0.42	0.42	0.11	0.55	0.34	0.34
v/c Ratio	0.84	0.15	0.35	0.34	0.04	0.28
Control Delay	27.0	4.0	34.1	9.5	18.1	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.0	4.0	34.1	9.5	18.1	4.6
LOS	C	A	C	A	B	A
Approach Delay	25.2			13.4	7.1	
Approach LOS	C			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 74.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 19.5
 Intersection Capacity Utilization 49.0%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 9: Del Mar Heights Rd. & OLD CARMEL VALLEY RD

↖ ø2 29 s	↖ ø3 26 s	→ ø4 35 s
	← ø8 61 s	

Lanes, Volumes, Timings
 13: Del Mar Heights Rd. & VALERO GATE

5/2/2013
 CUMULATIVE AM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	0.91	0.97	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.986			0.998				0.850		0.852	
Flt Protected	0.950			0.950			0.950	0.953		0.950		
Satd. Flow (prot)	1770	5014	0	3433	3532	0	1681	1686	1583	1770	1587	0
Flt Permitted	0.950			0.950			0.950	0.953		0.950		
Satd. Flow (perm)	1770	5014	0	3433	3532	0	1681	1686	1583	1770	1587	0
Satd. Flow (RTOR)		21			1				76		73	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	14	894	90	173	1448	16	193	1	70	16	1	67
Adj. Flow (vph)	15	972	98	188	1574	17	210	1	76	17	1	73
Lane Group Flow (vph)	15	1070	0	188	1591	0	105	106	76	17	74	0
Turn Type	Prot			Prot			Split		Perm	Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Total Split (s)	8.0	37.0	0.0	13.0	42.0	0.0	20.0	20.0	20.0	20.0	20.0	0.0
Act Effct Green (s)	4.0	27.5		8.6	38.5		16.0	16.0	16.0	16.0	16.0	
Actuated g/C Ratio	0.04	0.33		0.10	0.46		0.19	0.19	0.19	0.19	0.19	
v/c Ratio	0.19	0.65		0.54	0.98		0.33	0.33	0.21	0.05	0.20	
Control Delay	47.6	25.8		42.5	42.5		33.6	33.6	9.6	29.8	9.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	47.6	25.8		42.5	42.5		33.6	33.6	9.6	29.8	9.9	
LOS	D	C		D	D		C	C	A	C	A	
Approach Delay		26.1			42.5			27.2			13.6	
Approach LOS		C			D			C			B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 84.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 34.8
 Intersection Capacity Utilization 65.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 13: Del Mar Heights Rd. & VALERO GATE

ø2	ø6	ø3	ø4
20 s	20 s	13 s	37 s
		ø7	ø8
		8 s	42 s

Lanes, Volumes, Timings
 13: Del Mar Heights Rd. & VALERO GATE

5/2/2013
 CUMULATIVE PM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	0.91	0.97	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frnt		0.999			0.995				0.850		0.850	
Flt Protected	0.950			0.950			0.950	0.950		0.950		
Satd. Flow (prot)	1770	5080	0	3433	3522	0	1681	1681	1583	1770	1583	0
Flt Permitted	0.950			0.950			0.950	0.950		0.950		
Satd. Flow (perm)	1770	5080	0	3433	3522	0	1681	1681	1583	1770	1583	0
Satd. Flow (RTOR)		1			5				111		337	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	35	1150	8	48	613	21	82	0	102	8	0	22
Adj. Flow (vph)	38	1250	9	52	666	23	89	0	111	9	0	24
Lane Group Flow (vph)	38	1259	0	52	689	0	45	44	111	9	24	0
Turn Type	Prot			Prot			Split		Perm	Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Total Split (s)	8.0	37.0	0.0	13.0	42.0	0.0	20.0	20.0	20.0	20.0	20.0	0.0
Act Effect Green (s)	4.0	26.2		6.7	28.0		16.4	16.4	16.4	16.4	16.4	
Actuated g/C Ratio	0.05	0.34		0.08	0.36		0.21	0.21	0.21	0.21	0.21	
v/c Ratio	0.43	0.73		0.18	0.54		0.13	0.12	0.26	0.02	0.04	
Control Delay	55.8	25.5		38.2	20.9		30.3	30.3	8.7	29.8	0.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	55.8	25.5		38.2	20.9		30.3	30.3	8.7	29.8	0.1	
LOS	E	C		D	C		C	C	A	C	A	
Approach Delay		26.4			22.1			18.3			8.2	
Approach LOS		C			C			B			A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 77.3
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 24.0
 Intersection Capacity Utilization 44.7%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 13: Del Mar Heights Rd. & VALERO GATE

ø2	ø6	ø3	ø4
20 s	20 s	13 s	37 s
		ø7	ø8
		8 s	42 s

Lanes, Volumes, Timings
 26: Village Loop Rd. & HIGH SCHOOL SIGNAL

5/2/2013
 CUMULATIVE AM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.908							0.850			0.850
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1770	3214	0	1770	3539	0	0	1770	1583	0	1863	1583
Flt Permitted	0.950			0.950				0.757				
Satd. Flow (perm)	1770	3214	0	1770	3539	0	0	1410	1583	0	1863	1583
Satd. Flow (RTOR)		526							8			464
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	107	345	555	10	400	0	261	0	7	0	0	72
Adj. Flow (vph)	116	375	603	11	435	0	284	0	8	0	0	78
Lane Group Flow (vph)	116	978	0	11	435	0	0	284	8	0	0	78
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Total Split (s)	21.0	39.0	0.0	13.0	31.0	0.0	38.0	38.0	38.0	38.0	38.0	38.0
Act Effct Green (s)	9.8	23.4		6.1	14.0			34.9	34.9			34.9
Actuated g/C Ratio	0.14	0.34		0.08	0.20			0.51	0.51			0.51
v/c Ratio	0.47	0.68		0.08	0.60			0.39	0.01			0.08
Control Delay	35.4	10.7		36.4	29.0			15.5	7.9			0.1
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0			0.0
Total Delay	35.4	10.7		36.4	29.0			15.5	7.9			0.1
LOS	D	B		D	C			B	A			A
Approach Delay		13.4			29.2			15.3				
Approach LOS		B			C			B				

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 68.4
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 16.8
 Intersection Capacity Utilization 55.2%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 26: Village Loop Rd. & HIGH SCHOOL SIGNAL

38 s			13 s			39 s					
38 s			21 s			31 s					

Lanes, Volumes, Timings
 26: Village Loop Rd. & HIGH SCHOOL SIGNAL

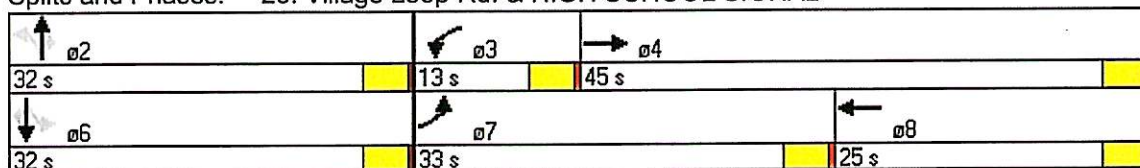
5/2/2013
 CUMULATIVE PM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.916							0.850			0.850
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1770	3242	0	1770	3539	0	0	1770	1583	0	1863	1583
Flt Permitted	0.950			0.950				0.757				
Satd. Flow (perm)	1770	3242	0	1770	3539	0	0	1410	1583	0	1863	1583
Satd. Flow (RTOR)		335							11			663
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	267	242	308	9	320	0	192	0	10	0	0	218
Adj. Flow (vph)	290	263	335	10	348	0	209	0	11	0	0	237
Lane Group Flow (vph)	290	598	0	10	348	0	0	209	11	0	0	237
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Total Split (s)	33.0	45.0	0.0	13.0	25.0	0.0	32.0	32.0	32.0	32.0	32.0	32.0
Act Effct Green (s)	16.1	30.2		6.0	11.9			28.4	28.4			28.4
Actuated g/C Ratio	0.23	0.44		0.08	0.17			0.41	0.41			0.41
v/c Ratio	0.70	0.37		0.07	0.57			0.36	0.02			0.23
Control Delay	33.7	6.1		35.9	30.6			18.6	9.2			0.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0			0.0
Total Delay	33.7	6.1		35.9	30.6			18.6	9.2			0.5
LOS	C	A		D	C			B	A			A
Approach Delay		15.1			30.8			18.1				
Approach LOS		B			C			B				

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 68.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 16.7
 Intersection Capacity Utilization 44.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 26: Village Loop Rd. & HIGH SCHOOL SIGNAL



Lanes, Volumes, Timings
 29: Village Loop Rd. & PROJECT ACCESS

5/2/2013
 CUMULATIVE AM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.894			0.990				0.850			0.850
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1770	3164	0	1770	3504	0	0	1770	1583	0	1863	1583
Flt Permitted	0.950			0.950				0.757				
Satd. Flow (perm)	1770	3164	0	1770	3504	0	0	1410	1583	0	1863	1583
Satd. Flow (RTOR)		383			8				15			635
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	10	145	352	23	202	14	306	0	14	0	0	14
Adj. Flow (vph)	11	158	383	25	220	15	333	0	15	0	0	15
Lane Group Flow (vph)	11	541	0	25	235	0	0	333	15	0	0	15
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Total Split (s)	16.0	30.0	0.0	17.0	31.0	0.0	43.0	43.0	43.0	43.0	43.0	43.0
Act Effct Green (s)	6.1	10.0		6.5	12.2			39.8	39.8			39.8
Actuated g/C Ratio	0.09	0.16		0.10	0.20			0.64	0.64			0.64
v/c Ratio	0.07	0.65		0.15	0.34			0.37	0.01			0.01
Control Delay	32.8	11.7		31.5	21.9			9.0	4.4			0.0
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0			0.0
Total Delay	32.8	11.7		31.5	21.9			9.0	4.4			0.0
LOS	C	B		C	C			A	A			A
Approach Delay		12.2			22.8			8.8				
Approach LOS		B			C			A				

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 61.9
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 13.4
 Intersection Capacity Utilization 42.7%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 29: Village Loop Rd. & PROJECT ACCESS

43 s			17 s				30 s				
43 s			16 s				31 s				

Lanes, Volumes, Timings
 29: Village Loop Rd. & PROJECT ACCESS

5/2/2013
 CUMULATIVE PM PHASE 1+2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.901			0.977				0.850			0.850
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1770	3189	0	1770	3458	0	0	1770	1583	0	1863	1583
Flt Permitted	0.950			0.950				0.757				
Satd. Flow (perm)	1770	3189	0	1770	3458	0	0	1410	1583	0	1863	1583
Satd. Flow (RTOR)		276			23				11			684
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	28	131	254	8	196	35	178	0	10	0	0	35
Adj. Flow (vph)	30	142	276	9	213	38	193	0	11	0	0	38
Lane Group Flow (vph)	30	418	0	9	251	0	0	193	11	0	0	38
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Total Split (s)	21.0	33.0	0.0	20.0	32.0	0.0	37.0	37.0	37.0	37.0	37.0	37.0
Act Effct Green (s)	6.5	11.1		6.0	8.9			33.6	33.6			33.6
Actuated g/C Ratio	0.11	0.20		0.10	0.16			0.61	0.61			0.61
v/c Ratio	0.16	0.48		0.05	0.43			0.22	0.01			0.03
Control Delay	27.2	9.0		28.4	22.0			7.7	4.6			0.1
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0			0.0
Total Delay	27.2	9.0		28.4	22.0			7.7	4.6			0.1
LOS	C	A		C	C			A	A			A
Approach Delay		10.2			22.3			7.5				
Approach LOS		B			C			A				

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 54.7
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.48
 Intersection Signal Delay: 12.5
 Intersection Capacity Utilization 35.0%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 29: Village Loop Rd. & PROJECT ACCESS

37 s			20 s				33 s				
37 s			21 s				32 s				

APPENDIX C

- Figure 3-20 Master Rezoning Subarea Plan
- Pacific Highlands Ranch Town Center Traffic Data
- Future 2030 Traffic Forecasts from Urban Systems Associates, Inc.
June 8, 1998 Future Urbanizing Subarea III Analysis Report
- Excerpts from the Pacific Highlands Ranch
Public Facilities Financing Plan FY 2013

➤ Figure 3-20 Master Rezoning Subarea Plan

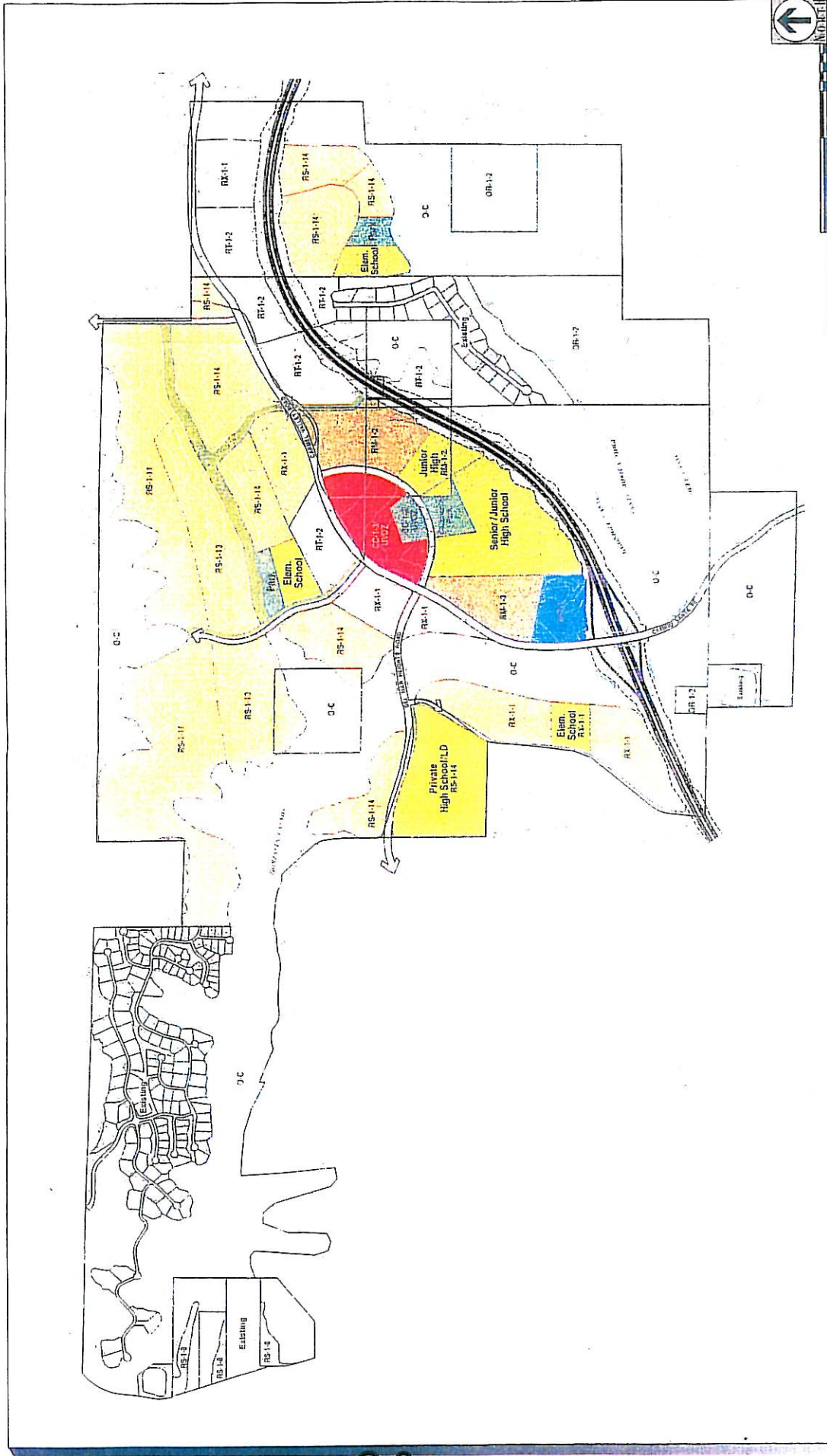
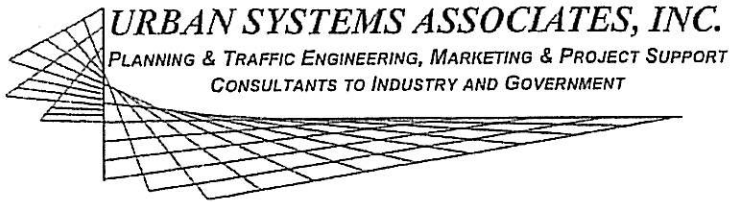


FIGURE 3-20

Master Rezoning Subarea Plan 1

Map Source: Latitude 33 Planning and Engineering, 1998

➤ Pacific Highlands Ranch Town Center Traffic Data



E - MEMO

ATTN: Ted Shaw – Latitude 33
FROM: Andrew P. Schlaefli & Justin P. Schlaefli
DATE: January 21, 2008
SUBJECT: Initial Traffic Evaluation for the Pacific Highlands Ranch – Town Center

Email: ▼
Ted.shaw@latitude33.com

TOTAL PAGES (Incl. Cover): 2 + 7 Attachments

TIME 11:21:05 AM **JOB NUMBER:** 0405

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As requested, we have completed an initial Traffic Study for the proposed project. Following is a discussion of our initial results and the basis for them.

Project Description

The Pacific Highlands Ranch Town Center project is located in the Carmel Valley area of the City of San Diego. The site is bounded by two major roads. These roads are Del Mar Heights Road and existing Carmel Valley Road. The site plan is shown as **Attachment 1**. The project is composed of a mixed-use development, including restaurant, retail, residential and cinema uses. See **Attachment 2** for associated square footage and unit counts. The project is expected to generate 17,236 trips with 612 AM peak hour trips and 1,619 PM peak hour trips. See **Attachment 3** for trip generation.

Traffic Distribution/Assignment

Attachment 4 shows the assumed trip distribution and assignment for the project. As can be seen, the project is expected to contribute a maximum 4,309 trips along Del Mar Heights Road. Street "A" is expected to carry approximately 8,618 ADT.

Driveway Peak Hour

Attachment 5 shows project only driveway in/out splits derived from the peak hour trip generation data and data contained in **Attachment 4**.

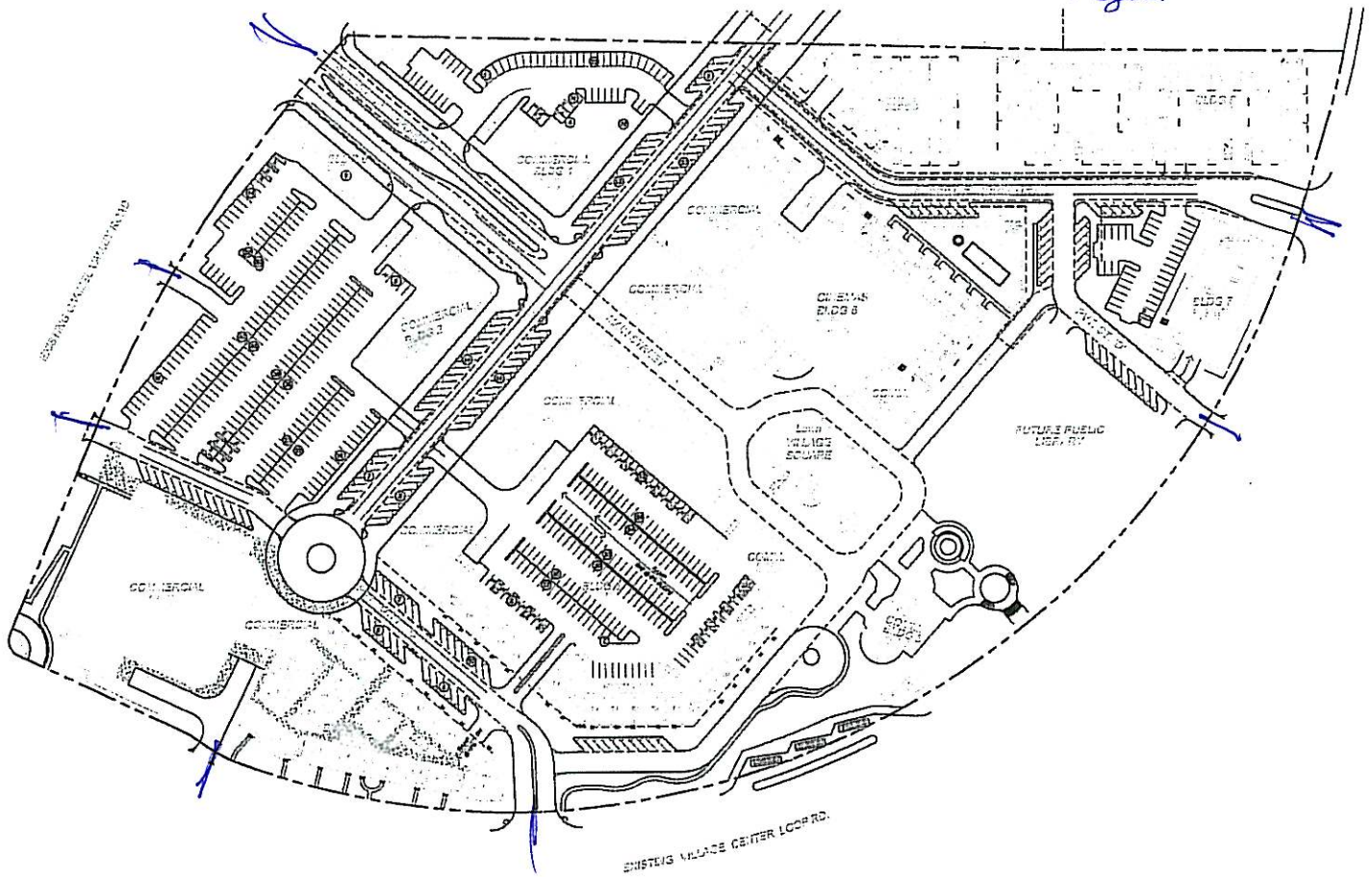
Traffic Signal Warrants

Traffic signals have already been designed and installed on Carmel Valley Road at the project access and on Carmel Valley Road at the Village Center Loop Road. Traffic signal warrants will be met on Village Center at the south access (see **Attachment 6**). **Attachment 7** shows that signal warrants are not anticipated to be met at the North Road on Village Center Loop Road.

cc: Beth Fischer, Pardee

ATTACHMENT 1 Project Site Plan

*Gonzalez
STP*



SOURCE

Site Plan Provided by Latitude 33



ATTACHMENT 2

Pacific Highlands Ranch Program Summary

Pardee Site									
Use	Area	Units	Unit Area	Total Unit Area	Parking Ratio	Parking Rate */1000	Required Retail/Office Parking	Required Residential Parking	Parking Provided
Building 1	Restaurant	0,000			15.0/1000	67	60		Lot 1 & Street
	Retail	4,800			5.0/1000	200	24		Lot 1 & Street
Sub-Total		10,800				267	114		
Building 2	Restaurant	7,100			15.0/1000	67	107		Lot 2 & Street
	Retail	7,000			5.0/1000	200	25		Lot 2 & Street
Sub-Total		14,100				600	142		
Building 3	Restaurant	4,000			15.0/1000	67	60		Structure Building 5
Building 4	Mixed-Use	43,000			5.0/1000	200	215		
	Market	6,000			5.0/1000	200	30		Lot 2 & Street
	Apartments								
	1-Bedroom		21	610	17,010	1.5		32	Basement
	2-Bedroom Flat		21	1,110	23,310	2.0		42	Basement
	2-Bedroom Town		10	1,450	14,500	2.0		20	Basement
	2-Bedroom (Lot)		2	1,300	2,600	2.0		4	Basement
	3-Bedroom Flat		8	1,440	11,520	2.25		18	Basement
	3-Bedroom (Lot)		5	1,600	8,000	2.25		11	Basement
	Pkg Sub-Total							128	
	Common Area Pkg				0.15			19	Surface Parking
Sub-Total		49,000	67	76,940			245	147	
Building 5	Mixed-Use	7,000			5.0/1000	200	35		
	Retail	8,000			5.0/1000	200	45		
	Retail	30,000			5.0/1000	200	150		
	Apartments								
	1-Bedroom		14	810	11,340	1.5		21	Structure Building 5
	2-Bedroom Flat		4	1,110	4,440	2.0		8	Structure Building 5
	2-Bedroom Town		17	1,450	24,650	2.0		34	Structure Building 5
	2-Bedroom (Lot)		13	1,300	16,600	2.0		26	Structure Building 5
	3-Bedroom Flat		3	1,440	4,320	2.25		7	Structure Building 5
	3-Bedroom (Lot)		4	1,600	6,400	2.25		9	Structure Building 5
	Pkg Sub-Total							105	
	Common Area Pkg				0.15			16	Structure Building 5
Sub-Total		44,000	54	68,050			230	121	
Building 6	Mixed-Use	3,700			5.0/1000	200	19		
	Retail	20,400			5.0/1000	200	162		Structure Building 5
	Cinema (1400 Seats)	35,000			7/13 Seats		424		
	Apartments								
	1-Bedroom		23	810	18,630	1.5		35	Basement
	2-Bedroom Flat		29	1,110	32,100	2.0		58	Basement
	2-Bedroom Town		13	1,450	18,850	2.0		26	Basement
	2-Bedroom (Lot)		8	1,300	7,600	2.0		12	Basement
	3-Bedroom Flat1		4	1,440	5,760	2.25		9	Basement
	3-Bedroom Flat2		14	1,600	22,620	2.25		32	Basement
	Pkg Sub-Total							172	
	Common Area Pkg				0.15			26	Basement & Surface
Sub-Total		69,100	69	108,050			595	199	
Building 9	Retail	2,000			5.0/1000	200	0		Lot 2
Total		195,000	211	251,040			1394	457	
Gonzales Site									
Building 7	Office	20,000			5.0/1000	20	100		
Building 8	Apartment								
	1-Bedroom		0	810	6,480	1.5		12	Basement
	2-Bedroom flat		37	1,110	41,070	2.0		74	Basement
	1 Bedroom + den		18	1,150	20,700	1.5		27	Basement
	2-Bedroom (Lot)		0	0	0			0	Basement
	3-Bedroom Flat1		12	1,440	17,280	2.25		27	Basement
	Pkg Sub-Total							140	
	Common Area Pkg				0.15			21	Basement & Surface
Sub-Total			76	85,630				162	
Total of Both Sites		215,000	286				1,494	629	Total Parking Required 2,123

Parking Provided	
Pkg Lot 1	56
Pkg Lot 2	262
Street Pkg	150
Building 5	100
Lower level 2	
Level 1	214
Level 2	182
Level 3	189
Level 4	199
Level 4	210
Building 4	128
Building 6	191
Building 7	100
Building 8	160
Total Pkg Provided	2,151
Total Pkg Required	2,123

SOURCE

Table Provided by Latitude 33

ATTACHMENT 3

Pacific Highlands Ranch Project Trip Generation

Use	Amount	Trip Rate	ADT	AM Peak Hour						PM Peak Hour					
				%	#	In/Out	In	Out	%	#	In/Out	In	Out		
Restaurant-Bldg.	6,000	SF 100 /KSF	600	1%	6	6 : 4	4	2	8%	48	7 : 3	34	14		
Retail-Bldg. 1	4,800	SF 40 /KSF	192	3%	6	6 : 4	3	2	9%	17	5 : 5	9	9		
Restaurant-Bldg. 2	7,100	SF 100 /KSF	710	1%	7	6 : 4	4	3	8%	57	7 : 3	40	17		
Retail-Bldg. 2	7,000	SF 40 /KSF	280	3%	8	6 : 4	5	3	9%	25	5 : 5	13	13		
Restaurant-Bldg. 3	4,000	SF 100 /KSF	400	1%	4	6 : 4	2	2	8%	32	7 : 3	22	10		
Market- Bldg. 4	43,000	SF 150 /KSF	6,450	4%	258	7 : 3	181	77	10%	645	5 : 5	323	323		
Retail- Bldg. 4	6,000	SF 40 /KSF	240	3%	7	6 : 4	4	3	9%	22	5 : 5	11	11		
MDU- Bldg. 4	67	DU 6 /DU	402	8%	32	2 : 8	6	26	10%	40	7 : 3	28	12		
Retail- Bldg. 5	46,000	SF 40 /KSF	1,840	3%	55	6 : 4	33	22	9%	166	5 : 5	83	83		
MDU-Bldg. 5	55	DU 6 /DU	330	8%	26	2 : 8	5	21	10%	33	7 : 3	23	10		
Theater- Bldg. 6	1,400	ST 1.8 /ST	2,520	0.3%	8	2 : 8	2	6	8%	202	7 : 3	141	60		
Retail- Bldg. 6	33,700	SF 40 /KSF	1,348	3%	40	6 : 4	24	16	9%	121	5 : 5	61	61		
MDU- Bldg. 6	89	DU 6 /DU	534	8%	43	2 : 8	9	34	10%	53	7 : 3	37	16		
Office- Bldg. 7	20,000	SF $\frac{\ln(T)=0.75}{6*\ln(x)+3.95}$	500	13%	65	9 : 1	59	7	14%	70	2 : 8	14	56		
MDU- Bldg. 8	75	DU 6 /DU	450	8%	36	2 : 8	7	29	10%	45	7 : 3	32	14		
Retail- Bldg. 9	2,000	SF 40 /KSF	80	3%	2	6 : 4	1	1	9%	7	5 : 5	4	4		
Library- Bldg. 10	18,000	SF 20 /KSF	360	2%	7	7 : 3	5	2	10%	36	5 : 5	18	18		
Total			17,236		612		355	257		1,619		891	729		

Source: City of San Diego, May 2003 Trip Generation Manual

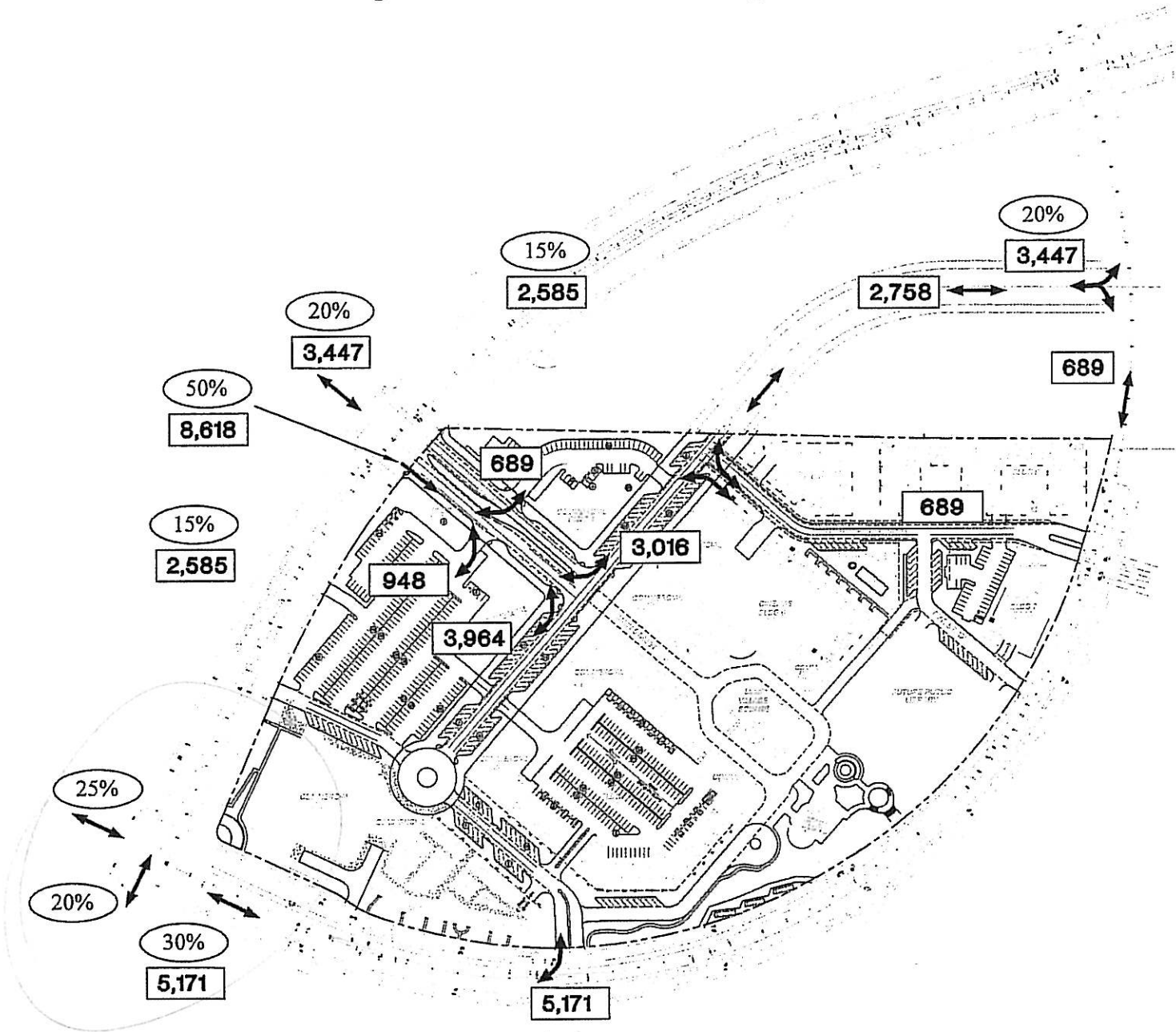
Note:

- DU = Dwelling Unit
- MDU = Multiple Dwelling Unit
- SF = Square Feet
- AC = Acre

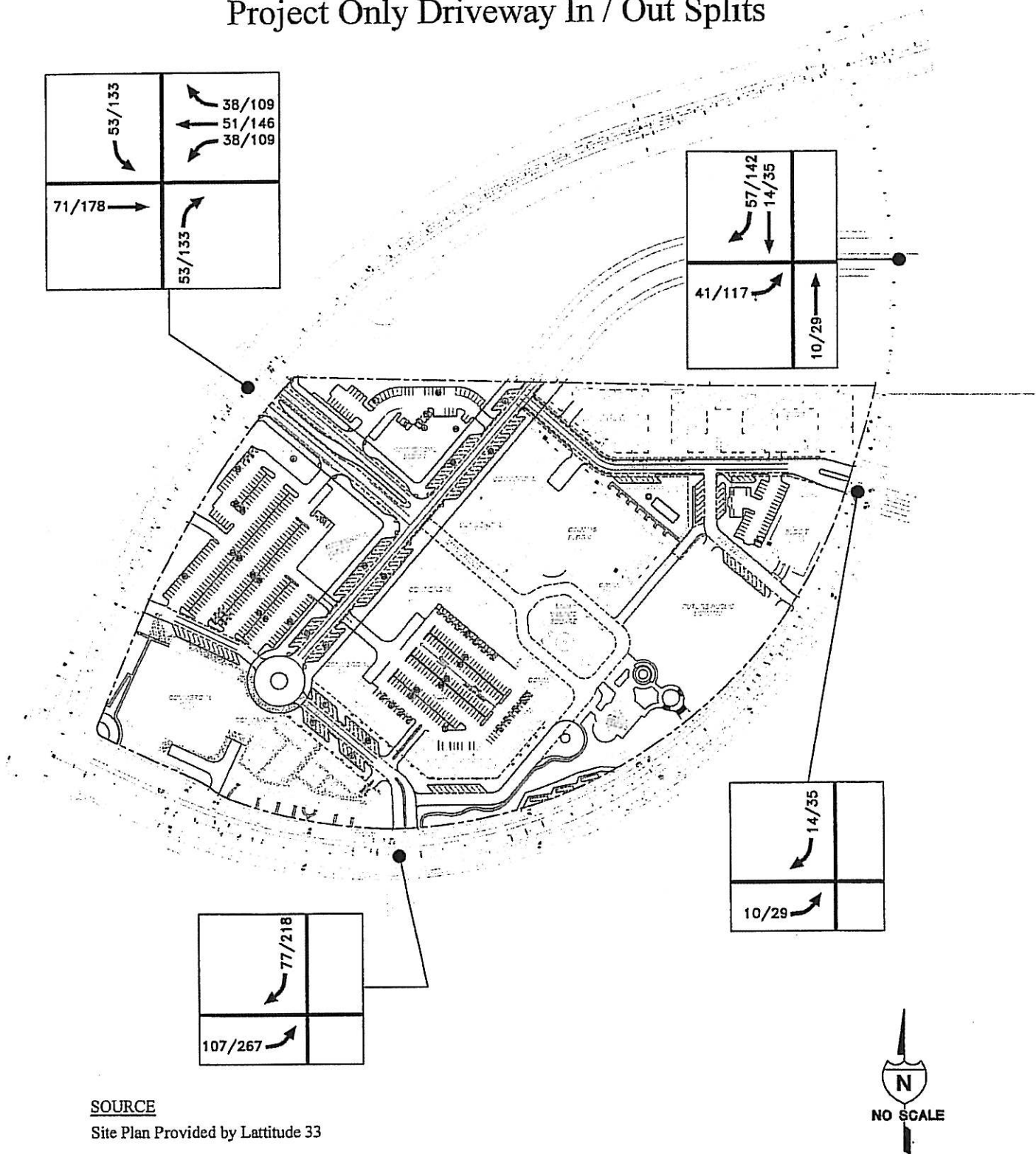
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ATTACHMENT 4

Project Distribution & Assignment



ATTACHMENT 5 Project Only Driveway In / Out Splits



SOURCE
Site Plan Provided by Latitude 33



ATTACHMENT 7

9-10

TRAFFIC SIGNALS AND LIGHTING

Traffic Manual

7-1999

Figure 9-4

TRAFFIC SIGNAL WARRANTS
Town Center / North Road

(Based on Estimated Average Daily Traffic - See Note)

URBAN <input checked="" type="checkbox"/> RURAL _____	Minimum Requirements EADT			
	Town Center		South Access	
1. Minimum Vehicular	Vehicles per day on major street (total of both approaches)		Vehicles per day on higher-volume minor street approach (one direction only)	
Satisfied _____ Not Satisfied <input checked="" type="checkbox"/>	>10,000			
Number of lanes for moving traffic on each approach	Urban	Rural	Urban	Rural
Major Street	8,000	5,600	2,400	1,680
Minor Street	9,600	6,720	2,400	1,680
1 _____ 1 _____	9,600	6,720	3,200	2,240
2 or more _____ 1 _____	8,000	5,600	3,200	2,240
2 or more _____ 2 or more _____				
1 _____ 2 or more _____				
2. Interruption of Continuous Traffic	Vehicles per day on major street (total of both approaches)		Vehicles per day on higher-volume minor street approach (one direction only)	
Satisfied _____ Not Satisfied <input checked="" type="checkbox"/>	>10,000			
Number of lanes for moving traffic on each approach	Urban	Rural	Urban	Rural
Major Street	12,000	8,400	1,200	850
Minor Street	14,400	10,080	1,200	850
1 _____ 1 _____	14,400	10,080	1,600	1,120
2 or more _____ 1 _____	12,000	8,400	1,600	1,120
2 or more _____ 2 or more _____				
1 _____ 2 or more _____				
3. Combination	2 Warrants		2 Warrants	
Satisfied _____ Not Satisfied _____				
No one warrant satisfied, but following warrants fulfilled 80% or more				
_____ 1 _____ 2 _____				

Note:
To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

- Future 2030 Traffic Forecasts from Urban Systems Associates, Inc.
June 8, 1998 Future Urbanizing Subarea III Analysis Report

**TRANSPORTATION ANALYSIS for the
Future Urbanizing Subarea III**

Prepared for
Pardee Construction

Draft - January 6, 1998

Draft - March 3, 1998

Draft - March 23, 1998

Final - June 8, 1998

URBAN SYSTEMS ASSOCIATES, INC.

TRAFFIC PLANNING & ENGINEERING, MARKETING & PROJECT SUPPORT

CONSULTANTS TO INDUSTRY AND GOVERNMENT

4540 Kearny Villa Road, Suite 106

San Diego, California 92123-1573

C-14
(619) 560-4911

TABLE 9

CUMULATIVE STREET SEGMENT LEVELS OF SERVICE (ALIGNMENT "F", TWO INTERCHANGE ALTERNATIVE)

Street	Segment	Classification	LOS 'E' (1)	ADT (2)	LOS (3)
Bernardo Center Dr.	Rancho Bernardo Rd. to Bernardo Heights Pkwy.	4-lane Major	40,000	31,300	D
	Bernardo Heights Pkwy. to Interstate 15	4-lane Major	40,000	35,000	D
	Interstate 15 to West Bernardo Dr.	4-lane Major	40,000	31,800	D
	West Bernardo Dr. to Camino Del Norte	4-lane Major	40,000	34,900	D
Black Mountain Rd.	North of Carmel Valley Rd.	4-lane Major	40,000	19,900	B
	Carmel Valley Rd. to Carmel Mountain Rd.	4-lane Major	40,000	22,300	C
	Carmel Mountain Rd. to Paseo Montalban	4-lane Major	40,000	16,500	B
	Paseo Montalban to Twin Trails Dr.	4-lane Major	40,000	22,700	C
	Twin Trails Dr. to State Route 56	6-lane Major	50,000	19,600	A
	State Route 56 to Park Village Rd. Park Village Rd. to Mercy Rd.	6-lane Prime 6-lane Prime	60,000 60,000	46,800 65,200	C F
Camino del Norte	Interstate 15 to Bernardo Center Dr.	6-lane Prime	60,000	49,300	C
	Bernardo Center Dr. to Camino San Bernardo	6-lane Prime	60,000	45,500	C
	Camino San Bernardo to Black Mountain Rd.	6-lane Prime	60,000	27,400	B
Camino Ruiz	North of San Dieguito Rd.	4-lane Major	40,000	15,800	B
	San Dieguito Rd. to Carmel Valley Rd.	4-lane Major	40,000	24,000	C
	Carmel Valley Rd. to State Route 56	6-lane Major	50,000	57,400	E
	State Route 56 to Carmel Mountain Rd.	6-lane Major	50,000	22,200	B
	Carmel Mountain Rd. to Park Village Rd.	4-lane Major	40,000	17,900	A
Camino San Bernardo	Camino del Norte to Rancho Bernardo Rd.	4-lane Major	40,000	16,600	B
Camino Santa Fe	Del Mar Heights Rd. to State Route 56	6-lane Major	50,000	29,700	C
	South of State Route 56	2-lane Collector	10,000	6,600	C
Carmel Creek Rd.	State Route 56 to Carmel Country Rd.	4-lane Major	40,000	23,000	C
Carmel Country Rd.	Del Mar Heights Rd. to Carmel Creek Rd.	4-lane Major	40,000	29,900	C
	Carmel Creek Rd. to State Route 56	4-lane Major	40,000	14,100	B
	South of State Route 56	4-lane Major	40,000	14,600	A
Carmel Mountain Rd.	Interstate 15 to Penasquitos Dr.	4-lane Major	40,000	31,800	B
	Penasquitos Dr. to Rancho Penasquitos Boulevard	4-lane Major	40,000	17,900	B
	Rancho Penasquitos Boulevard to Paseo Montalban	4-lane Major	40,000	27,200	C
	Paseo Montalban to Paseo Valdear	4-lane Major	40,000	13,900	A
	Paseo Valdear to Black Mountain Rd.	4-lane Major	40,000	11,200	A
	Black Mountain Rd. to Camino Ruiz	4-lane Major	40,000	7,600	A
	Camino Santa Fe to El Camino Real El Camino Real to Interstate 5	4-lane Collector 4-lane Prime	30,000 35,000	13,000 29,400	D C
Carmel Valley Rd.	Del Mar Heights Rd. to Rancho Santa Fe Rd.	4-lane Major	40,000	26,000	C
	Rancho Santa Fe Rd. to Camino Ruiz	4-lane Major	40,000	19,600	B
	Camino Ruiz to Black Mountain Rd.	4-lane Major	40,000	31,000	D
	Black Mountain Rd. S. to Black Mountain Rd. N.	4-lane Major	40,000	34,200	D
	Black Mountain Rd. N. to Camino del Norte	4-lane Major	40,000	22,200	C

FUA 3-TAB9E.WB3 Tab A

Notes:

- (1) Capacity at LOS 'E' from City of San Diego Standards
 (2) ADT = Average Daily Traffic
 ADT Source: SANDAG Series 8 Pacific Highlands Ranch Traffic Forecast, 12/18/97
 (3) LOS = Level of Service

FUTURE URBANIZING SUBAREA III

URBAN SYSTEMS

TABLE 9

**CUMULATIVE STREET SEGMENT LEVELS OF SERVICE
(ALIGNMENT "F", TWO INTERCHANGE ALTERNATIVE)**

Street	Segment	Classification	LOS 'E' (1)	ADT (2)	LOS (3)
Del Mar Heights Rd.	West of Interstate 5	6-lane Prime	60,000	43,900	C
	Interstate 5 to High Bluff Dr.	6-lane Prime	60,000	46,100	C
	High Bluff Dr. to El Camino Real	6-lane Prime	60,000	36,500	C
	El Camino Real to Carmel Country Rd.	6-lane Prime	60,000	26,200	B
	Carmel Country Rd. to Lansdale East	6-lane Prime	60,000	21,200	A
	Lansdale East to Carmel Valley Boundary	6-lane Prime	60,000	19,100	A
	Carmel Valley Boundary to Camino Santa Fe	4-lane Major	40,000	19,600	B
	El Apajo	Via de Santa Fe to San Dieguito Rd.	2-lane Collector	16,200	15,400
El Camino Real	Carmel Mountain Rd. to State Route 56	6-lane Major	50,000	17,900	A
	State Route 56 to High Bluff Dr.	6-lane Major	50,000	21,000	B
	High Bluff Dr. to Del Mar Heights Rd.	6-lane Major	50,000	17,300	A
	Del Mar Heights Rd. to Quarter Mile Dr.	4-lane Major	40,000	19,300	B
	Quarter Mile Dr. to Half Mile Dr.	4-lane Major	40,000	20,300	B
	Half Mile Dr. to San Dieguito Rd.	4-lane Major	40,000	27,500	C
Mercy Rd.	Black Mountain Rd. to Interstate 15	4-lane Major	40,000	28,900	C
	Black Mountain Rd. to Camino Ruiz	4-lane Major	40,000	30,000	C
Park Village Rd.	Black Mountain Rd. to Camino Ruiz	4-lane Major	40,000	30,800	D
Poway Rd.	East of Interstate 15	6-lane Prime	60,000	46,600	C
Rancho Bernardo Rd.	Bernardo Center Dr. to Interstate 15	6-lane Major	50,000	46,300	E
	Interstate 15 to West Bernardo Dr.	6-lane Major	50,000	47,400	E
	West Bernardo Dr. to Via Del Campo	4-lane Major	40,000	28,700	C
	Via Del Campo to Camino San Bernardo	4-lane Major	40,000	30,100	D
	Camino San Bernardo to Alva Rd.	4-lane Major	40,000	16,600	B
Rancho Digueno Rd.	Rancho Santa Fe Farms to San Dieguito Rd.	2-light collector	16,200	4,200	C
Rancho Penasquitos BI	Interstate 15 to Via del Sud	4-lane Major	40,000	38,000	E
	Via del Sud to State Route 56	5-lane Major	45,000	35,500	C
Rancho Santa Fe Farms	Rancho Diegueno Rd. to Monte Fuego Rd.	2-light collector	16,200	3,900	B
	Monte Fuego Rd. to Carmel Valley Rd.	2-lane Collector	10,000	5,900	C
San Dieguito Rd.	Camino Ruiz to El Apajo	2-lane Collector	16,200	19,700	F
	El Apajo to Rancho Diegueno Rd.	4-lane Collector	34,200	12,500	C
	Rancho Diegueno Rd. to El Camino Real	2-lane Collector	16,200	14,900	F
Scripps Poway Pkwy.	East of Interstate 15	6-lane Prime	60,000	59,300	E
Via de Santa Fe	Via de la Valle to El Apajo	2-lane Collector	16,200	12,900	F
Via de la Valle	Interstate 5 to San Andres Dr.	4-lane Major	40,000	29,400	C
	San Andres Dr. to El Camino Real	4-lane Major	40,000	29,100	C
	El Camino Real to Via Santa Fe	2-lane Collector	16,200	21,900	F

Notes:

- (1) Capacity at LOS 'E' from City of San Diego Standards
- (2) ADT = Average Daily Traffic
ADT Source: SANDAG Series 8 Pacific Highlands Ranch Traffic Forecast, 12/18/97
- (3) LOS = Level of Service

FUA 3-TAB9E.WB3 Tab B

- Excerpts from the Pacific Highlands Ranch
Public Facilities Financing Plan FY 2013

Facilities Financing

A Section of [Development Services Department](#)

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Pacific Highlands Ranch

Fiscal Year 2013 (Effective beginning August 13, 2012)

The Pacific Highlands Ranch Public Facilities Financing Plan and Facilities Benefit Assessment, Fiscal Year 2013, was adopted by the City Council on April 10, 2012, and approved by the Mayor on April 23, 2012. The plan can be viewed from the following links or purchased from the Development Services Department, Facilities Financing Section, located at 1010 Second Avenue, Suite 600, East Tower. For more information on purchasing the plan call (619)- 533-3670.

[Full Version \(PDF\)](#)

- [Plan Elements \(PDF\)](#)
- **Public Facilities Projects**
 - [Pacific Highlands Ranch Public Facilities Projects \(PDF\)](#)
 - [Project Location Map \(PDF\)](#)
 - [Transportation Projects \(PDF\)](#)
 - [Park and recreation Projects \(PDF\)](#)
 - [Library Projects \(PDF\)](#)
 - [Water and Sewer Projects \(PDF\)](#)
 - [Completed Projects \(PDF\)](#)
- **Appendix**
 - [Development Agreement \(full version\) \(PDF\)](#)
 - [Transportation Phasing Plan \(PDF\)](#)
 - [Proposition C \(C-19979\) \(PDF\)](#)
 - [Mitigation Monitoring and Reporting Program \(PDF\)](#)
 - [Facilities Benefit Assessment Numerical List \(PDF\)](#)
- [Resolution No. 307502 \(PDF\)](#)
- [Pacific Highlands Ranch Facilities Benefit Assessment Schedule \(PDF\)](#)

Facilities Financing Project Manager

Frank January
(619) 533-3699
(619) 533-3687 (Fax)
fjanury@sandiego.gov

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

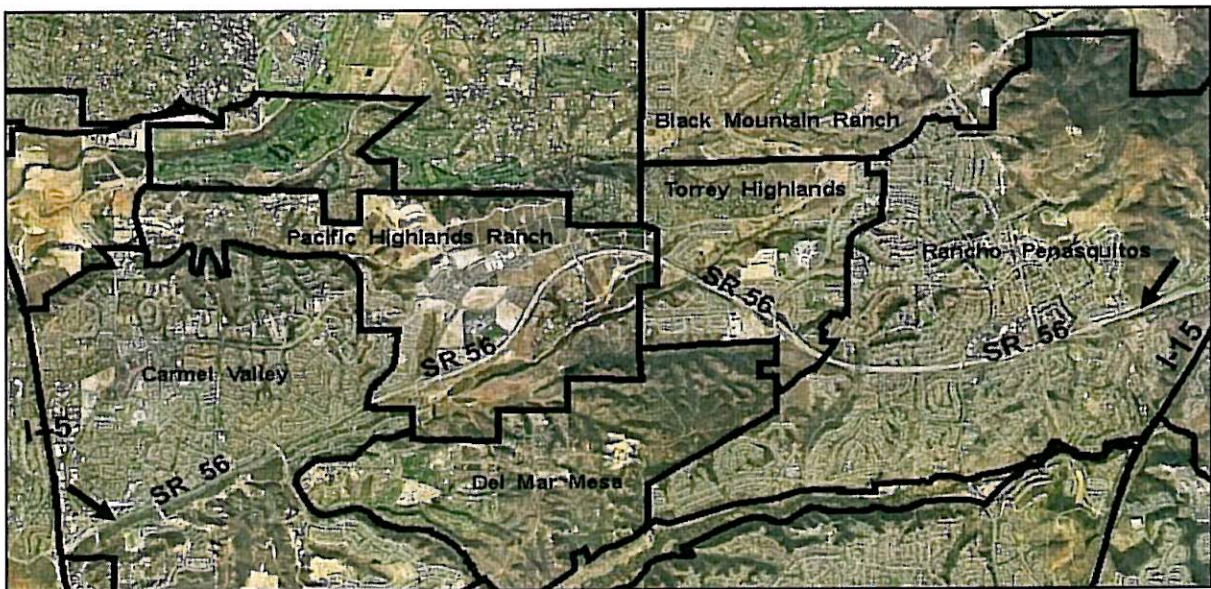
TITLE: STATE ROUTE 56 - EXPANSION TO 6 LANES

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: T-1.2B
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
FBA-PHR	\$17,476,000							
FBA-BMR	\$18,148,000				\$6,091,000	\$6,000,000	\$6,057,000	
FBA-TH	\$8,580,000							\$8,580,000
FBA-DMM	\$918,000				\$918,000			
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER	\$101,795,000							
UNIDEN								
TOTAL	\$146,917,000	\$0	\$0	\$0	\$7,009,000	\$6,000,000	\$6,057,000	\$8,580,000

SOURCE	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035
FBA-PHR						\$17,476,000		
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$17,476,000	\$0	\$0



CONTACT: BRAD JOHNSON

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: STATE ROUTE 56 - EXPANSION TO 6 LANES

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: T-1.2B
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

CONVERSION OF THE FOUR LANE FREEWAY INTO A SIX LANE FACILITY. HIGH OCCUPANCY VEHICLE LANES CAN BE ACCOMODATED WITHIN THE CENTER MEDIAN IN THE FUTURE ONCE REGIONAL FUNDING IS IDENTIFIED.

REFERENCE:

BLACK MOUNTAIN RANCH PUBLIC FACILITIES FINANCING PLAN PROJECT T-54.2
TORREY HIGHLANDS PUBLIC FACILITIES FINANCING PLAN PROJECT T-1.2B
DEL MAR MESA PUBLIC FACILITIES FINANCING PLAN PROJECT 43-5C.

JUSTIFICATION:

DUE TO THE REGIONAL SERVING NATURE OF THIS FREEWAY, IT IS ANTICIPATED THAT FEDERAL, STATE, OR OTHER OUTSIDE FUNDING FOR THIS SEGMENT OF SR-56 WILL BE OBTAINED. IN THE ABSENCE OF THESE OTHER FUNDING SOURCES, DEVELOPMENT WITHIN THE INDIVIDUAL SUBAREAS OF THE NORTH CITY AREA MAY BE REQUIRED TO FUND, OR AT LEAST ADVANCE PARTIAL FUNDING OF THIS PROJECT.

FUNDING ISSUES:

THE ABOVE ALLOCATION OF COST REPRESENTS EACH SUBAREA'S FAIR SHARE OF THE ORIGINAL SCOPE OF THE PROJECT. THESE ALLOCATIONS MAY BE REDUCED AS OTHER SOURCES ARE IDENTIFIED. IF OUTSIDE FUNDING IS OBTAINED, THEN BLACK MOUNTIAN RANCH AND PACIFIC HIGHLANDS RANCH WILL BE REIMBURSED ON A PRIORITY BASIS UNTIL ADVANCES ARE REDUCED TO A PROPORTIONATE SHARE AS CALCULATED BY A TRAFFIC LINK ANALYSIS. THE PROPORTIONATE SHARE FOR PACIFIC HIGHLANDS RANCH WOULD BE REDUCED FROM 37.7% TO 26.4%; BLACK MOUNTAIN RANCH FROM 39.3% TO 22.6%. THEREAFTER, ANY REIMBURSEMENTS WOULD BE DISTRIBUTED TO ALL SUBAREAS ON A PRORATA BASIS.

THE ACTUAL TIMING FOR COMMUNITY CONTRIBUTIONS MAY DIFFER AS PUBLIC FACILITY FINANCING PLANS ARE UPDATED SEPARATELY.

NOTES:

THE FAIR SHARE ALLOCATION IS BASED UPON EACH COMMUNITY'S PRO RATA SHARE OF DWELLING UNITS. FUNDING ALLOCATIONS ARE BASED UPON THE COMBINED TOTAL COST OF PROJECT T-1.2A AND COMPANION PROJECT T-1.2B.

SCHEDULE:

THIS PROJECT WILL BE CONSTRUCTED WHEN FUNDING IS AVAILABLE.

CONTACT: BRAD JOHNSON

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**CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM**

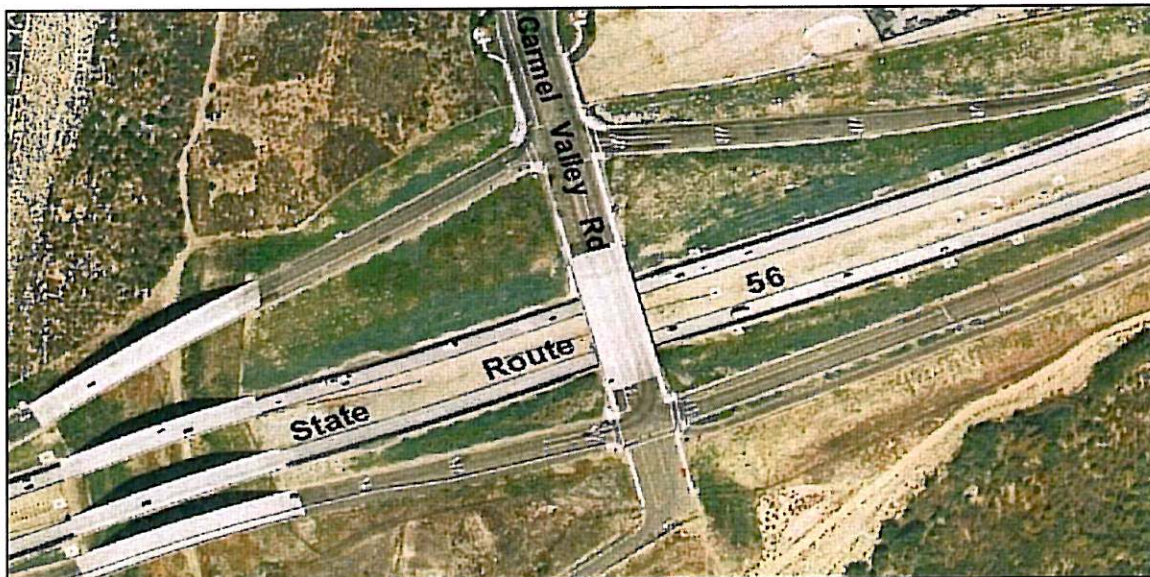
TITLE: SR-56/CARMEL VALLEY ROAD INTERCHANGE

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-463.9/S-00719

PROJECT: T-1.3
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$11,821,488	\$10,728,431		\$1,093,057				
FBA-BMR								
FBA-TH								
FBA-DMM	\$638,243	\$220,697			\$417,546			
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$12,459,731	\$10,949,128	\$0	\$1,093,057	\$417,546	\$0	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR								
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: SR-56/CARMEL VALLEY ROAD INTERCHANGE

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-463.9/S-00719

PROJECT: T-1.3
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

THIS PROJECT PROVIDES FOR LAND ACQUISITION, DESIGN, AND CONSTRUCTION OF A FULL SIX-LANE GRADE-SEPARATED FREEWAY INTERCHANGE, COMPLETE WITH BIKE LANES, AT THE INTERSECTION OF CARMEL VALLEY ROAD AND SR-56. THIS INTERCHANGE CONSISTS OF A 114 FOOT WIDE BRIDGE SPANNING THE SR-56 FREEWAY IMPROVEMENTS, RAMPS THAT PROVIDE ACCESS TO THE FREEWAY, SIGNALS, AND LANDSCAPING.

JUSTIFICATION:

DUE TO THE REGIONAL SERVING NATURE OF THIS INTERCHANGE, THE PROJECT WAS FUNDED AS PART OF THE FREEWAY IMPROVEMENTS.

FUNDING ISSUES:

THE RAMPS ARE FUNDED BY THE FACILITIES BENEFIT ASSESSMENTS OF PACIFIC HIGHLANDS RANCH (PHR) AND DEL MAR MESA (DMM). THE DEVELOPER (PARDEE) ADVANCED FUNDING FOR THIS PROJECT AND WILL BE REIMBURSED FROM THE PACIFIC HIGHLANDS RANCH AND DEL MAR MESA FACILITIES BENEFIT ASSESSMENTS UNDER THE TERMS OF A REIMBURSEMENT AGREEMENT.

THE ACTUAL TIMING FOR COMMUNITY CONTRIBUTIONS MAY DIFFER AS PUBLIC FACILITY FINANCING PLANS ARE UPDATED SEPARATELY.

NOTES:

REFERENCE:
DEL MAR MESA PUBLIC FACILITIES FINANCING PLAN PROJECT 43-6.

SCHEDULE:

REIMBURSEMENT FOR CONSTRUCTION AND DESIGN OCCURRED IN FY 2005 AND 2006;
REIMBURSEMENT FOR LAND IN FY 2013.

CONTACT: BRAD JOHNSON

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

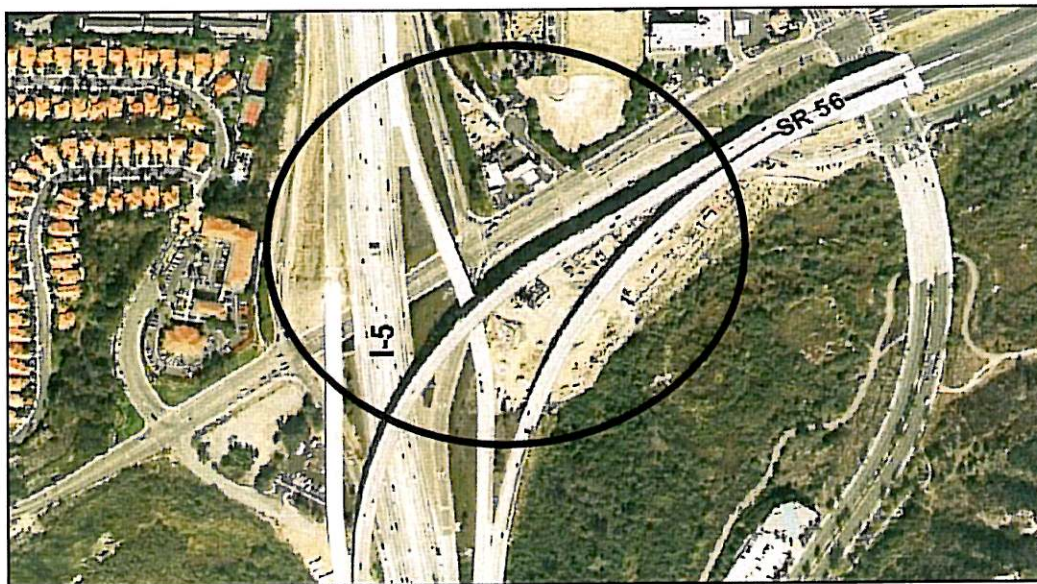
TITLE: I-5/SR-56 FREEWAY CONNECTORS

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-311.0/S-00707/S-00708/52-311.2

PROJECT: T-1.5
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$7,000,000	\$711,027	\$168,297	\$100,000				
FBA-BMR	\$580,000						\$580,000	
FBA-TH								
FBA-DMM								
DEV. ADV							\$6,020,676	
FD GRANT	\$1,942,000	\$1,107,188	\$834,812					
FD GRANT	\$375,298	\$349,367	\$25,931					
LTF	\$40,000	\$40,000						
STP								
OTHER								
UNIDEN								
TOTAL	\$9,937,298	\$2,207,582	\$1,029,040	\$100,000	\$0	\$0	\$6,600,676	\$0

SOURCE	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035
FBA-PHR		\$6,020,676						
FBA-BMR								
FBA-TH								
FBA-DMM								
DEV. ADV		-\$6,020,676						
FD GRANT								
FD GRANT								
LTF								
STP								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: I-5/SR-56 FREEWAY CONNECTORS

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-311.0/S-00707/S-00708/52-311.2

PROJECT: T-1.5
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

THIS PROJECT PROVIDES FOR THE PREPARATION OF A PROJECT REPORT AND ENVIRONMENTAL DOCUMENT (PR/ED) FOR THE NORTHERLY CONNECTORS OF THE INTERSTATE 5 AND STATE ROUTE 56 FREEWAYS. ALTERNATIVES UNDER CONSIDERATION INCLUDE DIRECT FREEWAY TO FREEWAY CONNECTORS FROM WEST BOUND SR-56 TO NORTHBOUND I-5 AND SOUTHBOUND I-5 TO EAST BOUND SR-56; AN AUXILIARY LANE ALTERNATIVE WHICH PROPOSES PROVIDING OPERATIONAL IMPROVEMENTS ON I-5 BETWEEN DEL MAR HEIGHTS ROAD AND CARMEL VALLEY ROAD, ON CARMEL VALLEY ROAD BETWEEN I-5 AND SR-56, AND ON SR-56 WEST OF CARMEL COUNTRY ROAD; OR DIRECT FREEWAY CONNECTORS FROM WESTBOUND SR-56 TO NORTHBOUND I-5 AND THE AUXILIARY LANE IMPROVEMENTS ON SOUTHBOUND I-5, EASTBOUND ON CARMEL VALLEY ROAD, AND EASTBOUND SR-56.

JUSTIFICATION:

STATE ROUTE 56 OPENED TO TRAFFIC IN JULY 2004 AND PROVIDES AN EAST/WEST CONNECTION BETWEEN INTERSTATES 5 AND 15. THIS INTRODUCES A SIGNIFICANT VOLUME OF TRAFFIC TO THE INTERSTATE 5 CORRIDOR IN CARMEL VALLEY, SOME OF WHICH WILL NEED TO GO TO OR FROM THE NORTH. THIS PROJECT WILL PROVIDE THE IMPROVEMENTS NECESSARY TO MAKE THESE MOVES MOST EFFICIENTLY AND AVOID THE HEAVY USE OF LOCAL STREETS.

FUNDING ISSUES:

DUE TO THE REGIONAL SERVING NATURE OF THIS PROJECT, FUNDING FOR THIS PROJECT HAS COME FROM FEDERAL FUNDS APPROVED BY CONGRESS. IT IS ANTICIPATED THAT ADDITIONAL FEDERAL, STATE, OR OTHER OUTSIDE FUNDING WILL ALSO BE USED FOR THIS PROJECT. DEVELOPER (PARDEE) WILL ADVANCE OR OTHERWISE ASSURE THIS COMMUNITY'S SHARE OF FUNDING FOR THIS PROJECT AND BE REIMBURSED FROM THE PACIFIC HIGHLANDS RANCH FACILITIES BENEFIT ASSESSMENT UNDER THE TERMS OF A REIMBURSEMENT AGREEMENT.

THE ACTUAL TIMING FOR COMMUNITY CONTRIBUTIONS MAY DIFFER AS PUBLIC FACILITY FINANCING PLANS ARE UPDATED SEPARATELY.

NOTES:

SOME FUNDING FROM PACIFIC HIGHLANDS RANCH AS WELL AS OTHERS MAY BE PROVIDED AS A "LOCAL MATCH" AS AN INDUCEMENT TO OBTAIN THESE OUTSIDE FUNDS. THESE FUNDS MAY PERMIT PORTIONS OF PHASE II TO BE CONSTRUCTED IN ADVANCE OF RECEIPT OF FUNDS FROM OTHER SOURCES.

REFERENCE: BLACK MOUNTAIN RANCH PFFP PROJECT T-58.

SCHEDULE:

PREPARATION OF THE PROJECT REPORT AND ENVIRONMENTAL DOCUMENT (PR/ED) BEGAN IN FY 2004 AND IS SCHEDULED TO BE COMPLETED IN FY 2012.

CONTACT: BRAD JOHNSON

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

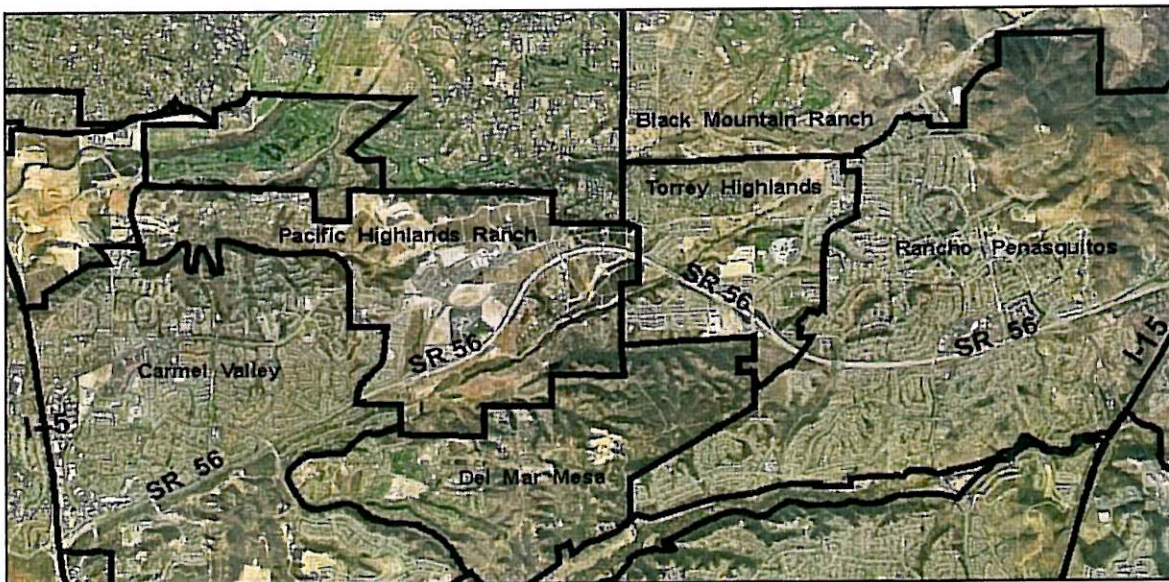
TITLE: SR-56 BIKE INTERCHANGES

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 58-171.0

PROJECT: T-1.7
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$530,400							
FBA-BMR	\$605,168				\$335,168	\$270,000		
FBA-TH	\$295,000				\$295,000			
FBA-DMM	\$72,592				\$72,592			
FBA-RP	\$1,750,000							
DEV. ADV			\$605,168		-\$335,168	-\$270,000		
DEV/SUBD								
COUNTY								
STATE								
SANDAG	\$1,200,000	\$1,200,000						
UNIDEN	\$7,869,940							
TOTAL	\$12,323,100	\$1,200,000	\$605,168	\$0	\$367,592	\$0	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR							\$530,400	
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP							\$1,750,000	
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
SANDAG								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$2,280,400	\$0



CONTACT: LINDA MARABIAN

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EMAIL: lmrabian@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: SR-56 BIKE INTERCHANGES

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 58-171.0

PROJECT: T-1.7
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

THIS PROJECT WILL PROVIDE GRADE-SEPARATED BICYCLE PATH INTERCHANGE FACILITIES ALONG STATE ROUTE 56 AT CAMINO DEL SUR AND BLACK MOUNTAIN ROAD.

JUSTIFICATION:

BICYCLISTS AND PEDESTRIANS TRAVELING THE SR-56 BICYCLE PATH AND NEEDING TO CROSS THROUGH THE INTERCHANGE AREAS WOULD HAVE TO CONTEND WITH HIGH VOLUMES OF CONFLICTING VEHICULAR TRAFFIC. THESE BICYCLE PATH FACILITIES WILL EXPEDITE THE MOVEMENT ALONG THE BICYCLE PATH THROUGH AND CONNECTING TO THE INTERCHANGE AREAS.

FUNDING ISSUES:

THE ACTUAL TIMING FOR COMMUNITY CONTRIBUTIONS MAY DIFFER AS PUBLIC FACILITY FINANCING PLANS ARE UPDATED SEPARATELY.

NOTES:

REFERENCE: DEL MAR MESA PFFP PROJECT 43-26
BLACK MOUNTAIN RANCH PFFP PROJECT T-15.2
TORREY HIGHLANDS PFFP PROJECT T-11
RANCHO PENASQUITOS PFFP PROJECT 41

SCHEDULE:

ENVIRONMENTAL, DESIGN AND CONSTRUCTION TO BE COMPLETED AS FUNDS BECOME AVAILABLE.

CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

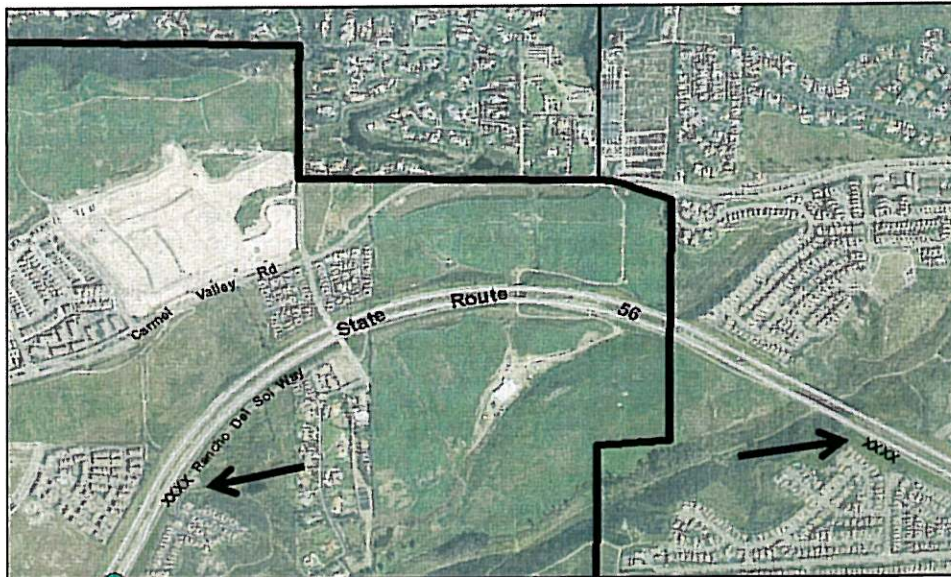
TITLE: SR-56 COMMUNITY BICYCLE CONNECTORS

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: T-1.8
COUNCIL DISTRICT: I
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$120,000							
FBA-BMR								
FBA-TH	\$220,000							
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
SANDAG								
UNIDEN								
TOTAL	\$340,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR							\$120,000	
FBA-BMR								
FBA-TH			\$220,000					
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
SANDAG								
UNIDEN								
TOTAL	\$0	\$0	\$220,000	\$0	\$0	\$0	\$120,000	\$0



CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: SR-56 COMMUNITY BICYCLE CONNECTORS

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: T-1.8
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

THIS PROJECT WILL PROVIDE FOR THE CONSTRUCTION OF CLASS I BICYCLE PATHS TO THE SR-56 BICYCLE PATH FROM RANCHO DEL SOL WAY IN PACIFIC HIGHLANDS RANCH AND FROM TORREY MEADOWS DRIVE IN TORREY HIGHLANDS.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE COMMUNITY PLANS, GENERAL PLAN GUIDELINES, AND THE CITY'S BICYCLE MASTER PLAN.

FUNDING ISSUES:

THIS PROJECT IS TO BE FUNDED BY THE FBA IF GRANT FUNDING IS NOT AVAILABLE. PACIFIC HIGHLANDS RANCH WILL FUND THE RAMP AT RANCHO DEL SOL WAY. TORREY HIGHLANDS WILL FUND THE PROJECT AT TORREY MEADOWS DRIVE.

NOTES:

SCHEDULE:

ENVIRONMENTAL, DESIGN AND CONSTRUCTION WILL BE SCHEDULED AS FUNDING BECOMES AVAILABLE.

CONTACT: LINDA MARABIAN

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EMAIL: lm Arabian@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

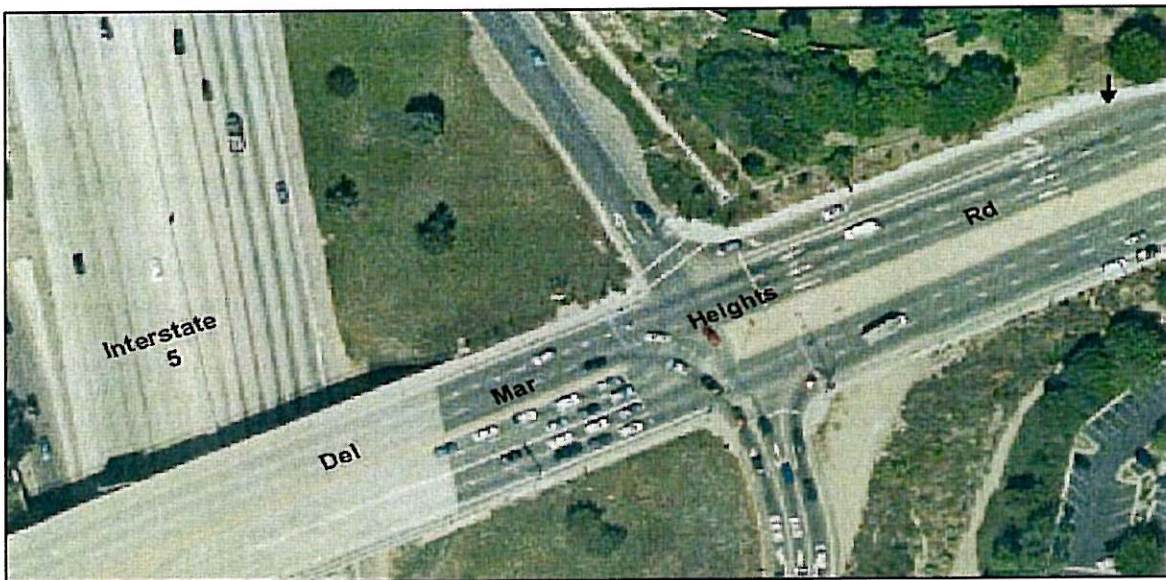
TITLE: DEL MAR HEIGHTS ROAD (Right Turn Lane to I-5)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-730.0

PROJECT: T-2
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$160,000							\$160,000
FBA-BMR								
FBA-TH	\$160,000		\$160,000					
FBA-DMM								
FBA-RP								
DEV. ADV			\$160,000					
DEV/SUBD	\$160,000		\$160,000					
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$480,000	\$0	\$480,000	\$0	\$0	\$0	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR								
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: DEL MAR HEIGHTS ROAD (Right Turn Lane to I-5)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-730.0

PROJECT: T-2
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

CONSTRUCTION OF A DEDICATED RIGHT TURN LANE FOR THE TRAFFIC PROCEEDING WESTBOUND ON DEL MAR HEIGHTS ROAD AND TURNING NORTH ONTO INTERSTATE 5 IN CARMEL VALLEY.

JUSTIFICATION:

THIS IMPROVEMENT IMPROVES THE CAPACITY OF THE ROADWAY NETWORK THAT SERVES THE DEVELOPMENT IN PACIFIC HIGHLANDS RANCH AND TORREY HIGHLANDS.

FUNDING ISSUES:

THE DEVELOPER (KILROY) ADVANCED THE FUNDING FOR THIS PROJECT AND WILL BE REIMBURSED FROM THE PACIFIC HIGHLANDS RANCH AND TORREY HIGHLANDS FACILITIES BENEFIT ASSESSMENTS UNDER THE TERMS OF A REIMBURSEMENT AGREEMENT.

NOTES:

REFERENCE: TORREY HIGHLANDS PFFP PROJECT T-6.

SCHEDULE:

PROJECT IS COMPLETED; REIMBURSEMENT IS PROGRAMMED IN FY 2017.

CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

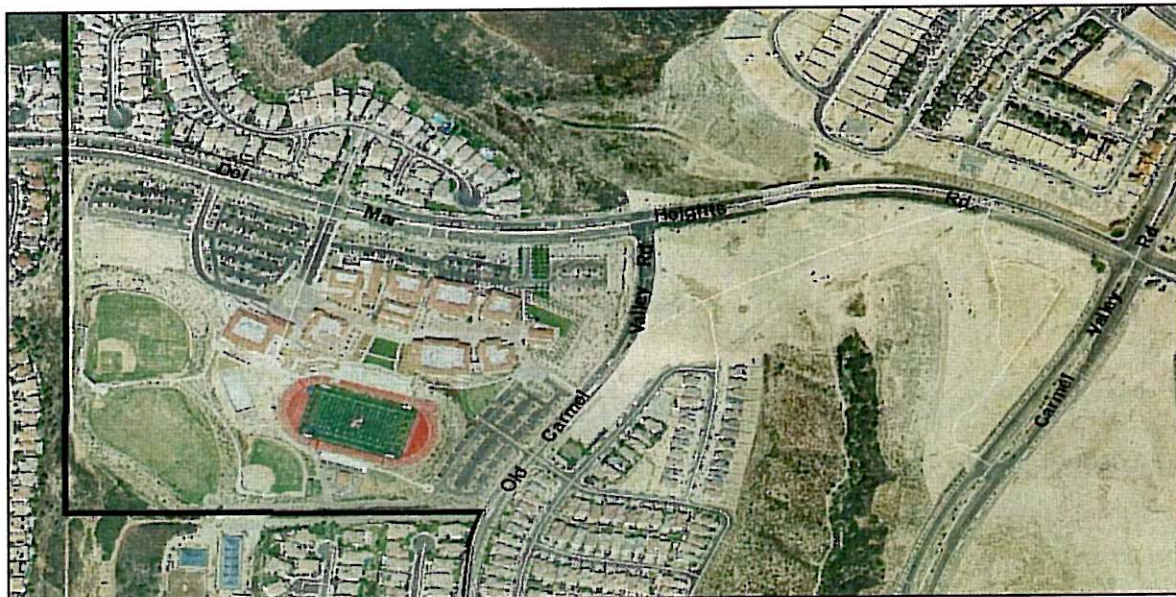
TITLE: DEL MAR HEIGHTS ROAD (4 TO 6 LANES)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-739.0/S-00903

PROJECT: T-3
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$9,842,000	\$8,221,545	\$374	\$1,620,081				
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV		\$1,738,081	-\$118,000	-\$1,620,081				
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$9,842,000	\$9,959,626	-\$117,626	\$0	\$0	\$0	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR								
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: DEL MAR HEIGHTS ROAD (4 TO 6 LANES)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-739.0/S-00903

PROJECT: T-3
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

CONSTRUCTION OF DEL MAR HEIGHTS ROAD (4 TO 6 LANES) FROM THE WESTERLY LIMITS OF THE COMMUNITY BOUNDARY TO CARMEL VALLEY ROAD WITHIN A 122 FOOT RIGHT-OF-WAY. INCLUDED RELOCATION OF EXISTING CABLE TV AND COMMUNICATIONS FACILITIES; THE BRIDGE CROSSING OVER THE OPEN SPACE CORRIDOR; AN EASTBOUND THIRD LANE AS THE ROADWAY APPROACHES CARMEL VALLEY ROAD; AND TEMPORARY DETOURS DURING CONSTRUCTION.

JUSTIFICATION:

THIS FACILITY IS REQUIRED TO ACCOMMODATE TRAFFIC BEING GENERATED BY NEW DEVELOPMENT IN PACIFIC HIGHLANDS RANCH AS WELL AS BY EXISTING SUB-REGIONAL TRAFFIC NEEDS.

FUNDING ISSUES:

THE DEVELOPER (PARDEE) ADVANCED THE FUNDING FOR THIS PROJECT AND WILL BE REIMBURSED FROM THE PACIFIC HIGHLANDS RANCH FACILITIES BENEFIT ASSESSMENT UNDER THE TERMS OF A REIMBURSEMENT AGREEMENT.

NOTES:

IN PREVIOUS FINANCING PLANS THIS PROJECT WAS SEPARATED INTO THREE PROJECTS OR PHASES (T-3.1, T-3.2, AND T-3.3).

SCHEDULE:

PROJECT IS COMPLETED; REIMBURSEMENT IS PROGRAMMED IN FY 2007-13.

CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: CARMEL VALLEY ROAD (4/6 lanes south of Del Mar Heights Road)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-733.0/S-00900

PROJECT: T-4.2
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$7,085,000	\$3,410,239	\$1	\$741,949		\$2,932,812		
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV		\$3,692,812	-\$18,051	-\$741,949		-\$2,932,812		
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$7,085,000	\$7,103,051	-\$18,051	\$0	\$0	\$0	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR								
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: CARMEL VALLEY ROAD (4/6 lanes south of Del Mar Heights Road)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-733.0/S-00900

PROJECT: T-4.2
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

DESIGN AND CONSTRUCT CARMEL VALLEY ROAD FROM THE CAMINO SANTA FE INTERCHANGE TO DEL MAR HEIGHTS ROAD AS A SIX-LANE FACILITY WITHIN A 146 FOOT RIGHT-OF-WAY TRANSITIONING TO A FOUR LANE FACILITY WITHIN A 122 FOOT RIGHT-OF-WAY (4,000 LF). THE EXPANDED RIGHT-OF-WAY WILL PERMIT WIDENING OF UP TO 24 ADDITIONAL FEET FOR A FUTURE TRANSIT ORIENTED FACILITY. IN THE INTERIM, THESE TWO LANES ARE LANDSCAPED AND INCORPORATED INTO THE CENTER MEDIAN IMPROVEMENTS.

REFERENCE:

TORREY HIGHLANDS PUBLIC FACILITIES FINANCING PLAN PROJECT T-4.5

JUSTIFICATION:

DUE TO ANTICIPATED TRAFFIC VOLUMES ON CARMEL VALLEY ROAD, THE REACH BETWEEN SR-56 AND DEL MAR HEIGHTS ROAD WILL BE CONSTRUCTED AS A SIX LANE FACILITY, IN TWO PHASES, AS REQUIRED BY THE TRANSPORTATION PHASING PLAN.

FUNDING ISSUES:

DEVELOPER (PARDEE) ADVANCED FUNDING FOR THIS PROJECT AND WILL BE REIMBURSED FROM THE PACIFIC HIGHLANDS RANCH FACILITIES BENEFIT ASSESSMENT UNDER THE TERMS OF A REIMBURSEMENT AGREEMENT.

NOTES:

THIS PROJECT WILL BE CONSTRUCTED IN TWO PHASES. THE FIRST PHASE BUILT 4 LANES WITHIN A GRADED RIGHT OF WAY FOR 6 LANES. THE SECOND PHASE WILL CONSTRUCT 2 LANES WITHIN THE MEDIAN TO EXPAND FROM 4 LANES TO 6 LANES IN ACCORDANCE WITH THE TRANSPORTAION PHASING PLAN. THIS PROJECT IS A PORTION OF THE TOTAL IMPROVEMENTS FOR CARMEL VALLEY ROAD WITHIN PACIFIC HIGHLANDS RANCH. SEE COMPANION PROJECTS T-4.3 AND T-4.4 FOR THE OTHER PORTIONS OF THIS PROJECT.

SCHEDULE:

PHASE I IS COMPLETED. PHASE II WILL OCCUR AS REQUIRED BY THE TRASPORTATION AND FACILITIES PHASING PLAN.

CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: CARMEL VALLEY RD (Del Mar Heights Road to Lopelia Meadows Place)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-747.0/S-00906

PROJECT: T-4.3
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$7,205,000	\$6,036,347	\$664	\$1,167,989				
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV		\$1,170,989	-\$3,000	-\$1,167,989				
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$7,205,000	\$7,207,336	-\$2,336	\$0	\$0	\$0	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR								
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: CARMEL VALLEY RD (Del Mar Heights Road to Lopelia Meadows Place)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-747.0/S-00906

PROJECT: T-4.3
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

DESIGN AND CONSTRUCT CARMEL VALLEY ROAD FROM DEL MAR HEIGHTS ROAD TO LOPELIA MEADOWS PLACE. THE PROJECT IS CONSTRUCTED AS A FOUR-LANE FACILITY BEGINNING AT PACIFIC HIGHLANDS RANCH PARKWAY WITHIN A 122 FOOT RIGHT-OF-WAY THAT CAN ACCOMODATE SIX-LANES IN THE FUTURE (APPROX. 2,800 LF). THE TWO INTERNAL LANES ARE LEFT UNIMPROVED FOR FUTURE EXPANSION TO ACCOMODATE A TRANSIT ORIENTED FACILITY. IN THE INTERIM, THESE TWO LANES SHALL BE LANDSCAPED AND INCORPORATED INTO THE CENTER MEDIAN IMPROVEMENTS.

THIS SECTION OF CARMEL VALLEY ROAD INCLUDES THE PEDESTRIAN UNDERCROSSING AT LOPELIA MEADOWS PLACE, THE RELOCATION OF EXISTING CATV AND COMMUNICATION FACILITIES, AND THE INTERIM DETOUR ROAD DURING CONSTRUCTION.

JUSTIFICATION:

DUE TO ANTICIPATED TRAFFIC VOLUMES ON CARMEL VALLEY ROAD, THE REACH BETWEEN PACIFIC HIGHLANDS RANCH PARKWAY AND LOPELIA MEADOWS PLACE WAS CONSTRUCTED AS A FOUR-LANE FACILITY.

FUNDING ISSUES:

DEVELOPER (PARDEE) ADVANCED FUNDING FOR THIS PROJECT AND WILL BE REIMBURSED FROM THE PACIFIC HIGHLANDS RANCH FACILITIES BENEFIT ASSESSMENT UNDER THE TERMS OF A REIMBURSEMENT AGREEMENT.

NOTES:

THIS IS THE SECOND PORTION OF THE IMPROVEMENTS FOR CARMEL VALLEY ROAD WITHIN PACIFIC HIGHLANDS RANCH. SEE COMPANION PROJECTS T-4.2 AND T-4.4 FOR THE OTHER PORTIONS OF THIS PROJECT.

SCHEDULE:

PROJECT IS COMPLETED; REIMBURSEMENT IS PROGRAMMED IN FY 2010-2013.

CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

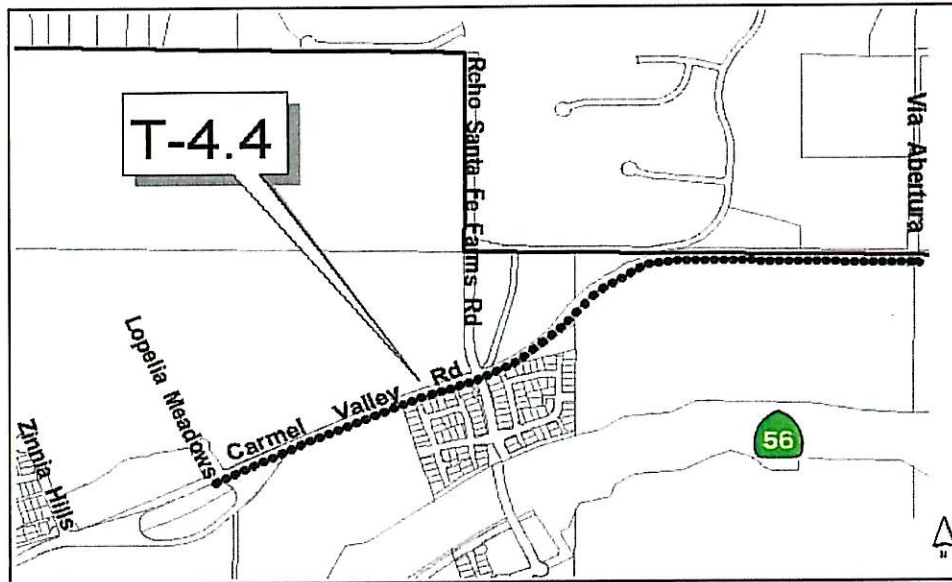
TITLE: CARMEL VALLEY RD (Lopelia Meadows Place to Via Abertura)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-809.0/S-00934

PROJECT: T-4.4
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$12,700,000	\$282,851	\$567,149		\$2,000,000		\$600,000	\$8,850,000
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV				\$6,700,000	-\$2,000,000	\$5,150,000	-\$600,000	-\$8,850,000
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$12,700,000	\$282,851	\$567,149	\$6,700,000	\$0	\$5,150,000	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR	\$400,000							
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV	-\$400,000							
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



CONTACT: LINDA MARABIAN

TELEPHONE: (619) 533-3082

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: CARMEL VALLEY RD (Lopelia Meadows Place to Via Abertura)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-809.0/S-00934

PROJECT: T-4.4
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

DESIGN AND CONSTRUCT CARMEL VALLEY ROAD FROM LOPELIA MEADOWS PLACE TO VIA ABERTURA AS A FOUR-LANE MAJOR ROAD FACILITY WITHIN A 122 FOOT RIGHT-OF-WAY THAT COULD ACCOMODATE SIX LANES IN THE FUTURE (APPROX. 4,600 LF). THE TWO INTERNAL MEDIAN LANES WILL BE LEFT FOR FUTURE EXPANSION TO ACCOMODATE A POTENTIAL TRANSIT ORIENTED FACILITY. IN THE INTERIM, THESE TWO LANES SHALL BE LANDSCAPED AND INCORPORATED INTO THE CENTER MEDIAN IMPROVEMENTS.

PHASE I: CONSTRUCTION OF 4 TRAFFIC LANES FROM LOPELIA MEADOWS PLACE TO RANCHO SANTA FE FARMS ROAD (RSFR) WITH A TEMPORARY TRANSITION TO THE EXISTING 2-LANE CONDITION EAST OF RSFR. THE PHASE I INCLUDES FULL PARKWAY AND MEDIAN LANDSCAPING, PUBLIC UTILITIES, RELOCATION OF EXISTING FRANCHISE SERVICES, AND FRONTING IMPROVEMENTS.

PHASE II: EXTEND THE SAME CONFIGURATION OF A 4-LANE MAJOR ROADWAY WITH THE POTENTIAL FOR WIDENING TO 6 LANES WITHIN THE MEDIAN FROM RSFR TO THE EASTERN COMMUNITY PLAN BOUNDARY AT VIA ABERTURA.

JUSTIFICATION:

DUE TO ANTICIPATED TRAFFIC VOLUMES ON CARMEL VALLEY ROAD, THE REACH BETWEEN LOPELIA MEADOWS PARKWAY AND VIA ABURTURA WILL BE REALIGNED AND WIDENED TO A FOUR-LANE MAJOR ROAD FACILITY THAT COULD BE EXPANDED TO 6 LANES TO ACCOMMODATE A POTENTIAL TRANSIT FACILITY IN THE FUTURE.

FUNDING ISSUES:

DEVELOPER (PARDEE) MAY ADVANCE FUNDING FOR THIS PROJECT AND BE REIMBURSED FROM THE PACIFIC HIGHLANDS RANCH FACILITIES BENEFIT ASSESSMENT UNDER THE TERMS OF A REIMBURSEMENT AGREEMENT.

NOTES:

THIS IS THE THIRD PORTION OF IMPROVEMENTS FOR CARMEL VALLEY ROAD WITHIN PACIFIC HIGHLANDS RANCH. SEE COMPANION PROJECTS T-4.2 AND T-4.3 FOR THE OTHER SEGMENTS OF THIS PROJECT.

SCHEDULE:

PHASE I COMPLETION IS SCHEDULED FOR FY 2013. PHASE II IS ANTICIPATED TO BE CONSTRUCTED WITH ADJACENT SUBDIVISION DEVELOPMENT ESTIMATED TO OCCUR IN FY 2015.

CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

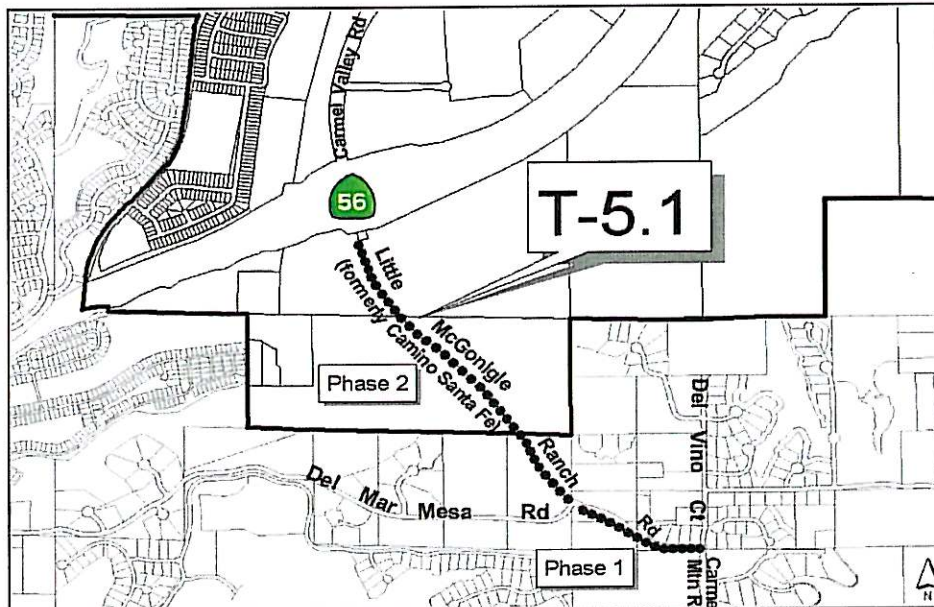
TITLE: LITTLE MCGONIGLE RANCH ROAD - DEL MAR MESA ROAD TO SR-56

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-723.0

PROJECT: T-5.1
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR								
FBA-BMR								
FBA-TH								
FBA-DMM	\$10,860,412	\$860,411						
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$10,860,412	\$860,411	\$0	\$0	\$0	\$0	\$0	\$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-PHR								
FBA-BMR								
FBA-TH								
FBA-DMM							\$10,000,001	
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000,001	\$0



CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: LITTLE MCGONIGLE RANCH ROAD - DEL MAR MESA ROAD TO SR-56

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-723.0

PROJECT: T-5.1
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

THIS PROJECT WILL BE COMPLETED IN TWO PHASES.

PHASE I: CONSTRUCTION OF LITTLE MCGONIGLE RANCH ROAD (FORMERLY CAMINO SANTA FE) (44'/65') FROM THE NORTHERLY TERMINUS OF CARMEL MOUNTAIN ROAD AT DEL VINO COURT, NORTHWESTERLY TO THE EASTERLY TERMINUS OF DEL MAR MESA ROAD. THE PROJECT INCLUDES A MULTI-USE TRAIL ADJACENT TO THE ROADWAY.

PHASE II: CONSTRUCTION OF LITTLE MCGONIGLE RANCH ROAD (40'/62') FROM DEL MAR MESA ROAD TO SR-56. THE PROJECT WILL INCLUDE A 100' BRIDGE STRUCTURE. A MULTI-USE TRAIL WILL ALSO BE CONSTRUCTED ADJACENT TO THE ROADWAY.

JUSTIFICATION:

THIS PROJECT IS REQUIRED TO ACCOMMODATE THE ADDITIONAL TRAFFIC GENERATED BY DEL MAR MESA AND WILL PROVIDE ACCESS FROM DEL MAR MESA TO THE ADJOINING COMMUNITIES. CONSTRUCTION IS REQUIRED IN ACCORDANCE WITH THE DEL MAR MESA TRANSPORTATION PHASING PLAN.

FUNDING ISSUES:

NOTES:

REFERENCE:
DEL MAR MESA PUBLIC FACILITIES FINANCING PLAN PROJECT 43-4.

SCHEDULE:

PHASE I IS COMPLETED. FBA REIMBURSEMENT WILL BE MADE AS FUNDS BECOME AVAILABLE UNDER THE TERMS OF A REIMBURSEMENT AGREEMENT.

CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: VILLAGE CENTER LOOP ROAD (Carmel Valley Road east to Lin Property Line)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-770.0/S-00919

PROJECT: T-6.1
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$2,627,000	\$2,531,458	\$60	\$95,482				
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV		\$95,542	-\$60	-\$95,482				
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$2,627,000	\$2,627,000	\$0	\$0	\$0	\$0	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR								
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



CONTACT: LINDA MARABIAN

TELEPHONE: (619) 533-3082

EMAIL: LMarablan@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: VILLAGE CENTER LOOP ROAD (Carmel Valley Road east to Lin Property Line)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-770.0/S-00919

PROJECT: T-6.1
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

CONSTRUCT THE VILLAGE LOOP DRIVE FROM THE INTERSECTION OF DEL MAR HEIGHTS ROAD AND CARMEL VALLEY ROAD EASTERLY TO THE LIN PROPERTY LINE (APPROXIMATELY 2,000 LINEAR FEET) AS A FOUR-LANE COLLECTOR ROADWAY WITHIN A 108 FOOT RIGHT-OF-WAY TO PROVIDE ACCESS TO THE HIGH SCHOOL SITE AND THE CORE RESIDENTIAL AREAS.

JUSTIFICATION:

THIS PROJECT IS DEPENDENT UPON THE DEVELOPMENT OF THE HIGH SCHOOL, COMMUNITY PARK, AND CORE RESIDENTIAL AREA AS WELL AS THE VILLAGE AREA OF THE COMMUNITY.

FUNDING ISSUES:

DEVELOPER (PARDEE) ADVANCED FUNDING FOR THIS PROJECT AND WILL BE REIMBURSED FROM THE PACIFIC HIGHLANDS RANCH FACILITIES BENEFIT ASSESSMENT UNDER THE TERMS OF A REIMBURSEMENT AGREEMENT.

NOTES:

THE SECOND PHASE, APPROXIMATELY 800 LINEAR FEET, WILL COMPLETE THE LOOP AND WILL BE BUILT DEPENDENT UPON THE DEVELOPMENT OF THE ADJACENT VILLAGE AND THE REMAINDER OF THE CORE RESIDENTIAL AREAS.
SEE COMPANION PROJECT T-6.2.

SCHEDULE:

PHASE I IS COMPLETED; REIMBURSEMENT IS PROGRAMMED IN FY 2007-2013. ✓

CONTACT: LINDA MARABIAN

TELEPHONE: (619) 533-3082

EMAIL: L.Marabian@sanidiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

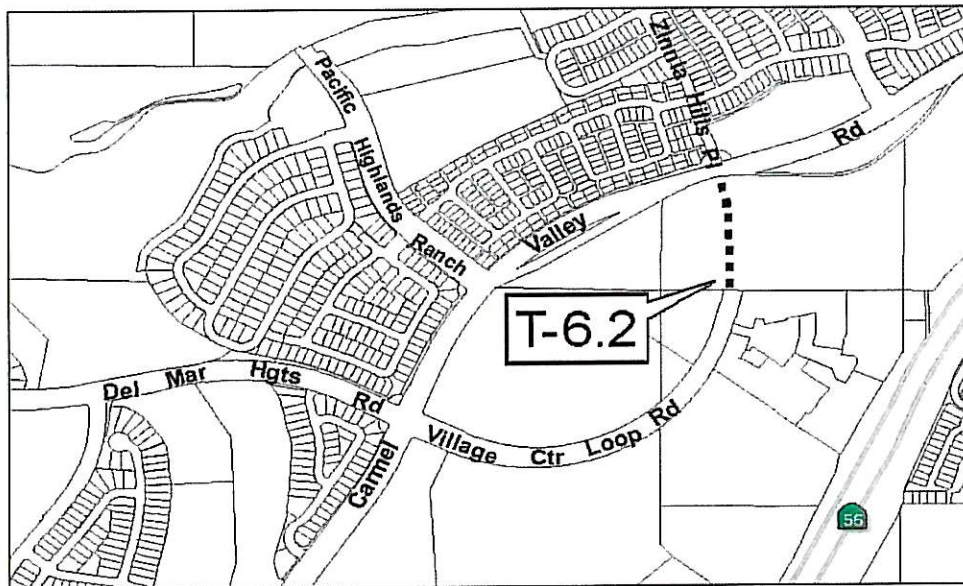
TITLE: VILLAGE CENTER LOOP ROAD (Lin Property Line east to Carmel Valley Road)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: T-6.2
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$3,700,000							
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$3,700,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR			\$3,700,000					
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$3,700,000	\$0	\$0	\$0	\$0	\$0



CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: VILLAGE CENTER LOOP ROAD (Lin Property Line east to Carmel Valley Road)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: T-6.2
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

CONSTRUCT THE VILLAGE LOOP DRIVE FROM THE LIN PROPERTY LINE EASTERLY TO A SECOND INTERSECTION OF CARMEL VALLEY ROAD (APPROXIMATELY 800 LINEAR FEET) AS A FOUR-LANE COLLECTOR ROADWAY WITHIN A 108 FOOT RIGHT-OF-WAY.

JUSTIFICATION:

THIS PROJECT IS DEPENDENT UPON THE DEVELOPMENT OF THE HIGH SCHOOL, COMMUNITY PARK, AND CORE RESIDENTIAL AREA AS WELL AS THE VILLAGE AREA OF THE COMMUNITY.

FUNDING ISSUES:

NOTES:

THIS SECOND PHASE, APPROXIMATELY 800 LINEAR FEET, WILL COMPLETE THE LOOP AND WILL BE BUILT DEPENDENT UPON THE DEVELOPMENT OF THE ADJACENT VILLAGE AND THE REMAINDER OF THE CORE RESIDENTIAL AREAS.
SEE COMPANION PROJECT T-6.1.

SCHEDULE:

PHASE II WILL BE COMPLETED WITH THE DEVELOPMENT OF THE ADJACENT PROPERTY AND IS ANTICIPATED TO OCCUR IN FY 2020.

CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

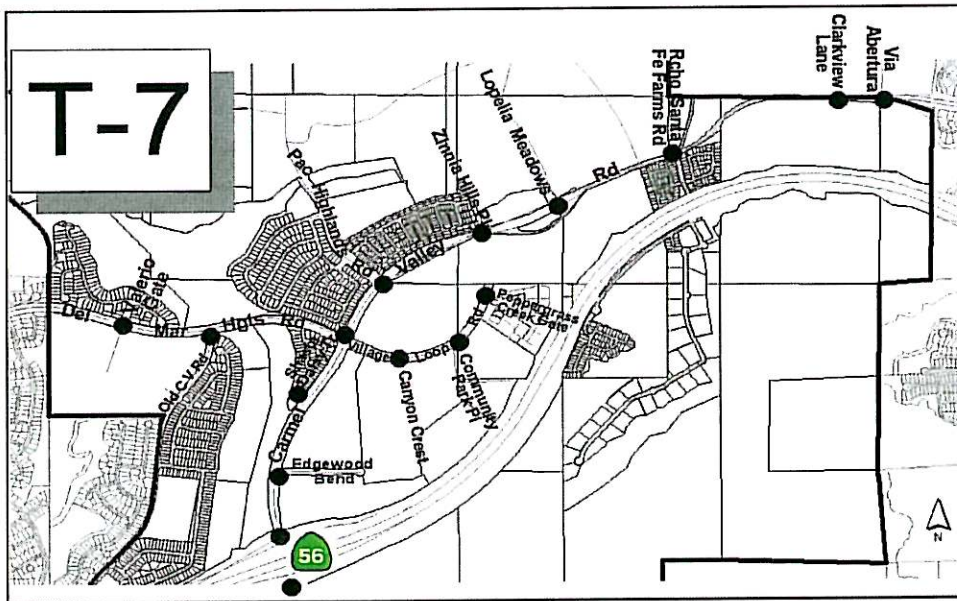
TITLE: TRAFFIC SIGNALS

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 68-020.0/S-01062

PROJECT: T-7
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$2,400,000	\$1,220,996	\$241	\$1,178,763				
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV		\$1,184,263	-\$5,500	-\$1,178,763				
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$2,400,000	\$2,405,259	-\$5,259	\$0	\$0	\$0	\$0	\$0

SOURCE	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
FBA-PHR								
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



CONTACT: DUNCAN HUGHES

TELEPHONE: (619) 533-3141

EMAIL: DHughes@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: TRAFFIC SIGNALS

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 68-020.0/S-01062

PROJECT: T-7
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

THIS PROJECT ADDRESSES THE TRAFFIC SIGNALS THAT WILL BE REQUIRED AT INTERSECTIONS OF ARTERIAL ROADWAYS WITHIN THE COMMUNITY.

POTENTIAL LOCATIONS:

- 1) CARMEL VALLEY ROAD @ SR 56 (EAST BOUND) - COMPLETED
- 2) CARMEL VALLEY ROAD @ SR 56 (WEST BOUND) - COMPLETED
- 3) VILLAGE LOOP DRIVE @ CANYON CREST PLACE - COMPLETED
- 4) VILLAGE LOOP DRIVE @ COMMUNITY PARK PLACE - COMPLETED
- 5) CARMEL VALLEY ROAD @ SHASTA DAISY TRAIL - COMPLETED
- 6) CARMEL VALLEY ROAD @ DEL MAR HEIGHTS ROAD - COMPLETED
- 7) CARMEL VALLEY ROAD @ ZINNIA HILLS PLACE - COMPLETED
- 8) CARMEL VALLEY ROAD @ LOPELIA MEADOWS PLACE - COMPLETED
- 9) CARMEL VALLEY ROAD @ PACIFIC HIGHLANDS RANCH PARKWAY - COMPLETED
- 10) DEL MAR HEIGHTS ROAD @ OLD CARMEL VALLEY ROAD - COMPLETED
- 11) DEL MAR HEIGHTS ROAD @ VALERIO GATE - COMPLETED
- 12) CARMEL VALLEY ROAD @ EDGEWOOD BEND COURT - COMPLETED
- 13) VILLAGE CENTER LOOP ROAD @ PEPPERGRASS CREEK GATE
- 14) CARMEL VALLEY ROAD @ RANCHO SANTA FE FARMS ROAD
- 15) CARMEL VALLEY ROAD @ CLARKVIEW LANE
- 16) CARMEL VALLEY ROAD @ VIA ALBERTURA - COMPLETED

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULED TO BE COMPLETED AS THE COMMUNITY DEVELOPS.

CONTACT: DUNCAN HUGHES

TELEPHONE: (619) 533-3141

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

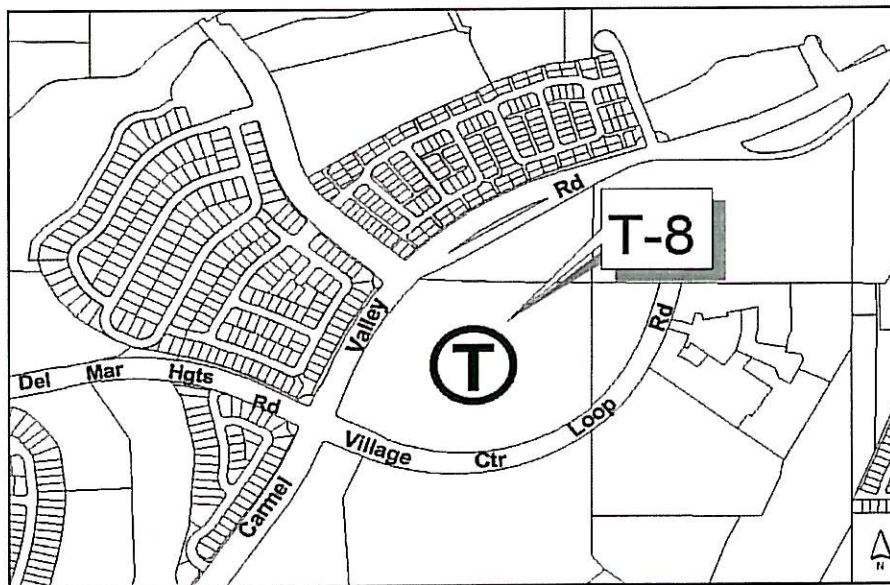
TITLE: TRANSIT CENTER

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: T-8
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	54,113,000							
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	54,113,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR						\$1,000,000	\$3,113,000	
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$1,000,000	\$3,113,000	\$0



CONTACT: LINDA MARABIAN

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**CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM**

TITLE: TRANSIT CENTER

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: T-8
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

LAND ACQUISITION, DESIGN, AND CONSTRUCTION OF AN OFF-STREET TRANSIT CENTER (+/- 1-ACRE) WITHIN THE TOWN CENTER VILLAGE. THE TRANSIT CENTER WILL BE LOCATED SUCH THAT BUSES AND OTHER MASS TRANSPORTATION VEHICLES CAN QUICKLY AND EFFICIENTLY MOVE THROUGH THE COMMUNITY.

THIS PROJECT MAY INCLUDE, BUT IS NOT LIMITED TO, A PASSENGER SHELTER, BICYCLE STORAGE, AND VEHICLE PARKING AT THE CENTER. THE PROJECT MAY ALSO INCLUDE THE ACQUISITION OF PASSENGER VANS FOR VAN POOL SERVICES UNTIL A BUS ROUTE LINKED TO I-5 IS PROVIDED AND ACQUISITION OF SHUTTLE BUSES FOR SHUTTLE SERVICES ONCE CONNECTIONS ARE MADE TO THE I-5 EXPRESS BUS CORRIDOR.

JUSTIFICATION:

THE TRANSIT CENTER WILL FACILITATE TRANSFER ACTIVITY FOR PLANNED ROUTES AND ESTABLISH A CENTRAL FOCAL POINT FOR TRANSIT WITHIN THE COMMUNITY.

FUNDING ISSUES:

PURSUANT TO MUNICIPAL CODE LIMITATION, FBA FUNDS CANNOT BE USED TO OPERATE OR MAINTAIN THE ROLLING STOCK OR CENTER FACILITIES.

NOTES:

SCHEDULE:

PROJECT COMPLETION IS SCHEDULED FOR FY 2024

CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

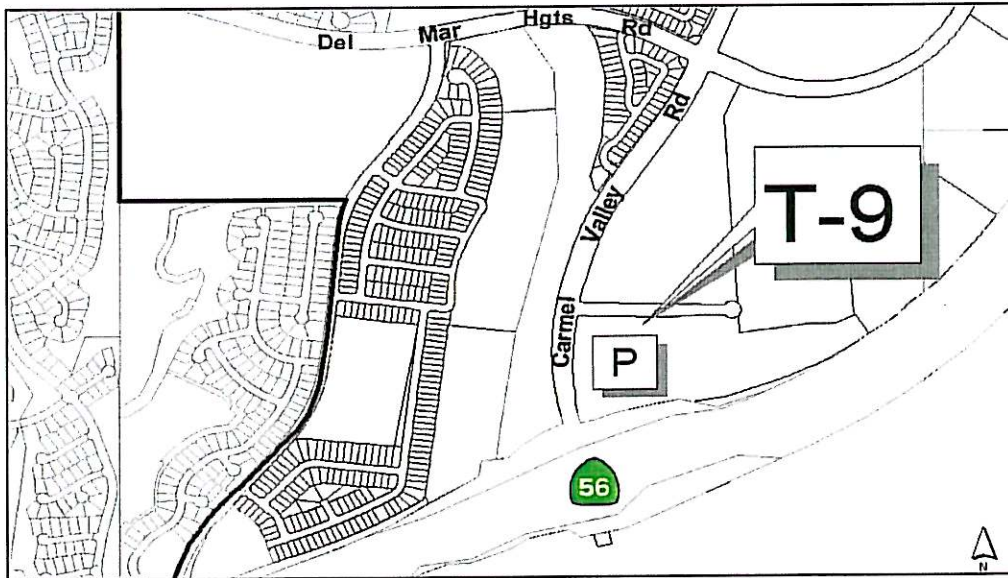
TITLE: **PARK-N-RIDE**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: **T-9**
COUNCIL DISTRICT: **1**
COMMUNITY PLAN: **PHR**

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$2,428,000							
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$2,428,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR						\$2,428,000		
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$2,428,000	\$0	\$0



CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: PARK-N-RIDE

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: T-9
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

PROVIDE FOR THE DESIGN AND CONSTRUCTION OF A PARK AND RIDE FACILITY NEAR THE SR-56/CARMEL VALLEY ROAD INTERCHANGE TO ACCOMMODATE 100 PARKING SPACES (APPROXIMATELY ONE ACRE). BOTH LAND ACQUISITION AND CONSTRUCTION OF THIS FACILITY SHALL BE THE RESPONSIBILITY OF THE FACILITIES BENEFIT ASSESSMENT.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

DESIGN AND CONSTRUCTION ARE DEPENDENT UPON THE NEEDS AND DEMANDS GENERATED FROM THE COMMUNITY AND THE TRANSIT ROUTES AS DISCUSSED IN THE TRANSIT MASTER PLAN.

CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

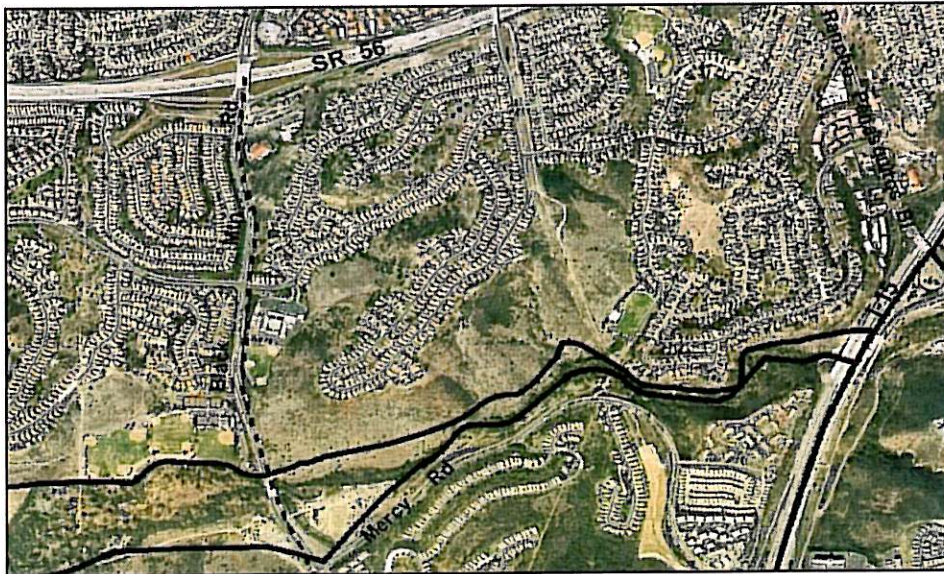
TITLE: **BLACK MOUNTAIN ROAD**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: T-11.1
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$750,000							
FBA-BMR	\$993,000							\$993,000
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER	\$7,626,000							
UNIDEN								
TOTAL	\$9,369,000	\$0	\$0	\$0	\$0	\$0	\$0	\$993,000

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR							\$750,000	
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$750,000	\$0



CONTACT: LINDA MARABIAN

TELEPHONE: (619) 533-3082

EMAIL: L.Marabian@saniego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: BLACK MOUNTAIN ROAD

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS	PROJECT: T-11.1
CIP, JO, or WBS #: N/A	COUNCIL DISTRICT: 1
	COMMUNITY PLAN: PHR

DESCRIPTION:

WIDEN BLACK MOUNTAIN ROAD IN RANCHO PENASQUITOS, FROM SR-56 SOUTHERLY TO MERCY ROAD TO A MODIFIED SIX-LANE ARTERIAL WITH CLASS II BICYCLE LANES. THE INTERSECTION AT BLACK MOUNTAIN ROAD AND PARK VILLAGE ROAD WILL BE MODIFIED TO PROVIDE FOR CLASS II BICYCLE LANES.

JUSTIFICATION:

THIS PROJECT IS REQUIRED TO ACCOMMODATE THE ADDITIONAL TRAFFIC GENERATED AS A RESULT OF DEVELOPMENT IN THE SURROUNDING COMMUNITIES, INCLUDING PACIFIC HIGHLANDS RANCH.

FUNDING ISSUES:

PACIFIC HIGHLANDS RANCH'S FAIR SHARE CONTRIBUTION TO THIS CURRENTLY UNFUNDED PROJECT IS 8%. BLACK MOUNTAIN RANCH'S FAIR SHARE CONTRIBUTION IS 10.6%.

THE ACTUAL TIMING FOR COMMUNITY CONTRIBUTIONS MAY DIFFER AS PUBLIC FACILITY FINANCING PLANS ARE UPDATED SEPARATELY.

NOTES:

REFERENCE :
RANCHO PENASQUITOS PUBLIC FACILITIES FINANCING PLAN PROJECT 29-2D
BLACK MOUNTAIN RANCH PUBLIC FACILITIES FINANCING PLAN PROJECT T-57

SCHEDULE:

PROJECT COMPLETION IS SCHEDULED WHEN FUNDING IS AVAILABLE.

CONTACT: LINDA MARABIAN

TELEPHONE: (619) 533-3082

EMAIL: L.Marabian@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BLACK MOUNTAIN ROAD AT PARK VILLAGE**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: T-11.2
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
FBA-PHR	\$37,227				\$37,227			
FBA-BMR(cr)	\$428,105	\$465,332			-\$37,227			
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$465,332	\$465,332	\$0	\$0	\$0	\$0	\$0	\$0

SOURCE	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
FBA-PHR								
FBA-BMR								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



CONTACT: LINDA MARABIAN

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: BLACK MOUNTAIN ROAD AT PARK VILLAGE

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: T-11.2
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

CONSTRUCT IMPROVEMENTS TO THIS EXISTING INTERSECTION IN RANCHO PENASQUITOS TO INCREASE ITS CAPACITY. IMPROVEMENTS CONSISTS OF DUAL NORTHBOUND TO WESTBOUND LEFT TURN LANES FROM BLACK MOUNTAIN ROAD TO PARK VILLAGE ROAD.

REFERENCE:

BLACK MOUNTAIN RANCH PUBLIC FACILITIES FINANCING PLAN PROJECT T-4
(ITEM D)

JUSTIFICATION:

THIS PROJECT IS REQUIRED TO ACCOMMODATE THE ADDITIONAL TRAFFIC GENERATED AS A RESULT OF DEVELOPMENT IN THE SURROUNDING COMMUNITIES, INCLUDING PACIFIC HIGHLANDS RANCH AND BLACK MOUNTAIN RANCH.

FUNDING ISSUES:

NOTES:

BLACK MOUNTAIN RANCH HAS AN OBLIGATION TO ADVANCE THE COST OF THIS FACILITY AS PART OF ITS DEVELOPMENT AGREEMENT, WITH REIMBURSEMENT FROM OTHERS, I.E. PACIFIC HIGHLANDS RANCH, FOR THEIR RESPECTIVE FAIR SHARE AMOUNT.

SCHEDULE:

PROJECT WAS COMPLETED IN FY 2004; REIMBURSEMENT IS PROGRAMMED IN FY 2013.

CONTACT: LINDA MARABIAN

TELEPHONE: (619) 533-3082

EMAIL: L.Marabian@san Diego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

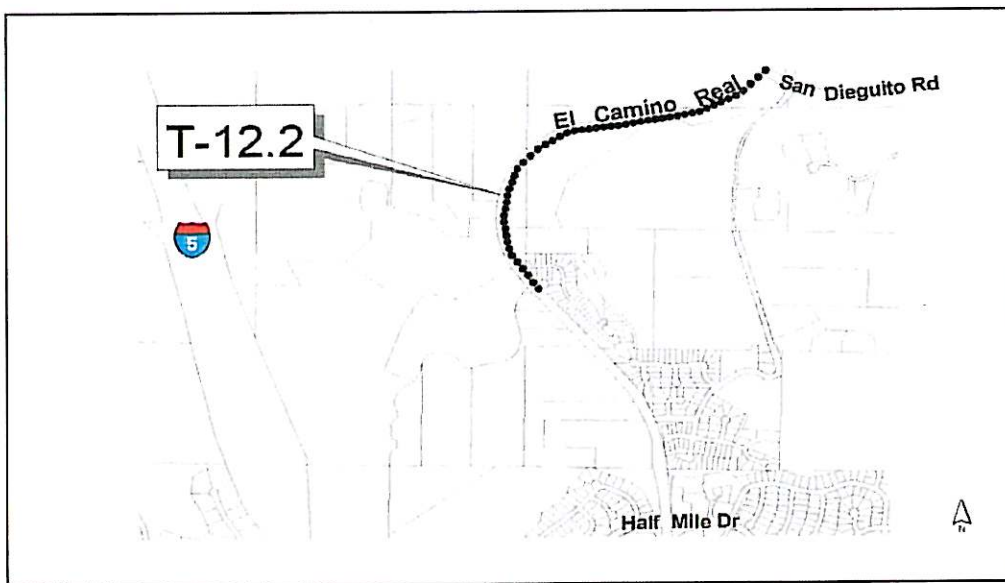
TITLE: EL CAMINO REAL WIDENING (Sea Country Lane to San Dieguito Road)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-767.0/S-00916

PROJECT: T-12.2
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$100,000	\$955	\$99,045					
FBA-BMR(cr)	\$4,256,000	\$3,406,621	\$849,379					
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD	\$1,088,383		\$100,000		\$988,383			
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$5,444,383	\$3,407,576	\$1,048,424	\$0	\$988,383	\$0	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR								
FBA-BMR(cr)								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



CONTACT: LINDA MARABIAN

TELEPHONE: (619) 533-3082

EMAIL: LMarabian@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: EL CAMINO REAL WIDENING (Sea Country Lane to San Dieguito Road)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-767.0/S-00916

PROJECT: T-12.2
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

COMPLETE CONSTRUCTION OF EXISTING EL CAMINO REAL BETWEEN SEA COUNTRY LANE AND SAN DIEGUITO ROAD AS A 4-LANE MAJOR STREET WITHIN THE EXISTING, GRADED RIGHT OF WAY. THE ESTIMATED COST INCLUDES ENVIRONMENTAL ANALYSIS AND ALIGNMENT STUDIES FOR THE ENTIRE LENGTH OF EL CAMINO REAL (SEA COUNTRY LANE TO VIA DE LA VALLE). INCLUDES TRAFFIC SIGNAL AT SEA COUNTRY LANE AND A WILDLIFE UNDERCROSSING.

JUSTIFICATION:

THIS PROJECT IS REQUIRED IN ORDER TO ACCOMMODATE THE ADDITIONAL TRAFFIC GENERATED AS A RESULT OF DEVELOPMENT IN THE SURROUNDING COMMUNITIES, INCLUDING PACIFIC HIGHLANDS RANCH, AS WELL AS THE EXISTING SUB-REGIONAL TRAFFIC NEEDS.

FUNDING ISSUES:

ALL PRORATA FUNDING DISTRIBUTION SHALL BE BASED ON THE SHARE OF TRAFFIC CONTRIBUTED BY EACH COMMUNITY OR PROJECT, EXCEPT PACIFIC HIGHLANDS RANCH (FBA) WILL BE LIMITED TO \$100,000 TOWARD FUNDING THE PRELIMINARY ENGINEERING FOR THE WILDLIFE UNDERCROSSING.

PARDEE: \$100,000 FOR WILDLIFE UNDERCROSSING PER DEVELOPMENT AGREEMENT SECTION 5.2.4

NOTES:

PARDEE HAS CONTRIBUTED \$100,000 TOWARDS THE COST OF A WILDLIFE UNDERCROSSING AS PART OF THE TERMS OF ITS DEVELOPMENT AGREEMENT.

REFERENCE: BLACK MOUNTAIN RANCH PUBLIC FACILITIES FINANCING PLAN PROJECT T-29.1.

SCHEDULE:

ROADWAY IS COMPLETED. THE TRAFFIC SIGNAL AND WILDLIFE UNDERCROSSING IS EXPECTED TO BE COMPLETED PRIOR TO FY 2013.

CONTACT: LINDA MARABIAN

TELEPHONE: (619) 533-3082

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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

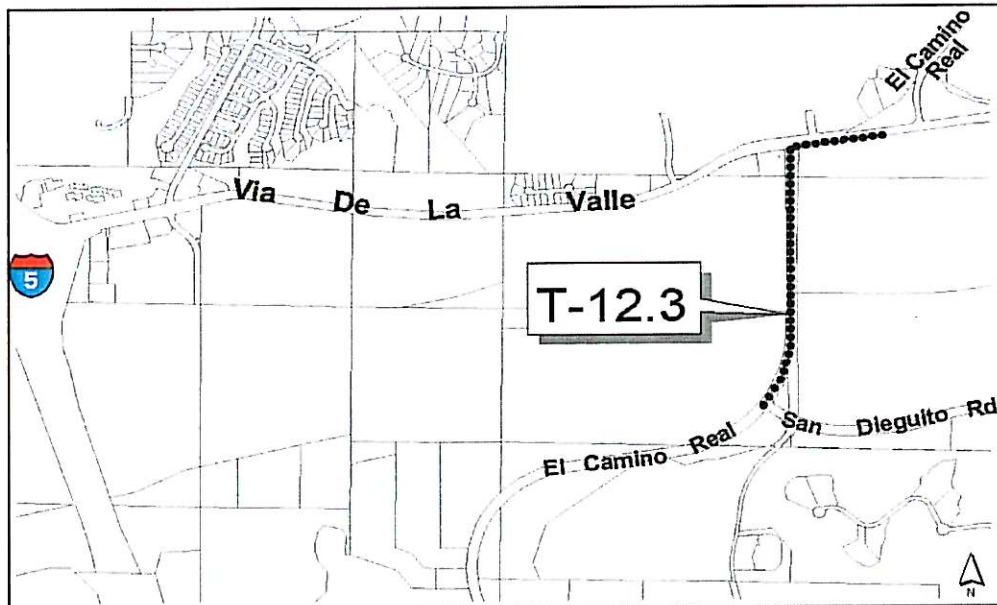
TITLE: EL CAMINO REAL WIDENING (San Dieguito Road to Via de la Valle)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-479.0/S-00856

PROJECT: T-12.3
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR	\$796,300	\$57,688	\$738,612					
FBA-BMR(cr)	\$714,354					\$714,354		
FBA-TH								
DIF-FR	\$675,561	\$675,561						
DEV. ADV					\$714,354	-\$714,354		
DEV/SUBD	\$1,110,000				\$1,110,000			
COUNTY	\$157,000		\$157,000					
TRANSNET	\$1,100,000	\$282,773	\$317,227	\$500,000				
FED-RSTP	\$2,560,000		\$2,560,000					
FED-GRANT	\$9,820,000	\$1,700,000		\$1,428,000	\$6,692,000			
UNIDEN								
TOTAL	\$16,933,215	\$2,716,022	\$3,772,839	\$1,928,000	\$8,516,354	\$0	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR								
FBA-BMR(cr)								
FBA-TH								
FBA-DMM								
DIF-FR								
DEV. ADV								
DEV/SUBD								
COUNTY								
TRANSNET								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



CONTACT: DEAN MARSDEN

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EMAIL: dmaraden@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: EL CAMINO REAL WIDENING (San Dieguito Road to Via de la Valle)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: 52-479.0/S-00856

PROJECT: T-12.3
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

IMPROVE EL CAMINO REAL BETWEEN SAN DIEGUITO ROAD AND VIA DE LA VALLE AS A 4-LANE MAJOR STREET. REPLACE THE EXISTING EL CAMINO REAL BRIDGE OVER THE SAN DIEGUITO RIVER WITH A NEW 4-LANE BRIDGE. WIDENING OF VIA DE LA VALLE TO FOUR LANES BETWEEN WEST EL CAMINO REAL AND EAST EL CAMINO REAL. SEE COMPANION PROJECT T-12.2.

JUSTIFICATION:

THIS PROJECT IS REQUIRED IN ORDER TO IMPROVE THE STRUCTURAL INTEGRITY OF THE BRIDGE OVER THE SAN DIEGUITO RIVER, ALLEVIATE PROBLEMS ASSOCIATED WITH HIGH FLOOD EVENTS, IMPROVE PEDESTRIAN AND VEHICULAR ACCESS TO NEARBY COASTAL AND RECREATIONAL RESOURCES, RELIEVE TRAFFIC CONGESTION AND IMPROVE CONSISTENCY WITH THE ADOPTED LAND USE PLAN FOR THE PROJECT AREA.

FUNDING ISSUES:

DMHE (PARDEE) PER VTM 94-0576, CONDITIONS #31 AND #32: \$1,110,000

OTHERS:

HIGHWAY BRIDGE REPLACEMENT AND REPAIR FUND: \$9,820,000
RSTP (SURFACE TRANSPORTATION PROGRAM): \$2,560,000

FRONTAGE PROPERTY INCLUDES APNs:

302-090-31; 302-261-01-02; 304-020-19; 304-020-16;
302-090-11; 302-210-60; 302-090-28; AND 302-210-29&30

NOTES:

ALL PRORATA FUNDING DISTRIBUTION SHALL BE BASED ON THE SHARE OF TRAFFIC CONTRIBUTED BY EACH COMMUNITY OR PROJECT. **THIS PROJECT, CURRENTLY IN THE ENVIRONMENTAL REVIEW PROCESS, MAY HAVE MODIFICATIONS TO SCOPE AND/OR FUNDING.**

REFERENCE:

FY 2006 BLACK MOUNTAIN RANCH PUBLIC FACILITIES FINANCING PLAN T-29.2

SCHEDULE:

PROJECT COMPLETION EXPECTED IN FY 2015

CONTACT: DEAN MARSDEN

TELEPHONE: (619) 533-4608

EMAIL: dmarsden@sanidiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

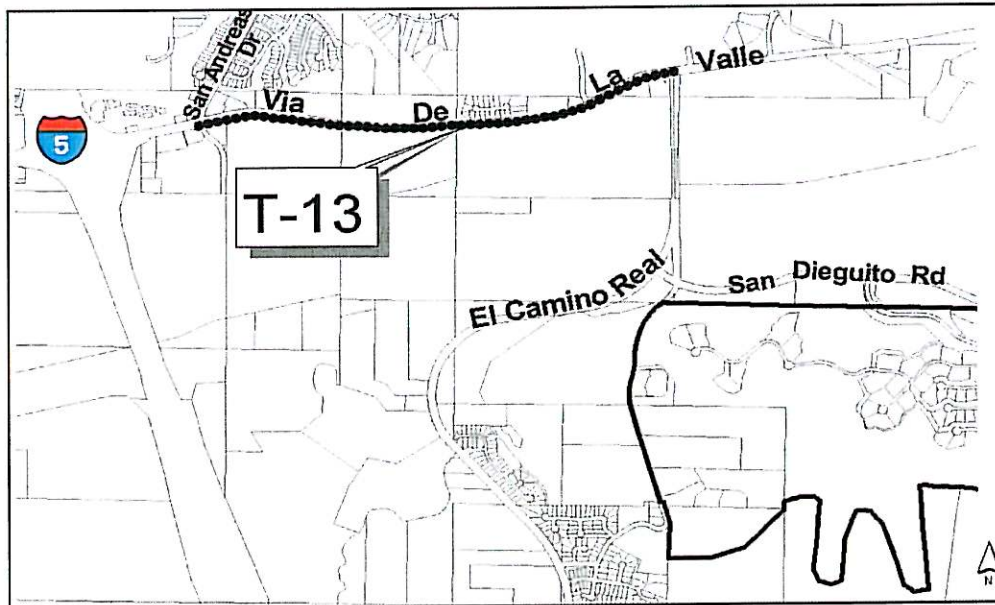
TITLE: VIA DE LA VALLE (FOUR LANES)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: T-13
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

SOURCE	FUNDING:	EXPENDED	CONT APPROP	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
FBA-PHR								
FBA-BMR(cr)	\$8,615,307	\$1,351,395			\$1,733,657	\$5,530,255		
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV					\$5,530,255	-\$5,530,255		
DEV/SUBD	\$694,141	\$14,141			\$680,000			
COUNTY								
STATE								
OTHER	\$3,814,050					\$3,814,050		
UNIDEN								
TOTAL	\$13,123,498	\$1,365,536	\$0	\$0	\$7,943,912	\$3,814,050	\$0	\$0

SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
FBA-PHR								
FBA-BMR(cr)								
FBA-TH								
FBA-DMM								
FBA-RP								
DEV. ADV								
DEV/SUBD								
COUNTY								
STATE								
OTHER								
UNIDEN								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



CONTACT: LINDA MARABIAN

TELEPHONE: (619) 533-3082

EMAIL: LMarabian@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: VIA DE LA VALLE (FOUR LANES)

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP, JO, or WBS #: N/A

PROJECT: T-13
COUNCIL DISTRICT: 1
COMMUNITY PLAN: PHR

DESCRIPTION:

RECONSTRUCT EXISTING VIA DE LA VALLE BETWEEN SAN ANDREAS DRIVE AND EL CAMINO REAL WEST TO A 4-LANE MAJOR STREET TO ACCOMMODATE EXISTING AND PROJECTED SUB-REGIONAL TRAFFIC. INCLUDES MODIFICATION OF TRAFFIC SIGNALS AT SAN ANDREAS DRIVE AND EL CAMINO REAL WEST AS REQUIRED AND RELOCATION OF EXISTING OVERHEAD UTILITIES TO UNDERGROUND LOCATIONS. INCLUDES RESTRIPIING VIA DE LA VALLE BETWEEN SAN ANDREAS DRIVE AND I-5 TO 6 LANES.

REFERENCE:

FY 2006 BLACK MOUNTAIN RANCH PUBLIC FACILITIES FINANCING PLAN T-32.1

JUSTIFICATION:

THIS PROJECT IS REQUIRED TO ACCOMMODATE THE ADDITIONAL TRAFFIC GENERATED AS A RESULT OF DEVELOPMENT IN THE SURROUNDING COMMUNITIES.

FUNDING ISSUES:

DMHE (PARDEE) PER VTM 94-0576, CONDITIONS #31 AND #32: \$680,000

OTHERS:

FLOWER HILL MALL 7.7% OF PROJECT COSTS (\$1,010,298)
FRONTING PROPERTY OWNERS
22ND AGRICULTURAL DISTRICT

THE ACTUAL TIMING FOR COMMUNITY CONTRIBUTIONS MAY DIFFER AS PUBLIC FACILITY FINANCING PLANS ARE UPDATED SEPARATELY.

NOTES:

ABSENT DEVELOPMENT ALONG THE FRONTAGE OF THIS ROADWAY, BLACK MOUNTAIN RANCH IS CURRENTLY SHOWN AS BEING THE PRIMARY FUNDING SOURCE FOR THIS PROJECT. SHOULD DEVELOPMENT OCCUR ALONG THE FRONTAGE OF THIS ROADWAY, THOSE PROPERTY OWNERS WILL EITHER DIRECTLY FUND THOSE IMPROVEMENTS OR REIMBURSE BLACK MOUNTAIN RANCH FOR THEIR PRORATA SHARE OF THE COST OF THOSE IMPROVEMENTS.

FRONTAGE PROPERTY INCLUDES APNs:

298-590-11&12; 298-300-46&51; 302-090-11; 302-210-52&60; 302-090-07;
302-210-58&59; AND 302-210-25,26&29

SCHEDULE:

COMPLETION EXPECTED IN FY 2015.

CONTACT: LINDA MARABIAN

TELEPHONE: (619) 533-3082

EMAIL: L.Marabian@sandiego.gov

Introduction to the Pacific Highlands Ranch Transportation and Public Facility Phasing Plan

Proposition C (Ordinance Number O-19979) was approved by the voters on November 2, 2010. Proposition C removed a development timing restriction, subject to approval of a revised, clearer, integrated and stronger Transportation and Public Facility Financing Plan. Proposition C mandates that the issuance of building permits for new development shall be contingent on meeting facilities thresholds set in the General Plan.¹ The adopted Pacific Highlands Ranch Sub-area Plan (community plan) identifies threshold ranges for certain facilities and is a part of the Land Use Element of the General Plan. Additional improvements and mitigation measures are identified in the Master EIR and Development Agreement and shall be provided per those documents.² Section 4.5 of the Development Agreement limits mitigation to that identified in the Master EIR, unless further required environmental review identifies additional mitigation measures. Facility thresholds may apply differently to residential and non-residential development, as the requirements differ between these land uses. If thresholds are not met, building permits subject to those thresholds cannot be issued. The purpose is to assure that the new development and the public facilities funded by this plan are provided concurrently per required thresholds.

Public facilities and transportation facilities solely funded by and located within Pacific Highlands Ranch must be fully developed, opened and operational at required thresholds. Facilities located outside of Pacific Highlands Ranch may be deemed assured per applicable criteria. For facilities that are triggered near or at the end of the community's build-out, sufficient building permits should be contingent on facilities being completed to assure the protection required by Proposition C of linking development and building permit issuance. The cash flow for this plan must be adequate to provide all the facilities at all of the required thresholds.

Several public facilities located within Pacific Highlands Ranch receive funding from communities other than Pacific Highlands Ranch (community park, library, recreation center). FBA fees collected in Pacific Highlands Ranch cannot fund the building of these facilities solely and fully. These shared facilities may be completed in micro-phases (acquiring the site, designing the facility and building sequential portions of facility) with funding from Pacific Highlands Ranch and as funding becomes available from other communities that require and benefit from the facilities. Micro-phasing considers available cash flow, consistency with intent of Proposition C and a spatial and temporal relationship to adjacent development phasing. For public facilities (community pool) and transportation facilities located outside of Pacific Highlands Ranch that have mixed funding sources, or are subject to approval by a lead agency other than the City (Caltrans projects), the obligation for issuing building permits is to assure the funding by the thresholds only, or as required by the Master EIR and Development Agreement.

¹ This is only a brief summary of Proposition C. Refer to the complete text of Ordinance Number O-19979 in Appendix C.

² The Master EIR Mitigation, Monitoring and Reporting Program; Transportation Phasing Plan, inclusive of the determination regarding the SR-56 widening project dated September 20, 2011; and Development Agreement are included as Appendices D, B and A, respectively.

Pacific Highlands Ranch Public Facilities Financing Plan FY 2013

The Pacific Highlands Ranch Community Park is a priority for the communities of Pacific Highlands Ranch, Del Mar Mesa and Carmel Valley. While no funding is provided by Carmel Valley, athletic facilities in that community are heavily used, including by residents of Pacific Highlands Ranch, pending completion of its future community park. Additionally, the community park is a vital amenity for the mixed-use village center in Pacific Highlands Ranch, which will be the focal point of the community. The community's desire is for the community park to be advanced and also serve as the interim second neighborhood park, with McGonigle Canyon Neighborhood Park to be the third and final park completed in Pacific Highlands Ranch. Should the City subsequently choose not to allow the community park to be advanced, McGonigle Canyon Neighborhood Park may be provided as the second park at the same permit thresholds following an administrative amendment to this plan, subject to review and approval of the Director of Development Services, with written findings explaining the change in the community's park prioritization.

The cash flow in the Public Facilities Financing Plan programs facilities at certain fiscal years based on a forecast for development absorption. All of the facilities included in the cash flow are required as part of implementing the Pacific Highlands Ranch Sub-area Plan. Cash flow programming may differ from General Plan thresholds. This Plan represents the best available forecast of development absorption available at the time of its preparation. It also represents the priorities of the community for phasing its facilities, consistent with the adopted Pacific Highlands Ranch Sub-area Plan, other required facilities mitigation and Proposition C. This Plan is expected to require calibrations over the approximately 20-year remaining build-out of the community. It should be reviewed annually.

Provided by the Proposition C Implementation Working Group Subcommittee:

Beth Fischer

Manjeet Ranu, Lead Author

Marc Perlman (non-voting member)

Frisco White

Transportation and Facility Phasing Plan ^{2,4,11}

PHASE ONE: Startup Phase for Subarea III / Del Mar Heights Road				
The following improvements are to be assured to the satisfaction of the City Engineer before development is authorized in this phase. ¹ Approved Project or Subarea III Development: 650 equivalent DU. ^{3,8}				
Proposed Access Improvements:				
PROJECT NO.	FACILITY	LOCATION	DESCRIPTION OF REQUIRED IMPROVEMENT	STATUS¹³
T-3	Del Mar Heights Road	Westerly of Subarea boundary to intersection with Carmel Valley Road.	Extend as 2 lanes of a 4 lane major to development areas. Provide ½ of the ultimate street improvement.	Assured. ^{1a}
T-1.1	State Route 56	Within Subarea III.	Right-of-Way in Subarea III is assured ⁵ , excluding right-of-way for the third interchange (project has been deleted).	Assured. ^{1a}

Transportation and Facility Phasing Plan ^{2,4,11}

PHASE TWO: Dual Freeway Completion/State Route 56 Freeway The following improvements are to be assured to the satisfaction of the City Engineer before development is authorized in this phase. ¹ Approved Project or Subarea III Development: 1,250 DU + Private High School + Neighborhood Commercial (50,000 SF). ⁸ Cumulative Totals: 1,900 DU + Private School + 50,000SF Neighborhood Commercial				
Proposed Access Improvements:				
PROJECT NO.	FACILITY	LOCATION	DESCRIPTION OF REQUIRED IMPROVEMENT	STATUS ¹³
T-1.1	State Route 56	Between I-5 and I-15.	Connected through as a 4-lane freeway.	Assured. ^{1a}
T-3	Del Mar Heights Road	Westerly of Subarea boundary to intersection with Carmel Valley Road.	Widen to 4 lanes.	Assured. ^{1a}
T-4.2	Carmel Valley Road	Within Pacific Highlands Ranch.	Improve to 4 lanes, where appropriate, to provide access to development.	Assured to approximately Lopenia Meadows Place. ^{1a}
T-1.6	State Route 56	At I-15	East to north loop ramp; east to south right turn lane; and add southbound on ramp lane.	Assured. ^{1a}
T-2	Del Mar Heights Road	At I-5	West to northbound I-5 right turn lane.	Assured. ^{1a}
T-11.2	Black Mountain Road	At Park Village Drive	Intersection improvements (dual northbound to westbound left turn lanes or southbound right turn lane).	Assured. ^{1a}
Threshold Condition Regarding Status of Fire Station 47: This phase may be satisfied in the following increments: (i) First 550 DUs – Prior to Council Approval of a Reimbursement Agreement; (ii) next 75 DUs – After Council Approval of a Reimbursement Agreement; (iii) next 175 DUs – After Start of Construction; (iv) next 150 DUs – After 50% Construction Complete; (v) next 300 DUs – After 100% Construction Complete.				Assured. ^{1a}

Transportation and Facility Phasing Plan ^{2,4,11}

PHASE THREE: Neighborhood Park (Gonzales Canyon)				
The following improvements are to be assured to the satisfaction of the City Engineer for transportation facilities and to the satisfaction of the Director of Development Services for all other public facilities before development is authorized in this phase. ¹ Approved Project or Subarea III Development: 1,500 DU + Neighborhood Commercial (100,000 sf). ⁸ Cumulative Totals: 3,400 DU + Private High School + 150,000sf Neighborhood Commercial				
Proposed Access & Facility Improvements:				
PROJECT NO.	FACILITY	LOCATION	DESCRIPTION OF REQUIRED IMPROVEMENT	STATUS ¹³
T-4.2	Carmel Valley Road ⁷	From SR-56 to Del Mar Heights Road.	Widen to six lanes.	Remaining/Not Assured.
T-13	Via de la Valle	Between San Andres and El Camino Real east.	Improve to four lanes.	Assured. ^{1c}
T-12	El Camino Real	Between Half Mile Drive and Via de la Valle.	Improve to major four-lane street.	Remaining/Not Assured.
T-4.2	Carmel Valley Road	Between Del Mar Heights Road and Black Mountain Road.	Improve to four lanes.	Remaining/Not Assured.
	Camino Del Sur ¹²	From Carmel valley Road to Carmel Mountain Road.	Widen to four lanes (Camino Del Sur/SR-56 diamond interchange).	Assured. ^{1a, 12}
T-1.2	State Route 56	From I-5 to one mile east of the Carmel Valley Road interchange.	Widen to six lanes.	Assured. ^{1f}
Threshold Condition Regarding Status of Gonzales Canyon Neighborhood Park (P-1): This park must be completed and opened. ⁶ This threshold condition does not apply to non-residential land uses.				Remaining/Not Assured.
Threshold Condition Regarding Status of Hiking and Biking Trails: Construct or bond trails adjacent to or within development units proceeding within Phase Three, per map conditions of approval.				Remaining/Not Assured.

Transportation and Facility Phasing Plan ^{2,4,11}

PHASE FOUR "A": Build out of Subarea III (Pacific Highlands Ranch).¹⁶

The following transportation improvements are to be assured to the satisfaction of the City Engineer before development is authorized in this phase.¹

Approved Project or Subarea III Development: 1,600 DU + Neighborhood Commercial (150,000 SF) + Commercial Office.⁸ Cumulative Totals: 5,000 DU + Private High School + 300,000sf Neighborhood Commercial + Commercial Office.

Proposed Access Improvements:

PROJECT NO.	FACILITY	LOCATION	DESCRIPTION OF REQUIRED IMPROVEMENT	STATUS ¹³
	Camino Del Sur ¹²	From Carmel Valley Road to Carmel Mountain Road	Widen to six lanes.	Remaining/Not Assured.
	Black Mountain Road	State Route 56 to Mercy Road.	Widen to six lanes.	Remaining/Not Assured.
	I-15	From State Route 56 to Mercy Road.	HOV lane extension.	Assured. ^{1a}
	I-5	From Del Mar Heights to Birmingham.	Add HOV lanes.	Remaining/Not Assured.
T-1.2	State Route 56	From I-5 to I-15.	Widen to six lanes.	Assured. ^{1f}

Transportation and Facility Phasing Plan ^{2,4,11}

PHASE FOUR "B": Build out of Subarea III (Pacific Highlands Ranch).¹⁶				
The following public facility improvements are to be assured to the satisfaction of the Director of Development Services before development is authorized as described in the sub-phases. ^{9,10,14,15} Approved Project or Subarea III Development: 1,600 DU + Neighborhood Commercial (150,000 SF) + Commercial Office. ⁸ Cumulative Totals: 5,000 DU + Private High School + 300,000sf Neighborhood Commercial + Commercial Office.				
Proposed Facility Improvements:				
PROJECT NO.	FACILITY	LOCATION	DESCRIPTION OF REQUIRED IMPROVEMENT	STATUS ¹³
P-3.1	Community Park	Pacific Highlands Ranch Community Park site	Acquisition, design, develop, and open community park.	Remaining/Not Assured.
Community Park Sub-Phasing: By 3,800 DU Open the park. ¹⁴				Remaining/Not Assured.
P-3.3	Swimming Pool	Black Mountain Ranch Community Park	Design, construct, and open swimming pool complex with 25m x 25yd pool.	Assured. ⁹
L-1	Library & Village Green	Village Center in civic use area	Design, construct, and open 18,000sf library.	Remaining/Not Assured.
Library Sub-Phasing: By 4,900 DU: Build and open the library.				Remaining/Not Assured.
P-2	Neighborhood Park #2 ¹⁰	McGonigle Canyon	Acquisition, design, develop , and open neighborhood park.	Remaining/Not Assured.
Neighborhood Park #2 Sub-Phasing: By 4,900 DU: Open the completed park.				Remaining/Not Assured.
P-3.2	Recreation Building	Pacific Highlands Ranch Community Park site	Design, construct, and open 17,000sf recreation building.	Remaining/Not Assured.
Recreation Building Sub-Phasing: By 3,800 DU: Build and open the recreation building. ^{14,15}				Remaining/Not Assured.
Threshold Condition Regarding Status of Hiking and Biking Trails: Construct or bond trails adjacent to or within development units proceeding within Phase Four "B", per map conditions of approval and all other remaining trails not otherwise required in prior phases prior to issuing permits for more than 4,900 DU.				Remaining/Not Assured.

Pacific Highlands Ranch Public Facilities Financing Plan FY 2013

Footnotes to Transportation and Facility Phasing Plan:

- ¹ Before development is authorized in each phase, the transportation improvements listed in the right column must meet one of the following conditions to the satisfaction of the City Engineer:
 - a) Improvement must be completed and open to traffic.
 - b) Improvement must be under contract.
 - c) Improvement must be bonded.
 - d) Improvement must be scheduled for construction in the City CIP for the year in which building permits are requested.
 - e) Improvements must be programmed for construction in the STIP for the year in which building permits are requested.
 - f) Fair share payment for improvement is made per mitigation required in accordance with the Master Environmental Impact Report for Pacific Highlands Ranch.
- ² It should be noted that this plan is intended to serve as a guideline for the sequential development of street and facility improvements. Because the geographic order of development is not certain, it will be necessary to regularly review and revise this phasing plan in order to reflect the current land development proposals and actual trip generation rates and trip distribution. Any technical studies associated with updating /revising the transportation component of the phasing plan cannot be funded by the FBA.
- ³ The 650 equivalent dwelling units include a maximum of 50 EDUs for the administrative facilities of the private high school.
- ⁴ The Transportation and Facility Phasing Plan assumes that State Route 56 will be implemented as shown in this Public Facilities Financing Plan.
- ⁵ Right-of-way is assured to the satisfaction of the City Engineer by either of the following:
 - a) Acquisition
 - b) Successfully entering into a purchase agreement, or by
 - c) Initiating the condemnation process.
- ⁶ This Neighborhood Park (P-1) requirement is to be satisfied by being completed and open to the public before residential permits beyond 1,900 (Phase Two) DUs may be issued.
- ⁷ The Transportation Phasing Plan contained in the Traffic Study Report, cited in the footnote 4 above, inadvertently refers to Carmel Valley Road between SR-56 and the intersection of Del Mar Heights Road as Camino Santa Fe. It has subsequently been determined that the northerly limits of Camino Santa Fe will terminate at SR-56. Also, Camino Santa Fe has been re-designated as Little McGonigle Ranch Road south of SR-56.
- ⁸ The amount of development approved for each phase of the Transportation and Facility Phasing Plan is not cumulative. To determine the cumulative total, one must add the amounts shown in each phase of the plan. Cumulative totals are referenced separately.
- ⁹ The swimming pool is deemed assured by the fair share contribution from Pacific Highlands Ranch and is programmed in the PFFP cash flow.
- ¹⁰ This Neighborhood Park (P-2) requirement is to be satisfied at 4,900 cumulative DUs in Phase Four "B". Permits beyond 4,900 DUs shall not be issued until the facility is constructed and open. Refer also to the introductory narrative regarding this park and the community park.
- ¹¹ The non-transportation component of the phasing plan was developed by the Proposition C Implementation Working Group in conjunction with City staff in order to implement the Proposition C Ballot Measure, passed in November 2010 (O-19979). The plan is intended to serve to implement Proposition C to provide for the orderly development and timely availability of community-serving infrastructure. Since the pace and order of land development and resultant housing units is not certain, it will be necessary to regularly review and revise the non-transportation component of the phasing plan in order to reflect population growth as it occurs over time.
- ¹² At the start of Phase Three and Four for residential units which are served by existing streets, improvements to Camino Del Sur (south of SR-56) will not be required to be assured, in order to obtain building permits.
- ¹³ Threshold status is up to date as of January 2012.

Pacific Highlands Ranch Public Facilities Financing Plan FY 2013

- ¹⁴ If the community park is built as the last of three parks instead of the second (refer to the introductory narrative of the plan on page B-3), then the recreation building permit threshold will be correspondingly shifted to be concurrent with the community park.
- ¹⁵ If the community park is built as the second of three parks by 3,800 cumulative residential permits, but the City chooses not to allow the recreation building to be built and completed concurrently with the community park, then the recreation building shall be completed before 4,900 cumulative residential permits are issued. This change may be processed as an administrative amendment, subject to the review and approval of the Director of Development Services, with written findings explaining the change in the recreation building's prioritization.
- ¹⁶ Phase Four "A" applies to transportation projects and runs concurrent with Four "B", which includes the public facilities.

PUBLIC REVIEW

The Middle School #5 At Pacific Highlands Ranch Mitigated Negative Declaration was circulated for state public review from May 29, 2013 to June 27, 2013. The following is a list of organizations and agencies that reviewed the Mitigated Negative Declaration.

Governor's Office of Planning and Research, State Clearinghouse
 Resources Agency
 California Department of Fish and Wildlife, Region 5
 Department of Parks and Recreation
 Department of Water Resources
 California Highway Patrol
 Caltrans, District 11
 Regional Water Quality Control Board, Region 9
 Department of Toxic Substances Control
 Native American Heritage Commission

COMMENTORS INDEX

The following is a list of agencies which commented on the Mitigated Negative Declaration.

<u>Comment Letter</u>	<u>Response Numbers</u>
State of California Governor's Office of Planning and Research State Clearinghouse 140 Tenth Street Sacramento, CA 95812 Scott Morgan Dated July 3, 2013	-
David A. Mayer California Department of Fish and Wildlife South Coast Region 3883 Ruffin Road San Diego, CA 92123 Dated June 20, 2013	1
Jacob M. Armstrong California Department of Transportation District 11 4050 Taylor Street, MS 240 San Diego, CA 92110 Dated June 27, 2013	2, 3



EDMUND G. BROWN JR.
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX
DIRECTOR

July 3, 2013

John Addleman
San Dieguito Union High School District
684 Requeza Street
Encinitas, CA 92024

Subject: Middle School #5 at Pacific Highlands Ranch
SCH#: 2013051083

Dear John Addleman:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on June 27, 2013, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2013051083
Project Title Middle School #5 at Pacific Highlands Ranch
Lead Agency San Dieguito Union High School District

Type MND Mitigated Negative Declaration
Description SDUHSD plans to develop a 101,230 sf new middle school on an eight-acre parcel adjoining the CCA in Pacific Highlands Ranch. The school would be comparable in size and programmatic offerings to the nearby Carmel Valley Middle School, and would serve the students living in Pacific Highlands Ranch and surrounding area, and would alleviate overcrowding at Carmel Valley Middle School.

Lead Agency Contact

Name John Addleman
Agency San Dieguito Union High School District
Phone (760) 753-6491 x5532 **Fax**
email
Address 684 Requeza Street
City Encinitas **State** CA **Zip** 92024

Project Location

County San Diego
City
Region
Cross Streets Village Center Loop Road
Lat / Long 32° 57' 30.6" N / 117° 11' 9.9" W
Parcel No.
Township 14S **Range** 3W **Section** 15/16 **Base**

Proximity to:

Highways SR-56
Airports
Railways
Waterways Los Penasquitos Creek
Schools Canyon Crest Academy
Land Use Presently zoned for Jr. / Sr. High School

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 11; Regional Water Quality Control Board, Region 9; Department of Toxic Substances Control; Native American Heritage Commission

Date Received 05/29/2013 **Start of Review** 05/29/2013 **End of Review** 06/27/2013



South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.wildlife.ca.gov



June 20, 2013

Mr. John Addleman
Director of Planning Services
San Dieguito Union High School District
684 Requeza Street
Encinitas, CA 92024

Subject: Comments on the Draft Mitigated Negative Declaration for the Middle School #5 at Pacific Highlands Ranch Project (SCH. No. 2013051083)

Dear Mr. Addleman:

The California Department of Fish and Wildlife (Department) has reviewed the above-referenced draft Mitigated Negative Declaration (MND) dated May 29, 2013. The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency for natural resources affected by the project (California Environmental Quality Act, [CEQA] Guidelines §15386) and pursuant to our authority as a Responsible Agency under CEQA Guidelines section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (Fish and Game Code §2050 *et seq.*) and Fish and Game Code section 1600 *et seq.* The Department also administers the Natural Community Conservation Planning (NCCP) Program. The project site lies wholly within the City of San Diego's Multiple Species Conservation Program (MSCP) Subarea Plan (SAP) boundaries.

The proposed project would design and construct a new 101,230 sq. ft. middle school on an 8-acre parcel located north of SR-56 and east of Carmel Valley Road in the City of San Diego.

The Department offers the following recommendation to assist San Dieguito Union High School District in avoiding or minimizing potential impacts to biological resources.

1. Although the project site was previously mass graded it could potentially support burrowing owl (*Athene cunicularia*) depending on the presence of suitable burrows and burrow surrogates. Because the burrowing owl is a California Species of Special Concern and is provided protection by both Fish and Game Code (3503, 3503.5, and 3513) and the Migratory Bird Treaty Act, the Department recommends that a qualified biologist assess the project site to determine if focused surveys for burrowing owl are appropriate. If focused surveys are performed and the project site is determined to be occupied by burrowing owl, the Department should be contacted so we (in coordination with San Dieguito Union High School District) can develop an appropriate relocation strategy. These measures should be included as a mitigation measure in the final MND. Information regarding habitat assessments and survey methods can be found in the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (March 7, 2012; available at <http://www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf>).



Mr. John Addleman
 San Dieguito Union High School District
 June 20, 2013
 Page 2 of 2

State of California - Natural Resources Agency
 DEPARTMENT OF FISH AND WILDLIFE
 South Coast Region
 3853 Ruffin Road
 San Diego, CA 92123
 (858) 467-4267
 www.dfw.ca.gov



We appreciate the opportunity to comment on the draft MND. Questions regarding this letter and further coordination on these issues should be directed to Kyle Dutro at (858) 467-4267 or Kyle.Dutro@wildlife.ca.gov.

Sincerely,

David A. Mayer
 Acting Environmental Program Manager
 South Coast Region

Mr. John Addleman
 Director of Planning Services
 San Dieguito Union High School District
 884 Redwood Street
 Encinitas, CA 92024

Subject: Comments on the Draft Mitigated Negative Declaration for the
 at Pacific Highlands Ranch Project (SCH. No. 2013081083)

Dear Mr. Addleman:

The California Department of Fish and Wildlife (Department) has reviewed the above-referenced draft Mitigated Negative Declaration (MND) dated May 29, 2013. The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency for natural resources affected by the project (California Environmental Quality Act (CEQA) Guidelines § 15380) and pursuant to our authority as a Responsible Agency under CEQA Guidelines section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (Fish and Game Code § 2080 et seq.) and Fish and Game Code section 1600 et seq. The Department also administers the Natural Community Conservation Planning (NCCP) Program. The project site lies wholly within the City of San Diego's Multiple Species Conservation Program (MSCP) Super Plan (SAP) boundaries.

The proposed project would design and construct a new 101,330 sq. ft. middle school on an 8-acre parcel located north of SR-56 and east of Carmel Valley Road in the City of San Diego. The Department offers the following recommendations to assist San Dieguito Union High School District in avoiding or minimizing potential impacts to biological resources:

1. Although the project site was previously mass graded it could potentially support burrowing owl (*Aythya americana*) depending on the presence of suitable burrows and burrow openings. Because the burrowing owl is a California Species of Special Concern and is provided protection by both Fish and Game Code (2002, 3803.6, and 3513) and the Migratory Bird Treaty Act, the Department recommends that a qualified biologist assess the project site to determine if focused surveys for burrowing owl are appropriate. If focused surveys are performed and the project site is determined to be occupied by burrowing owl, the Department should be contacted so we (in coordination with San Dieguito Union High School District) can develop an appropriate relocation strategy. These measures should be included as a mitigation measure in the final MND. Information regarding habitat assessments and survey methods can be found in the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (March 7, 2012, available at <http://www.dfg.ca.gov/wildlife/nongame/occal/BOWMitigation.pdf>).

DEPARTMENT OF TRANSPORTATION

DISTRICT 11, DIVISION OF PLANNING

4050 TAYLOR ST, M.S. 240

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Pacific Highlands Ranch Middle School #5

MND / SCH #2013051083

Mr. John Addleman
San Dieguito Union High School District (SDUHSD)
684 Requeza Street
Encinitas, CA 92024

Dear Mr. Addleman:

The California Department of Transportation (Caltrans) appreciates the opportunity to review the Mitigated Negative Declaration (MND) for the Pacific Highlands Ranch Middle School #5 Project (SCH #2013051083) in proximity to State Route 56 (SR-56). Caltrans has the following comments:

Noise:

Caltrans will not be held responsible for any noise impacts to this development, including from the ultimate configuration of SR-56.

Hydraulics/Hydrology:

DEIR Hydrology Section 6.18.10 states "*Following construction, with implementation of the mitigation measure Hyd-2, a drainage study would be prepared and implemented for the proposed project that would implement site design BMP's to maintain the peak runoff flow for the 50 year storm event from the project site.*"

- A drainage study is required to be performed prior to the construction phase – typically during project design. The study shall show that the project poses no adverse impacts to State (Caltrans) facilities.

If you have any questions on the comments Caltrans has provided, please contact Leila Ibrahim of the Development Review Branch at (619) 688-6802.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob M. Armstrong".

JACOB M. ARMSTRONG, Chief
Development Review Branch

RESPONSE*In response to California Department of Fish and Wildlife comment letter:*

1. On July 2, 2013, a qualified URS biologist conducted a burrowing owl habitat assessment on Parcels 2, 3, and 5 for the New Middle School #5 at Pacific Highlands Ranch. The burrowing owl habitat assessment was conducted following the protocol outlined in the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). The habitat assessment protocol includes CNDDDB record query for known observations of burrowing owl within a 10 mile radius of the project site, a literature review for historical and biological information concerning burrowing owl use or occupancy within the project site or surrounding area, and a habitat assessment covering the entire project site and adjoining areas within 150m to determine vegetation habitat type, openness of the site, potential burrows and food supply, and signs of burrowing owl use either past or present.

CNDDDB records produced one occurrence (record #318) of one adult burrowing owl on vacant land one mile northeast of the parcel sites, made in March of 1999. This area was visited prior to the project site visit and appeared to be highly disturbed and graded, without burrows, or any other type of burrowing owl sign. No other relevant, historical information concerning burrowing owl use or occupancy on site or adjacent to the site was found in the CNDDDB or literature review. During the project site assessment on July 2, 2013, the site was previously mass-graded, fitted with erosion controls, and currently supports an open vegetation habitat of non-native grassland with scattered small shrubs and herbs. The parcel's soil is mostly soft, sandy, and calcareous in texture and color. No owls, potential burrows, white wash, pellets or any other burrowing owl sign was found.

At the time of this habitat assessment, no past or recent sign of burrowing owl was observed on any of the New Middle School #5 parcels or surrounding areas, therefore it is determined that no focused surveys for burrowing owl are needed.

In response to California Department of Transportation comment letter:

2. The *Pacific Highlands Ranch Middle School Project, Noise Assessment* adequately addressed potential noise impacts from SR-56 to the project. With the provision of mitigation measure *Noi-1*, noise from the adjacent SR-56 would be less than significant. The applicant agrees that CalTrans will not be held responsible for any noise impacts from the ultimate configuration of SR-56.
3. The drainage study required in *Hyd-2* will be performed prior to the construction phase. Text within the MND has been edited in Mitigation Measure *Hyd-2* and Section 6.18.10, as shown below, to remove any confusion on this point.

From page 6-22 of the IS/MND:

Hyd-2 A registered engineer shall perform a drainage study for the Project commissioned by the SDUHSD Facility Services departments that complies with the conditions that follow. **Recommended** Design measures shall be consistent with SDUHSD's adopted Storm Water Management Program and/or **Hyd-1**, ~~prior to project occupancy~~, **The drainage study recommendations would be incorporated into the Project design** and regularly maintained by SDUHSD **after Project completion**. The results of the drainage study shall be used to determine if the SDUHSD would be required to contribute its fair share contribution to the City's Capital Facilities Fee for storm drain improvements, as required by California Government Code 54999.

- i. Site design that controls runoff discharge volumes and durations shall be used where applicable.
- ii. Measures that protect slopes and channels such as energy dissipaters, vegetation, and slope/channel stabilizers shall be applied where appropriate.
- iii. All developments that will increase impervious surfaces by 10,000 GSF or more shall maintain the peak runoff for the 10-year, 6-hour storm event. In cases where known or potential on-site or off-site erosion problems have been identified, a registered engineer, in coordination with SDUHSD, shall determine if maintenance of peak runoff for a larger storm event is necessary.

From pages 6-40 & 6-41 of the IS/MND:

Hydrology. The mixed-use cumulative Project is proposed on previously undeveloped land, which would have the potential to increase impervious surfaces and substantially alter existing drainage and increase stormwater flows. Therefore, a potentially significant cumulative impact would occur. However, the Project would implement BMPs during construction in compliance with the Construction General Permit which would reduce the potential for alterations in drainage during construction activities to a less than significant level. ~~Following construction, with implementation of the m~~Mitigation measure Hyd-2, ~~requires a drainage study would be prepared and its features implemented for the proposed Project that would implement site design BMPs to maintain a maximum the peak runoff flow for the~~ 50 year peak runoff storm event from the project site. With implementation of this mitigation measure, the proposed project's cumulative impact would be reduced to a less than significant level.