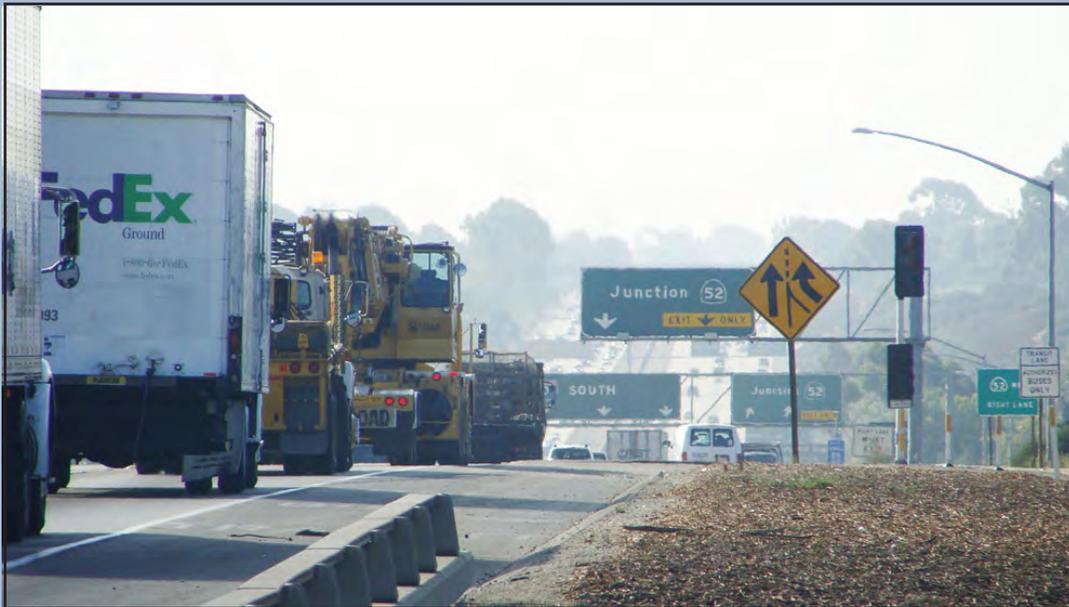


I-805 Managed Lanes North Project

SAN DIEGO, CALIFORNIA
DISTRICT 11-SD-805 (PM 23.3/27.7), 11-SD-52 (PM 3.5/4.1) 081630

Initial Study with Proposed Mitigated Negative Declaration/ Environmental Assessment



**Prepared by the
State of California Department of Transportation**

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327.



February 2010

GENERAL INFORMATION ABOUT THIS DOCUMENT

What's in this document:

Effective July 1, 2007, The California Department of Transportation (Caltrans), has been assigned environmental review and consultation responsibilities under NEPA pursuant to Section 6005 of the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (23 U.S.C. 327). The assignment applies to all projects on the State Highway System (SHS) and all Local Assistance projects off the SHS, with the exception of responsibilities assigned for certain CEs under the June 7, 2007 MOU with FHWA, projects excluded by definition, and specific project exclusions. On projects for which Caltrans has assumed NEPA responsibilities, Caltrans has also assumed responsibility for environmental review and consultation under other federal environmental laws.

Caltrans as assigned by the Federal Highway Administration (FHWA), has prepared this Initial Study/Environmental Assessment (IS/EA), which examines the potential environmental impacts of the alternatives being considered for the proposed project located in San Diego County, California. The document describes why the project is being proposed, alternatives for the project, the existing environment that could be affected by the project, the potential impacts from each of the alternatives, and the proposed avoidance, minimization, measures.

What you should do:

Please read this Initial Study/Environmental Assessment. Additional copies of this document as well as the technical studies are available for review at Caltrans District 11, 4050 Taylor Street, San Diego, CA 92110, and the University Community Branch Library, 4155 Governor Drive, San Diego, CA 92122-2501.

1. Attend public hearing:
 - We welcome your comments. If you have any comments regarding the proposed project, please attend the public hearing on, February 23, 2010 and/or send your written comments to Caltrans by the deadline.
 - Submit comments via postal mail to:
David Nagy, Environmental Branch Chief
California Department of Transportation – District 11
Environmental Planning
4050 Taylor Street, MS 242
San Diego, CA 92110
 - Submit comments via email to: david_l_nagy@dot.ca.gov
2. Submit comments by the deadline: March 10, 2010

What happens next:

After comments are received from the public and reviewing agencies, Caltrans, as assigned by the Federal Highway Administration, may: (1) give environmental approval to the proposed project, (2) undertake additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document can be made available in Braille, large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: David Nagy, Environmental Planning MS242, 4050 Taylor Street, San Diego, CA 92110; (619) 688-0224 Voice, or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

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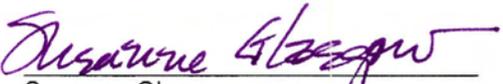
Construct Interstate 805 Managed Lanes North Project, in the City and County of San Diego,
from Postmile 23.3-27.7 and State Route 52 from Postmile 3.5-4.1

Initial Study with Proposed Mitigated Negative Declaration/ Environmental Assessment

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 USC 4332(2) (C)

THE STATE OF CALIFORNIA
Department of Transportation

1 FEB 2010
Date of Approval


Susanne Glasgow
Deputy District Director – Environmental
California Department of Transportation

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Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to add four managed lanes (two in each direction) on Interstate 805 (I-805) from State Route 52 (SR-52) to La Jolla Village Drive. Two high occupancy vehicle (HOV) lanes (one in each direction) from La Jolla Village Drive to just north of Mira Mesa Boulevard (Blvd). The project would also construct a transit station and Direct Access Ramp (DAR) at Nobel Drive, a park-n-ride at Governor Drive, the south facing portion of the Carroll Canyon DAR, and a direct connector from the SR-52 to the I-805 Managed Lanes.

Determination

This proposed Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a MND for this project. This does not mean that the Caltrans' decision regarding the project is final. This MND is subject to modification based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project, and pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project would have no effect on:

- Farmlands or Timberlands
- Growth
- Community Impacts
- Land Use
- Environmental Justice
- Hydrology/Floodplain
- Cultural Resources
- Pedestrian/Bicycle Facilities

In addition, the proposed project would have no significant effect on:

- Transportation/Traffic
- Geology/Soils/Seismic/Topography
- Air Quality
- Noise
- Wetlands and other Waters
- Animal Species
- Utilities/Emergency Services
- Visual Resources
- Water quality
- Hazardous Waste
- Paleontological Resources
- Cumulative Impacts
- Plant Species
- Natural Communities

The proposed project would have no significantly adverse effect on Threatened or Endangered Species because the following mitigation measures would reduce potential effects to insignificance:

- All native or sensitive habitats outside the permanent and temporary construction limits should be designated as Environmentally Sensitive Areas (ESAs) on project maps. ESAs would be temporarily fenced during construction with orange plastic snow fence. No personnel, equipment, or debris would be allowed within the ESAs.
- All native vegetation and non-native shrubs and trees within the impact areas would be removed outside of the breeding season (February 15 to September 15) to avoid impacts to nesting birds. Otherwise, a qualified biologist would thoroughly survey all vegetation prior to removal during the breeding season to ensure there are no nesting birds onsite. If nesting birds are identified onsite, vegetation removal would be delayed until the nest no longer supports eggs or chicks.
- A qualified biologist would attend both pre-construction and construction phases to review grading plans, address protection of special status biological resources, and monitor ongoing work. The biologist should be familiar with the habitats, plants, and wildlife of the Project area, and maintain communications with the resident engineer, to ensure that issues relating to biological resources are appropriately and lawfully managed.
- Duff (top soil) from areas with coastal sage scrub and chaparral would be saved to aid in revegetating slopes with native species.
- All temporary impact areas would be revegetated and restored to pre-existing conditions. Plants salvaged from construction areas would be placed on created slopes or in an offsite mitigation area.
- Appropriate best management practices (BMPs) would be used to control erosion and sedimentation. No sediment or debris would be allowed to enter the vernal pools, creeks, rivers, or other drainages.
- Detention basins would be placed in various locations to prevent runoff and bioswales would be placed on many of the slopes to treat runoff from the freeway.
- Fueling of construction equipment would only occur at a designated area at a distance greater than 100 ft from drainages, and associated plant communities to preclude

adverse water quality impacts. Fuel cans and fueling of tools would not occur within drainages.

- Permanent impacts CDFG and ACOE jurisdictional waters of the U.S. would be offset at a proposed 3:1 ratio offsite by wetland creation at the Deer Canyon (Pardee) Mitigation Site in McGonigle Canyon. Temporary impacts to these areas would be offset at a proposed 2:1 ratio, 1:1 onsite and 1:1 offsite creation.
- Sensitive plant species may be salvaged and seeds collected for use in post-construction habitat restoration.
- Exclusion devices would be installed during construction on bridge drain holes and ledges during the non-breeding season (September 1 through February 15) to prevent swallows, swifts, and any other birds or bats from nesting on or within bridges to be demolished or expanded.
- All sensitive/native temporary impact areas would be revegetated and restored to pre-existing conditions. Plants salvaged from construction areas could be placed on created slopes or in an offsite mitigation area.
- Permanent impacts to sensitive upland vegetation would be offset by preservation offsite at Sage Hill Mitigation Site.
- Permanent and temporary impacts to “rut” pools and species would be offset at a 30-acre site on Del Mar Mesa.
- Permanent and temporary impacts to wetland/riparian habitats would be offset offsite at Deer Canyon Mitigation Site (Pardee).
- Lighting used at night for construction would be shielded away from environmentally sensitive areas.
- All pile driving near the creeks that support threatened and endangered bird species would be completed outside the bird breeding season (March 15 to September 15) to minimize construction noise impacts to sensitive riparian-nesting bird species.
- All debris from the expansion of bridges would be contained so that it does not fall into rivers and creeks.
- Cut slopes would be revegetated with native upland habitats with similar composition to those within the Project study area. Fill slopes and areas adjacent to wetlands and

drainages would be revegetated with appropriate native upland and wetland non-invasive species. The revegetated areas would have temporary irrigation and be planted with native container plants and seeds selected by the biologist. There would be at least three years of plant establishment/maintenance on these slopes to control invasive weeds. Bioswales and detention basins would be planted with appropriate native species as determined by the biologist and storm water pollution prevention professional. Slopes adjacent to developed urban areas would be vegetated with native and drought tolerant non-invasive species selected by the biologist and landscape architect. Interchanges located in urban areas would be landscaped with native or ornamental non-invasive species.

- Salvaging of soil supporting San Diego fairy shrimp prior to grading is recommended where practicable.
- Lighting used at night for construction would be shielded away from ESAs.
- All heavy equipment would be washed and cleaned of debris prior to entering a wetland area, to minimize spread of invasive weeds.

Susanne Glasgow
Deputy District Director
District 11, Environmental
California Department of Transportation

Date

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Chapter 1 Proposed Project

INTRODUCTION

The California Department of Transportation (Caltrans), in conjunction with the San Diego Association of Governments (SANDAG), has proposed a Managed Lanes project located on I-805 from just south of State Route 52 (SR-52) (Postmile 23.3) to just north of Mira Mesa Boulevard (Postmile 27.7). The project length is 4.4 miles. The project location and vicinity map are shown on Figures 1 and 2.

The project is in SANDAG's 2007-2008 Revenue Constrained Regional Transportation Plan (RTP) which was found to be conforming by FHWA and FTA on December 10, 2007. The funding for this project would come from federal, state, and local sources. The total project cost is estimated to be \$615 million. The environmental phase has been funded with \$1.8 million of federal funds (Regional Surface Transportation Program) and \$7.6 million of local funds (TransNet II).

PURPOSE AND NEED

PURPOSE

The overall purpose of this project is to provide a backbone of multi-modal transportation facilities for the I-805 North project area while providing safe and efficient regional movement of people and goods through design year 2030.

The objectives of this project are:

- Provide facilities to enable the use of transit and encourage carpooling
- Increase mobility for all users of the I-805 corridor
- Provide consistency with the 2030 Regional Transportation Plan, Pathways for the Future, where feasible and in compliance with federal and state regulations
- Maintain or improve current traffic levels of service and travel times within the corridor

- Protect or enhance the human and natural environment along the I-805 project area

NEED

Capacity & Transportation Demand, Roadway Deficiencies

The I-805 freeway was opened to traffic in the early 1970s. It is a major north-south freeway beginning at its southern junction with I-5 near the international border with Mexico and continuing approximately 29 miles north where it again joins with the I-5 in Sorrento Valley. I-805 runs generally parallel to I-5, traversing the central portion of the San Diego urbanized area. I-805 provides an alternative route for I-5 north-south movement of traffic through San Diego, bypassing Downtown San Diego and other urban areas. It provides direct access to the major employment centers in Otay Mesa, Kearny Mesa, University City and Sorrento Valley, and is a major commuter route.

Traffic currently using I-805 within the study limits is subjected to congestion and delay during peak periods. The delay occurs when there is a lack of other non-congested transportation options for motorists traveling through the project area. I-5 parallels I-805 to the west and is not a desirable option due to its congested state and the fact that the east-west links (SR-56, SR-52, I-8 and SR-94) that connect the two freeways are also heavily congested.

I-805 (within the project limits) currently has eight general-purpose lanes but lacks high occupancy vehicle (HOV) lanes, managed lanes, or other dedicated facilities for transit or other modes of travel. I-805 in the project area currently operates at or near capacity during peak commute hours.

The managed lanes would allow transit vehicles and HOVs to bypass congestion on the general purpose lanes benefiting both HOV and general purpose lane users. They would increase person throughput rather than vehicle throughput, and make more efficient use of existing roadway capacity by moving more people per vehicle trip while reducing vehicle trips and congestion. In order to accommodate other modes of travel, the project proposes to construct transit facilities and managed lanes, the latter of which would accommodate transit vehicles, HOVs, and tolled single occupancy vehicles (SOVs).

One of the key components of the 2030 RTP (amended in November 2007), is to provide multiple commuter travel choices by transforming the existing freeway network into a more efficient system which can be used effectively by single SOVs, HOVs, and Bus Rapid Transit (BRT). The Plan recommends an extensive regional HOV network, termed the “flexible” highway system, whereby new connections would be developed to more efficiently manage capacity on the freeway system. The goal is to create HOV lanes which would be used by both BRT and HOV traffic while at the same time attempting to improve or maintain the existing congestion within the SOV lanes. This project would be consistent with the 2030 RTP and the plans of the Metropolitan Transit System (MTS), San Diego County Transit, and North County Transit District (NCTD) in accommodating the High-Speed Bus Rapid Transit System.

In addition to the need for other modes of travel, various bottlenecks exist that lead to a reduction in performance of the facility. Due to the congestion on the facility, a Comprehensive Performance Assessment and Causality Report was prepared for the August 2009 I-805 Corridor System Management Plan (CSMP). This report identified that bottlenecks lead to less than optimal performance on the I-805 in the project area. Though the removal of the bottlenecks does not solve the capacity need or lack of other modes available it would improve the operational efficiency of the general purpose lanes.

By definition, a bottleneck is a condition where traffic demand exceeds the capacity of the roadway facility. In most cases, the cause of bottlenecks is related to a sudden reduction in capacity, such as a reduction in lanes, heavy merging and weaving, driver distractions; or an increase in demand that the facility cannot accommodate. Below is a summary of bottlenecks within the project limits:

- The first bottleneck occurs in the AM peak hours when 2,730 westbound (WB) SR-52 vehicle trips attempt to merge with the northbound (NB) 805 traffic, exceeding the freeway capacity.
- The second bottleneck is in the PM on NB I-805 between the La Jolla Village Drive/Miramar Road on-ramp and the Mira Mesa Boulevard off-ramp in Sorrento Valley. The primary cause of this bottleneck is the 2,075 PM peak hour vehicles that merge onto I-805 from La Jolla Village Drive/Miramar Road.

- The third bottleneck occurs in the PM on SB I-805 between La Jolla Village Drive and SR-52. The high mainline and onramp volumes at this location exceed the freeway capacity. The SB entrance ramps from La Jolla Village Drive/ Miramar Road and Nobel Drive add 2,175 vehicles per hour to the freeway which is already at capacity. These vehicles entering the SB I-805 have trouble merging into the general purpose lanes and conflict with traffic preparing to exit onto SR-52.

Modal Interrelationships & System Linkage

SANDAG has been the regional agency responsible for transit planning and funding administration in the San Diego area since 2003. SANDAG shares transit planning responsibilities with Caltrans, the Metropolitan Transit System (MTS), and the North County Transit District (NCTD).

Enhancing transit is a major part of the 2030 RTP. It has a specific element calling for the implementation of a regional transit system that will provide a network of “fast, reliable, safe and convenient transit services” connecting the major activity centers of the region.

The regional BRT network would compliment the existing and planned investments in the San Diego Trolley, NCTD’s Sprinter and Coaster facilities, providing similar levels of service, travel speed, and customer experience. BRT vehicles will be able to bypass congestion in general purpose freeway lanes by taking advantage of Managed Lanes and HOV facilities. BRT routes have limited stations that are accessed through direct access ramps (DAR).

BRT routes are planned along several corridors in the region including I-805 south, I-15, and SR-94. The project serves as a critical link in this BRT system providing users from outlying residential areas connection to downtown San Diego and other major employment centers. In terms of the planned BRT service that would utilize the managed lanes system, other BRT routes would link South Bay communities, East San Diego County, and the northern inland communities with downtown San Diego and other major employment centers. The project, in conjunction with other planned route improvements, would ensure that BRT commuters could bypass general purpose lane congestion through the project area.

The proposed managed lanes would be dedicated to HOV and BRT commuters, and will allow for toll paying SOVs to utilize the lanes when extra capacity exists. They are critical to the planned, regional, freeway-based BRT system and enable MTS to have a reliable schedule for commuters. The managed lanes would provide free-flow speeds for carpools/vanpools and toll paying SOVs during peak periods. The RTP recognizes the benefits of managed lanes, and includes specific plans for improvements on the I-805 and other major freeways throughout the region. Increasing vehicle occupancy through higher usage of transit and ridesharing improves the efficiency of the region's transportation system.

Traffic

A Traffic Study Report, November 2009, was prepared for this project. As part of this study, traffic volumes were developed using the SANDAG Series 11 Transportation Model.

The I-805 corridor traffic levels of service (LOS) were analyzed comparing the existing conditions, the Build and No-Build Conditions for Year 2020 and 2030. The existing traffic is directional in nature and is heavy during the AM peak hour in the northbound direction and heavy during the PM peak hour in the southbound direction. In the southbound direction the volumes approach or exceed the freeway capacity (LOS E or F) between the Miramar Road collector/distributor SB on-ramp and SR-52 EB/WB off-ramp. In the AM peak hour, all segments currently operate at LOS D or better in the southbound direction. The northbound freeway currently operates at LOS E or F under existing conditions in the AM peak hour (see Table 1: LOS for Multi-Lane Highways and Table 2: Freeway LOS Comparison).

Table 1: LOS for Multi-Lane Highways

LEVELS OF SERVICE

for Freeways

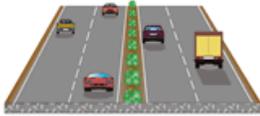
Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptions
A		70	Highest quality of service. Traffic flows freely with little or no restrictions on speed or maneuverability. No delays
B		70	Traffic is stable and flows freely. The ability to maneuver in traffic is only slightly restricted. No delays
C		67	Few restrictions on speed. Freedom to maneuver is restricted. Drivers must be more careful making lane changes. Minimal delays
D		62	Speeds decline slightly and density increases. Freedom to maneuver is noticeably limited. Minimal delays
E		53	Vehicles are closely spaced, with little room to maneuver. Driver comfort is poor. Significant delays
F		<53	Very congested traffic with traffic jams, especially in areas where vehicles have to merge. Considerable delays

Table 2: Freeway LOS Comparison

	From	To	2006 Existing AM Peak	2006 Existing PM Peak	2020 No Build AM Peak	2020 No Build PM Peak	2020 Build AM Peak	2020 Build PM Peak	2030 No Build AM Peak	2030 No Build PM Peak	2030 Build AM Peak	2030 Build PM Peak
I-805 NB	Clairemont CD NB On-Ramp	Clairemont WB On-Ramp	D	C	D	C	E	C	F	D	D	C
	Clairemont WB On-Ramp	SR-52 Ingress/Egress	----	----	----	----	D	C	----	----	D	C
	SR-52 Ingress/Egress	SR-52 EB/WB Off-Ramp	D	C	D	C	C	C	E	D	D	C
	SR-52 EB/WB Off-Ramp	SR-52 EB On-Ramp	C	B	C	C	C	B	D	C	C	C
	SR-52 EB On-Ramp	SR-52 WB On-Ramp	D	C	D	C	D	B	E	C	D	C
	SR-52 WB On-Ramp	Governor Off-Ramp	F	C	F	D	E	C	F	E	E	C
	Governor Off-Ramp	Governor On-Ramp	F	C	F	D	C	B	F	F	D	C
	Governor On-Ramp	Nobel Off-Ramp	F	C	F	D	C	B	F	D	D	C
	Nobel Off-Ramp	Miramar Off-Ramp	E	C	F	C	C	B	F	D	D	C
	Miramar Off-Ramp	Miramar EB On-Ramp	D	B	D	C	C	B	F	D	D	C
	Miramar EB On-Ramp	Miramar WB On-Ramp	----	----	E	D	D	B	F	E	D	D
	Miramar WB On-Ramp	Mira Mesa Off-Ramp	D	C	D	D	D	C	F	E	E	D
	Mira Mesa Off-Ramp	Vista Sorrento HOV Ingress	C	C	C	C	D	C	D	D	C	D
	Vista Sorrento HOV Ingress	Vista Sorrento Off-Ramp	----	----	C	C	C	C	C	C	C	C
	Vista Sorrento Off-Ramp	Vista Sorrento On-Ramp	B	B	B	B	B	B	B	C	B	C
Vista Sorrento On-Ramp	SR-56 Bypass Off-Ramp	B	C	B	C	B	D	B	D	B	D	
SR-56 Bypass Off-Ramp	I-5 Merge	A	A	A	A	A	A	A	B	A	B	
I-805 SB	I-5 Diverge	SR-56 Bypass On-Ramp	C	B	C	B	C	B	C	B	D	B
	SR-56 Bypass On-Ramp	Mira Mesa Off-Ramp	D	B	E	C	D	B	F	C	F	C
	Mira Mesa Off-Ramp	Mira Mesa WB On-Ramp	D	C	D	C	C	B	F	D	C	B
	Mira Mesa WB On-Ramp	Mira Mesa EB On-Ramp	C	D	C	C	B	B	D	D	C	C
	Mira Mesa EB On-Ramp	Miramar Off-Ramp	C	D	C	E	B	C	D	F	C	D
	Miramar Off-Ramp	Miramar WB On-Ramp	B	D	B	E	B	C	C	F	C	D
	Miramar WB On-Ramp	Miramar EB On-Ramp			C	F	B	D	D	F	C	F
	Miramar EB On-Ramp	Nobel On-Ramp	C	E	C	F	B	C	D	F	C	D
	Nobel On-Ramp	Governor Off-Ramp	C	E	C	F	B	D	D	F	C	E
	Governor Off-Ramp	Governor On-Ramp	C	F	D	F	B	D	E	F	C	E
	Governor On-Ramp	SR-52 EB/WB Off Ramp	C	E	C	F	B	D	D	F	C	E
	SR-52 EB/WB Off Ramp	SR-52 WB On-Ramp	B	D	B	D	B	D	C	F	B	E
	SR-52 WB On-Ramp	SR-52 EB On-Ramp	B	D	B	E	B	D	C	F	B	E
	SR-52 EB On-Ramp	SR-52 Ingress/Egress	B	E	B	E	B	E	C	F	C	F

Notes:
 Shaded Cells indicate LOS E, F
 CD: collector distributor

Though LOS is maintained between the existing, 2020 and 2030 scenarios, incremental time savings would occur with the proposed project. Table 3: Travel Time Comparison shows that current corridor travel times for the AM Peak Period are 8 minutes for southbound and 8 minutes and 45 seconds for the northbound direction. In 2030, without the project, the travel times increase to 8 minutes for southbound and 9 minutes for the northbound direction. During the PM peak period, southbound travel times for the corridor are 8 minutes and 30 for southbound and 9 minutes for the northbound. In 2030 PM peak no build travel times would be 9 minutes for southbound and 9 minutes and 45 seconds for northbound.

The 2020 Build scenario shows savings in the AM peak period of 30 to 45 seconds on the general purpose lanes, and 1 minute and 45 seconds to 2 minutes if using the carpool lane. For the PM peak period savings of 45 seconds to 1 minute would occur in the general purpose lanes and savings of 3 minutes and 15 seconds for carpool users. As shown on Table 3: Travel Time Comparison, similar savings would occur in 2030 while allowing more person trips to occur within the corridor due to additional travel options.

An analysis of the person trips within the corridor during the peak and off-peak periods indicates that the project results in an increase in the number of person trips when comparing Build and No-Build conditions in 2020 and 2030. These changes are summarized in Table 3: Travel Time Comparison. Furthermore, an analysis of the number of Vehicle Work Trips yields similar results. This data reveals that the number of work trips in the I-805 North corridor during the peak and off peak period increases over Existing and No-Build conditions. These increases are as a result of the modal shift from the general-purpose lanes to the HOV/Managed Lanes. They are also an indication that this project has the potential to promote use of public transportation in order to increase mobility within the I-805 North corridor. The travel times and the vehicle hours traveled were also analyzed within the corridor for peak and off peak periods. The results indicate that travel times and vehicle hours are reduced in the general purpose lanes when comparing the Build conditions to Existing and No-Build conditions. These reduced travel times on the general purpose lanes indicate that the I-805 North Managed Lanes Project is shifting trips from the general purpose lanes to the HOV/ML lanes.

These results indicate that the proposed project maintains or improves traffic operations in 2020 and 2030 scenarios when compared to the equivalent No-Build conditions. While

the results of specific segment, weaving, or intersection analysis locations show a worse LOS condition in some areas, the net changes in all cases maintain or improve conditions on the I-805 North corridor.

Table 3: Travel Time Comparison

AM Peak Period	Unit	2006 Existing		2020 No Build		2020 Build		2030 No Build		2030 Build	
		NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
Travel time - GP Lane	Min:Sec	8:45	8:00	8:00	8:15	7:30	7:30	9:00	8:00	8:00	7:30
Travel time - ML Lane	Min:Sec	N/A	N/A	N/A	N/A	6:00	6:00	N/A	N/A	7:15	6:30
Travel Time Savings (1)	Min:Sec	N/A	N/A	0:45	-0:15	1:15	0:30	-0:15	0:00	0:45	0:30
Person Trips (2)	Person	46,975	42,910	49,363	51,045	49,474	51,845	52,734	50,642	59,897	54,825
Non SOV Person Work Trips	Person	701	942	839	1120	826	1174	1051	1176	1267	1299
PM Peak Period	Unit	2006 Existing		2020 No Build		2020 Build		2030 No Build		2030 build	
		NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
Travel time - GP Lane	Min:Sec	9:00	8:30	9:45	8:15	8:30	7:30	9:45	9:00	8:30	8:00
Travel time - ML Lane	Min:Sec	N/A	N/A	N/A	N/A	6:30	6:00	N/A	N/A	7:15	7:45
Travel Time Savings (1)	Min:Sec	N/A	N/A	-0:45	0:15	0:30	1:00	-0:45	-0:30	0:30	0:30
Person Trips (2)	Person	52,670	48,228	60,758	53,623	61,206	55,260	61,234	57,007	66,022	67,261
Non SOV Person Work Trips	Person	1280	964	1514	1095	1567	1168	1643	1346	1777	1702
Off Peak Period	Unit	2006 Existing		2020 No Build		2020 Build		2030 No Build		2030 Build	
		NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
Travel time - GP Lane	Min:Sec	7:15	7:15	7:15	7:15	6:45	6:45	7:30	7:30	7:00	7:00
Travel time - ML Lane	Min:Sec	N/A	N/A	N/A	N/A	5:45	6:00	N/A	N/A	6:00	6:00
Travel Time Savings (1)	Min:Sec	N/A	N/A	0:00	0:00	0:30	0:30	-0:15	-0:15	0:15	0:15
Person Trips (2)	Person	154,883	149,625	169,962	170,925	175,554	176,861	179,627	181,097	187,449	189,318
Non SOV Person Work Trips	Person	3916	3689	4692	4605	5007	4987	5252	5129	20522	20319

(1) GP Lane travel time savings compared to existing conditions. Negative number indicates an increase in travel time.

(2) Person trips by all modes (SOV and HOV)

(ML) Managed Lanes

(N/A) ML lanes do not exist under this scenario

PROJECT DESCRIPTION

This section describes the proposed action and the design alternatives that were developed by a multi-disciplinary team to achieve the project purpose and need while avoiding or minimizing environmental impacts. After careful consideration the Project Development Team (PDT) identified the Managed Lanes Alternative is the only viable build alternative. The final selection of this alternative would not be made until after the full evaluation of environmental impacts and full consideration of public hearing comments. The final selection would be included in the Final Mitigated Negative Declaration/Finding of No Significant Impact.

The Managed Lanes alternative would meet the project objectives and the purpose and need by improving traffic operations and allowing efficient goods movement through the I-805 managed lanes north corridor, providing opportunities for other modes of travel and managing future needs. Managed lanes are being pursued to provide priority for buses and carpools. In addition, a value pricing program would allow single occupancy vehicles (SOV) to utilize any excess capacity on the lanes.

In addition to the Managed Lanes Alternative, the No Build and the Transportation System Management Alternatives were analyzed. Following is a discussion of these three alternatives that are still under consideration.

ALTERNATIVES

Managed Lanes Alternative (Build Alternative)

The Build Alternative proposes to construct four managed lanes (two lanes in each direction) in the existing freeway median from SR-52 to just north of La Jolla Village Drive and one HOV lane in each direction from just north of La Jolla Village drive to just north of Mira Mesa Blvd. In the median, northbound and southbound Portland Cement Concrete (PCC) lanes would be separated by a concrete barrier. PCC inside shoulders would be adjacent to the concrete barrier. A painted 4ft buffer would be used to separate the Managed Lanes from the general-purpose lanes. A typical cross section of the proposed facility can be seen on Figure 4. In order to accommodate the proposed 12ft lane widths in the median the existing facility would be expanded to the outside. Locations of project features are illustrated on the Project Features Maps, Figures 3-A to 3-D.

In addition, this project would construct a SR-52/I-805 direct connector ramp, a south facing Direct Access Ramp (DAR) at Carroll Canyon, a Nobel Dr. DAR, and a park and ride/transit station at the southwest quadrant of Nobel Dr. and I-805. Additional details on these and additional features can be found below.

Ramp Realignments

Direct connector ramps connect lanes of one highway to HOV or managed lanes of another highway. A direct connector ramp would be constructed to connect the SR-52 (SR- 52 westbound to I-805 northbound and I-805 southbound to SR-52 eastbound movements) to the proposed I-805 managed lanes. The direct connector would be a two-lane structure, with one lane in each direction, separated by a concrete barrier.

In addition to the proposed direct connector, the outward main lane shifts would necessitate the realignment of the following existing ramps and connectors within the project limits:

- Eastbound 52 to Northbound 805 connector
- Westbound 52 to Northbound 805 connector
- Eastbound 52 to Southbound 805 connector
- Westbound 52 to Southbound 805 connector
- Southbound 805 to Eastbound 52 connector
- Southbound 805 to Westbound 52 connector
- Northbound 805 offramp to Governor Dr.
- Northbound 805 onramp from Governor Dr.
- Southbound 805 offramp to Governor Dr.
- Northbound 805 offramp to Nobel Dr.
- Southbound 805 onramp from Nobel Dr.
- Northbound 805 offramp to La Jolla Village Dr
- Northbound 805 offramp to La Jolla Village Dr
- Northbound 805 onramp from East Bound of La Jolla Village Dr.
- Northbound 805 onramp from West Bound La Jolla Village Dr.
- Southbound 805 onramp from East Bound La Jolla Village Dr
- Southbound 805 onramp from West Bound of La Jolla Village Dr .
- Southbound 805 offramp to La Jolla Village Dr.
- Northbound 805 offramp to Mira Mesa Blvd.
- Northbound 805 offramp to Vista Sorrento Pkwy.
- Northbound 805 onramp from Vista Sorrento Pkwy.
- Southbound 805 onramp from Mira Mesa Blvd

The Governor Drive southbound off-ramp would be modified in order to increase the distance it the southbound I-805 to westbound SR-52 connector. The existing southbound on-ramp would be replaced by a loop-ramp in the northwest quadrant of the interchange where an existing park-n-ride lot is located. The I-805 widening would cause a soundberm that is currently located at the Governor Drive southbound off-ramp to be relocated. To account for this, a ravine, currently outside of the state right of way and west of I-805 and north of Governor Drive, would be filled with approximately 32,000 cubic yards of soil up to the fence line of the 6 properties at the edge of the ravine.

Auxiliary Lanes

Auxiliary lanes are lanes that run along a freeway from the on-ramp of one interchange to the off-ramp of the next; they do not continue through the interchange area. Auxiliary lanes would be added to the I-805 at the following locations:

- SR-52/I-805 Junction to Governor Drive (northbound and southbound)
- Governor Drive to Nobel Drive (northbound and southbound)
- La Jolla Village Drive to Mira Mesa Boulevard (northbound and southbound)

Bridges

The existing Rose Canyon Bridge would be widened 28ft in the median and up to 54ft on either side with 6 additional columns being added. The Carroll Canyon Bridge would be widened up to 53ft in the southbound direction and up to 44ft in the northbound direction with 22 additional columns added at the Carroll Canyon Bridge and Carroll Canyon DAR locations. The southbound ramp that connects the I-805 to SR-52 would be widened 28ft in the median and 18ft on the southbound side.

Access

Two types of access into and out of the proposed managed lanes would be incorporated into the project. The first type would be called intermediate access points (IAP). The IAP are at-grade and adjacent to the freeway main lanes. These IAPs would allow users to enter and exit the proposed managed lanes. The second type of access points are for the DARs. The DARs would provide a direct connection from the proposed managed lanes to local streets or transit stations. The DARs would consist of two 12 ft lanes with 8 ft outside shoulders and 4 ft inside shoulders. At the DAR locations, managed lanes would be separated from the DAR ramps with

a combination of barriers and retaining walls. Direct access Ramps are proposed at the following locations:

- Nobel Drive Transit Station
- Carroll Canyon Road (northbound off-ramp and southbound on-ramp only)

Bus Rapid Transit/Park and Ride

A park-n-ride lot with a Bus Rapid Transit (BRT) Station would be constructed at the southwest quadrant of Nobel Drive and I-805 (Figure 3c). Conceptually it would contain 300 parking spaces 12 of which would be accessible for people with disabilities. The BRT station would also contain a bus platform with pedestrian ramps, a waiting area with benches and overhead lighting, and a loading and drop-off zone. The BRT would be approximately 275,000 sq ft (6.3 acres) in size.

A park-n-ride lot would also be located at the southwest quadrant of Governor Drive and I-805 (Figure 3b). This lot would contain 110 parking spaces and would be approximately 57,000 sq ft (1.3 acres) in size. The final layout of the BRT Station would be finalized during design.

Cut Slopes

The proposed project would require extensive grading in some areas in order to accommodate the widening. Cut and fill lines are shown on the project feature maps located on Figures 3A through 3C. Major cut or fill slopes are defined as slopes that are greater than 15ft in height and 600ft or greater in length. Major cut slopes would be located at:

- East of I-805 by the junction with SR-52 up to the off ramp of Governor Drive
- West of I-805 by the junction with SR-52
- West of southbound I-805 to just north of the Governor Drive off-ramp where the existing berm is being modified
- East and West of I-805 between the La Jolla Village Drive ramps and just south of the Carroll Canyon Bridge

Retaining Walls

Retaining walls would be utilized in numerous locations throughout the corridor to stabilize slopes, minimize biological impacts and to accommodate engineering structures.

Utilities

There are numerous utilities along the I-805 and several utility conflicts have been identified. San Diego Gas & Electric (SDG&E), AT&T, City of San Diego, TelePacific, Time Warner, MCI, and Qualcomm all have utility facilities located within the project limits and any relocations or protection measures would be coordinated with these utility owners during the design process. Specific utility relocations are discussed in the utility relocation section of this document (Section 2.4).

Railroads

The proposed project crosses the railroad in two locations, at the Rose Canyon and at Carroll Canyon bridges. Due to the widening of these bridges and the additional DAR structure over Carroll Canyon, easements and construction/maintenance agreements will be coordinated with the railroad agencies/owners. This includes the legal owner which is the Metropolitan Transit System (MTS), and other users of the rail track in this area. Permit application to the California Public Utilities Commission (CPUC) will be required.

Right of Way

Right of way requirements for the project include new right of way for the Nobel Drive P&R/BRT Station (currently owned by the City of San Diego), additional railroad easements due to the widening of the bridges would be required at Rose Canyon Bridge and Carroll Canyon Bridge. Various right of way easements, both permanent and temporary, would be required to build the proposed noise barriers. I-805 crosses over the North County Transit District (NCTD) Coaster line in two locations; the Rose Canyon Overcrossing and the Carroll Canyon Overcrossing. A permit would be acquired from NCTD during the design phase of the project. All staging/storage areas would be located within the Caltrans right of way, and outside of any Environmentally Sensitive Areas (ESAs). Table 4, lists right of way that would be needed to construct the proposed project.

Table 4: Right of Way Parcels

Parcel #	Property Address	Type
355-442-47-00	5409 NORTHRIDGE CT	Easement
355-442-48-00	5419 NORTHRIDGE CT	Easement
355-442-49-00	5429 NORTHRIDGE CT	Easement
355-442-50-00	5439 NORTHRIDGE CT	Easement
355-442-51-00	5449 NORTHRIDGE CT	Easement
355-542-01-00	5459 NORTHRIDGE CT	Easement
355-542-02-00	5469 NORTHRIDGE CT	Easement
355-542-03-00	5384 PALMYRA AVE	Easement
355-542-04-00	5374 PALMYRA AVE	Easement
355-542-05-00	5364 PALMYRA AVE	Easement
348-830-16-00	6129 WOLFSTAR CT	Easement
348-830-17-00	6123 WOLFSTAR CT	Easement
348-830-18-00	6117 WOLFSTAR CT	Easement
348-830-19-00	6111 WOLFSTAR CT	Easement
348-830-20-00	6105 WOLFSTAR CT	Easement
348-530-30-00	7455 BOVET WAY	Easement
348-530-31-00	7445 BOVET WAY	Easement
348-530-36-00	7345 STEINBECK AVE	Easement
348-530-37-00	7335 STEINBECK AVE	Easement
348-530-38-00	7325 STEINBECK AVE	Easement
348-530-39-00	7315 STEINBECK AVE	Easement
348-530-40-00	7305 STEINBECK AVE	Easement
348-530-43-00	7273 STEINBECK AVE	Easement
348-530-44-00	7265 STEINBECK AVE	Easement
348-530-45-00	7257 STEINBECK AVE	Easement
348-540-22-00	7119 ENDERS AVE	Easement
348-540-23-00	7125 ENDERS AVE	Easement
348-540-24-00	7131 ENDERS AVE	Easement
348-540-25-00	7141 ENDERS AVE	Easement
348-540-26-00	7155 ENDERS AVE	Easement
348-540-28-00	7217 STEINBECK AVE	Easement
348-540-29-00	7225 STEINBECK AVE	Easement
348-540-30-00	7233 STEINBECK AVE	Easement
348-540-31-00	7241 STEINBECK AVE	Easement
348-540-32-00	7249 STEINBECK AVE	Easement
348-020-06-00	UNITED STATE OF AMERICA	Easement
348-020-03-00	SDMT DEV BOARD AGENCY	Easement
349-010-03-00	CITY OF SAN DIEGO	Easement
345-011-24-00	CITY OF SAN DIEGO	Fee
341-321-63-00	TRIZEC SORRENTO TOWER LLC	Easement
343-010-19-00	CARYON PROPERTY	Easement
341-321-37-00	CARYON PROPERTY	Easement
341-321-38-00	CARYON PROPERTY	Easement

Value Pricing Technologies

Assembly Bill 574 (2007) provided SANDAG the authority to conduct, administer, and operate a value pricing and transit demonstration program on a maximum of two transportation corridors in San Diego County. It also authorized SANDAG to operate the program indefinitely by removing a four-year limitation provision. These facilities combine pricing and vehicle eligibility to maintain free-flow conditions while still providing a travel time-savings incentive for HOVs, and reducing demand on the general-purpose lanes.

Additional equipment would be required for the implementation of the Value Pricing Program. The proposed technology to be used is Electronic Toll Collection (ETC) equipment, which would include overhead support structures and antennas to read transponders, variable message signs to display the tolls, loop detectors to measure traffic volume and speed, and closed circuit cameras (CCTV) to view traffic on the facility and to help determine violation rates. The equipment to be utilized would be determined during the design phase.

Pullouts/Enforcement

There would be two California Highway Patrol (CHP) enforcement areas added to the HOV lanes. These CHP enforcement areas would be located at the following locations:

- Between Governor Drive and the Nobel Drive DAR in the northbound direction (station 1343+00 and 1351+00)
- Between Governor Drive and SR-52 in the southbound direction.

Drainage

All drainage inlets that are located on the edge of the existing shoulders would be relocated to the new edge of shoulders, requiring the extension of all the affected pipes.

Non Standard Features

Some design exceptions would be required. The following are the major design exception categories:

- Shoulder Width Reductions
- Interchange Spacing
- Connector Ramp Design Speed and Profile Grade
- Traveled Way Cross Slopes flatter than 1.5%
- Superelevation Exceptions
- Exit Ramp Divergence Angle

Proposed Construction Staging

Construction would be divided into stages. Staging would be necessary to minimize traffic disturbances and maintain current traffic flow during construction. The four segments currently proposed for this project are described below.

Carroll Canyon Road Segment – This construction segment is 1.1 miles on I-805 along the main lanes and would extend from just north of La Jolla Village Drive to the I-805 HOV lanes just north of Mira Mesa Boulevard. The project features for this segment include:

- Carroll Canyon Bridge (new construction)
- Mira Mesa Bridge (widening)
- Carroll Canyon Direct Access Ramp Structure (new construction)
- Ramp modifications
- Two inside/two outside lanes (widening)
- Railroad and California Public Utilities Commission (CPUC) airspace easements

Nobel Drive Segment – This construction segment includes 1.7 miles on I-805 along the main lanes. It would extend from just south of Rose Canyon to just north of La Jolla Village Drive.

The project features for this segment include:

- Rose Canyon Bridge (widening)
- Bus Rapid Transit Center/Station at Nobel Drive (new construction)
- Nobel Direct Access Ramp Structure (new construction)
- Ramp modifications
- Two inside/two outside lanes (widening)
- Railroad or CPUC airspace easements
- Right of Way for the DAR and P&R/BRT Station

Governor Drive Segment – This construction segment includes 1.6 miles on I-805 along the main lanes. It would extend from the south end of the project just south of SR-52 to just south of Rose Canyon. The project features for this segment include:

- Governor Drive Bridge (widening)
- SR-52 Separation Bridge (inside widening)
- Ramp and connector modifications
- Two inside/two outside lanes (widening)
- Noise barriers (new construction)

SR-52 Connector Segment – This construction segment includes the HOV Connector Ramp that links SR-52 and I-805. The project features for this segment include:

- Connector bridge (new construction)
- Median grading and pavement associated with the connector ramp

The proposed construction staging, detailed stage construction plans, number of phases and the contract limits would be determined during final design.

One additional strategy being considered is constructing the proposed facility in two phases. Phase 1 would consist of building one HOV lane in each direction by 2020. Phase 2 would add an additional HOV lane and direct access ramps. An amendment to the RTP and RTIP would be sought prior to implementation of this phasing strategy.

ADA COMPLIANCE

ADA Compliance will be followed in the design of sidewalks and pedestrian ramps.

Transportation System Management (TSM) and Transportation Demand Management (TDM) Alternatives

TSM and Multi-modal Alternatives consist of strategies to maximize efficiency of the existing facilities by providing options such as ridesharing, parking, and traffic-signal optimization. TSM options to improve traffic flow typically increase the number of vehicle trips a facility can carry without increasing the number of through lanes. This ability to increase the number of vehicle trips is often included during consideration of existing and forecast operational characteristics of a facility. Such strategies include replacing existing stop signs with traffic signals at intersections to improve existing peak hour traffic flow and to reduce queuing of vehicles. TSM also encourages automobile, public and private transit, ridesharing programs, and bicycle and pedestrian improvements as elements of a unified urban transportation system. Multi-modal alternatives integrate multiple forms of transportation modes, such as pedestrian, bicycle, automobile, rail, and transit.

TDM Alternatives focus on regional strategies for reducing the number of vehicle trips and vehicle miles traveled, as well, as increasing vehicle occupancy. It facilitates higher vehicle occupancy or reduces traffic congestion by expanding the traveler's transportation choice in terms of travel method, travel time, travel route, travel costs, and the quality and convenience of the travel experience. Typical activities within this alternative reduce the amount of single

occupancy vehicle trips by providing contract funds to regional agencies that are actively promoting ridesharing, maintaining rideshare databases and providing limited rideshare services to employers and individuals. Promoting mass transit, or by facilitating non-motorized alternative means of transportation are two such examples. TDM strategies may also include reducing the need for travel altogether through initiatives such as telecommuting. In some cases, TDM may also involve changing work schedules, with the resultant greater travel flexibility producing a more even pattern of transportation network use, muting the effect of morning and evening rush hours.

Although TSM/TDM measures alone could not satisfy the purpose and need of the project, the following TSM/TDM measures have been incorporated into the Build Alternative for this project:

- Addition of Auxiliary Lanes at three locations.
- Access to/from HOV lanes on I-805 to encourage carpooling/ridesharing.
- Compatibility with future proposed BRT (Bus Rapid Transit).
- Addition of Park and Ride lots
- Addition of transit station

No-Build Alternative

The No-Build alternative proposes no improvements to the project area. The No-Build would not alleviate the current or anticipated traffic congestion on the I-805 or accommodate multi-modal use. Because this alternative does not create additional multi-modal transportation through the corridor or maintain or improve present and future traffic conditions, it would be inconsistent with the purpose and need of this project.

PERMITS AND APPROVALS NEEDED

The following permits, reviews, and approvals would be required for project construction:

Agency	Permit/Approval	Status
United States Fish and Wildlife Service	Section 7 Consultation for Threatened and Endangered Species	Pending
United States Army Corps of Engineers	Section 404 Permit for filling or dredging waters of the United States.	Pending
California Department of Fish and Game	1602 Agreement for Streambed Alteration	Pending
Regional Water Quality Control Board	Section 401 Water Quality Certification	Pending
City of San Diego Local Coastal Permit	Local Coastal Program Permit	Pending
California Public Utilities Commission	Permit	Pending



Figure 2
Project Vicinity Map

Chapter 2 – Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

This chapter explains the impacts that the project would have on the human, physical and biological environments in the project area. It describes the existing environment that could be effected by the project and potential impacts.

RESOURCES WITHOUT IMPACTS

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered but no adverse impacts were identified. Consequently, there is no further discussion regarding these issues in this document.

Farmlands/Timberlands: There are no farmlands and/or timberlands within the project footprint.

Wild and Scenic Rivers: There are no wild and scenic designated rivers within the project footprint.

Community Character and Cohesion: The proposed project would not create impacts to adjacent communities.

Relocations: The proposed project would not require the relocation of any homes or businesses.

Hydrology/Floodplain: Although the proposed project encroaches upon existing floodplains immediately upstream from the proposed bridge widening at Carroll Canyon, it would not exceed the Federal Emergency Management Agency (FEMA) 100 year floodplain boundary. The proposed project would not impact any hydrology or floodplain values.

Parks and Recreational Facilities: There are no impacts to Parks and Recreational Facilities, for a discussion of resources evaluated relative to Section 4(f) refer to Appendix A.

HUMAN ENVIRONMENT

2.1 LAND USE

The project is located entirely within the City of San Diego. The profile of the communities adjacent to the project area reflects a well-developed urbanized environment with a diverse mix of land uses, population and housing, and transit options. There are five defined communities, Clairemont Mesa, Kearny Mesa, University, Mira Mesa, and Torrey Pines that are adjacent to the project and are analyzed as part of the Community Impact Assessment. Marine Corps Air Station Miramar is also adjacent to the project and included in the discussion. The City of San Diego communities that are located adjacent to the project are shown in Figure 5.

2.1.1 Existing and Future Land Use

The General Plan reflects that the City of San Diego's corporate limits contain approximately 219,241 acres of land. The planned land uses for the City show that 62,692 acres are planned for park, open space, and recreation; 55,842 acres are planned for residential; 3,809 acres are planned for agriculture; 37,184 acres are planned for institutional, public and semi-public facilities; 5,475 acres are planned for commercial employment, retail, and services; 12,278 acres are planned for industrial employment; 30,495 acres are planned for roads, freeways, and transportation facilities; and, 6,932 acres are planned for water bodies not used for recreational purposes.

Existing land uses on lands adjacent to the proposed project are diverse and include residential, commercial, industrial, public and recreational facilities. Figure 6A – 6C and Figure 7A-7C show existing and planned land use in the project vicinity.

The following are planned developments in the general project vicinity.

Table 5: General Vicinity Project List

Name	Jurisdiction	Proposed Uses	Status
UTC Revitalization	City of San Diego	The project proposes to redevelop and renovate the existing 1,061,400-sq. ft. Westfield University Towne Center (UTC) regional shopping center located southeast of the intersection of La Jolla Village Drive and Genesee Avenue; north of Nobel Drive, and west of Towne Centre Drive. The proposed project would be the renovation and expansion of retail uses by 750,000 sq. ft. of new retail and the development of 250 multi-family residential units. Alternatively, the applicant could implement a mix of land use scenarios that could include a reduction in new retail and the addition of up to 725 residential dwelling units; up to 250 hotel rooms; and/or up to 35,000 sq. ft. of office space.	Necessary Mitigation for Traffic Impacts et al. /Construction FEIR approved April 2008

2.1.2 Consistency with State, Regional, and Local Plans and Programs

Regional Transportation Plan & Regional Transportation Improvement Program

The proposed project is included in SANDAG's 2030 San Diego Regional Transportation Plan: Pathways for the Future (2007 update) and 2008 Regional Transportation Improvement Program (2008 RTIP). The project is identified in the 2030 RTP on page A-5 and A-10, Revenue Constrained Plan Tables A.1 and A.2 respectively, and in the 2008 RTIP on page 38, as MPO ID: CAL78B; Title: I-805 HOV/Managed Lanes - North, with the following description: On I-805 from the I-805 /SR 52 to Sorrento Valley, on SR 52 at the I-805/SR 52 separation – preliminary engineering for future construction of managed lanes. A difference exists regarding the current capacity categorization in the 2008 RTIP and the actual categorization drawn from the descriptions of the proposed alternative. The project is currently listed in the 2008 RTIP as Non-Capacity Increasing (NCI), however, an amendment would be completed prior to the completion of the final environmental document to ensure that the 2008 RTIP, regional conformity analysis, and the project have consistent descriptions.

A conformity determination for SANDAGs new 2008 RTIP and conformity redetermination for SANDAGs 2030 RTP was made by USDOT on November 17, 2008. The design concept and scope of the proposed project are anticipated to be consistent with the project description in the

2030 RTP, the 2008 RTIP, and the assumptions in the SANDAG regional emissions analysis prior to the completion of the final environmental document. Therefore, it is foreseen that the project would conform to the 2030 RTP and the 2008 RTIP.

City of San Diego Progress Guide and General Plan

The City of San Diego Progress Guide and General Plan was originally approved in 1979, updated in 1989, and in 2002 to include a new Strategic Framework Element, and most recently in March 2008 to provide a comprehensive policy framework for how the City should plan for projected growth and development over the next 20 to 30 years. According to the General Plan, there is less than 4% of vacant developable land available in the City of San Diego. Infill development and redevelopment would play an increasingly significant role in providing needed housing, jobs, and services to communities because the majority of the City is developed. The population estimate for the year 2005 was 1,305,736 according to January 1, 2005 estimated figures available from the State Department of Finance, Demographic Research. SANDAG forecasts that the population of the City in 2010 would be 1,365,130 persons.

Figure 5 illustrates the locations of communities adjacent to the proposed project.

Clairemont Mesa Community Plan

The Clairemont Mesa community planning area encompasses approximately 6,755 acres. This community lies south of SR 52, west of I-805, north of the Linda Vista community, and east of I-5. The population of the Clairemont Mesa community planning area in 2010, as projected by SANDAG, is 80,653 persons.

The Clairemont Mesa Community Plan was originally adopted by the City Council on September 26, 1989 and was updated in 2005. The plan describes the land uses and character of the community:

Of the 6,755 acres that comprise Clairemont Mesa, 4,213 acres (or 62%) are used for housing. Clairemont Mesa is an urbanized community and for the most part is built out. Future development of the vacant residential land and redevelopment opportunities could result in an addition of 1,100 dwelling units (not including mixed-use development) totaling 33,000 dwelling units or a 3% increase over the existing. Clairemont Mesa contains several commercially zoned sites evenly distributed throughout the community. These sites comprise approximately 297 acres, of which 251 acres are developed with commercial uses, 23 acres are used for residential purposes, 19 acres contain other uses, and four acres are vacant. The combined

acreage of these industrial sites is approximately 192 acres, of which 149 acres are developed with industrial uses, 30 acres are used for commercial purposes, and 12 acres are vacant. The transportation network in Clairemont Mesa consists of automobile and public transportation systems, the bicycle system and pedestrian circulation. Objectives of the Clairemont Mesa Community Plan are met by the following:

- Improve the street system as necessary to accommodate the community's growth, while minimizing adverse effects on existing residential, industrial and commercial uses and the open space system.
- Provide an efficient and high level of public transit within and surrounding the community.
- Enhance the community's image through streetscape improvements and community identification signs along major streets.
- Minimize adverse noise impacts on major streets.

Kearny Mesa Community Plan

The Kearny Mesa planning area encompasses approximately 4,000 acres and is generally bounded by SR-52 on the north, I-805 on the west, Aero Drive on the south, and I-15 on the east. SANDAG projects that the population of this community in 2010 would be 5,761 persons. The Kearny Mesa Community Plan was adopted by the City Council in 1992, and last amended in 2002. Additional community planning information is found in the Montgomery Field Master Plan (1980, currently in the process of being updated), Stonecrest Specific Plan (1988, last amended 1996), and New Century Center Master Plan (also known as Spectrum 1997, last amended 2002).

This Plan assumes that the private automobile would continue to be the preferred choice for transportation in Kearny Mesa. The capacity of the roadway network to accommodate vehicular trips is the prime constraint on development intensity. Vehicular trip generations would continue to be of paramount importance when reviewing development proposals in the future. In light of this, alternative modes of transportation that supplement the automobile are considered to be of particular importance in Kearny Mesa.

University Community Plan

The University community planning area encompasses approximately 8,500 acres. The area is bounded by Los Peñasquitos Lagoon and the toe of the east-facing slopes of Sorrento Valley on the north; the railroad track, MCAS Miramar and I-805 on the east; SR-52 on the south; and, I-5,

Gilman Drive, North Torrey Pines Road, La Jolla Farms, and the Pacific Ocean on the west. SANDAG projects that the population in the University community would be 58,778 persons in 2010.

The University Community Plan was originally adopted by the City Council in 1987, and was last amended in 2006.

The transportation of people in the University Community is highly dependent on the private automobile. The accommodation of these private automobile trips is the key constraint on development intensity in the community. While it is expected that the private car would continue to be the principal means of transportation, it is also true that the land uses proposed by this Plan are of an intensity which could support a wide variety of transportation alternatives. The University Community Plan element also attempts to consider the components of a viable, balanced transportation system. According to the Plan provisions must be made for pedestrians, bicycles, mass transit and other systems within the community.

Mira Mesa Community Plan

The Mira Mesa community planning area is approximately 10,500 acres. It is located in the north central portion of the City of San Diego, 16 miles north of downtown San Diego, between the I-805 and I-15 corridors. I-15 provides the eastern boundary of the planning area, I-805 and the Atchison, Topeka, and Santa Fe Railroad right of way provide the western boundary. Los Peñasquitos Canyon Preserve, which is a sensitive resource of regional significance, restricts access to the north of the community. MCAS Miramar has the same effect at the southern boundary of the community. SANDAG projects that the population in the community in 2010 would be 74,460 persons.

The Mira Mesa Community Plan was adopted on December 6, 1994 and last amended on June 19, 2001.

Mira Mesa has experienced rapid residential and industrial development. This growth has been considered problematic because the provision of public facilities and services has not kept pace with the community's population. Deficiencies in facilities have resulted in peak hour traffic congestion (particularly at community exit points).

Torrey Pines Community Plan

The Torrey Pines community planning area encompasses approximately 2,600 acres. Torrey Pines is located in the northern coastal region of the City of San Diego and is bounded by I-5 on

the east, the City of Del Mar and the Pacific Ocean to the west, the City of Solana Beach to the north, and the University community to the south.

Approximately 24% of Torrey Pines is designated for residential development, one percent for commercial, 15% for industrial, 42% for parks and open space, one percent for schools, and 17% for railroad, freeways and streets. SANDAG projects that this community would be 7,099 persons in 2010.

The residential neighborhoods are situated primarily in the Del Mar Terraces and the Del Mar Heights area in the central portion of the community. Small areas of commercial development are located along two transportation corridors in the community, Del Mar Heights Road and Carmel Valley Road. Industrial development is located in the southern portion of the community within Sorrento Valley.

The Torrey Pines community faces the challenge of planning and developing a transportation system that accommodates future traffic volumes, emphasizing mass transit, without disrupting the community's unique environment and the lifestyle of its residents.

The traditional services provided by a community's traffic circulation system are internal circulation from one part of the community to another and a means of connecting the entire community to other communities. Because of its location at the northern extent of the City of San Diego and its long, thin shape, the Torrey Pines circulation system must also carry through traffic (i.e. traffic without an origin or destination within the community). The Torrey Pines community forms a long, narrow area along I-5 and I-805 through which all east-west traffic must pass. Among the areas to be served are the city of Del Mar, the beaches, the fairgrounds-race track area and other residential areas. The uses of some of these facilities (beaches and race track) vary considerably from winter to summer and thus cause a seasonal variation in traffic between these time periods.

Marine Corps Air Station (MCAS) Miramar

The primary mission of MCAS Miramar is to maintain and operate the facilities, and provide services and material to support the operations of the 3rd Marine Aircraft Wing and other tenant organizations. MCAS Miramar is an exclusive Federal land use under control of the Federal government and the Marine Corps. There is no public access to the facility without permission from MCAS Miramar.

The project boundary along MCAS Miramar is the very western edge of the military base, where no structures currently exist. Military housing is located near the intersection of Miramar Road

and I-15, and future housing proposed at the MCAS Miramar is not in the vicinity of the Project. MCAS Miramar is not included in the evaluation of the community impact assessment for the project. A construction access road that would be used to access Rose Canyon runs through the Miramar Wholesale Nursery, which leases the property from MCAS. Permission from the nursery to use the access road would be obtained prior to construction activities.

Multiple Species Conservation Program (MSCP)

The City of San Diego, the County of San Diego, United States Fish and Wildlife (USFWS), the California Department of Fish and Game (CDFG), and other local jurisdictions joined together in the late 1990s to develop the MSCP. The MSCP is a comprehensive, long-term habitat conservation plan that addresses the needs of multiple species by identifying key areas for preservation as open space in order to link core biological areas into a regional wildlife preserve.

The City adopted the MSCP Subarea Plan in March 1997 to meet the requirements of the Natural Community Conservation Program (NCCP) Act of 1991, the Federal Endangered Species Act (FESA), and the California Endangered Species Act (CESA). The Subarea Plan regulates effects on natural communities throughout the City and identifies preserve areas within the City as the Multi-Habitat Planning Area (MHPA).

Environmental Consequences

Build Alternative

The proposed project is consistent with all General and Community Plans, and Transportation Plans/ Programs. The Nobel Transit Station/DAR location is partially within the City of San Diego's MHPA. Once Caltrans acquires this parcel the land would fall under state jurisdiction and local zoning and planning designations would no longer apply. Issues related to potential biological impacts to the parcel are addressed in the Biological Section of this document.

No-Build Alternative

The No-Build Alternative proposes no improvements to I-805 North and would not provide the new transit/transportation options discussed in the Community Plans.

Avoidance, Minimization, and/or Mitigation Measures

Because the Build Alternative does not have any impacts to the existing or planned development and land uses, no mitigation is required.

2.1.3 Coastal Zone

Regulatory Setting

A small portion of the proposed project is within the coastal zone (see Figure 3-D Project Features Map for the Coastal Zone jurisdiction). The Coastal Zone Management Act of 1972 (CZMA) is the primary federal law enacted to preserve and protect coastal resources. The CZMA sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan are able to review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are similar to those for the CZMA. They include the protection and expansion of public access and recreation, the protection, enhancement and restoration of environmentally sensitive areas, protection of agricultural lands, the protection of scenic beauty, and the protection of property and life from coastal hazards. The California Coastal Commission (CCC) is responsible for implementation and oversight under the California Coastal Act.

Just as the federal CZMA delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments (15 coastal counties and 58 cities) to enact their own local coastal programs (LCPs). LCPs determine the short- and long-term use of coastal resources in their jurisdiction consistent with the California Coastal Act goals.

Affected Environment

The northern terminus of the proposed project falls within the City of San Diego Local Coastal Program Jurisdiction (LCP). Figure 3-D shows the area of the proposed project that falls within the LCP.

Environmental Consequences

Build Alternative

The proposed project falls within the LCP's jurisdiction whose boundary is approximately 500ft north of Mira Mesa Blvd. Work in this portion of the coastal zone consists of creating two additional HOV lanes by restriping the already existing pavement, a ramp realignment of the Mira Mesa northbound on-ramp, and a retaining wall which would be located at the edge of

shoulder along the realigned on-ramp. Caltrans would coordinate with the City of San Diego to obtain a Local Coastal Program Permit.

No-Build Alternative

There would be no impacts to the coastal zone as a result the No-Build alternative.

Avoidance, Minimization, and/or Mitigation Measures

All work that would take place within the limits of the City of San Diego Local Coastal Program Jurisdiction is inside the State right of way. The build alternative has been designed to avoid impacts to areas outside of the right of way that fall within the coastal zone. Caltrans would coordinate with the City of San Diego to obtain a Local Coastal Program Permit.

2.2 GROWTH

Regulatory Setting

The Council on Environmental Quality (CEQ) regulations, which implement the National Environmental Policy Act of 1969, require evaluation of the potential environmental consequences of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The CEQ regulations, 40 CFR 1508.8, refer to these consequences as secondary impacts. Secondary impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

The California Environmental Quality Act (CEQA) also requires the analysis of a project's potential to induce growth. CEQA guidelines, Section 15126.2(d), require that environmental documents "...discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment..."

Affected Environment

The proposed project site is located within a highly urbanized area. Transportation projects in this type of area have a relatively low potential to cause growth-related impacts because the area has little remaining development capacity. As Table 6 shows, vacant land along the I-805 north corridor is drastically decreasing. MCAS Miramar borders much of the project area and is not available for development. The amount of unplanned growth and land use changes that could occur along the corridor will be limited due to a lack of developable land.

Table 6: City and Community Developable Land

	2000 Developable Acreage	2004 Developable Acreage	2010 Developable Acreage	2020 Developable Acreage
City of San Diego	14,576.5	13,120.6	9,077.9	5,554.2
Communities				
Clairemont Mesa	38.2	102.7	68.2	35.7
Kearny Mesa	287	203.6	120.4	58
University	537.2	410.6	194.2	95.1
Mira Mesa	846.4	878.1	593.7	337
Torrey Pines	37	52.6	49.9	27.7

Source: SANDAG Datawarehouse, Land Use data, <http://datawarehouse.sandag.org>.

Environmental Consequences

Build Alternative

Consideration of factors including changes in accessibility, project location, nearby land uses and constraints to further growth lead to the conclusion that there is little or no potential to influence growth or introduce growth-related impacts. The proposed project would not influence the overall amount, type, location, or timing of reasonably foreseeable growth in the project area.

No Build Alternative

The No Build alternative would not influence growth or cause growth related impacts. No further infrastructure would be provided that could result in growth or growth related impacts.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required since the proposed project would not be expected to influence the overall amount, type, location or timing of reasonably foreseeable growth.

2.3 ENVIRONMENTAL JUSTICE

Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President Clinton on February 11, 1994. This Executive Order directs federal agencies to take the appropriate and necessary steps to identify

and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2009, this was \$22,050 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. The Department's commitment to upholding the mandates of Title VI is evidenced by its Title VI Policy Statement, signed by the Director, which can be found in Appendix C of this document.

Affected Environment

There is an increasing proportion of Hispanic and other minority populations in San Diego. Nearly 80% of the total population increase in the region between 2000 and 2004 has been Hispanic. Of the ethnic groups represented in the 2000 Census, Hispanics experienced the highest growth (20%), followed by "Other" (18%), and Asian and Pacific Islanders (15%). Non-Hispanic Whites were the only group to experience negative population growth in San Diego. The percentage breakdown of ethnicity at the Region and City level are similar; for example, the majority ethnic group being White (over 50%), followed by Hispanic (approximately 25%), then Some Other Race (around 13%). The Asian ethnic group is slightly larger at the City level (14%) while at the regional level this group makes up 9% of the population. All other ethnicities at the City and Region level make up 10% or less each.

The census tracts within the study area are equally diverse, as compared to the City and regional ethnicity percentages. Within the census tracts the majority group is White (over 50 %) Asian and Hispanic populations made up the second highest ethnic groups in the census tracts, between 17 and 37%. All other races make up less than 6% by group within the study area.

Environmental Consequences

Build Alternative

The project would include a Value Pricing Program. Value pricing allows the ability to manage any available capacity of managed lanes by allowing SOVs to pay to use the lanes. Current legislation (Assembly Bill 2032) exists for this project to allow for excess capacity to be sold on the HOV lanes as long as a LOS C or better is maintained on the Managed Lanes.

The value pricing program proposed for I-805 North would be similar to those on I-15 Managed Lanes and as proposed for I-5. Value Pricing studies were conducted for both the I-15 Managed Lanes and the I-5 projects. These studies included public outreach, public meetings, mailers, and telephone surveys. Both negative and positive sentiments were equally distributed throughout all income and ethnic groups. Some respondents believed that the costs of the toll represented a significant barrier to public use of the value pricing program; however, this sentiment was not isolated to low income or minority populations and was spread through all segments of the populations surveyed. Most respondents did not associate a lack of fairness or equity with the value pricing program. They considered the extension of the value pricing program to be fair to both the users of the HOV lanes and the general purpose lanes. No identifiable pattern of opinions and attitudes based on ethnicity or income was found. The proposed project, with the inclusion of the value pricing program, would not cause disproportionately high and adverse effects on any minority or low-income populations as discussed in EO 12898 regarding environmental justice. The addition of transit options and overall improvement of the flow of traffic would be beneficial to all users, in both the general purpose and managed lanes. In addition, a percentage of the money collected from SOV users would go back in to the regional system, benefiting all users in the region.

No Build Alternative

The No Build alternative would not result in any disproportionately high and adverse effects on any minority or low-income populations as discussed in EO 12898 regarding environmental justice.

Avoidance, Minimization, and/or Mitigation Measures

The project would not result in any disproportionately high and adverse effects on any minority or low-income populations, and therefore no avoidance, minimization, and/or mitigation measures are required.

2.4 UTILITIES/EMERGENCY SERVICES

Affected Environment

There are several Utilities located within the project area that may need to be relocated. These include gas and electric lines owned by San Diego Gas and Electric (SDG&E), telephone lines

owned by AT&T and MCI, cable lines owned by Time Warner and TelePacific, fiber optic lines owned by Qualcomm and water and sewer lines owned by the City of San Diego.

Environmental Consequences

Build Alternative

Several Utilities within the corridor would need to be relocated due to the construction of the HOV lanes, ramp realignments and bridge widening. A complete list of utilities can be found in Appendix F. The majority of relocations would be minor utility relocations that would occur within existing state right-of-way. These relocations would not create any additional environmental impacts.

Although no a relocation, the bridge widening at the Rose Canyon Bridge would require temporary deactivation of two 69Kv electrical lines that run under the bridge. One line runs along the north and the other along the south side of Rose Canyon. During construction the electrical line along the north side of the canyon would be deactivated for approximately five months while one half of the bridge is widened. Once reactivated the line on the south side of the canyon would be deactivated, for another five months so that the bridge widening could be completed. In order to maintain service to the area, SDG&E has requested that the lines remain active from June through October to ensure continuous service to customers during months of heavy energy usage. In addition to the 69kv line, a 30" gas line that may potentially need to be relocated runs just south of Governor Drive.

No long term impacts to emergency services are anticipated from the project, but temporary delays could occur from the construction activities along the I-805.

No Build Alternative

No utility conflicts or impacts to emergency services would result from the No Build Alternative.

Avoidance, Minimization, and/or Mitigation Measures

Any required relocations or protection measures would be coordinated with the utility owners during the design process. The City of San Diego, SDG&E, AT&T, MCI, Time Warner, Qualcomm and TelePacific have utility facilities located within the project limits. Most utility companies affected by the project would design and construct their own relocation of utilities. In addition ongoing and continuing coordination with PUC would occur on all transmission lines exceeding 50 KV, per Public Utilities Commission (PUC) General Order 131-D.

Impacts to emergency services during construction would be minimized by the implementation of a Transportation Management Plan (TMP). The TMP may include the following strategies:

- A public awareness campaign prior to and during construction.
- Motorist information strategies, including changeable message signs, and ground mounted signs.
- Incident Management elements including Construction Zone Enhanced Enforcement Program (COZEEP) to provide police assistance and surveillance, and the Freeway Service Patrol and Traffic Management Team (TMT) to provide towing and assistance to motorists during breakdowns.

2.5 TRAFFIC AND TRANSPORTATION

Affected Environment

An Existing Conditions and Traffic Operations Analysis Report (June 2009) was prepared to analyze the existing and future traffic conditions in the project area. The 2006 Existing Traffic Conditions are shown in Figures 8-A to 8-B. The traffic study analyzed objective, quantifiable criteria to evaluate the performance of the transportation system and to determine how well the planned improvements to the system would achieve the established objectives. As part of this study, traffic volumes were developed for the following five traffic scenarios using the SANDAG Series 11 Transportation Model:

- Existing 2006
- Year 2020 No Build
- Year 2020 Build
- Year 2030 No Build
- Year 2030 Build

The existing level of service (LOS) on I-805 in the northbound AM peak travel hour between SR-52 and the Governor Drive on-ramp is F, and E between Governor Drive and Nobel Drive. All other segments currently operate at LOS D or better in both the AM and PM peak hours. In the southbound PM peak travel hour, the Miramar on-ramp to the Governor Drive off-ramp currently operates at LOS E, LOS F between the Governor Drive off-ramp and the Governor

Drive on-ramp, and LOS E between the Governor Drive on-ramp and the SR-52 eastbound/westbound off-ramp. All other segments operate at a LOS D or better in the PM peak travel direction.

Currently, I-805 daily total freeway volumes vary between 158,100 and 222,400 Average Daily Traffic (ADT) south of La Jolla Village Drive and 123,100 and 190,800 ADT north of La Jolla Village Drive. Daily arterial ramp volumes vary between 3,800 (SB offramp from Governor Drive) and 26,000 ADT (SB onramp from Mira Mesa Blvd).

Environmental Consequences

Build Alternative

The 2020 and 2030 Build and No-Build Traffic Analysis Conditions are shown in Figures 8-C to 8-J.

Traffic Volumes, as shown in Table 7:Traffic Volume Summary. The managed lanes combined with the BRT and HOV result in 2020 and 2030 Build Conditions that increase person trips in the corridor when compared to the 2020 and 2030 No-Build scenarios. The increase in person trips indicates that the I-805 North Project is shifting trips from the general purpose lanes to the new HOV/ML facilities and allows for more total trips. This modal shift is increasing the total number of person trips on this facility due to the increase in occupancy rate from the HOV/ML facilities.

Table 7: Traffic Volume Summary

	From	To	2006 Existing Peak	2020 No Build ADT	2020 Build ADT	2030 No Build ADT	2030 Build ADT
I-805 NB AM	Claireremont CD NB On-Ramp	Clairemont WB On-Ramp	85,500	89,000	91,600	100,500	87,900
	Clairemont WB On-Ramp	SR-52 Ingress/Egress			102,200		98,600
	SR-52 Ingress/Egress	SR-52 EB/WB Off-Ramp	94,600	99,500	90,800	111,100	100,600
	SR-52 EB/WB Off-Ramp	SR-52 EB On-Ramp	77,600	78,600	70,000	88,800	78,400
	SR-52 EB On-Ramp	SR-52 WB On-Ramp	85,200	86,300	77,700	96,600	86,300
	SR-52 WB On-Ramp	Governor Off-Ramp	114,500	121,000	112,800	132,800	116,300
	Governor Off-Ramp	Governor On-Ramp	108,400	114,700	90,800	126,300	104,200
	Governor On-Ramp	Nobel Off-Ramp	112,600	118,900	97,300	130,700	112,700
	Nobel Off-Ramp	Miramar Off-Ramp	100,100	106,100	86,600	117,600	100,800
	Miramar Off-Ramp	Miramar EB On-Ramp	79,700	84,900	66,400	95,900	77,400
	Miramar EB On-Ramp	Miramar WB On-Ramp		95,800	76,700	107,000	88,000
	Miramar WB On-Ramp	Mira Mesa Off-Ramp	98,100	103,900	93,200	115,300	105,700
	Mira Mesa Off-Ramp	Vista Sorrento HOV Ingress		78,800	70,100	90,000	80,800
	Vista Sorrento HOV Ingress	Vista Sorrento Off-Ramp	73,500	69,000	69,200	78,800	80,100
	Vista Sorrento Off-Ramp	Vista Sorrento On-Ramp	61,900	57,100	58,300	66,900	68,300
	Vista Sorrento On-Ramp	SR-56 Bypass Off-Ramp	74,400	75,400	77,800	85,900	90,600
SR-56 Bypass Off-Ramp	I-5 Merge	52,000	40,100	42,500	45,400	48,800	
I-805 SB PM	I-5 Diverge	SR-56 Bypass On-Ramp	45,000	41,100	40,600	46,300	49,300
	SR-56 Bypass On-Ramp	Mira Mesa Off-Ramp	74,200	78,600	77,500	91,200	93,000
	Mira Mesa Off-Ramp	Mira Mesa WB On-Ramp	61,200	60,100	57,400	71,800	71,600
	Mira Mesa WB On-Ramp	Mira Mesa EB On-Ramp	87,200	78,800	77,100	90,600	93,500
	Mira Mesa EB On-Ramp	Miramar Off-Ramp	92,700	102,200	93,900	116,600	111,500
	Miramar Off-Ramp	Miramar WB On-Ramp	74,300	83,300	69,700	97,200	84,700
	Miramar WB On-Ramp	Miramar EB On-Ramp		94,800	79,400	108,900	95,900
	Miramar EB On-Ramp	Nobel On-Ramp	95,800	105,300	90,300	119,700	108,400
	Nobel On-Ramp	Governor Off-Ramp	104,800	114,600	111,800	129,200	124,200
	Governor Off-Ramp	Governor On-Ramp	101,000	110,800	106,500	125,200	115,200
	Governor On-Ramp	SR-52 EB/WB Off Ramp	107,900	117,900	113,400	132,400	122,700
	SR-52 EB/WB Off Ramp	SR-52 WB On-Ramp	77,400	81,800	73,600	93,200	83,600
	SR-52 WB On-Ramp	SR-52 EB On-Ramp	80,500	85,500	77,400	97,100	87,500
	SR-52 EB On-Ramp	SR-52 Ingress/Egress	95,000	100,400	93,000	113,300	104,600

CD: collector distributor

In addition to pushing more trips through the corridor, travel times are reduced under 2020 Build and 2030 Build Conditions when compared to 2020 No-Build and 2030 No-Build Conditions. The 2020 Build scenario shows savings in the AM peak period of 30 to 45 seconds on the general purpose lanes, and 1 minute and 45 seconds to 2 minutes if using the carpool lane. For the PM peak period savings of 45 seconds to 1 minute would occur in the general purpose lanes and savings of 3 minutes and 15 seconds for carpool users. Similar savings would occur in 2030 while allowing more person trips to occur within the corridor due to additional capacity and travel options. These reduced travel times on the general purpose lanes indicate that the I-805 North Project is shifting trips from the general purpose lanes to the HOV/ML lanes thus creating reduced travel times on all lanes.

Avoidance, Minimization, and/or Mitigation Measures

A Transportation Management Plan (TMP) would be prepared for the proposed project. The objective of a TMP is to maintain the safe movement of vehicles through the construction zone, as well as to provide the highest level of traffic flow and access during construction periods.

The preliminary TMP elements that were recommended are:

A Public Awareness Campaign would notify the public about the project and its impacts through brochures, press releases, paid advertising, public meetings/speakers bureau, construction bulletins and the District's Website (<http://www.dot.ca.gov/dist11/>).

Motorist Information Strategies would include portable Changeable Message Signs (CMS), ground mounted signs and the use of Web cameras. These strategies provide the current road conditions and would enable the motorist to make informed decisions about their own travel plans and the options they have for alternative routes.

Incident Management elements include the Construction Zone Enhanced Enforcement Program (COZEEP), the Freeway Service Patrol (FSP) and the Traffic Management Team (TMT). Implementation of these elements would identify incidents that occur within the construction area and provide corrective action in a timely manner.

COZEEP provides California Highway Patrol (CHP) assistance and surveillance within construction areas. This can allow enforcement of speed limits and provide emergency response support within the work zones.

The Freeway Service Patrol provides towing service and assistance to motorists during vehicle breakdowns.

The TMT would be involved in the planning and coordinating of major lane or freeway closures. They can also help evaluate signs for detours and provide advance warning to motorists in case of an accident or non-recurring congestion.

The purpose of demand management is to reduce traffic volumes within the construction zones. Demand management techniques include promoting variable work hours to vary peak travel times; installing temporary ramp meters and/ or modifying existing ramp meters to control the volumes entering the freeway within the construction zones.

2.6 VISUAL/AESTHETICS

Regulatory Setting

The National Environmental Policy Act of 1969 as amended (NEPA) establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and aesthetically (emphasis added) and culturally pleasing surroundings (42 U.S.C. 4331[b][2]). To further emphasize this point, the Federal Highway administration in its implementation of NEPA (23 U.S.C. 109[h]) directs that final decisions regarding projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

Likewise, the California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of aesthetic, natural, scenic and historic environmental qualities.” (CA Public Resources Code Section 21001[b])

Affected Environment

A Visual Impact Report (March 2009) was prepared to assess the potential visual impacts of the proposed project and to propose measures to offset visual impacts associated with the construction of the project on the surrounding visual environment. It is incorporated into this document by reference.

This project is located in an area that is highly disturbed, highly developed, and impacted by roadways, and landscaping. The project viewshed is illustrated in Figure 9. Views from within the project area vary. In the southern portion of the project area views are open toward the north and east, but diminish due to a change in topography as one approaches Nobel Drive. From Nobel Drive north through the Eastgate Mall area, views are limited to either foreground or midground due to topography and existing built elements. The Sorrento Valley area offers

limited views of the immediate valley. Views toward the west are typically limited to the foreground or the midground as residential and commercial development are present along the I-805 in most places. Distant views are very apparent when traveling the corridor. The extended views of the low mountaintops to the east comprise naturally tree-less hilltops that create an abrupt edge against the sky. There are limited extended views to the west available only where canyon valleys are present and allow visibility beyond the residential developments at the edge of the canyons. Where canyons are not present along the west edge, views are interrupted by residential developments with direct view of houses or sloped landscape areas.

Existing Visual Character

The existing visual character of the project area is a combination of natural and built elements, with a mix of typical suburban development amidst a once rural mesa top. The canyons located between the residential developments break the consistency of the development along the western edge providing visual relief and character to the corridor. Along the eastern edge, very little development is present or highly visible from the roadway, and is comprised mostly of manufactured slopes (foreground), rolling grasslands (midground), and built developments and mountaintops (far distance). Overall, the existing visual character can be considered suburban bordering rural open space.

Existing Visual Quality

Visual quality is evaluated by identifying the vividness, intactness, and unity present in the viewshed.

Vividness is the visual power or memorability of the landscape components as they combine in distinctive visual patterns. The project setting expresses a moderately high degree of vividness as a result of the distant views within the project viewshed.

Intactness is the visual integrity of the landscape and its autonomy from encroaching elements. At present there are two distinct parts to the landscape, the mostly natural canyons and built environment. Few views within the project area give one extended views with high clarity beyond the foreground. Most views are distracted by the presence of manufactured slopes built with the roadway, tall utility towers and power lines in the foreground. The visual integrity of the project area is considered to be moderately low.

Unity is the visual coherence and compositional harmony of the landscape considered as a whole. It frequently attests to the careful design of individual components in the landscape. The compositional integrity, or unity, is moderately low. Views are disrupted by the man-made

elements in the project area. The distracting elements include, utility towers, power lines, manufactured slopes, the I-805 roadway, and businesses that line the corridor.

Existing Viewer Groups, Viewer Exposure, and Viewer Awareness

Viewer exposure within the project site varies. The majority of viewers travel at high rates of speed, and would likely see the proposed structures from a distance away, giving them longer durations, several seconds at a time, to view these elements. The lesser number of viewers are motorists, bicyclists or pedestrians that travel City streets which traverse across the project corridor at slower speeds, and the adjacent residents that are stationary in locations with even longer exposure times, and have high exposure times and high sensitivity to the proposed roadway improvements.

Drivers and passengers in vehicles traveling on I-805 would be the largest group of viewers subject to the project impacts. Although they would be aware of the general regional context through which they are traveling, they typically cannot concentrate on the view in much detail due to the typically busy traffic conditions. Therefore, the exposure rating for this group is considered to be moderate.

Viewers from adjacent neighborhoods and commercial areas observe I-805 in longer durations, and with more intensity and concentration than those traveling in vehicles. Although they are typically farther removed from the project site, these viewers are the most likely group to perceive visual impacts. The exposure rating for this group is considered to be moderately high.

Viewers traveling in vehicles on city surface streets typically would stop at traffic lights, stop signs, or on-ramp metering lights when within the project area. This leads to prolonged views and a moderate exposure rating.

Viewers riding in commuter trains that cross the project site at Rose Canyon or Carroll Canyon would have limited views of the project area. The exposure rating for this group is low due to their speed of travel and limited viewing ability.

Pedestrians and bicyclists traveling the project area via city streets have the most sensitivity to the visual affects of the project. Their exposure rating is considered to be moderately high.

Viewer Response

Viewer response is a combination of viewer sensitivity and viewer exposure. For the purposes of this project, viewer sensitivity is defined as the viewer's observation and understanding of the

existing suburban visual conditions, combined with an acknowledgement of the importance of preserving and enhancing the regional visual context as expressed in the City of San Diego Community Plans. The viewer sensitivity is considered to be moderately high.

Environmental Consequences

Definition of Visual Impact Levels

Low (L) – Minor adverse change to the existing visual resource, with low viewer response to change in the visual environment. May or may not require abatement measures. Numerical designation: 1

Moderately Low (ML) – Low adverse change to the visual resource with a moderate viewer response, or moderate negative change to the resource with a low viewer response. Impact can be offset using conventional practices. Numerical designation: 2.

Moderate – Moderate adverse change to the visual resource with moderate viewer response. Impact can be offset within five years using conventional practices.
Numerical designation: 3

Moderately High – Moderate adverse visual resource change with high viewer response or high adverse visual resource change with moderate viewer response. Extraordinary abatement measures may be required. Landscape treatment required would generally take longer than five years to minimize. Numerical designation: 4

High – A high level of adverse change to the resource or a high level of viewer response to visual change such that architectural design and landscape treatment cannot offset the impacts. Viewer response level is high. An alternative project design may be required to avoid highly adverse impacts. Numerical designation: 5

Build Alternative

Because it is not feasible to analyze all the views in which the proposed project would be seen, it is necessary to select a number of key viewpoints that would clearly display the visual effects of the project. Key views generally represent the primary viewer groups that would potentially be affected by the project. Figure 9 illustrates key view locations.

Key Views

Key View 1 – SR-52 Westbound at the I-805 Interchange

This key view (Figure 10-A to 10-B) illustrates the existing view from SR-52 westbound toward the SR-52 / I-805 interchange. Traveling westward on the SR-52 corridor one experiences a transition from an open landscape to a more suburban area bordering a natural canyon. The viewer would perceive a change from the open native landscape to a denser riparian landscape. The freeway landscaping is graded slopes covered by native shrubs which ultimately transitions to a riparian environment at lower elevations. The tops of trees extend above the roadway edges providing a vertical element that mildly contrasts with the ground plane yet reduces the apparent size of the freeway elements to a suburban scale.

The project would widen the existing roadway within the existing right-of-way to accommodate managed lanes in the median. Bridge structures would be widened, off ramps and loops realigned, and a connector bridge constructed to connect the east side of the SR-52 freeway median to the north side of the I-805 freeway median (figure 10-B).

Thousands would experience this view of the project each day for several seconds while traveling the freeway at high rates of speed. Given this, the viewer exposure would be moderate (2.7) as motorists would view the proposed improvements in their fore to mid-ground views. Viewer sensitivity would be moderate (2.7), as viewers would be more focused on the roadway than the view. Overall, viewer response would be moderate (2.7 on a scale of 1 to 5).

Key view 2 – Overlooking the I-805 / SR-52 Interchange from Private Residence

This key view (Figure 11-A to 11-B) illustrates the existing eastward view overlooking SR-52 / I-805 interchange and represents the viewing group who live in the vicinity of the SR-52/I-805. This is a representative view from private residences located along the top edges of the mesas near the SR-52/I-805 interchange. A clear view of the existing landscape and roadway elements in the foreground is typical. The viewpoint contains the SR-52 / I-805 connector as it traverses from left to center in the view and drops away toward the east to connect with SR-52 alignment. The view is a conflicting scene of natural landscape imposed on by man-made built structures. The existing freeway bisects the view's mid-ground leaving remnants of the native landscape in the immediate foreground and mid to background portions of the view. Extended views to mountaintops in the distance are of high value. However, the buildings to the right mid-ground and distant center of the view slightly detract from the quality of the scene. Utility lines that cross the view are also a distraction.

The proposed project would widen I-805 to the east and west of its center alignment, realign on-ramps to connect to the widened lanes, and construct a new connector bridge structure from the I-805 roadway median at the left of the existing view to the SR-52 median to the east (away from viewpoint). The connector bridge structure is visible in figure 11-B, traversing the view from the left and descending away from the viewer to the right-center of the view.

Although a low number of people would experience this view, there exposure would be for long periods with focused attention to the view. Viewer sensitivity would be high (4.7) these viewers would be keenly aware of the elements in the view. The viewer exposure would be moderately high (3.7) as the proposed improvements would be in their mid to foreground views.

Key view 3 – Governor Drive Southbound Off Ramp

This key view (Figure 12-A to 12-B) is a southerly view from the middle of the existing southbound off ramp at Governor Drive, traveling parallel to the existing sloped berm with residences located beyond. This key view is representative of the visual character and quality of freeway views adjacent to residential neighborhoods.

This exit is a primary access point to the southeastern corner of the University City Community for motorists traveling in a southbound direction on I-805. Motorists exiting here would perceive a continuation of the freeway landscaping along the off ramp until stopping at the Governor Drive intersection. The freeway landscaping is a manufactured berm with 2:1 slopes covered with ornamental groundcover and tall columnar trees separating the roadway from the adjacent residences at the right side of the roadway. To the left side of the view, bare soil is visible in the immediate foreground with taller shrubs and trees in the midground. The existing landscape has a natural suburban character.

Vividness is moderate as the landscape and built elements are simplistic. Intactness is moderately high as there are few distractions in the view. Unity is moderately high as the view is a composition of man-made landscape elements. Combining vividness, unity and intactness, the resulting overall visual quality can be defined as moderately high (3.7 on a scale of 1 to 5).

The project would realign and widen the off ramp further to the west of its present location. The existing manufactured berm would be replaced with a wall located approximately 18-20ft from the edge of the proposed roadway. The wall would vary in height from 8ft to 12ft. A concrete barrier is proposed at the edge of the off ramp paving to protect the proposed landscaping. Drought tolerant shrubs and trees would be installed between the barrier and noise wall. A new

I-805 southbound loop on-ramp would be constructed and is located at the left middle of the view, but is not visible due to grading and landscape in the foreground.

The permanent removal of the landscaped berm would result in the loss of a natural buffer between the residences and the roadway. The removal of the trees would result in the loss of skyline articulation. The project would introduce more dominant roadway features typically found in urban areas, including a wider off ramp, concrete barrier, and tall noise wall, that would contrast with the existing landscape and character of the adjacent neighborhood. Community preferences for development improvements along freeways include the use of setbacks and elevation changes rather than solid walls for noise mitigation. Site sensitive wall designs with landscaped berms are also preferred. The change to existing visual character would decrease the vividness of the existing view to a moderately low (2.0) rating. Intactness would be slightly reduced to a moderately low (2.0) rating. Unity would decrease to a moderately low (2.0) rating. The change to the existing visual character would be high

Motorists exiting the freeway would experience this view of the project each day. Viewer sensitivity is anticipated to be moderately high (3.3) due to the high visibility of the project features. Viewer exposure would be moderate (2.7), as motorists would be focused on the immediate view for several seconds at a time. Overall viewer response is moderate (3.0).

Key view 4 – Approaching Governor Drive Exit

This key view (Figure 13-A to 13-B) shows the I-805 number four southbound lane approaching the Governor Drive exit. This is a typical view of the landscape for freeway motorists traveling in a southbound direction adjacent to residential neighborhoods nearing the Governor Drive exit. The freeway landscape is a 20-foot tall manufactured berm with 2:1 slopes covered with ornamental groundcover and randomly placed columnar trees to the right of the view. The roadway is the dominant element with distant views toward open space visible at the left of the view. The existing landscape has a suburban character and is representative of the visual character and quality of this transportation corridor adjacent to residential neighborhoods. Vividness is moderate (3.0) due to the lack of striking landscape features. Intactness is moderately low (2.0) as the view is distracted by utility towers, power lines, and roadway signs. Unity is moderately high (4.0) due to the harmonious pattern of landscape and man-made elements in the view. Averaging the vividness, unity and intactness, results in an overall visual quality of moderate (3.0 on a scale of 1 to 5).

The project proposes to relocate the noise berm further to the west from its present location. The berm would be landscaped with shrubs and trees. Retaining walls would be constructed in

fill locations where support of the widened roadway is required. A continuous concrete barrier would be built in the median and above retaining walls at roadway level. Grading improvements would include filling the low point between the existing residences and the new berm location.

A high number of viewers would experience this view of the project each day for several seconds when traveling the freeway at high rates of speed. Viewer exposure would be moderate (3.3) as motorists would view the proposed improvements in their mid to foreground views. Viewer sensitivity would be moderately low (2.3), as viewers would be focused on the roadway. Additionally, several resident viewers would view the project for hours at a time. Overall viewer response would be moderate.

Key view 5 – Nobel Drive DAR location

This key view (Figure 14-A to 14-B) illustrates the existing view from the shoulder of the southbound I-805 lanes toward the location of the proposed Nobel Drive Direct Access Ramp and bridge structure to provide access to the proposed Nobel BRT station. This is a typical view motorists experience when traveling the freeway in a southbound direction just south of the Nobel Drive interchange. The freeway landscape is comprised of manufactured slopes of various gradients to either side of the roadway and covered with ornamental groundcover and randomly placed columnar trees. The roadway is the dominant element in the view with distant views toward the east (left) and midground views toward the west (right). The existing landscape has a suburban character and quality that is representative of the regional transportation corridor landscaping found in the University community. The existing view shows four lanes of travel in each direction, separated by guardrails at the median.

The project would widen I-805 for the addition of the managed lanes, DAR structure, and bridge connector to the Nobel BRT station. Retaining walls would be constructed in fill locations where support of the widened roadway is required. A continuous concrete barrier would be built at the median and above retaining walls at roadway level. Landscaping along the outer edges of the roadway would consist of native plantings with drought tolerant trees.

A high number of viewers would experience this view of the project each day for several seconds when traveling the freeway at high rates of speed. Viewer exposure would be moderately high (3.7) as motorists would view the proposed improvements in their mid to foreground views. Viewer sensitivity would be moderate (3.3). Although focused on the roadway, motorists would be acutely aware of the DAR structure. Overall viewer response would be moderately high (3.5).

Key view 6 – Eastgate Mall Bridge

This key view (Figure 15-A to 15-B) illustrates the existing view from the northbound on ramp from the La Jolla Village Drive / Miramar Road interchange toward the Eastgate Mall Bridge. This is a typical view of the landscape for freeway motorists traveling in a northbound direction approaching the Eastgate Mall Bridge. The view is comprised of large-scaled elements including 2:1 slopes, the bridge structure and roadway. The bridge is the more dominant form in the composition of pattern elements creating a focal point in the view. The bridge is framed in the view by the roadway below, the landscape at both sides, and blue sky above. The existing landscape has a unique monumental scale unlike other standard freeway landscapes, yet retains a suburban character representative of the visual character and quality of this transportation corridor.

The project would widen the roadway at both edges, add managed lanes at the center of the alignment separated by a concrete barrier, and place retaining walls at the foot of the bridge abutment. Grading of slopes at both edges of the road would be required to accommodate the wider roadway. In this view the Carroll Canyon DAR lanes would begin separating from the standard and bypass lanes, descending toward the proposed Carroll Canyon Road extension below.

A high number of viewers would experience this view of the project each day for several seconds when traveling the freeway at medium to high rates of speed. Viewer exposure would be moderate (3.0) as motorists would view the proposed improvements in their mid to foreground views. Viewer sensitivity would be moderate (3.0) as viewers would be focused on the roadway yet very aware of the bridge's presence. Overall viewer response is moderate (3.0 on a scale of 1 to 5).

No Build Alternative

No visual impacts or improvements would result from the No Build Alternative.

Avoidance, Minimization, and/or Mitigation Measures

The landscape design provides a transition from each of the existing land uses along the I-805 project area. The goal of the design is to provide an attractive setting requiring a minimum of maintenance and water use. All visual measures would be designed and implemented with the concurrence of the District Landscape Architect.

To attain the visual goals, and reduce visual impact, the landscape design includes the following specific elements and recommendations:

Corridor Theme (Diegan Coastal Sage Scrub Vegetation) consists primarily of replacement plantings on freeway slopes that transition from edges of roadway to the edge of the Caltrans right of way. The intent is to provide a select mix of 3-4 California native shrubs planted on all exposed slopes. These container plants would be overseeded with a California natives hydroseed mix to assist with erosion control and establishment of slopes. Trees would generally be planted on slopes to provide visual interest and vertical elements along the corridor. The corridor theme would include the following:

- Native California trees such as oaks and pines would be planted near the middle of cut slopes (at least 30ft from traveled way) in grouped clusters. Trees would not be placed near the tops of cut slopes where vertical forms would diminish easterly views from neighborhoods and commercial properties.
- Native shrubs would be used on all disturbed slopes adjacent to natural areas. Native landscape plantings would be provided on short slopes and at the base of walls at either side of wall structures. Native plantings may include shrubs, groundcover, and trees.
- Open views to the east would be preserved by minimal tree planting at the base of fill slopes. Native shrub plantings would be used in these locations.
- Wildflower groundcover would be planted intermittently along the edges of the freeway corridor to add seasonal accent color and for compliance with Federal funding requirements.
- Drought tolerant ornamental trees, such as eucalyptus, would be planted at the vicinity of the structures to help visually diminish the scale.
- Riparian tree species, such as sycamores, would be planted where possible in the lowest areas to enhance the low valleys that cross the project and provide for a greater diversity of native tree species.

Landscape Themes

At interchanges themed landscape solutions would be used to transition to the intersecting roadways. Sloped areas along the on and off ramps or loops would be comprised of drought tolerant and/or native trees, shrubs and groundcovers to provide accent and enhance the entry to the community. Trees and landscaping can serve as gateways to the local community, giving travelers a sense of arrival.

I-805 / SR-52 Interchange

The existing native and drought-tolerant plantings in the interchange form a cohesive theme that transitions to the riparian landscape at the bottom of the valley. A majority of the new landscape improvements at this interchange would consist of repair plantings at roadway reconfigurations and bridge widening locations. Oaks would be planted on slopes and spaced a minimum of 30 feet from traveled way to provide interest along the corridor. Sycamores would be planted at the lowest elevations of fill slopes in swales or valleys comparable to natural drainage ways where sycamores might naturally be found. A variety of native shrubs may be planted in container plantings to form massings of shrub areas that would require less maintenance and little water after plant establishment watering periods.

Governor Drive Interchange

The use of eucalyptus trees at this intersection would provide an identifiable entry statement to the neighborhood. A mixed palette of drought-tolerant shrub and groundcover varieties would also be used within these planting areas to contrast with the trees, and unify the interchange theme.

Nobel Drive Interchange

Eucalyptus trees would be used as replacement trees along on and off ramps to maintain a consistent theme within the interchange area. A second eucalyptus tree variety would be planted along the streetscape to create an identifiable theme along Nobel Drive. Native shrubs and existing groundcover in the interchange areas would likely be retained as part of the planting improvements.

La Jolla Village Drive / Miramar Road Interchange

Landscape improvements would be designed as part of the La Jolla Village Drive project and is not included as part of the I-805 widening project.

Sorrento Valley Road / Mira Mesa Boulevard Interchange

The interchange would consist of Torrey pines, sycamores, and oak trees. The sycamores would be located at the lowest elevations near edges of proposed bio-swales and detention basins.

The Sorrento Valley Road / Carroll Canyon Road Extension

Landscape improvements would be designed as part of the Carroll Canyon Road Extension project and is not included as part of the I-805 widening project.

Nobel BRT Station

The BRT station would be landscaped with drought tolerant and native plant species. Trees and shrubs would be provided for shade and screening of parked vehicles fronting Nobel Drive. The landscaping would be compatible with local development requirements.

Proposed Noise Barriers

Noise barriers would be constructed as part of the project to abate noise levels at specific locations. Noise barriers would have varying degrees of visual impact on the surrounding viewshed. These impacts would be reduced by mitigation measures to be installed as part of the project construction. The section below outlines typical goals for noise barrier mitigation measures.

- Use berms in place of noise walls wherever possible, such as along the west side of the freeway approaching Governor Drive. The existing berm at this location would be relocated further to the west where space allows.
- Texture and color of walls would blend with surrounding landscape and indigenous soils.
- Provide screening of walls with tree, shrub, and vine plantings.
- Employ measures to minimize graffiti, such as tree, shrub and vine plantings on walls.
- Use transparent barriers when possible to preserve views from homes immediately adjacent to or that overlook the freeway at several locations near the I-805 / SR-52 interchange.

Noise Berm / Wall Combination

A Noise Berm / Wall Combination is preferable in situations where a tall retaining wall at the toe of a slope would create a visual impact to an adjacent property. To be effective, this option should incorporate a berm with a 1:2 slope on the freeway side that is 6ft high (minimum). This size berm would allow enough space to provide screening shrubs in front of the wall.

Landscaped Noise Berms

Landscaped noise berms would be constructed wherever possible as a preferred solution to noise walls. Berms are visually compatible with most land uses adjacent to the freeway. As part of the improvements approaching the Governor Drive southbound exit, a landscaped berm is proposed for the west side of the freeway, beginning about 1000ft south of the Rose Canyon undercrossing and continuing south to the Governor Drive exit where it transitions to a combination noise berm/wall, and then to standard sound wall along the exit ramp.

Noise Wall with Landscaped Buffer

Noise walls may be combined with landscaping located between the wall and roadway improvements to provide a visual buffer. Landscape shrubs can be planted along the base of the wall to visually shorten the amount of wall exposed to the viewer. At Governor Drive, the area in front of the proposed noise walls would be planted with a combination of trees, large shrubs, groundcover, and vines to provide screening. Trees would be planted along this area, as standard landscape setbacks allow tree plantings within 20ft of the edge of traveled way behind physical barriers such as concrete barriers.

Noise Wall Aesthetics

Noise walls would be designed to be visually compatible with the surrounding community. Architectural detailing would include pilasters, cap applications, wall coloring, wall textures, block patterns, and reveals to create shadow lines. These components of the wall design would add aesthetic interest and reduce the visual presence of the walls. The use of integral coloring and enhanced surface finishes would be carefully considered when matching existing structures.

Sound walls would be constructed of split face concrete masonry units and colored an earth tone (tan/brown) to blend with the surrounding landscape and the predominant colors of the surrounding mesa tops. Near the top of the wall, a simple accent line of darker colored, fluted, split face block can be provided for a subtle visual relief to the plain wall face or a wider block course can be used to give more depth with shadow lines for architectural accent. The grout joints would match the color of the block. The split face texture allows vines to cling firmly to the wall, and helps to deter graffiti.

Vine Planting

The project features vine planting on all noise walls fronting the Governor Drive exits on publicly maintained areas. Clinging vines may be planted at the base of walls and would grow upward to cover the wall face. The vines would provide a vegetated appearance, and in areas where screen planting is also provided, would result in a densely landscaped appearance instead of the view of the wall.

Transparent Noise Walls

Glass view walls may be constructed to maintain the views from residences along the I-805. This type of wall has transparent upper portions to allow views to be seen while still providing an effective noise barrier. The visual impact of these walls is typically less than solid walls. The wall surface would be an earth tone color split face block or stucco. Walls would be made of

vandal-resistant materials. View walls are suitable only where the walls can be maintained from both sides by the residents. The maximum height of the transparent view walls is typically 6 ft, or less.

Retaining Walls

Generally, retaining walls would be minimized to the shortest heights allowable and have a textured architectural finish for visual interest. Retaining walls would have a consistent, organized appearance, with a wider trim band along the top and vertical sides to provide a 'finished' edge. Vertical bands spaced at intervals on the face of the walls would provide architectural detail and break up the wall surface.

Landscape planting would be used to soften the appearance or screen the walls from neighboring developments.

All structures developed with the project widening would be designed as a cohesive integral component of the overall design theme for the corridor. Architectural treatments would be designed for consistency throughout the project.

Terrain Contoured Retaining Walls in Cut Sections

The Eastgate Mall Bridge would use walls with long radius curves with battered faces to be compatible with existing bridge forms. Retaining walls that follow the contours of the proposed topography and maintain a sloped top elevation at the top of the wall would lessen visual impacts. Wall layouts and profiles would consist of long radius curves and no tangents or points of intersection. Wall faces would complement the angles, textures and features of the bridge structure. Walls would be located at mid-slope, if possible, and be visually compatible with surrounding terrain. Walls would extend above grade as a safety barrier in lieu of a cable rail barrier. Landscape plantings would be considered at the base of the wall for screening purposes.

Retaining Walls at Overcrossing Structures

Retaining walls at freeway overcrossings designed as terrain contour walls would provide a gradual transition from bridge abutments to landscape areas.

Top-of-Slope Retaining Wall In-fill Sections

Retaining walls would be located at the top of slope in roadway fill sections to provide a buffer area for landscape screening between the wall and the community.

Vertical Concrete Safety Barriers

Vertical concrete safety barriers would be considered for locations where space for architectural detailing is limited. Barriers would add 12in of additional width in which architectural features such as pilasters and wall caps can be implemented. Such features would provide a complementary palette of textures to reduce glare and reflectivity off vertical surfaces.

Grading

Where conditions permit, grading would be designed using the techniques of contour grading that promote smooth transitions to existing landforms, eliminate appearance of engineered slopes and visually soften the contours. Stepped slopes in areas of cut would be considered.

Mechanically Stabilized Earth (MSE) Walls

Careful consideration for the use of mechanically stabilized earth walls would be taken due to their design constraints. Placement of landscape slopes, noise walls, barriers, drainage conveyances, and other roadway features can require special design. MSE walls would have custom designed panels that include enhanced surface texture, and a 4in minimum pattern reveal on each panel.

Direct Access Ramp (DAR) Structures

DAR structures are proposed at Carroll Canyon, Nobel Drive. DAR structure columns would match existing bridge columns supports when present. New DAR structures would feature smooth curved forms in profile and section to minimize stark shadow lines where possible. Retaining walls would have a maximum height of 10ft to minimize the structure height and retain views from adjacent neighborhoods.

Carroll Canyon DAR

Architectural features would be consistent with those being constructed on the I-805 HOV / Carroll Canyon Road Extension project and the proposed features are shown in Figure 16.

Figure 16: Proposed Southbound DAR Ramp Features at Carroll Canyon



Nobel BRT Station

Landscaping would be provided within the facility and on all slopes and transitions to roadways and streets. Landscaping would be compatible with local landscape standards, including guidelines for screening and shade. Parking would be compatible with local development standards.

Bridge Types, Columns, & Other Features

New bridge columns would match the existing bridge columns. Undercrossing widening would use cast-in-place box girder construction to match existing structures wherever possible.

Lighting, Signage, and Miscellaneous Freeway Appurtenances

Concrete lighting and signage pedestals would be designed in such a way that vertical barrier transitions are not required. Electrical and signal equipment at ramp termini would be placed in visually unobtrusive locations.

Gore pavings would incorporate an enhanced architectural color and textural finish.

Access control fencing would be placed in visually unobtrusive locations at interchanges and bridges, if possible.

Retaining walls and noise walls near right-of-way boundaries would be designed in such a way that access control fencing would not be needed. The 'dead' spaces that occur between walls

and fences would be avoided if at all possible. Fencing would abut proposed noise walls at ends of or at changes in direction of walls, if possible.

Drainage Facilities

Concrete interceptor ditches would not be placed at the toe of slopes adjacent to residential property or pedestrian use areas. Alternatives such as subterranean drainage placed below finish grade or a planted geo-reinforced drainage surface would be used.

Linear ditches or bio-swales would be designed for dual use as maintenance vehicle access facilities, wherever possible.

Concrete drainage devices located in highly visible areas would be colored to match the surrounding soil.

Soft surface alternatives to concrete ditches and rock slope protections would be utilized wherever possible.

Detention basins located at freeway interchanges or in areas of high visibility would incorporate the following design features. Basins would be located at least 10ft from clear recovery zones whenever possible to allow landscape screening to be installed. Basins would appear to be natural landscape features, such as, dry streambeds or riparian areas. Where possible they should be shaped in an informal, curvilinear manner, incorporate slope rounding, variable gradients, and be similar to the surrounding topography to deemphasize a defined outer edge. Maintenance access drives should be located in unobtrusive areas away from local streets and would consist of drivable inert materials with or without herbaceous groundcover that is visually compatible with the surrounding landscape. All visible concrete structures and surfaces would be of special design and adhere to the corridor design guidelines. Rock slope protection would consider use of aesthetically pleasing whole material of various sizes. Whenever feasible, standpipes and other vertical appurtenances would be placed in unobtrusive locations and be painted an unobtrusive color. Where possible, bio-swales would be located in non-obtrusive areas, be designed to appear as natural features, and incorporate applicable mitigation measures listed above for detention basins.

The use of pervious concrete for storm water pollution prevention would be considered to avoid adverse visual impacts. Project features such as interceptor ditches, inlet aprons, gutters, maintenance access roads, maintenance vehicle pullouts, and parking lots could consist of pervious concrete and perhaps serve a dual purpose.

Irrigation Systems

Irrigation would consist of below grade, permanent systems in all planted areas. The systems would be centrally-controlled to manage water use and monitoring of irrigation facilities.

With implementation of the proposed project and minimization measures the degree of visual change would be reduced.

2.7 CULTURAL RESOURCES

Regulatory Setting

“Cultural resources” as used in this document refers to all historical and archaeological resources, regardless of significance. Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act of 1966, as amended, (NHPA) sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places. Section 106 of NHPA requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 CFR 800). On January 1, 2004, a Section 106 Programmatic Agreement (PA) between the Advisory Council, FHWA, State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both state and local, with FHWA involvement. The PA implements the Advisory Council’s regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Caltrans. The FHWA’s responsibilities under the PA have been assigned to Caltrans as part of the Surface Transportation Project Delivery Pilot Program (23 CFR 773) (July 1, 2007).

Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act, which regulates the “use” of land from historic properties.

Historical resources are considered under the California Environmental Quality Act (CEQA), as well as California Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its rights-

of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks.

Affected Environment

A Historic Property Survey Report (HPSR) was completed on August 14, 2008. The Area of Potential Effect (APE) for this project includes the state highway right of way and additional areas needed for construction easements, soundwalls, new right of way areas required for the Nobel Drive Transit Station, Park and Ride lot, and the Governor Drive off-ramp. The APE is included in the HPSR.

No potentially eligible National Register historic districts, historic landscapes, or other historic properties were identified within or partially within the project APE.

Environmental Consequences

Build Alternative

The Build Alternative would not impact any historical properties.

No Build Alternative

The No Build Alternative would not impact any historical properties.

Avoidance, Minimization, and/or Mitigation Measures

No archaeological or other architectural properties were identified within the undertaking's APE. The following measures are standard provisions for monitoring and protecting cultural resources.

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities should cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner would notify the Native American Heritage Commission (NAHC) who would then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains would contact a District Cultural

Resource Specialist, so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

PHYSICAL ENVIRONMENT

2.8 WATER QUALITY AND STORM WATER RUNOFF

Regulatory Setting

Section 401 of the Clean Water Act requires water quality certification from the State Water Resource Control Board (SWRCB) or a Regional Water Quality Control Board (RWQCB) when the project requires a Federal permit. Typically this means a Clean Water Act Section 404 permit to discharge dredge or fill into a water of the United States, or a permit from the Coast Guard to construct a bridge or causeway over a navigable water of the United States under the Rivers and Harbors Act.

Along with Clean Water Act Section 401, Section 402 establishes the National Pollutant Discharge Elimination System (NPDES) for the discharge of any pollutant into waters of the United States. The federal Environmental Protection Agency has delegated administration of the NPDES program to the SWRCB and the nine RWQCBs. To ensure compliance with Section 402, the SWRCB has developed and issued Caltrans an NPDES Statewide Storm Water Permit to regulate storm water and non-storm water discharges from Caltrans right-of-way, properties and facilities. This same permit also allows storm water and non-storm water discharges into waters of the State pursuant to the Porter-Cologne Water Quality Act.

Storm water discharges from the Caltrans construction activities disturbing one acre or more of soil are permitted under the Caltrans Statewide Storm Water NPDES permit. These discharges must also comply with the substantive provisions of the SWRCB's Statewide General Construction Permit. Non-Caltrans construction projects (encroachments) are permitted and regulated by the SWRCB's Statewide General Construction Permit. All construction projects exceeding one acre or more of disturbed soil require a Storm Water Pollution Prevention Plan (SWPPP) to be prepared and implemented during construction. The SWPPP, which identifies construction activities that may cause discharges of pollutants or waste into waters of the United States or waters of the State, as well as measures to control these pollutants, is prepared by the construction contractor and is subject to Caltrans review and approval.

The SWRCB and the RWQCBs have jurisdiction to enforce the Porter-Cologne Act to protect groundwater quality. Groundwater is not regulated by Federal law, but is regulated under the

state's Porter-Cologne Act. Some projects may involve placement or replacement of on-site treatment systems (OWTS) such as leach fields or septic systems or propose implementation of infiltration or detention treatment systems which may pose a threat to groundwater quality.

Affected Environment

The water quality analysis is based upon the October 2009 Water Quality Report.

The climate in the project area is considered semi-arid. Precipitation records available from the National Weather Service indicate that the average rainfall at the Miramar Naval Station located 7.5 miles inland from the Pacific Coast (elevation of 476 ft) and to the east from the project alignment, is 11.3 inches per year. In addition nearly 90% of the annual precipitation occurs between the month of November and April.

The project is located in an area with average high temperatures ranging from 73.4° Fahrenheit (F) in winter and early spring to 84.2° F in summer. Average monthly low temperatures range from 44.6 °F in December and January to 66.2 °F in August.

The proposed project is within the Miramar Reservoir & Miramar Hydrologic Areas which are within the Peñasquitos Hydrologic Unit. The proposed project drains directly into San Clemente Canyon, Rose Canyon, and Carroll Canyon. San Clemente Canyon and Rose Canyon merge together approximately 4 miles east of I-805 south of the I-5/SR-52 interchange and drain south to Mission Bay. Carroll Canyon runs west under I-805 and joins Soledad Canyon, which runs north along I-805 before it merges with Peñasquitos Creek. Carroll Canyon feeds into the Los Peñasquitos Lagoon.

Environmental Consequences

Build Alternative

The project is anticipated to generate approximately 253 acres of disturbed soil areas during the construction phase. If disturbed slopes are not stabilized, sediment has the potential to travel to adjacent waterways. Potential sources of pollutants during the construction phase could be generated from construction materials as well as construction activities. Examples of pollutants generated from construction materials include: vehicle fluids, asphaltic emulsions from paving activities, joint and curing compounds, concrete curing compounds, solvents and thinners, paint, sandblasting material, landscaping materials, treated lumber, PCC rubble and general litter. Examples of construction activities that have the potential to contribute pollutants include clearing and grubbing, grading operations, soil import operations, sandblasting, landscaping and utility excavation.

The proposed project would result in a 38.1 acre increase in impervious areas, thus having the potential to increase the velocity of runoff. This increase in paved areas could also potentially cause erosion, scour and have an impact on downstream channel stability if the effects of the increased runoff are not evaluated and taken into consideration during the hydraulic design.

Potential sources of pollutants found in highway runoff include sediment from natural erosion; nutrients (nitrogen and phosphorus) from tree leaves, mineralized organic matter in soil, fertilizers runoff, nitrite from automobile exhausts, atmospheric deposition, emulsifiers and surfactants; pesticides; metals (dissolved and particulate) from combustion products of fossil fuels, wearing of break pads and corrosion.

No-Build Alternative

Selection of the No-Build Alternative would result in no construction or additional operational water quality impacts.

Avoidance, Minimization and/or Mitigation Measures

Best Management Practices (BMP) would be implemented to address potential water quality impacts during the planning and design, construction, and operational (maintenance) stages. The Statewide Storm Water Management Plan (SWMP) describes how Caltrans would comply with the provisions of the NPDES Permit (Order 99-06-DWQ). The SWMP describes the program that Caltrans would implement to reduce the discharge of pollutants to the storm water drainage systems that serve the highway and highway-related properties, facilities and activities. The SWMP divides the BMPs into separate categories from the planning and design phase to the operational (maintenance) phase.

Short-term potential impacts to water quality during the construction phase are prevented/minimized with Construction Site BMPs while the long-term potential impacts during the facility operation and maintenance are prevented/minimized through the implementation of Design Pollution Prevention BMPs, Treatment BMPs and Maintenance BMPs.

Maintenance BMPs

Caltrans maintenance performs various activities on different facilities throughout the state to ensure safe and usable conditions for the public. Most of these activities are performed by small crews with minimal soil disturbance.

The objective of implementing maintenance BMPs is to provide preventative measures to ensure that maintenance activities are conducted in a manner that reduces the amount of pollutants discharged to surface waters via Caltrans storm water drainage systems.

Maintenance BMPs would be on-going for the life of the facility in accordance with the Storm Water Quality Handbook, Maintenance Staff Guide (Guide). The Guide provides detailed instructions on how to apply the approved storm water Maintenance BMPs to maintain facility operations and highway activities.

Design Pollution Prevention BMPs

Design Pollution Prevention (DPP) BMPs are standard technology-based, non-treatment controls selected to reduce pollutant discharges to the maximum extent practicable. DPP BMPs have the following design objectives: Prevent downstream erosion, stabilize disturbed soil areas and maximize vegetated surfaces consistent with Caltrans policies.

The selection of the specific BMPs is an iterative process that begins at the planning stages and gets refined during the design phase. Since Caltrans is committed to prevent or minimize impacts to water quality, the project would preserve the existing vegetation outside the work areas, stabilize slopes with vegetative cover after the completion of construction and keep the total paved area to a practical minimum. The project would also upgrade the drainage systems where necessary to handle the additional runoff, add additional drainage systems as necessary and use flared end section or rock slope protection at culvert outlets where appropriate. BMPs that may be implemented are found in Table 8.

Table 8: Potential DPP BMPs to be used in the project

Consideration of Downstream Effects Related to Potentially Increased Flow
Peak flow Attenuation Basin
Preservation of Existing Vegetation
Concentrated Flow Conveyance Systems
Ditches, Berms, Dikes and Swales
Overside Drains
Flared Culvert End Sections
Outlet Protection/Velocity Dissipation Devices
Slope/Surface Protection Systems
Vegetated Surfaces
Hard Surfaces

Construction BMPs

It would be necessary to use a combination of temporary erosion and sediment control BMPs to address both storm water and non-storm water discharges during construction. Caltrans would implement various construction site BMPs, as appropriate, during construction to reduce the potential for short-term impacts. These temporary control practices are consistent with the BMPs and control practices required under the State of California NPDES General Construction Permit for Storm Water Discharges Associated with Construction Activity (Water Quality Order

99-08-DWQ), and are intended to achieve compliance with the requirements of the aforementioned Permit. The selected BMPs are directed at reducing pollutants in storm water discharges and eliminating non-storm water discharges. The BMPs to be implemented would cover the categories in the table below. Examples of construction BMPs that would be implemented for this project include temporary fiber rolls, temporary erosion control, temporary concrete washouts, temporary construction entrances, street sweeping, temporary check dams and temporary drainage inlet protection.

Table 9: Construction BMP Categories

Construction BMP Categories	
Temporary Soil Stabilization	Waste Management and Materials Pollution Control
Temporary Sediment Control	Non-Storm Water Management
Wind Erosion Control	Tracking Control

Treatment BMPs

Treatment BMPs must be considered for this project as required under the SWMP to avoid or minimize the potential long term impacts from any Caltrans facilities or activities. The approved treatment BMPs listed below are considered to be technically and fiscally feasible. Caltrans experience has found these BMPs to be constructible, maintainable, and effective at removing pollutants to the maximum extent practicable. Approved treatment BMPs are Biofiltration Systems, Infiltration Devices, Detention Devices, Traction Sand Traps, Dry Weather Flow Diversion, Gross Solid Removal Devices (GSRDs), Media Filters, Multi Chamber Treatment Train, and Wet Basins.

A preliminary review of the project area has been completed and potential locations and types of treatment BMPs have been assessed for feasibility (based on such factors as climate, water volume, soil conditions, physical limitations, other environmental considerations, etc.). When the proposed project proceeds to the design phase, the locations of these treatment BMPs would be further evaluated to determine feasibility in relation to right-of-way limitations, environmental constraints or hydraulic capacity. In addition, in areas where treatment BMPs can not be incorporated due to above mentioned reasons, vegetation would be maximized and every effort would be made to ensure the successful establishment of landscaping and erosion control throughout the project limits. The project would also consider any future treatment BMPs that might be approved by Caltrans from the ongoing research and monitoring program. The District Erosion Control Specialist, in coordination with the project Biologist and Landscape Architect would determine the appropriate planting/seeding mix to ensure that proposed vegetation is

consistent with the vegetation within the corridor and any specific requirements by local entities such as the Multiple Species Conservation Program (MSCP) or others.

Biofiltration swales are vegetated channels that receive directed flow and convey storm water (Figures 3A-3D). While biofiltration strips are vegetated sections of land over which storm water flows as overland sheet flow. Pollutants are removed by filtration through the grass, sedimentation, adsorption to soil particles, and infiltration through the soil. Swales and strips are mainly effective at removing debris and solid particles, although some dissolved constituents are removed by adsorption into the soil.

An infiltration basin is a treatment device designed to remove pollutants from surface discharges by capturing the Water Quality Volume (WQV), temporarily storing it and infiltrating it directly to the soil rather than discharging it to receiving water.

A detention device is a permanent treatment BMP designed to reduce sediment and particulate loading in runoff by temporarily detaining the runoff to allow sediments and particles to settle out before it's discharged into a receiving water body. Detention devices remove litter; total suspended solids and pollutants that are attached to the settled particulate matter.

2.9 GEOLOGY/SOILS/SEISMIC/TOPOGRAPHY

Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects "outstanding examples of major geological features." Topographic and geologic features are also protected under CEQA.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Caltrans Office of Earthquake Engineering is responsible for assessing the seismic hazard for Caltrans projects. The current policy is to use the anticipated Maximum Credible Earthquake (MCE), from young faults in and near California. The MCE is defined as the largest earthquake that can be expected to occur on a fault over a particular period of time.

Affected Environment

A preliminary geotechnical report was completed March of 2008 and is incorporated by reference.

Site Geology

From State Route 52 (SR-52) north to the southern slope of Carroll Canyon, the I-805 freeway passes through mesas and cuts in the Linda Vista Formation. Within this interval, Scripps Formation and Stadium Conglomerate underlie lower areas of the native topography. Within Rose Canyon, Carroll Canyon, and Los Peñasquitos Canyon, some freeway facilities are underlain by alluvial soils. From Carroll Canyon north to the I-5 junction, Bay Point Formation and Ardath Shale mostly underlie the freeway. Localized locations of colluvium and alluvium occur as subgrade to the freeway embankment.

With the exception of the Ardath Shale Formation and alluvium, all native geologic units that underlie the alignment of this project are highly competent. However, only a relatively minor section of the project alignment may be impacted by the presence of Ardath Shale Formation.

Topography and Drainage

The section of I-805 from SR-52 to the I-5 and I-805 Interchange generally parallels the Pacific Coast, and is a series of uplifted wave cut terraces called mesas. East to west trending river valleys, canyons, and arroyos deeply dissect these mesas. Mesa elevations are typically about 330ft or less above Mean Sea Level (MSL) while stream and arroyo elevations decrease from the east to the west direction, and at their limits they are just above MSL.

Natural drainages occur mainly through the canyons and arroyos. Runoff water and drainage water in developed areas flows toward, or is channeled to, these topographic features that carry it westward to the Pacific coast.

Water

Outside of storm events, surface water is not typically present along the project alignment. A slight year round base flow, punctuated by storm discharge, occurs within the streambeds at Rose Canyon, Carroll Canyon, and Los Peñasquitos Canyon.

Groundwater

Seepage water, springs, ephemeral streams, and perched water conditions could be encountered within the project limits. These hydrogeologic phenomena are most likely to occur at the toe of slopes and embankments, and at the contact between permeable units (sandstone) and impermeable (shale) units. In addition, they are likely to occur at the bottoms of canyons and arroyos that cut into the mesas.

Soil Survey Mapping

For this project the Soil Survey of the San Diego Area, California, prepared by the U.S. Department of Agriculture (USDA), Soil Conservation Service (1973) was utilized. Although the survey focuses primarily on agricultural issues, the report includes estimated soil properties, which are important in engineering and land use planning.

The review of the Soil Survey report indicates that there are ten different soil units identified within the project area. Along the project alignment, the majority of mesas are classified as having soils characteristic of the Redding and Redding-Olivenhian series (associations). These series are comprised of well-drained cobbly and gravelly loams that have gravelly and cobbly clay subsoil over a surficial hardpan. The floors of the valleys that cut into the previously referenced mesas have soils characteristic of the Diablo-Linne and Las Flores-Huerhuero series. These series are comprised of well to moderately drained clays, clay loams and loamy fine sands that have a subsoil of sandy clay or clay.

Environmental Consequences

Build Alternative

Ground Motion

No known Holocene fault exists within the project area. However, several secondary faults related to the active Rose Canyon Fault Zone have been mapped along the project alignment. These faults (the Torrey Pines, Salk, and a few more unnamed faults) are currently believed to be pre-Holocene, though no direct evidence supports this fact.

The nearest known active fault is the Rose Canyon Fault Zone believed to be capable of producing an earthquake with a Maximum Credible Magnitude of 7.0 on the Richter scale. It is located about 3.42 miles south and west from the project site. The potentially active La Nacion Fault is located about 11.2 miles southeast from the southern end of the project limits, and it is considered capable of producing an earthquake with a Maximum Credible Magnitude of 6.75 on the Richter scale. In addition, the Elsinore Fault, about 25.5 miles northeast of the project limits, is considered capable of producing an earthquake with a Maximum Credible Magnitude of 7.5 on the Richter scale.

Ground Surface Rupture

Surface ground rupture is considered unlikely within the project limits. Active and potentially active faults are not known to cross the project alignment. The project site is not located within

the State of California (Alquist-Priolo) Earthquake Fault Zone. Therefore, the potential for surface ground rupture within the project limits during a seismic event is considered low.

Liquefaction

Liquefaction, the conversion of soil to a liquid, can be caused by strong vibratory motion due to earthquakes. Both research and historical data indicate that loose granular soils that are saturated by the presence of a relatively shallow groundwater table are most susceptible to liquefaction and dynamic settlement. Liquefaction is generally known to occur in saturated or near-saturated cohesionless materials at depth shallower than about 100ft. Dynamic settlement, however, can occur in both dry and wet sands at greater depths.

The Rose Canyon area has a very low potential for soil liquefaction. However, the potential for soil liquefaction appears to be high in the Carroll Canyon area. Further analysis of liquefaction potential would be required and special design considerations may be needed to mitigate liquefaction. Such analysis and consideration would be appropriately conducted during the design phase of project development.

No-Build Alternative

The No-Build alternative would not result in any new infrastructure that would be subject to the soils, geology, seismic conditions or topography of the area.

Avoidance, Minimization and/or Mitigation Measures

Trained personnel should be present during project construction to observe all cuts, foundation subgrade, and embankment subgrade to assure that the provisions set forth in the documents are appropriately enforced. If unanticipated conditions are encountered, the geotechnical personnel should make recommendations to the Resident Engineer who would in turn direct the contractor. Instrumentation for measuring settlement or slope distress is likely to be included in final geotechnical recommendations. A program of periodic surveying for ground movement should be included in project construction where the potential for ground movement and failure exists.

All grading and roadway work would be performed in accordance with the Caltrans Standard Plans and Specifications. Final recommendations and Special Provisions should be based on the findings of subsurface exploration, testing, and analysis as presented in final Geotechnical Design Reports and Foundation Reports.

BMPs proposed in the Water Quality Section (Section 2.8), would stabilize and reduce erosion during construction.

2.10 PALEONTOLOGY

Regulatory Setting

Paleontology is the study of life in past geologic time based on fossil plants and animals. A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized or funded projects. (e.g., Antiquities Act of 1906 [16 USC 431-433], Federal-Aid Highway Act of 1935 [20 USC 78]). Under California law, paleontological resources are protected by the California Environmental Quality Act, the California Code of Regulations, Title 14, Division 3, Chapter 1, Sections 4307 and 4309, and Public Resources Code Section 5097.5.

Affected Environment

A Paleontological Identification Report (PIR), November 2008, was prepared for this project and is incorporated by reference. This PIR provides an assessment of the paleontological resource potential within the study area defined as a one-mile radius from the project boundaries.

Paleontological resources, as defined here, are fossils and the geographic, geologic, phylogenetic, and taphonomic information associated with them. Fossils, as defined here are the remains and/or traces of prehistoric plant and animal life.

The Coastal Plain Region is an area characterized by interbedded marine and non-marine sedimentary rock units deposited over the last 75 million years. Many of the level surfaces in the coastal area, including most of the mesa tops and coastal benches are characteristic features of the Coastal Plains Region. These mesas are interrupted by canyons and other erosional features. In the segment of I-805 under consideration, the major canyons are San Clemente Canyon paralleling SR-52, Rose Canyon, and Carroll Canyon. Six geologic formations with potential for significant paleontological resources – the Bay Point Formation, Linda Vista Formation, Stadium Conglomerate, Friars Formation, Scripps Formation, and Ardath Shale – are located within and adjacent to the project corridor.

The Bay Point Formation is mapped as probable colluvial deposits on the inner curve of Carroll Canyon where it passes under I-805. When mapped it represented sediments of both marine and non-marine origin. The marine sediments of the formation in its restricted sense represent an open sandy beach deposit; its invertebrate fauna shows it to have been a warmer

environment than today. The sediments adjacent to I-805 appear to be colluvial. If still present, the colluvial deposits are beneath on- and off-ramps west of I-805 at Mira Mesa Boulevard.

The Linda Vista Formation is characterized as several meters of iron-red, moderately indurated, dirty sand and pebble-conglomerate. It lies on the Linda Vista Terrace, a wave-cut surface extending from Oceanside to northern Baja California. The Linda Vista Formation is mapped from the southern end of the study area northward to Carroll Canyon.

The Stadium Conglomerate is poorly cemented in general. The basal one meter of the formation is better indurated. The Stadium Conglomerate is chiefly nonmarine but contains some marine beds. It can directly overlie either the Friars Formation or the Scripps Formation. The Stadium Conglomerate is mapped as being on southwest and southeast sides of the SR-52 intersection, possible thin deposits to northwest and southwest of the Governor Drive intersection, to the northeast and southeast of the Governor Drive intersection, and to the southeast of the Nobel Drive intersection. There is no mapping along I-805 north of Nobel Drive.

The Friars Formation is chiefly nonmarine sandstone, but also includes lagoonal sandstone and claystone. The sandstone is typically massive, yellowish gray, medium grained, and poorly indurated with subangular to subrounded grains. The Friars Formation outcrops from the southern end of the study area to 1200 ft north of SR-52.

The Scripps Formation study is sandstone with moderately well-defined bedding that locally contains interbeds of conglomerate and sandy siltstone. Within the study area, it consists of 183.8 ft of pale yellowish-brown, medium-grained sandstone and occasional cobble-conglomerate interbeds. The Scripps Formation is exposed intermittently from the southern wall of San Clemente Canyon to the southern wall of Carroll Canyon.

Ardath Shale consists of uniform, weakly fissile olive-gray silty shale. The upper part contains thin beds of medium-grained sandstone, similar to thicker ones in the overlying Scripps Formation, and concretionary beds with molluscan fossils. Ardath Shale occurs only on the south wall of Carroll Canyon and along the east side of I-805 from Mira Mesa Boulevard northward. A fragment of a lucinid bivalve was seen along the east side of I-805. External and internal molds of the bivalve *Nuculana rosa* were observed along the southbound off-ramp at that interchange.

Environmental Consequences

Build Alternative

Earth moving activities associated with construction are the typical mode of impacts to significant paleontological resources. It has been concluded that improvements proposed for the Interstate 805 North Corridor project are situated within paleontologically sensitive areas and therefore have the potential to impact paleontological resources along most of the right-of-way.

Impacts to paleontological resources are rated in accordance with the sensitivity ratings of the rock units impacted. Below is a summary of the criteria for these ratings.

High sensitivity

Direct impacts to high sensitivity rock units (Ardath Shale, Scripps Formation, Friars Formation, Stadium Conglomerate, and Lindavista Formation).

Low sensitivity

Direct impacts to low sensitivity rock units (colluvium mapped as Bay Point Formation).

Zero sensitivity

Direct impacts to zero sensitivity rock units (artificial fill).

The planned project improvements would result in impacts to geologic units that have been assigned high (Ardath Shale, Scripps Formation, Friars Formation, Stadium Conglomerate, and Linda Vista Formation) and low paleontological resource sensitivities.

No-Build Alternative

The No-Build would not impact any paleontological resources.

Avoidance, Minimization and/or Mitigation Measures

It is recommended that a Paleontological Mitigation Plan (PMP) be implemented in order to reduce project related impacts to paleontological resources. The plan would include the following:

1. A qualified paleontologist would be at the pre-construction meeting to consult with the grading and excavation contractors concerning excavation schedules, paleontological field techniques, and safety issues. A qualified paleontologist is defined as an individual with a M.S. or Ph.D. degree in paleontology or geology who is familiar with paleontological procedures and techniques, who is knowledgeable in the geology and paleontology of San Diego County, and

who has worked as a paleontological mitigation project supervisor in the county for at least one year.

2. Grading plans would be provided to the paleontologist at least one week prior to the initiation of earth-moving activities.

3. A paleontological monitor would be on-site on a full-time basis during the original cutting of previously undisturbed deposits of high or moderate paleontological resource potential, and on-site on a part-time basis during the original cutting of previously undisturbed deposits of low paleontological resource potential (sedimentary deposits of younger alluvium), to inspect exposures for contained fossils. A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials. The paleontological monitor would work under the direction of a qualified paleontologist. As grading progresses, the qualified paleontologist and paleontological monitor would have the authority to reduce the scope of the monitoring program to an appropriate level if it is determined that the potential for impact to paleontological resources is lower than anticipated.

4. When fossils are discovered, the paleontologist (or paleontological monitor) would recover them. In most cases, this fossil salvage can be completed in a short period of time. If necessary, the paleontologist (or paleontological monitor) would be allowed to briefly redirect, divert, or halt grading. However, some fossil specimens (such as a complete large mammal skeleton) may require an extended salvage period. In these instances, the paleontologist (or paleontological monitor) would be allowed to redirect, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for the recovery of small fossil remains, such as isolated mammal teeth, it may be necessary to set up a screen-washing operation on the site.

5. During the monitoring and recovery phases of the PMP, the qualified paleontologist and/or the paleontological monitor would also routinely collect stratigraphic data (e.g., lithology, vertical thickness, lateral extent of strata, nature of upper and lower contacts, and taphonomic character of exposed strata.) Collection of such data is critical for providing a stratigraphic context for any recovered fossils.

6. Fossil remains collected during monitoring and salvage would be cleaned (removal of extraneous enclosing sedimentary rock material), repaired (consolidation of fragile fossils and gluing together of broken pieces), sorted (separating fossils of the different species), and cataloged (scientific identification of species, assignment of inventory tracking numbers, and

recording of these numbers in a computerized collection database) as part of the mitigation program.

7. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, would be deposited (as a donation) in an accredited scientific institution with permanent paleontological collections, such as the San Diego Natural History Museum. Donation of the fossils would be accompanied by financial support for preparation, curation, and initial specimen storage, if this work has not already been completed.

8. A final summary report would be completed. It would outline the results of the mitigation program. This report would include discussion of the methods used, stratigraphic section(s) exposed and documented, fossils collected, and significance of recovered fossils.

2.11 HAZARDOUS WASTE/MATERIALS

Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health and land use.

The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act

- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

Affected Environment

A June 2008 Initial Site Assessment (ISA) was performed to assess the potential for hazardous waste within the project limits, a January 2009 Aerially Deposited Lead (ADL) Study Report, and a June 2009 Limited Asbestos Survey Report, were prepared in support of this project.

Environmental Consequences

Build Alternative

Lead is known to be present along the I-805 corridor as a result of vehicular exhaust emissions prior to the elimination of lead from fuels in the mid-1980s. The lead impacted soil is found in exposed soil in the median and shoulders of the main traveled way to a depth of approximately 2ft and a distance of approximately 20ft from the edge of pavement. Results of investigation for ADL at the site indicated that soil does not contain hazardous concentrations of ADL.

The ISA determined that potential hazardous waste issues/materials of concern may include lead in yellow paint striping, and treated wood waste. Groundwater plumes containing hazardous waste have been identified near the project limits. These plumes are outside of both the temporary and permanent impact areas of the proposed project and would not be impacted.

Asbestos containing materials (ACMs) have been found in the proposed project at the following locations:

- Guardrail shims, located beneath the guardrail posts of each of the five surveyed bridge structures.
- Transite drain pipes located on the underside of the northbound side of the Governor Drive undercrossing.
- 1/8in asbestos sheet packing located between the vertical abutments and wing walls of the Governor Drive overcrossing.
- Drain pipe coating, located in drain pipes on the underside of Mira Mesa Boulevard overcrossing.

No-Build Alternative

The No-Build alternative would not impact any hazardous waste/materials.

Avoidance, Minimization and/or Mitigation Measures

A Lead Compliance Plan would be prepared prior to initiation of construction for activities such as soil excavation, and lead paint removal to manage potential health and safety hazards to workers and the public.

ADL levels are below hazardous but are considered impacted and are to stay within the Caltrans right of way.

Any treated wood from guard rail posts or sign post removed on the project would need to be disposed of at a Regional Water Quality Control Board approved landfill facility.

Any demolition or renovation activities that could disturb the above noted building materials that contain asbestos would be performed by properly trained and certified personnel, and in accordance with all Federal, State, and local regulations.

2.12 AIR QUALITY

Regulatory Setting

The Clean Air Act as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). Standards have been established for six criteria pollutants that have been linked to potential health concerns; the criteria pollutants are: carbon

monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM), lead (Pb), and sulfur dioxide (SO₂).

Under the 1990 Clean Air Act Amendments, the U.S. Department of Transportation cannot fund, authorize, or approve Federal actions to support programs or projects that are not first found to conform to State Implementation Plan for achieving the goals of the Clean Air Act requirements. Conformity with the Clean Air Act takes place on two levels—first, at the regional level and second, at the project level. The proposed project must conform at both levels to be approved.

Regional level conformity in California is concerned with how well the region is meeting the standards set for carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), and particulate matter (PM). California is in attainment for the other criteria pollutants. At the regional level, Regional Transportation Plans (RTP) are developed that include all of the transportation projects planned for a region over a period of years, usually at least 20. An air quality model is run, based on the projects in the RTP, to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met. If the conformity analysis is successful, the regional planning organization for San Diego County, SANDAG and the appropriate federal agencies (Federal Highway Administration), make the determination that the RTP is in conformity with the State Implementation Plan for achieving the goals of the Clean Air Act. Otherwise, the projects in the RTP must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the RTP, then the proposed project is deemed to meet regional conformity requirements for purposes of project-level analysis.

Conformity at the project-level also requires “hot spot” analysis if an area is “nonattainment” or “maintenance” for carbon monoxide (CO) and/or particulate matter. A region is a “nonattainment” area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as nonattainment areas but have recently met the standard are called “maintenance” areas. “Hot spot” analysis is essentially the same, for technical purposes, as CO or particulate matter analysis performed for NEPA purposes.

Conformity does include some specific standards for projects that require a hot spot analysis. In general, projects must not cause the CO standard to be violated, and in “nonattainment” areas the project must not cause any increase in the number and severity of violations. If a known CO or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

Affected Environment

This section is based on the Final Air Quality Technical Study prepared for I-805 Managed Lanes North Project dated July 23, 2009.

Meteorology/Climate

Consistent with the typical weather of coastal southern California, the City of San Diego enjoys a Mediterranean and semi-arid climate. The prevailing winds and climate are driven by the Pacific Ocean, which results in warm, dry summers and mild winters. The nearest meteorological station to the proposed project is located at Miramar Naval Air Station just east of the project site. The annual average high temperature at Miramar is 72°F and the average low temperature is 53°F (NWS,2009). Temperatures of 32°F or below have rarely occurred at this station, but temperatures of 90°F or above, are more frequent. During the fall, Santa Ana winds can last for several days, transporting hot, dry air from the inland deserts. These are strong, dry, easterly winds accompanied by high temperatures (greater than 90°F) and very low relative humidity (often below 20%).

San Diego receives most of its annual rainfall from November to March when the semi-permanent Pacific High moves southerly over the Pacific Ocean. The average annual precipitation at Miramar Naval Air Station is about 11 in. (NWS, 2009).

Local winds are driven by temperature differentials between the land and nearby Pacific Ocean, creating a sea- and land-breeze circulation. Light to moderate wind speeds from the northwest through southwest are typical.

During springtime, a local marine layer forms at night and can remain through the morning, causing considerable fogginess generally near the coast, but can stretch as far inland as the project area. This fog typically dissipates during the late morning, and the afternoons are generally clear. Fog can also occur during the fall and winter months, lasting well into the day.

Environmental Consequences

Regional Air Quality Conformity

The proposed project is included in SANDAG's 2030 San Diego Regional Transportation Plan: Pathways for the Future (2007 update) and 2008 Regional Transportation Improvement Program (2008 RTIP). The project is identified in the 2030 RTP on page A-5 and A-10, Revenue Constrained Plan Tables A.1 and A.2 respectively, and in the 2008 RTIP on page 38, as MPO ID: CAL78B; Title: I-805 HOV/Managed Lanes - North, with the following description: On I-805 from the I-805 /SR-52 to Sorrento Valley, on SR-52 at the I-805/SR-52 separation –

preliminary engineering for future construction of managed lanes. A difference exists regarding the current capacity categorization in the 2008 RTIP and the actual categorization drawn from the descriptions of the proposed alternatives being considered. Namely, the project is listed in the 2008 RTIP as Non Capacity Increasing (NCI), however, it is anticipated that an amendment would be completed prior to the completion of the final environmental document action to ensure that the 2008 RTIP, regional conformity analysis, and the project all have consistent descriptions.

A conformity determination for SANDAGs new 2008 RTIP and conformity redetermination for SANDAGs 2030 RTP was made by USDOT on November 17, 2008 (USDOT 2008). The design concept and scope of the proposed project are anticipated to be consistent with the project description in the 2030 RTP, the 2008 RTIP, and the assumptions in the SANDAG regional emissions analysis prior to the completion of the final environmental document. Therefore, it is foreseen that the project would conform to the State Implementation Plan (SIP) and no adverse air quality impact would occur as a result of the project implementation.

Project Level Conformity

The state and federal ambient air quality standards (AAQS) relevant to the proposed project are summarized in Table 10.

The proposed project site is located in the San Diego Air Basin (SDAB). The attainment status of the SDAB relative to the federal and state criteria pollutants is presented in Table 11. An area is designated in attainment when it is in compliance with the NAAQS and/or California Ambient Air Quality Standards (CAAQS). At the time of designation, if the available data does not support a designation of attainment or non-attainment, the area is designated as unclassifiable.

Table 10: Applicable Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹	Federal Standards ²	
		Concentration ³	Primary ^{3,4}	Secondary ^{3,5}
Ozone (O3)	1-Hour	0.09 ppm (180 µg/m ³)		Same as Primary Standard
	8-Hour	0.070 ppm (137 µg/m ³)	0.075 ppm (147 µg/m ³)	
Respirable Particulate Matter (PM₁₀)	24-Hour	50 µg/m ³	150 µg/m ³	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m ³		
Fine Particulate Matter (PM_{2.5})	24-Hour	No Separate State Standard	35 µg/m ³	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m ³	15.0 µg/m ³	
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	None
	1-Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	
Nitrogen Dioxide (NO₂)	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary Standard
	1-Hour	0.18 ppm (339 µg/m ³)		
Sulfur Dioxide (SO₂)	Annual Arithmetic Mean		0.030 ppm (80 µg/m ³)	
	24-Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)	
	3-Hour			0.5 ppm (1300 µg/m ³)
	1-Hour	0.25 ppm (655 µg/m ³)		
Lead (Pb)⁶	30-Day Average	1.5 µg/m ³		
	Calendar Quarter		1.5 µg/m ³	Same as Primary Standard
	Rolling 3-Month Average		0.15 µg/m ³	
Hydrogen Sulfide (H₂S)	1-Hour	0.03 ppm (42 µg/m ³)	No Federal Standards	
Sulfates (SO₄)	24-Hour	25 µg/m ³		
Visibility Reducing Particles	8-Hour	In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70%.		
Vinyl Chloride⁶	24-Hour	0.01 ppm (26 µg/m ³)		

Source: EPA-NAAQS (<http://www.epa.gov/air/criteria.html>); CARB-CAAQS (<http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>). Nov. 17 2008.

µg/m³ = micrograms per cubic meter.

mg/m³ = milligrams per cubic meter.

ppm = parts per million.

¹ - California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide,

suspended particulate matter—PM10, PM2.5, and visibility-reducing particles—are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 - National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact EPA for further clarification and current federal policies.

3 - Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 Torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 Torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4 - National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

5 - National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant

6 - California ARB has identified lead and vinyl chloride as “toxic air contaminants” with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Table 11: SDAB Attainment Status of all Federal and State Criteria Pollutants

Pollutant	Federal Designation	State Designation
Ozone (1-hr)	No federal standard	Nonattainment
Ozone (8-hr)	Nonattainment	Nonattainment
Carbon Monoxide	Maintenance	Attainment
PM 10	Unclassifiable	Nonattainment
PM 2.5	Attainment	Nonattainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No federal standard	Attainment
Hydrogen Sulfide	No federal standard	Unclassifiable
Visibility-Reducing Particles	No federal standard	Unclassifiable

The proposed project site is located in the SDAB, which currently meets the federal air quality standards for all of the criteria air pollutants, except ozone (O₃). The SDAB has been designated as a “Basic” non-attainment area for the 8-hour O₃ standard. The SDAB is designated as a federal maintenance area for CO following its redesignation from the non-attainment to a CO attainment area. Table 12 shows the pollutants for which the area has been classified as a federal non-attainment or maintenance and the number of violations within the past three years.

Table 12: Federal Nonattainment and Attainment/Maintenance Pollutants in the SDAB

Pollutant	Federal Attainment Status	
	Federal Attainment Status	Exceedances in the Last 3 Years
O ₃ – 8-hour	Nonattainment, Basic	38 in 2006, 27 in 2007, and 35 in 2008
CO	Maintenance	None

Source: Air Quality Data, California Air Resource Board (CARB), 2006, 2007 and 2008.

Note: ARB indicates that exceedances are not necessarily violations.

Some locations are considered more sensitive to adverse effects from air pollution than others. These locations are commonly termed sensitive receptors and they include hospitals, schools, day care centers, nursing homes, and parks/playgrounds. Sensitive receptors in proximity to localized CO sources, toxic air contaminants, or odors are of particular concern. Sensitive receptors closest to the proposed project site are presented in Table 13.

Table 13: Sensitive Receptors Closest to the Proposed Project Site

Type of Receptor	Name	Distance from Proposed Project (ft)
Park	Nobel Athletic Area, Nobel Drive and Shoreline Drive	1,370 ft from Nobel Drive South Bound On Ramp
	University Gardens Park, Governor Drive and Gullstrand Street	1,350 ft from Governor Drive South Bound On/Off Ramp
Day Care Center	Lighthouse Early Childhood Center, 5055 Governor Drive	980 ft from Governor Drive South Bound On/Off Ramp
School	Webster University, 6333 Greenwich Avenue	Adjacent to Governor Drive/I-805 Interchange, Southwest Corner (approximately 100 ft from road edge)

The SDAPCD operates a network of ambient air monitoring stations throughout San Diego County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and/or NAAQS.

The nearest ambient monitoring station to the project site that measures CO is the San Diego-Union Street Station in downtown San Diego. This station measures CO only. The monitoring station located downtown at 1100 Beardsley Street is a little further from the project site, and generally measured lower maximum ambient CO concentrations in the past few years than the Union Street monitoring station. Air quality monitoring data from 2004 to 2008 at the Union Street monitoring station show that the federal and state 1-hour and 8-hour CO standards were not exceeded in the past five years. The SDAB has been classified as a maintenance area for the NAAQS for CO, and classified as an attainment area for the CAAQS for CO.

The nearest ambient monitoring station to the project site that measures both PM10 and PM2.5 is the Kearny Mesa Station located at 5555 Overland Avenue. Air quality monitoring data from 2004 to 2008 at the Kearny Mesa station show that the state annual PM10 standard was exceeded in the past five years, while the state and federal 24-hr and federal annual standards were not exceeded. The federal and state 24-hour and annual PM2.5 standards were not exceeded in the past five years. The SDAB has been classified as an attainment area for the NAAQS for PM2.5, unclassifiable for the NAAQS for PM10 and classified as a nonattainment area for the CAAQS for both PM10 and PM2.5.

CO

For the CO hotspot analysis, the procedure outlined in the Transportation Project-Level Carbon Monoxide Protocol, 1997 (CO Protocol) (ITS UC Davis, 1997) was used to perform a microscale air quality modeling using EMFAC2007 and CALINE4 (Caltrans, 1989). EMFAC2007 (CARB, 2007) was used to calculate the CO emission factors required for modeling. CALINE4 included in the CL4 software package was used to predict the maximum 1-hr average CO concentrations at selected intersections in the proposed Project limits.

The composite CO emission factors were calculated for the years 2020 and 2030 for SDAB. The EMFAC2007 SDAB default data were used for most variables including model years, vehicle classes, inspection and maintenance (I/M) program schedule, control technology, vehicle population and odometer accrual rates, vehicle miles traveled (VMT) and vehicle trips, and profiles of Reid Vapor Pressure (RVP), temperature, humidity, speed fractions and idle times.

The ambient temperature used in EMFAC modeling was the lowest mean minimum temperature over a representative period of at least three years, adjusted by +5 °F for both the morning and evening peak hours as recommended by the CO protocol. The temperature was determined to be 50.0°F (NWS, 2009).

The average free flow speeds for the selected links were obtained from the project traffic study. These speeds were then used to determine the average cruise speed based on the arterial classifications. The links' average approach and departure speeds were also determined based on traffic volume, average cruise speed and percentage of red time.

The 8-hour maximum CO concentration was calculated by applying a persistence factor of 0.7 to the predicted maximum 1-hr average CO concentrations obtained from each modeling run. The background concentrations were then added to the predicted concentrations to calculate the modeled maximum concentrations which were then compared to the CAAQS and NAAQS, in order to determine if the proposed project has significant or less-than-significant air quality impacts.

Table 14: 2020 No-Build and Build 1-hr Average CO Hotspot Modeling Results

Area	Predicted Maximum 1-hr Average CO Concentration (ppm)			Predicted Maximum 1-hr Average CO Concentration Plus Background (ppm) ¹		Percent of the Standard ²	
	2020 No-Build	2020 Build	Change %	2020 No-Build	2020 Build	2020 No-Build	2020 Build
La Jolla Village Drive and I-805 South Bound On/Off Ramp	1.2	1.2	0.00	12.00	12.00	60.00	60.00
Sorrento Valley Road and I-805 South Bound Off Ramp	1.0	1.0	0.00	11.80	11.80	59.00	59.00
Vista Sorrento Parkway and I-805 North Bound On/Off Ramp	0.8	0.8	0.00	11.60	11.60	58.00	58.00

Table 15: 2020 No-Build and Build 8-hr Average CO Hotspot Modeling Results

Area	Predicted Maximum 8-hr Average CO Concentration (ppm) ¹			Predicted Maximum 8-hr Average CO Concentration Plus Background (ppm) ²		Percent of the Standard ³	
	2020 No-Build	2020 Build	Change %	2020 No-Build	2020 Build	2020 No-Build	2020 Build
La Jolla Village Drive and I-805 South Bound On/Off Ramp	0.84	0.84	0.00	6.04	6.04	67.11	67.11
Sorrento Valley Road and I-805 South Bound Off Ramp	0.70	0.70	0.00	5.90	5.90	65.56	65.56
Vista Sorrento Parkway and I-805 North Bound On/Off Ramp	0.56	0.56	0.00	5.76	5.76	64.00	64.00

Notes:

1 Apply a persistence factor of 0.7 to the predicted maximum 1-hr average CO concentration.

2 Background Concentration = 5.2 ppm (highest ambient CO concentration for the past 5 years).

3 Most Stringent 8-hr Average CO Standard = 9.0 ppm (CAAQS and NAAQS).

Table 16: 2030 No-Build and Build 1-hr Average CO Hotspot Modeling Result

Area	Predicted Maximum 1-hr Average CO Concentration (ppm)			Predicted Maximum 1-hr Average CO Concentration Plus Background (ppm) ¹		Percent of the Standard ²	
	2030 No-Build	2030 Build	Change %	2030 No-Build	2030 Build	2030 No-Build	2030 Build
La Jolla Village Drive and I-805 South Bound On/Off Ramp	0.8	0.8	0.00	11.60	11.60	58.00	58.00
Sorrento Valley Road and I-805 South Bound Off Ramp	0.7	0.8	14.29	11.50	11.60	57.50	58.00
Vista Sorrento Parkway and I-805 North Bound On/Off Ramp	0.5	0.5	0.00	11.30	11.30	56.50	56.50

Notes:

1 Background Concentration = 10.8 ppm (highest ambient CO concentration for the past 5 years).

2 Most Stringent 1-hr Average CO Standard = 20 ppm (CAAQS).

Table 17: 2030 No-Build and Build 8-hr Average CO Hotspot Modeling Results

Area	Predicted Maximum 8-hr Average CO Concentration (ppm) ¹			Predicted Maximum 8-hr Average CO Concentration Plus Background (ppm) ²		Percent of the Standard ³	
	2030 No-Build	2030 Build	Change %	2030 No-Build	2030 Build	2030 No-Build	2030 Build
La Jolla Village Drive and I-805 South Bound On/Off Ramp	0.56	0.56	0.00	5.76	5.76	64.00	64.00
Sorrento Valley Road and I-805 South Bound Off Ramp	0.49	0.56	14.29	5.69	5.76	63.22	64.00
Vista Sorrento Parkway and I-805 North Bound On/Off Ramp	0.35	0.35	0.00	5.55	5.55	61.67	61.67

Notes:

1 Apply a persistence factor of 0.7 to the predicted maximum 1-hr average CO concentration.

2 Background Concentration = 5.2 ppm (highest ambient CO concentration for the past 5 years).

3 Most Stringent 8-hr Average CO Standard = 9.0 ppm (CAAQS and NAAQS).

A comparison of the Build and No-Build scenarios for both 2020 and 2030, shows that during the interim year (2020), the impact of the proposed Project is the same as that of the No-Build scenario for all the selected intersections. For the future year (2030), the impact of the proposed Project is the same as that of the No-Build scenario for La Jolla Village Drive/I-805 southbound

on/off ramp intersections and the Vista Sorrento Parkway/I-805 northbound on/off ramp. The impact of the proposed project is 14% greater than that of the no-build scenario for the Sorrento Valley Road/I-805 southbound off ramp intersection.

The results of the quantitative CO hotspot analysis shows that the proposed project would not adversely impact the local air quality.

PM10 and PM2.5

On March 10, 2006, the USEPA published a final rule that establishes the transportation conformity criteria and procedures for determining which transportation projects must be analyzed from local air quality impacts in PM2.5 and PM10 nonattainment and maintenance areas. Based on that rule, the USEPA and FHWA published Transportation Conformity Guidance for Qualitative Hot-spot Analysis in PM2.5 and PM10 Nonattainment and Maintenance Areas (PM guidance, FHWA 2006). While the SDAB is not a federally designated PM2.5 and PM10 nonattainment or maintenance area, it is designated as a State nonattainment area for both pollutants. Thus, to meet State requirements, the proposed project is assessed using the procedure outlined in the PM Guidance.

The PM guidance document describes a qualitative hot spot analysis method that does not involve dispersion modeling. This qualitative PM2.5 and PM10 hot spot analysis method involves a more streamlined review of local factors such as local monitoring data near a proposed project location.

The PM2.5 and PM10 hot spot analysis method in the March 2006 Guidance involves two steps: determining whether or not a project is a "project of concern" and, if it is a "project of concern" preparation of a detailed qualitative analysis of the project.

The PM Guidance defines the following types of projects as projects of air quality concern:

- New or expanded highway project that have a significant number of or significant increase in diesel vehicles.
- Projects affecting intersections that are Level-of-Service (LOS) D, E, or F with a significant number of diesel vehicles, or those that would change to LOS D,E, or F, because of increased traffic volumes from a significant number of diesel vehicles related to the project.
- New bus and rail terminals, and transfer points, that have a significant number of diesel vehicles congregating at a single location.

- Expanded bus and rail terminals, and transfer points, that significantly increase the number of diesel vehicles congregating at a single location.
- Projects in, or affecting locations, areas, or categories of sites that are identified in the PM_{2.5} applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

A significant volume for a new highway or expressway is defined as an annual average daily traffic (AADT) volume of 125,000 or more, and a significant number of diesel vehicles is defined as 8% or more of that total AADT or more than 10,000 truck AADT. An increase in diesel truck traffic is normally considered to be approximately 10%.

The proposed improvements to the I-805 Managed Lanes North Project would increase capacity. The existing 2009 AADT volume is 331,560. The design year (2030) AADT volumes without the project is 343,500 vehicles. However, the existing diesel fuel truck percentage within the project limits is 7.1% of AADT, which is below the threshold of 8%. The proposed project would not result in an increase in the ratio of trucks in the volumes, estimated horizon year (2030) truck AADT would remain at 7.1%.

The proposed project is located in an attainment area for Federal PM₁₀ and PM_{2.5} standards, and in a nonattainment area of State PM₁₀ and PM_{2.5} standards. Based on screening using U.S. EPA PM Guidance, the proposed project is not a Project of Air Quality Concern because it does not meet the criteria due to relatively low total/truck AADT, truck percentage, and increase in truck volumes comparing the Build and No Build Alternatives. The proposed project is improving traffic operations by smoothing traffic flow. The proposed project is therefore in conformance for Federal PM₁₀ and PM_{2.5} standards and is unlikely to increase the frequency or severity of any existing exceedances regarding the non-attainment of state PM₁₀ and PM_{2.5} standards.

The nearest ambient monitoring station to the project site that measures both PM₁₀ and PM_{2.5} is the Kearny Mesa Station located at 5555 Overland Avenue, which is approximately 2.5 miles from the SR-52/I-805 Interchange. The maximum 24-hour and annual mean ambient concentrations of PM₁₀ and PM_{2.5} for the past five years at the Kearny Mesa station are presented in Table 18 and the PM₁₀ and PM_{2.5} trends are plotted in Tables 19-20. Air quality monitoring data from 2004 to 2008 at the Kearny Mesa station shows that the states annual PM₁₀ standard was exceeded in the past five years, while the state and federal 24-hr and federal annual standards were not exceeded. There is no federal standard for the annual PM₁₀

concentration. The state annual and federal 24-hour and annual $PM_{2.5}$ standards were not exceeded in the past five years. There is no state standard for the 24-hour $PM_{2.5}$ concentration. The SDAB has been classified as an attainment area for the NAAQS for $PM_{2.5}$, unclassifiable for the NAAQS for PM_{10} and classified as a nonattainment area for the CAAQS for both PM_{10} and $PM_{2.5}$.

Table 18: PM_{10} and $PM_{2.5}$ Background Concentrations ($\mu g/m^3$)

Pollutant	Averaging Time	2004	2005	2006	2007	2008	CAAQS	NAAQS	Any Year Above (Yes/No)
PM_{10}	24-hour	44	44	42	44	41	50	150	N
	Annual	25	22	22	22	24	20	---	Y
$PM_{2.5}$	24-hour	29	29	26	31	27	---	35	N
	Annual	11	10	11	10	11	12	15	N

Notes: PM_{10} and $PM_{2.5}$ Monitoring site address: 5555 Overland Avenue, San Diego, CA 92123 (approximately 2.5 miles south east of the SR-52/I-805 Interchange).

Source: SDAPCD Air Quality Data website (<http://www.sdapcd.org/air/reports/smog.pdf>) and EPA Air Data (<http://www.epa.gov/air/data/index.html>).

Table 19: PM_{10} Trend for the Kearny Mesa Monitoring Station

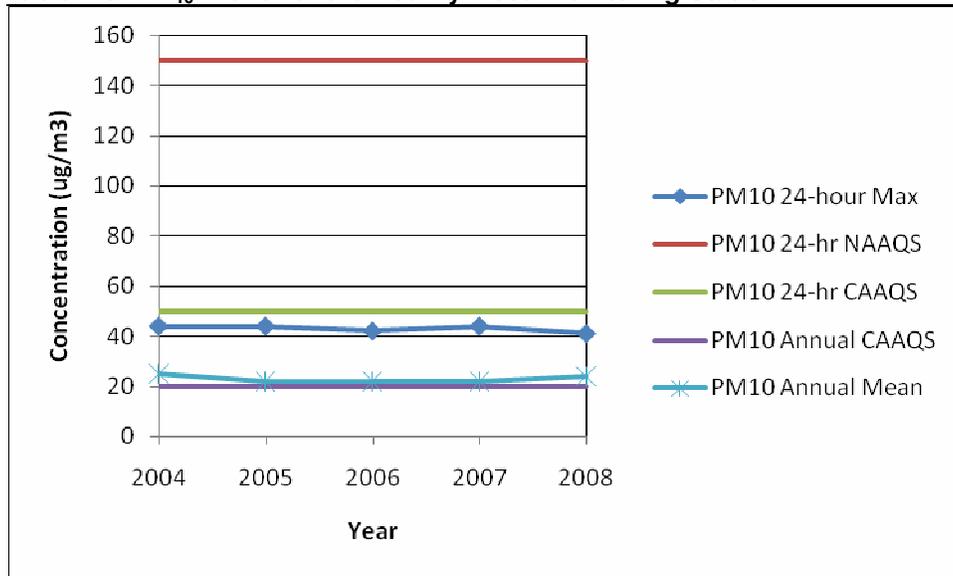
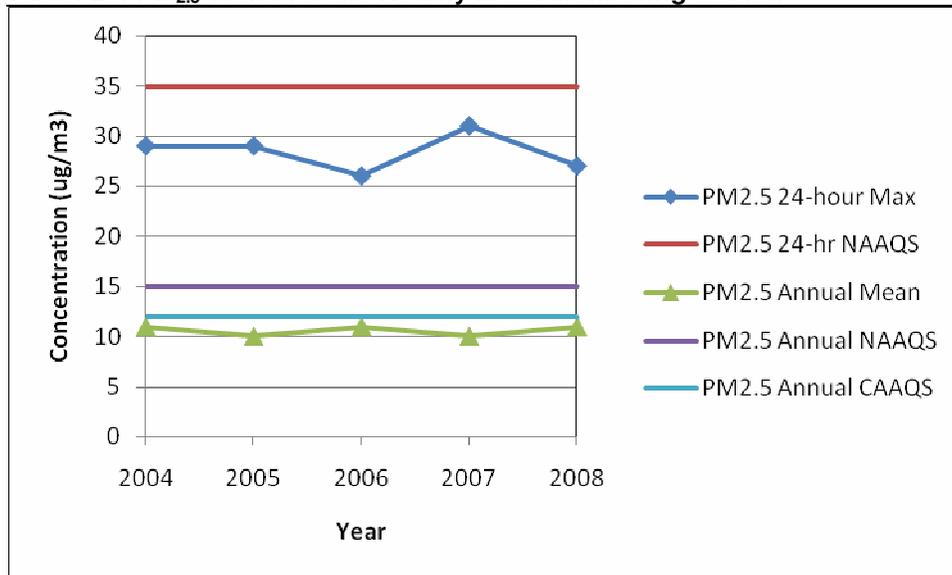


Table: 20: PM_{2.5} Trend for the Kearny Mesa Monitoring Station



The proposed project is located in an attainment area for federal PM₁₀ and PM_{2.5} standards, and in a nonattainment area for state PM₁₀ and PM_{2.5} standards. Based on screening using USEPA PM Guidance, the proposed project is not a project of air quality concern because it does not meet the criteria due to relatively low total/truck AADT, truck percentage, and increase in truck volumes comparing the Build and No-Build Alternatives. The proposed project is improving traffic operations by smoothing traffic flow. The proposed project is therefore in conformance for federal PM₁₀ and PM_{2.5} standards and is unlikely to increase the frequency or severity of any existing exceedance regarding the nonattainment of state PM₁₀ and PM_{2.5} standards.

Naturally Occurring Asbestos (NOA)

According to the California Department of Conservation, Division of Mines and Geology report on naturally-occurring asbestos areas (CDC, 2000), San Diego County, and therefore the proposed project site, is not likely to contain naturally-occurring asbestos.

Mobile Source Air Toxics (MSAT)

For the MSAT analysis, the FHWA's Interim Guidance on Air Toxic Analysis for NEPA Documents (MSAT Guidance) (USDOT 2006) was used. The proposed project would add new or create significant capacity to I-805 North with annual average daily traffic (AADT) greater than 140,000. Furthermore, the proposed project is located in proximity to populated areas and sensitive receptors. Consequently, as required by the MSAT guidance, a quantitative MSAT analysis is required.

There are no established regulatory concentration targets for the six priority MSATs. Therefore, the impacts of these MSATs were assessed through a quantitative alternative analysis in which MSAT emissions are compared among proposed project scenarios for build-out in 2020 and 2030, no build 2020 and 2030 and the existing conditions (2006) to determine if meaningful differences in the levels of MSAT emissions exist. Appropriate mitigation measures should be identified and considered if meaningful differences exist.

Six segments of the I-805 North corridor were determined and selected for the analyses. The segment boundaries do not change with the different scenarios. Each segment runs from the middle of each existing interchange to the next interchange and consists of all main lanes, connectors, and HOV lanes, included within the segment for each scenario. Northbound and southbound lanes are included together in each segment. The discrete traffic data for each link contained within a segment are summed up to obtain daily peak and off peak totals for that segment.

CT-EMFAC is a California specific transportation project-level analysis tool, designed to model criteria pollutants, Mobile Source Air Toxics (MSATs) and carbon dioxide using the latest version of the California Mobile Source Emission Inventory and Emission Factors model, EMFAC2007.

MSAT Analysis

Traffic activity data has been utilized in performing the MSAT analysis. Traffic activity data has been supplemented by available Caltrans data inventory systems for the base year values and also by Caltrans forecast modeling of the corridor for future year values. Emission factors for the six MSATs have been obtained for the San Diego Air Basin portion of San Diego County using CT-EMFAC 2007. Results of the MSAT analysis are tabulated in Tables 21-26. The analysis was refined to determine MSAT emission rates by segments of the I-805 Managed Lanes North Project. The changes in the MSAT emissions projected among the proposed alternatives over the years are illustrated in Appendix D of the AQ technical report. These tables show emission rates for the combined northbound and southbound traffic for each MSAT along the I-805 from north to south, by segment.

Discussion of MSAT Results

The analysis indicates that a significant decrease in MSAT emissions can be expected for the proposed alternative from the base year (2006) levels through future year levels. This decrease is prevalent throughout the highest-priority MSATs for the analyzed alternative. This decrease is also consistent with the aforementioned EPA's study that projects a significant reduction in on-

highway emissions of benzene, formaldehyde, 1, 3-butadiene, and acetaldehyde between 2000 and 2020. Based on the analysis for this project reductions in MSAT levels expected by 2030 for the Build scenario when compared to the No-Build scenario are: 13.5% for DPM, 11.1% for benzene, 14.0% for 1,3-butadiene, 10.9% for acetaldehyde, 7.7% for acrolein, and 13.8% for formaldehyde. These projected reductions are achieved, while total VMTs for the Build Alternative increase by approximately 5.7% in 2030 when compared to the No-Build Alternative.

Table 21: Sorrento Valley to Mira Mesa MSAT Analysis Results

MSAT	Emissions (kg/day)					% Change					
	2006	2020NB	2020B	2030NB	2030B	2020B / 2020NB	2030B / 2030NB	2020NB / 2006	2020B / 2006	2030NB / 2006	2030B / 2006
Diesel PM	6.00	3.49	3.36	2.94	3.01	-3.72	2.38	-41.83	-44.00	-51.00	-49.83
Formaldehyde	1.89	0.66	0.64	0.57	0.59	-3.03	3.51	-65.12	-66.17	-69.87	-68.82
Butadiene	0.44	0.16	0.15	0.14	0.14	-6.25	0.00	-63.64	-65.91	-68.18	-68.18
Benzene	2.09	0.80	0.77	0.70	0.72	-3.75	2.86	-61.72	-63.16	-66.51	-65.55
Acrolein	0.10	0.04	0.04	0.03	0.03	0.00	0.00	-60.00	-60.00	-70.00	-70.00
Acetaldehyde	0.59	0.19	0.18	0.16	0.16	-5.26	0.00	-67.80	-69.49	-72.88	-72.88
VMT (mile/day)	242926.47	279513.26	268558.75	307286.50	313896.79	-3.92	2.15	15.06	10.55	26.49	29.21

Table 22: Mira Mesa to Miramar MSAT Analysis Results

MSAT	Emissions (kg/day)					% Change					
	2006	2020NB	2020B	2030NB	2030B	2020B / 2020NB	2030B / 2030NB	2020NB / 2006	2020B / 2006	2030NB / 2006	2030B / 2006
Diesel PM	4.96	2.73	2.90	2.05	2.51	6.23	22.44	-44.96	-41.53	-58.67	-49.40
Formaldehyde	1.56	0.52	0.56	0.39	0.49	7.69	25.64	-66.67	-64.10	-75.00	-68.59
Butadiene	0.36	0.12	0.13	0.10	0.12	8.33	20.00	-66.67	-63.89	-72.22	-66.67
Benzene	1.72	0.63	0.66	0.50	0.60	4.76	20.00	-63.37	-61.63	-70.93	-65.12
Acrolein	0.08	0.03	0.03	0.02	0.03	0.00	50.00	-62.50	-62.50	-75.00	-62.50
Acetaldehyde	0.49	0.15	0.16	0.11	0.13	6.67	18.18	-69.39	-67.35	-77.55	-73.47
VMT (mile/day)	198251.85	230140.48	229349.20	247953.52	264899.63	-0.34	6.83	16.08	15.69	25.07	33.62

Table 23: Miramar to Nobel MSAT Analysis Results

MSAT	Emissions (kg/day)					% Change					
	2006	2020NB	2020B	2030NB	2030B	2020B / 2020NB	2030B / 2030NB	2020NB / 2006	2020B / 2006	2030NB / 2006	2030B / 2006
Diesel PM	1.84	0.98	1.14	0.76	0.98	16.33	28.95	-46.74	-38.04	-58.70	-46.74
Formaldehyde	0.59	0.18	0.22	0.14	0.19	22.22	35.71	-69.49	-62.71	-76.27	-67.80
Butadiene	0.14	0.04	0.05	0.03	0.05	25.00	66.67	-71.43	-64.29	-78.57	-64.29
Benzene	0.65	0.23	0.26	0.18	0.23	13.04	27.78	-64.62	-60.00	-72.31	-64.62
Acrolein	0.03	0.01	0.01	0.01	0.01	0.00	0.00	-66.67	-66.67	-66.67	-66.67
Acetaldehyde	0.18	0.05	0.06	0.04	0.05	20.00	25.00	-72.22	-66.67	-77.78	-72.22
VMT (mile/day)	77601.13	89876.43	90393.80	96427.27	104707.85	0.58	8.59	15.82	16.49	24.26	34.93

Table 24: Nobel to Governor MSAT Analysis Results

MSAT	Emissions (kg/day)					% Change					
	2006	2020NB	2020B	2030NB	2030B	2020B / 2020NB	2030B / 2030NB	2020NB / 2006	2020B / 2006	2030NB / 2006	2030B / 2006
Diesel PM	4.88	2.45	2.70	1.91	2.35	10.20	23.04	-49.80	-44.67	-60.86	-51.84
Formaldehyde	1.61	0.44	0.50	0.34	0.43	13.64	26.47	-72.67	-68.94	-78.88	-73.29
Butadiene	0.37	0.11	0.12	0.08	0.10	9.09	25.00	-70.27	-67.57	-78.38	-72.97
Benzene	1.84	0.56	0.61	0.45	0.54	8.93	20.00	-69.57	-66.85	-75.54	-70.65
Acrolein	0.09	0.03	0.03	0.02	0.02	0.00	0.00	-66.67	-66.67	-77.78	-77.78
Acetaldehyde	0.50	0.13	0.14	0.10	0.12	7.69	20.00	-74.00	-72.00	-80.00	-76.00
VMT (mile/day)	220642.21	246169.59	249527.25	260944.11	289137.02	1.36	10.80	11.57	13.09	18.27	31.04

Table 25: Governor to SR-52 MSAT Analysis Results

MSAT	Emissions (kg/day)					% Change					
	2006	2020NB	2020B	2030NB	2030B	2020B / 2020NB	2030B / 2030NB	2020NB / 2006	2020B / 2006	2030NB / 2006	2030B / 2006
Diesel PM	3.76	1.88	2.02	1.47	1.70	7.45	15.65	-50.00	-46.28	-60.90	-54.79
Formaldehyde	1.24	0.37	0.40	0.28	0.31	8.11	10.71	-70.16	-67.74	-77.42	-75.00
Butadiene	0.29	0.09	0.09	0.07	0.08	0.00	14.29	-68.97	-68.97	-75.86	-72.41
Benzene	1.42	0.47	0.50	0.37	0.40	6.38	8.11	-66.90	-64.79	-73.94	-71.83
Acrolein	0.07	0.02	0.02	0.02	0.02	0.00	0.00	-71.43	-71.43	-71.43	-71.43
Acetaldehyde	0.38	0.10	0.11	0.08	0.09	10.00	12.50	-73.68	-71.05	-78.95	-76.32
VMT (mile/day)	169787.21	189053.94	191247.63	199826.84	213019.44	1.16	6.60	11.35	12.64	17.69	25.46

Table 26: SR-52 to Clairemont Mesa MSAT Analysis Results

MSAT	Emissions (kg/day)					% Change					
	2006	2020NB	2020B	2030NB	2030B	2020B / 2020NB	2030B / 2030NB	2020NB / 2006	2020B / 2006	2030NB / 2006	2030B / 2006
Diesel PM	4.67	2.24	2.31	1.47	1.70	3.12	15.65	-52.03	-50.54	-68.52	-63.60
Formaldehyde	1.55	0.45	0.46	0.28	0.31	2.22	10.71	-70.97	-70.32	-81.94	-80.00
Butadiene	0.36	0.11	0.11	0.07	0.08	0.00	14.29	-69.44	-69.44	-80.56	-77.78
Benzene	1.75	0.59	0.59	0.37	0.40	0.00	8.11	-66.29	-66.29	-78.86	-77.14
Acrolein	0.08	0.03	0.03	0.02	0.02	0.00	0.00	-62.50	-62.50	-75.00	-75.00
Acetaldehyde	0.48	0.13	0.13	0.08	0.09	0.00	12.50	-72.92	-72.92	-83.33	-81.25
VMT (mile/day)	197234.46	217239.84	214415.58	234044.77	237779.08	-1.30	1.60	10.14	8.71	18.66	20.56

Although the No Build Alternative is expected to accommodate less traffic, its MSAT emissions are expected to be greater than those of the “Build” Alternative in both 2020 and 2030. The greater MSAT emissions projected for the “No Build” Alternative, despite less traffic, are attributable to the congested traffic conditions and breakdown of travel speeds during peak periods.

In conclusion, MSAT would not adversely impact air quality in the vicinity of the proposed project site since no meaningful emission increase would occur. In contrary, the proposed project would highly reduce MSAT emissions when compared to the base year (2006) levels.

Summary of Existing Credible Scientific Evidence Relevant to Evaluating Impacts of MSATs

Research into the health impacts of MSATs is ongoing. For different emission types, there are a variety of studies that show that some either are statistically associated with adverse health outcomes through epidemiological studies (frequently based on emissions levels found in occupational settings) or that animals demonstrate adverse health outcomes when exposed to large doses.

Exposure to toxics has been a focus of a number of EPA efforts. Most notably, the agency conducted the National Air Toxics Assessment (NATA) in 1996 to evaluate modeled estimates of human exposure applicable to the county level. While not intended for use as a measure of or benchmark for local exposure, the modeled estimates in the NATA database best illustrate the levels of various toxics when aggregated to a national or State level.

The EPA is in the process of assessing the risks of various kinds of exposures to these pollutants. The EPA Integrated Risk Information System (IRIS) is a database of human health effects that may result from exposure to various substances found in the environment. The IRIS database is located at <http://www.epa.gov/iris>. The following toxicity information for the six prioritized MSATs was taken from the IRIS database Weight of Evidence Characterization summaries. This information is taken verbatim from EPA's IRIS database and represents the Agency's most current evaluations of the potential hazards and toxicology of these chemicals or mixtures.

- Benzene is characterized as a known human carcinogen.
- The potential carcinogenicity of acrolein cannot be determined because the existing data are inadequate for an assessment of human carcinogenic potential for either the oral or inhalation route of exposure.
- Formaldehyde is a probable human carcinogen, based on limited evidence in humans, and sufficient evidence in animals.
- 1,3-butadiene is characterized as carcinogenic to humans by inhalation.
- Acetaldehyde is a probable human carcinogen based on increased incidence of nasal tumors in male and female rats and laryngeal tumors in male and female hamsters after inhalation exposure.
- Diesel exhaust (DE) is likely to be carcinogenic to humans by inhalation from environmental exposures. Diesel exhaust as reviewed in this document is the combination of diesel particulate matter and diesel exhaust organic gases.
- Diesel exhaust also represents chronic respiratory effects, possibly the primary noncancer hazard from MSATs. Prolonged exposures may impair pulmonary function and could produce symptoms, such as cough, phlegm, and chronic bronchitis. Exposure relationships have not been developed from these studies.

There have been other studies that address MSAT health impacts in proximity to roadways. The Health Effects Institute, a non-profit organization funded by EPA, FHWA, and industry, has undertaken a major series of studies to research near-roadway MSAT hot spots, the health implications of the entire mix of mobile source pollutants, and other topics. The final summary of the series is not expected for several years.

Some recent studies have reported that proximity to roadways is related to adverse health outcomes - particularly respiratory problems (South Coast Air Quality Management District, Multiple Air Toxic Exposure Study-II (2000); Highway Health Hazards, The Sierra Club (2004) summarizing 24 Studies on the relationship between health and air quality); NEPA's Uncertainty in the Federal Legal Scheme Controlling Air Pollution from Motor Vehicles, Environmental Law Institute, 35 ELR 10273 (2005) with health studies cited therein).

Much of this research is not specific to MSATs, instead it surveys the full spectrum of both criteria and other pollutants.

Regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce MSAT emissions by 57 to 87% between 2000 and 2020. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

Because of the uncertainties outlined above, a quantitative assessment of the effects of air toxic emissions impacts on human health cannot be made at the project level. While available tools do allow us to reasonably predict relative emissions changes between alternatives for larger projects, the amount of MSAT emissions from each of the project alternatives and MSAT concentrations or exposures created by each of the project alternatives cannot be predicted with enough accuracy to be useful in estimating health impacts. (As noted above, the current emissions model is not capable of serving as a meaningful emissions analysis tool for smaller projects.) Therefore, the relevance of the unavailable or incomplete information is that it is not possible to make a determination of whether any of the alternatives would have "significant adverse impacts on the human environment."

Caltrans has provided a quantitative analysis of MSAT relative to the various alternatives and has acknowledged that some alternatives may result in increased exposure to MSAT emissions in certain locations, although the concentrations and duration of exposures are uncertain; because of this uncertainty, the health effects from these emissions cannot be estimated.

Construction Impacts

The construction phase of the proposed project may include demolition of existing structures and surfaces, and construction of new structures and surfaces that may be sources of fugitive emissions of particulate matter/dust as well emissions of criteria pollutants from construction equipment. Detail quantitative construction phase analysis is not required in this study since the construction phase would last less than five (5) years. However, potential fugitive dust emission sources from construction activities may include:

- Site preparation (excavation, drilling, blasting)
- Handling and transfer systems of building material (bulldozing, stockpiling, truck loading),
- Wind erosion from exposed debris piles and exposed area,
- Vehicular travel on unpaved area,
- Mud and dirt carry-out onto paved surfaces,
- Storage piles, and
- Fabrication processes.

Although particulate/dust emissions from these sources typically occur over short periods of time, they may have a substantial temporary impact on local air quality, especially during dry conditions and/or high wind speed events. Therefore their impact needs to be minimized.

Environmental Consequences

During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and various other activities. Emissions from construction equipment also are anticipated and would include CO, nitrogen oxides (NO_x), volatile organic compounds (VOCs), directly-emitted particulate matter (PM₁₀ and PM_{2.5}), and toxic air contaminants such as diesel exhaust particulate matter. Ozone is a regional pollutant that is derived from NO_x and VOCs in the presence of sunlight and heat.

Site preparation and roadway construction would involve clearing, cut-and-fill activities, grading, removing or improving existing roadways, and paving roadway surfaces. Construction-related effects on air quality from most highway projects would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. If not properly controlled, these activities would temporarily generate PM₁₀, PM_{2.5}, and small amounts of CO, SO₂, NO_x, and VOCs. Sources

of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM10 emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM10 emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Construction activities for large development projects are estimated by the Environmental Protection Agency (EPA) to add 1.2 tons of fugitive dust per acre of soil disturbed per month of activity. If water or other soil stabilizers are used to control dust, the emissions can be reduced by up to 50%. Caltrans' Standard Specifications (Section 10) pertaining to dust minimization requirements requires use of water or dust palliative compounds and would reduce potential fugitive dust emissions during construction.

In addition to dust-related PM10 emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO₂, NO_x, VOCs and some soot particulate (PM10 and PM2.5) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

SO₂ is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Off-road diesel fuel meeting Federal Standards can contain up to 5,000 parts per million (ppm) of sulfur, whereas on-road diesel is restricted to less than 15 ppm of sulfur. However, under California law and Air Resources Board regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel, so SO₂-related issues due to diesel exhaust would be minimal. Some phases of construction, particularly asphalt paving, would result in short-term odors in the immediate area of each paving site(s). Such odors would be quickly dispersed below detectable thresholds as distance from the site(s) increases.

Avoidance, Minimization and/or Mitigation Measures

It is recommended that the following measures be incorporated into the construction phase of the project proposed project to minimize the emission of fugitive dust, PM10, and PM2.5:

- Minimize land disturbance.
- Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas.
- Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
- Cover all trucks hauling dirt when traveling at speeds greater than 15 miles per hour.
- Stabilize the surface of dirt piles if not removed within 2 days.
- Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
- Minimize unnecessary vehicular and machinery activities.
- Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
- Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.
- Remove unused material.

It is also recommended that the following measures be incorporated into the construction phase of the proposed project to minimize exposure to diesel particulate emissions: locate construction equipment and truck staging and maintenance areas as far as feasible and nominally downwind of schools, active recreation areas, and other areas of high population density.

2.13 NOISE

Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between NEPA and CEQA.

California Environmental Quality Act

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project would have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless such measures are not feasible.

National Environmental Policy Act and 23 CFR 772

For highway transportation projects with FHWA (and Caltrans, as assigned) involvement, the federal-Aid Highway Act of 1970 and the associated implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations contain noise abatement criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 dBA) is lower than the NAC for commercial areas (72 dBA).

The following table lists the noise abatement criteria for use in the NEPA-23 CFR 772 analysis.

Table 27: Noise Abatement Criteria

Activity Category	NAC, Hourly A-Weighted Noise Level, dBA Leq(h)	Description of Activities
A	57 Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67 Exterior	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 Exterior	Developed lands, properties, or activities not included in Categories A or B above
D	–	Undeveloped lands.
E	52 Interior	Residence, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums

Table 28 lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise-levels discussed in this section with common activities.

Table 28: Common Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet Fly-over at 300m (1000 ft)	110	Rock Band
Gas Lawn Mower at 1 m (3 ft)	100	
Diesel Truck at 15 m (50 ft), at 80 km (50 mph)	90	Food Blender at 1 m (3 ft)
Noisy Urban Area, Daytime	80	Garbage Disposal at 1 m (3 ft)
Gas Lawn Mower, 30 m (100 ft)	70	Vacuum Cleaner at 3 m (10 ft)
Commercial Area		Normal Speech at 1 m (3 ft)
Heavy Traffic at 90 m (300 ft)	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
Quiet Rural Nighttime	20	Bedroom at Night, Concert Hall (Background)
	10	Broadcast/Recording Studio
	0	
Lowest Threshold of Human Hearing		Lowest Threshold of Human Hearing

In accordance with the Caltrans' Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, August 2006, a noise impact occurs when the future noise level with the project results in a substantial increase in noise level (defined as a 12 dBA or more increase) or when the future noise level with the project approaches or exceeds the NAC. Approaching the NAC is defined as coming within 1 dBA of the NAC.

If it is determined that the project would have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

The Caltrans' Traffic Noise Analysis Protocol sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. A minimum 5 dBA reduction in the future noise level must be achieved for an abatement measure to be considered feasible. Other considerations include topography, access requirements, other noise sources and safety considerations. The reasonableness

determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include: residents acceptance, the absolute noise level, build versus existing noise, environmental impacts of abatement, public and local agencies input, newly constructed development versus development pre-dating 1978 and the cost per benefited residence.

Affected Environment

A Noise Study Report (NSR) dated May 2008 and addendum dated March 2009, were prepared for this project and incorporated by reference. The report assesses the projects potential noise impacts by evaluating the impacts the project would have on noise receptors within the project area. A Preliminary Noise Abatement Decision Report (NADR) dated March 2009, was prepared and presents the preliminary noise abatement decision as required by the Caltrans' Traffic Noise Analysis Protocol. Project Features Figures 3A-3D show the locations of Noise Receptor Sites and proposed noise wall/berm locations.

Existing land uses as discussed in Section 2.1.1 that are adjacent to the project include commercial, office, industrial, multi and single-family residences, and recreational. MCAS Miramar is also located adjacent to the project. Noise due to aircraft overflight activity from MCAS Miramar are of short duration and are not included in the analysis. Sensitive receptors in the project area are residential and recreational facilities.

Noise sensitive land uses within the project area are identified by area name, general location and land uses in Table 29.

Table 29: Identified Noise Sensitive Areas

Area	Location	Land Uses Present	Number of Units Represented
1	West of I-805 South of SR-52 to south project limit.	Residential (single family homes built between 1963 and 1964).	21 SFR
2	West of I-805 Between SR-52 and Governor Dr.	Residential (single family homes built between 1984 and 1985) and commercial office buildings.	11 SFR 4 COM
3	I-805 Between Governor Dr. and Nobel Dr.	Residential (single family homes built in 1970), commercial offices West of I-805. Commercial (Miramar Wholesale Nursery), East of I-805	38 SFR 2 COM
4	West of I-805 Between Nobel Dr. and La Jolla Village Dr.	Residential (Condominiums currently under construction or recently completed) and commercial office buildings and light industrial (Bio Gen Campus)	4 MFR 1 COM
5	West of I-805 Between Carroll Canyon Rd. and La Jolla Village Dr.	Commercial office buildings and light Industrial	5 COM
6	East of I-805 Between La Jolla Village Dr. and Carroll Canyon Rd.	Industrial and water treatment plant.	1 COM
7	West of I-805 Between north project limit. and Carroll Canyon Rd.	Commercial office buildings and light industrial	2 COM
8	East of I-805 Between Carroll Canyon Rd. and north project limit.	Commercial office buildings and light industrial	2 COM

SFR = Single Family Residence(s), MFR = Multi-family residence(s), COM = Commercial/Industrial Building(s)

Environmental Consequences

Long and short-term noise measurements were conducted throughout the project area in order to characterize the general existing noise environment and to provide a basis for the noise model.

Some of the short-term noise measurements used for model validation were excluded because they contained contributions from non-traffic noise sources such as short-duration aircraft events, and construction equipment.

Build Alternative

The project location was divided into 8 areas for noise analysis (Figure 9). For the Build Alternative, Area 1, 2, and 3 contains residential and commercial facilities and has receiver location noise levels that approach or exceed the Noise Abatement Criteria (NAC) for a total of 47 impacted single-family residences. The residential and commercial receiver locations in Area

4 do not exceed the NAC. The commercial and industrial receiver locations in Areas 5, 6, 7, and 8 do not approach or exceed the NAC. Noise measurements are summarized in Table 30.

Table 30: Noise Impact Analysis Summary

Area	Receiver	Address	Existing	No Build	Build	Noise Impact Requiring Abatement Consideration	Predicted Noise Level with Abatement (dBA)					
							6ft	8ft	10ft	12ft	14ft	16 ft
1	1-01	5419 Northridge	66	66	66	Yes	57	55	54	54	53	53
	1-02	5332 Northridge	55	55	56	No	50	50	50	50	50	50
	ST01 / 1-03M	5439 Northridge	66	66	67	Yes	60	58	57	56	56	55
	1-04	5459 Northridge	66	66	66	Yes	60	59	58	57	56	55
	1-05C	5384 Palmyra	66	66	67	Yes	57	56	55	55	55	54
	1-06	5429 Limerick	60	60	60	No	-	-	-	-	-	-
	ST02 / 1-07	5507 Limerick	60	60	60	No	-	-	-	-	-	-
	1-08	5567 Limerick	61	61	61	No	-	-	-	-	-	-
	1-09	5619 Limerick	59	59	58	No	-	-	-	-	-	-
	1-10	5643 Limerick	60	60	59	No	-	-	-	-	-	-
2	2-01C	6105 Wolfstar	68	70	68	Yes	60	58	56	55	54	54
	2-02	6111 Wolfstar	68	68	68	Yes	60	59	57	57	56	55
	ST03 / 2-03M	6117 Wolfstar	68	68	69	Yes	63	63	62	62	32	31
	2-04C	6123 Wolfstar	67	67	67	Yes	66	63	59	57	56	55
	2-05	6135 Wolfstar	49	50	47	No	-	-	-	-	-	-
	2-06	6147 Wolfstar	46	47	44	No	-	-	-	-	-	-
	2-07	6153 Wolfstar	59	59	60	No	-	-	-	-	-	-
	2-08	6161 Wolfstar	54	54	53	No	-	-	-	-	-	-
	2-09	6200 Greenwich	60	60	62	No	-	-	-	-	-	-
	2-10	6256 Greenwich	66	66	67	No	-	-	-	-	-	-
	ST04 / 2-11	6165 Greenwich	67	67	69	No	-	-	-	-	-	-
	2-12	6363 Greenwich	62	62	62	No	-	-	-	-	-	-
3	3-C1	5190 Governor	53	53	52	No	-	-	-	-	-	-
	3-C2	5400 Governor	67	67	69	No	-	-	-	-	-	-
	3-01	7091 Enders	64	64	63	No	64	64	64	64	63	63
	3-03	7107 Enders	63	63	64	No	65	65	65	65	65	64
	3-03	7111 Enders	65	65	66	Yes	67	67	67	67	66	66
	3-04C	7115 Enders	67	68	68	Yes	70	69	69	69	69	68
	3-05	7125 Enders	64	64	64	Yes	66	63	61	59	58	57
	3-06	7131 Enders	63	63	63	Yes	67	65	63	62	61	60
	3-07	7169 Enders	63	63	64	Yes	68	66	64	63	62	61
	3-08	7217 Steinbeck	63	63	64	Yes	68	66	64	63	62	61
	3-09	7225 Steinbeck	64	64	65	Yes	68	66	64	63	62	61
	3-10	7241 Steinbeck	64	64	66	Yes	70	67	65	63	62	61
	3-11	7215 Enders	63	63	64	Yes	67	65	63	61	60	60
	ST05 / 3-12MC	7257 Steinbeck	65	65	67	Yes	71	68	67	65	64	63
	3-13C	7273 Steinbeck	67	67	69	Yes	73	71	69	67	66	65
	3-14	7291 Steinbeck	66	66	68	Yes	71	70	6	67	66	65
	3-15	7315 Steinbeck	65	65	66	Yes	69	68	67	66	65	64
	3-16	7335 Steinbeck	63	63	65	Yes	68	66	65	64	63	62
	3-17	7415 Bovet	62	62	64	Yes	67	66	64	63	62	61
	3-18	7445 Bovet	63	64	65	Yes	69	68	66	65	64	63
	ST06 / 3-19M	7465 Bovet	63	63	64	Yes	67	66	65	64	63	63
3-20	7476 Bovet	61	62	62	Yes	66	65	64	63	62	62	
3-21	7456 Bovet	58	59	59	Yes	61	61	60	59	59	58	
4	ST07 / 4-01	5200 Research	68	68	68	No	-	-	-	-	-	-
	ST08 / 4-02	9085 Judicial	59	60	60	No	-	-	-	-	-	-
	4-03	9135 Judicial	61	61	61	No	-	-	-	-	-	-
	4-04	9135 Judicial	63	64	64	No	-	-	-	-	-	-
	4-05	9135 Judicial	63	63	63	No	-	-	-	-	-	-
5	5-01	Under Construction	65	65	66	No	-	-	-	-	-	-
	5-02	4767 Nexus Center	47	46	46	No	-	-	-	-	-	-
	5-03	4895 Eastgate Mall	65	65	66	No	-	-	-	-	-	-
	5-04	4790 Eastgate Mall	45	45	45	No	-	-	-	-	-	-
	ST09 / 5-05	4840 Eastgate Mall	70	71	72	No	-	-	-	-	-	-
6	6-01	4949 Eastgate Mall	63	63	64	No	-	-	-	-	-	-
7	7-01	10345 Sorrento Valley Rd.	65	65	66	No	-	-	-	-	-	-
	7-02	10435 Sorrento Valley Rd.	58	58	57	No	-	-	-	-	-	-
8	8-01	4955 Directors	65	65	64	No	-	-	-	-	-	-
	8-02	4921 Directors	49	49	49	No	-	-	-	-	-	-
	8-03	10251 Vista Sorrento Pkwy.	62	62	63	No	-	-	-	-	-	-

C - Critical Receiver.
M- Measurement

No Build Alternative

Under the No Build some noise receivers experience an increase from 1-2 decibels, this increase is not perceptible by the human ear. The No Build would not result in perceptible traffic noise levels for residential, commercial, or recreational uses along the I-805 project corridor.

Avoidance, Minimization and/or Mitigation Measures

A Preliminary Noise Abatement Report (NADR), dated March 2009, was prepared for this project and is incorporated by reference. The report documents the decision of the overall feasibility and reasonableness of providing abatement measures.

Feasibility refers to the minimum noise reduction performance of 5 decibels or more for proposed noise abatement when built to engineered standards (safety, height, highway and local access considerations, topography, etc.). The determination of the reasonableness of noise abatement is more subjective than the determination of feasibility. The overall reasonableness of noise abatement is determined by many factors including: cost, absolute noise levels, existing versus design-year noise levels, achievable noise reduction, date of development along the highway, and abatement benefits. A final decision is determined after environmental impacts and public input are considered.

The preliminary reasonableness determination is made by calculating an allowance that is considered to be a reasonable amount of money per benefited residence to spend on abatement. This reasonable allowance is then compared to the engineer's cost estimate of the abatement. If the engineer's cost estimate is less than the allowance, the preliminary determination is that the abatement is reasonable. If the cost estimate is greater than the allowance, the preliminary determination is that abatement is not reasonable.

Area 1:

Soundwall S1258 (Figure 3-A) would be 6 ft in height and approximately 604 ft in length. It would be located along the southbound side of the I-805 between stations 1258+00 and 1263+00 (receiver sites 1-01 to 1-05). The wall would provide feasible reduction for 10 single-family residences. Private construction easements would be purchased to construct S1258. The reasonable cost allowance is \$480,000 for the 10 residences. The estimated construction cost with all easements is \$416,055, which is below the reasonable allowance and is considered reasonable.

Soundwall S1258 is feasible and reasonable and construction is recommended.

Area 2:

Soundwall S1286 would be 6 ft in height and approximately 353 ft in length. It would be located along the southbound side of the I-805 between stations 1284+00 and 1287+00. The wall would provide feasible reduction for 4 single-family residences. The reasonable cost allowance is \$144,000 for the 4 residences. The estimated construction cost without easements is \$145,367, which is 1% above the reasonable allowance. When only temporary construction easements are included, which are estimated to cost \$190,167, the estimated cost exceeds the reasonable allowance by 32%.

Soundwall S1286 is feasible but not reasonable due to the estimated construction cost being higher than the total cost allowance. Construction of noise barrier S1286 is not recommended.

Soundwall S1288 would be 8-10 ft in height and approximately 150 ft in length. It would be located along the southbound side of the I-805 between stations 1289+00 and 1290+00. The wall would provide feasible reduction for 2 single-family residences located in Area 2 of the noise study. The reasonable cost allowance is \$72,000 for the 2 residences. The estimated construction cost without easements is \$84,562, which is 17% above the reasonable allowance. When only temporary construction easements are included, which are estimated to cost \$98,912, the estimated cost exceeds the reasonable allowance by 37%.

Area 3:

Two noise abatement alternatives are proposed at the Governor Drive southbound off-ramp are discussed below. Noise abatement at this location would be selected during the design phase based on the support from the local community.

1. Soundwall/Berm Combination S1322 (Figure 3-B) would be located on an embankment along the southbound side of the I-805 between stations 1321+70 and 1341+50 (receiver sites 3-01 to 3-21). S1322 would consist of 3 sections and would extend for approximately 1,980 ft. The first section would consist of a soundwall approximately 978 ft in length. The second section would consist of a soundwall constructed on top of a berm and would be approximately 402 ft in length. The third section would consist of a full berm of approximately 600 ft in length. S1322 would also fill in an existing ditch and grade onto private property. The height of the soundwall/berm would vary between 8-12 ft. S1322 would provide feasible noise reduction for 31 single-family residences. The reasonable cost allowance is \$1,860,000 for the 31 residences. The estimated construction cost without easements is \$1,051,517. The total cost with all easements is \$1,169,817, and is below the reasonable allowance.

Noise barrier S1322 is considered feasible and reasonable and construction is recommended.

2. Soundwall/Berm Combination S1322 (Figure 3-B) would be located on an embankment along the southbound side of the I-805 between stations 1321+70 and 1341+50 (receiver sites 3-01 to 3-21). S1322 would consist of 2 sections and would extend for approximately 1,920 ft. The first section would consist of a soundwall (trench footing) approximately 850 ft in length. The second section would consist of a soundwall (spread footing) constructed on top of a berm and would be approximately 1070ft in length. The proposed berm/wall combination noise barrier would be constructed within state right-of-way. The existing drainage ditch would be reconstructed. The height of the barrier would vary between 8 to 12 feet. The noise barrier would benefit 31 single-family residential units and is considered feasible. Private construction easements would be acquired in order to construct S1322. The reasonable cost allowance is \$1,860,000 for the 31 residences. The estimated construction cost without easements is \$1,160,557. The total cost with all easements is \$1,279,557 and is below the reasonable allowance.

Noise barrier S1322 is considered feasible and reasonable and construction is recommended.

Based on the studies completed to date, Caltrans intends to incorporate noise abatement in the form of barriers/berms at receiver sites 1-01 to 1-05, and 3-01 to 3-21, with respective lengths and average heights of 604ft long/6ft high, 1980ft long or 1920ft long/12ft high. Calculations based on preliminary design data indicate that the barriers/berms would reduce noise levels by 5 dBA for 41 residences at a cost of \$1,279,973. If during final design conditions have substantially changed, noise abatement may not be necessary. The final decision of the noise abatement would be made upon completion of the project design and the public involvement processes.

Construction Noise

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans Standard Specifications, April 2006, Section 7-1.011, Sound Control Requirements. These requirements state that noise levels generated during construction should comply with applicable local, state, and federal regulations and that all equipment should be fitted with adequate mufflers according to the manufacturers' specifications.

Table 31 summarizes noise levels produced by construction equipment commonly used on roadway construction projects. Equipment involved in construction is expected to generate noise levels ranging from 74 to 85 dBA at a distance of 50ft. Noise produced by construction equipment would be reduced over distance at a rate of about 6 dBA per doubling of distance. No adverse noise impacts from construction are anticipated because construction would be

conducted in accordance with Caltrans Standard Specifications and would be short-term, intermittent, and dominated by local traffic noise. Implementing the following measures would minimize temporary construction noise impacts:

All equipment should have sound-control devices no less effective than those provided on the original equipment. No equipment should have an unmuffled exhaust.

As directed by the Caltrans resident engineer, the contractor should implement appropriate additional noise abatement measures including, but not limited to, changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, or installing acoustic barriers around stationary construction noise sources.

Table 31: Construction Equipment Noise

Equipment	Maximum Noise Level (dBA at 50 feet)
Scrapers	89
Bulldozers	85
Heavy Trucks	88
Backhoe	80
Pneumatic Tools	85
Concrete Pump	82

Source: Federal Transit Administration 1995.

BIOLOGICAL ENVIRONMENT

This section was developed from the information contained in the March 2009 Natural Environmental Study (NES).

2.14 NATURAL COMMUNITIES

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species Section 2.18. Wetlands and other waters are also discussed below in Section 2.15.

Affected Environment

The biological study area is roughly defined as areas within 1,000 ft from the existing I-805 ROW. Within this area there are three major drainages: San Clemente Creek (and associated tributaries), Rose Creek (and associated tributaries), and Soledad Creek (and associated tributaries). Large parcels of designated Multiple Species Conservation Program (MSCP) Multiple Habitat Planning Area (MHPA) lands exist along all of the above mentioned drainages. The MHPA delineates core biological resource areas and corridors targeted for conservation.

Habitat communities found within the study area include non-native grassland, chaparral communities, coastal sage scrub, coast live oak woodland, native grasslands, mulefat scrub, southern willow scrub, riparian woodland, San Diego mesa hardpan vernal pools, disturbed habitat, developed areas, recently graded/bare ground, and ornamental landscaping. These are shown in Figure 18-A to 18-C.

Recently Graded/Bare Ground

Bare ground comprises land that is devoid of vegetation or built structures associated with development, and often contains heavily compacted soils that do not allow for quick re-sprouting of successional plant species. The total estimated acreage of bare ground in the study area is approximately 44.4 acres.

Developed

Developed areas include roads, built structures, and associated infrastructure. The total estimated acreage of developed areas within the project study area is approximately 574.7 acres.

Ornamental

Ornamental vegetation consists of landscape plantings typically associated with development such as buildings and roads. Pepper trees (*Schinus* spp.), oleander (*Nerium oleander*), eucalyptus (*Eucalyptus* spp.), and ice plant (*Carpobrotus* sp.) are the common ornamental species within the project study area. The total estimated acreage of ornamental vegetation within the project study area is approximately 117.7 acres.

Disturbed Habitat

Disturbed habitat typically develops on lands with heavily compacted soils following intense disturbance such as grading. This land type is typically dominated by non-native, broad-leaf herbaceous species within including Russian thistle (*Salsola tragus*), mustards (*Brassica* spp., *Hirschfeldia incana*), fennel (*Foeniculum vulgare*), horseweed (*Conyza canadensis*), thistles (*Centaurea* spp., *Carduus* spp., *Silybum* spp.), and occasionally with a subdominant percent

cover of non-native grasses. The total estimated acreage of disturbed habitat within the project study area is approximately 169.4 acres.

Non-native Grassland

Non-native grassland is characterized by a dense to sparse cover of annual grasses exceeding 50% vegetative cover, often with native and non-native annual forbs. This habitat is a disturbance-related community most often found in old fields or large openings in native scrub habitats. Typical grasses within the project study area include wild oat (*Avena fatua*), soft chess (*Bromus hordeaceus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), ripgut grass (*Bromus diandrus*), and fescue (*Vulpia myuros* var. *hirsuta*). The total estimated acreage of this vegetation type within the project study area is approximately 35.4 acres.

Chaparral

Chaparral is a widely distributed and diverse vegetation type throughout California on dry slopes and ridges at low and medium elevations where it occupies thin, rocky, or heavy soils. It is typically composed of broad-leaved, evergreen sclerophyllous shrubs (e.g., bearing stiff, leathery leaves). Species of the following genera are characteristic in chaparral associations: *Adenostoma*, *Arctostaphylos*, *Ceanothus*, *Cercocarpus*, *Heteromeles*, *Rhamnus*, *Rhus*, and shrubby *Quercus*.

Five distinct chaparral associations are recognized in the project study area: chaparral, chamise chaparral, southern mixed chaparral, scrub oak chaparral, and poison oak chaparral, which is a chaparral community dominated by poison oak (*Toxicodendron diversilobum*). Disturbed chaparral is generally characterized by highly reduced and fragmented shrub cover, sometimes supporting a high percentage of non-native species. Disturbed chaparral, disturbed chamise chaparral, and disturbed southern mixed chaparral can be found in the project study area. The total estimated acreages of all types of chaparral and disturbed chaparral found within the project study area are approximately 182.1 and 23.6 acres, respectively.

Coastal Sage Scrub

Diegan Coastal Sage Scrub is a wide-spread type of coastal sage scrub ranging from coastal Los Angeles County into northern Baja California. It is dominated by low, soft-woody subshrubs (typically 3 ft high). Stem- and leaf-succulents are also often present, but are usually subdominant species. The habitat is typically on low moisture-availability sites: west- and south-facing dry slopes or steep slopes with clay-rich soils that are slow to release stored water.

The dominant shrub cover of this vegetative community in the study area consists of a variable mix of California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* var. *fasciculatum*), laurel sumac (*Malosma laurina*), San Diego sunflower (*Viguiera*

laciniata), deerweed (*Lotus scoparius* var. *scoparius*), bush mallow (*Malacothamnus fasciculatus*), California sunflower (*Encelia californica*), and peak rushrose (*Helianthemum scoparium*). The total estimated acreage of coastal sage scrub in the study area is approximately 67.0 acres.

Disturbed coastal sage scrub has similar dominant species; however, the cover is generally more sparse with more weedy species intermixed. Disturbed coastal sage scrub onsite is dominated by California sagebrush and California buckwheat with nonnative grasses, fennel, and filaree (*Erodium* spp.).

Broom Baccharis

Broom baccharis (*Baccharis sarothroides*) scrub generally forms a sparse to moderately dense monotypic stand in sandy soils usually associated with other vegetation types and is found in several locations within the project study area. The total estimated acreage of broom baccharis is approximately 4.8 acres.

Coastal Sage Scrub-Chaparral

Coastal sage scrub-chaparral total vegetative cover includes roughly equal amounts of both scrub and chaparral species. Plant species detected within the project study area included chamise (*Adenostoma fasciculatum*), California sagebrush, California buckwheat, lilac (*Ceanothus* spp.), black sage (*Salvia mellifera*), laurel sumac, lemonade berry (*Rhus integrifolia*), and chaparral candle (*Hesperoyucca whipplei*). The total estimated acreage of this habitat within the project study area is 7.6 acres.

Coast Live Oak Woodland

Coast live oak woodland is characterized by an open to locally dense evergreen plant community dominated by coast live oak trees (*Quercus agrifolia*), which can reach from 30 to over 80 ft in height. Oaks are typically found in well drained, north-facing slopes and in more protected, shaded ravines. The total estimated acreage of coast live oak woodland within the project study area is 8.9 acres.

Native Grassland

Native grassland generally occurs on fine-textured clay soils that are moist or wet in winter, but very dry in summer. Shrubs are infrequent. The degree of habitat quality in native grasslands varies greatly depending on the history of grazing, cultivation, or other disturbance factors.

Native grassland is typically dominated by the perennial bunchgrasses, purple needlegrass (*Nassella pulchra*), or foothill needlegrass (*Nassella lepida*). Indicator species observed in the study area include blue-eyed grass (*Sisyrinchium bellum*), splendid mariposa lily, and clarkia

(*Clarkia* sp.). The total estimated acreage of this habitat type within the project study area is approximately 2.7 acres.

In addition to native grasslands, there are several patches of disturbed native grassland within the project study area. Disturbed native grassland has more open patches and non-native grasses mixed in with the native species. The estimated total acreage of disturbed native grasslands in the project study area is approximately 14.4 acres.

Riparian Scrub

Riparian scrub describes a combination of two riparian vegetation types: mulefat scrub and southern willow scrub. These two vegetation types have restricted distribution in southern California and are considered vegetated wetlands by the California Department of Fish and Game (CDFG). Southern willow scrub is found on loose, sandy, or fine gravelly alluvium deposited near stream channels during floods, and most stands are too dense to allow much understory to develop. Typical willow species include black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and sandbar willow (*Salix exigua*). Mulefat scrub is generally a monotypic stand of mulefat (*Baccharis salicifolia*). The total acreage of riparian scrub and disturbed riparian scrub is approximately 22.5 and 2.4 acres, respectively.

Riparian Woodland

Riparian woodland is a tall, open, broadleaf, winter-deciduous streamside woodland dominated by sycamore (*Platanus racemosa*). These stands seldom form a completely closed canopy and may appear as trees scattered in a thicket of shrub species. This vegetation type is found in rocky streambeds subject to seasonally high-intensity flooding. Other common species include coast live oak, Mexican elderberry (*Sambucus mexicana*), and poison oak. This vegetation type is considered a vegetated wetland by CDFG.

San Diego Mesa Hardpan Vernal Pool

Vernal pools are a low, mesic, herbaceous community dominated by annual herbs and grasses. Many special status plant species have a potential to occur in these pools including San Diego button-celery (*Eryngium aristulatum* var. *parishii*), little mousetail (*Myosurus minimus* ssp. *apus*), prostrate navarretia (*Navarretia fossalis*), Orcutt's brodiaea (*Brodiaea orcuttii*), California adder's tongue-fern (*Ophioglossum lusitanicum* ssp. *californicum*), and San Diego mesa mint (*Pogogyne abramsii*). San Diego mesa hardpan vernal pools were formerly extensive on the mesas and flat marine terraces of San Diego, most of the pools have been largely eliminated by agricultural land uses, military facilities, and urban development. It has been estimated that more than 90 percent of the original vernal pool habitat within the San Diego region has been

eliminated. The total estimated acreage of vernal pools within the study area is approximately 0.3 acres and is found mainly north and south of Nobel Drive on both sides of the I-805.

Disturbed pool areas consisting of habitats including road ruts and other man-made depressions that retain water and have some vernal pool species are also found within the study area. These “rut” pools are not considered San Diego Mesa Hardpan vernal pools. The total estimated acreage of disturbed “rut” pools within the project study area is approximately 0.2 acres.

Freshwater Marsh

Freshwater marsh is dominated by perennial, emergent monocots 4 to 6ft tall. This vegetation community occurs in wetlands that are permanently flooded by standing fresh water. Within the Project study area, monotypic stands of bulrushes (*Scirpus* spp.) or cattails (*Typha* spp.) characterize this habitat. Freshwater marshes are considered vegetated wetlands by the CDFG. There is approximately 0.1 acre of freshwater marsh and 0.1 acre of disturbed freshwater marsh in the project study area.

Unvegetated Channel

Unvegetated drainage channels are scoured from flows and support little or no vegetation. Most are channels that carry ephemeral flow during storm events. There is an estimated 4.4 acres of unvegetated channels in the project study area.

Open Water

Open water occurs in a few areas within the study area. Typically, only the edges of open water support emergent vegetation such as cattails and bulrush. Open water occurs along the three main drainages in the study area. There is an estimated total area of 0.1 acre of open water within the project study area.

Wildlife Corridors

Wildlife corridors connect large patches of natural open space that allow for the movement of wildlife. Regional wildlife corridors in the project study area include all of the major drainages and bridges and larger culverts that facilitate east-west movement under the existing freeway, including Rose Canyon and San Clemente Canyon. Localized wildlife movement in the project study area may be facilitated by the smaller culverts and drainages that connect one area of open space to another, such as those near the MHPA conservation area at Nobel Drive.

Environmental Consequences

Build Alternative

Permanent impacts to biological resources for I-805 project are those within the boundary of the cut and fill slopes, retaining walls, and/or paved areas. Although the cut and fill slopes would be revegetated; the construction, grading, and eventually revegetation of these large areas is expected to take a long enough period of time to qualify as a permanent impact to biological resources. Bridge and overpass impacts were calculated to include the area of entire structure, since column locations are known at this time. Areas required for equipment access and staging to complete construction that fall outside of the permanent impact footprint would be considered temporary construction impacts. Acreage of permanent and temporary impacts resulting from the proposed project is provided in Table 32.

Table 32: Potential Natural Communities Impacts

Habitat Type	Permanent Impacts (acres)	Temporary Impacts (acres)
Recently Graded/Degraded Bare Ground	4.0	5.1
Developed	119.8	36.1
Disturbed Habitat	37.1	19.4
Ornamental	32.3	42.4
Non-native Grassland	0.2	1.0
Chaparral	1.4	0.7
Chamise Chaparral	0.8	2.3
Southern Mixed Chaparral	3.3	1.5
Scrub Oak Chaparral	1.9	1.3
Disturbed Chaparral	1.2	1.1
Disturbed Chamise Chaparral	0.7	0.0
Disturbed Southern Mixed Chaparral	0.1	0.2
Coastal Sage Scrub-Chaparral	1.5	3.3
Broom Baccharis Scrub	0.3	0.3
Coastal Sage Scrub	8.9	6.7
Disturbed Coastal Sage Scrub	10.9	8.7
Coast Live Oak Woodland	<0.1	0.3
Oak *	0.1	<0.1
Sycamore *	0.0	0.1
Native Grassland	0.5	0.6
Disturbed Native Grassland	0.7	<0.1
Mulefat Scrub	0.0	<0.1
Southern Willow Scrub	0.6	0.3
Disturbed Southern Willow Scrub	0.2	0.3
Riparian Woodland	0.6	0.4
Unvegetated Channel	0.2	0.1
Total	227.3	132.2

*Individual trees that are not part of a larger community.

Figures 19-A to 19-C are the corresponding Special Status Species maps. The special status natural communities that would be impacted by the proposed Project are:

Non-native grassland

Permanent impacts would occur to approximately 0.2 acres of non-native grassland just north of SR-52 on the east side of I-805. Temporary impacts would occur to 1.0 acre of non-native grassland adjacent to the permanent impacts as well as to a small amount along SR-52.

Chaparral communities

Permanent impacts to approximately 7.4 acres of chaparral communities, including chamise chaparral, southern mixed chaparral, and scrub oak chaparral would occur. An additional 2.0 acres of disturbed chaparral communities including disturbed chamise chaparral and disturbed scrub oak chaparral would be permanently impacted.

Temporary impacts to approximately 5.8 acres of chaparral communities and 1.3 acres of disturbed chaparral communities would also occur.

Coastal sage scrub communities

Approximately 8.9 acres of permanent impacts and 6.7 acres of temporary impacts would occur to coastal sage scrub. Most of the coastal sage scrub that would be impacted is already fragmented and surrounded by development or non-native vegetation. An additional 10.9 acres of permanent impacts and 8.7 acres of temporary impacts would occur to disturbed coastal sage scrub.

Approximately 1.5 acres of coastal sage scrub-chaparral would be permanently impacted with the implementation of the project. These impacts would occur along the northeast side of the I-805/SR-52 interchange, and north and south of Eastgate Mall Road on the west side of I-805. In addition, approximately 3.3 acres of coastal sage scrub-chaparral would be temporarily impacted adjacent to these permanent impacts.

Permanent impacts to approximately 0.3 acres, and temporary impacts to 0.3 acres of broom baccharis scrub would occur and is located southwest of the Miramar Road/I-805 intersection.

Coast live oak woodland

Less than 0.1 acre of permanent impacts to coast live oak woodland would occur.

Approximately 0.3 acre of coast live oak woodland would be temporarily impacted south

of Mira Mesa Blvd on the west side of I-805. Efforts would be made during the final design of the Project to avoid the larger oak trees.

Native grassland

Approximately 0.5 acre of native grassland and 0.7 acre of disturbed native grassland would be permanently impacted. These impacts are located south of Nobel Drive on the west side of I-805 and south of Mira Mesa Blvd on the west side of I-805. An additional 0.6 acres of native grassland and less than 0.1 acres of disturbed native grassland would be temporarily impacted by the project.

Riparian scrub

Approximately 0.6 acre of southern willow scrub, located south of the I-805/SR-52 interchange, and south of Mira Mesa Blvd, and an additional 0.2 acre of disturbed willow scrub, found south of Nobel Drive, would be permanently impacted. Approximately 0.3 acres of southern willow scrub and 0.3 acre of disturbed southern willow scrub would be temporarily impacted. Less than 0.1 acre of mulefat scrub would be temporarily impacted by project construction.

Riparian woodland

Approximately 0.6 acre of riparian woodland would be permanently impacted, and approximately 0.4 acre of riparian woodland would be temporarily impacted in Carroll Canyon south of Mira Mesa Blvd, on the east side of I-805.

San Diego Mesa Hardpan Vernal Pool

Although no direct permanent or temporary impacts to San Diego mesa hardpan vernal pools are expected to occur. Pools south of Nobel Drive on the west side of I-805, north of Eastgate Mall on the east side of I-805, and some of the pools south of Sorrento Valley Road on the west side of I-805 could be indirectly affected. Portions of the proposed DAR at Nobel Drive are slightly below (less than 1 foot) the vernal pools, and it is possible that some of the watershed may be impacted.

Potential indirect impacts to vernal pools include, damming of pools, drainage into pools from broken irrigation lines, drainage alteration, exotic plant invasion, dust, run-off, unauthorized human and domestic animal access to the pools, and loss of surrounding upland areas. Because the integrity of the upland areas would influence the hydrology of the vernal pool and the likelihood of maintaining some characteristic vernal pool species, it is important that the surrounding watershed areas and upland terrain, as well as the

pools themselves, be considered in conservation efforts. As the amount of upland or wetland habitat associated with vernal pools at a site is degraded or destroyed, the viability of the pools and the species they support can be impaired due to disruption of hydrology, decreased nesting habitat available for pollinators, decreased habitat for amphibians, and decreased attractiveness to waterfowl that may disperse vernal pool plants and invertebrates.

Two man-made disturbed road-rut pools that retain water and support endangered San Diego fairy shrimp, but are not considered San Diego mesa hardpan vernal pools occur within the permanent impact footprint. These “rut” pools are located south of Nobel Drive on the west side of I-805, and south of Mira Mesa Blvd near Soledad Creek. An additional occupied rut pool lies directly outside the proposed Nobel Drive DAR and would potentially be indirectly impacted by the Project. The road-rut pool near Soledad Creek would be impacted by the Carroll Canyon Road Extension prior to this project and formal consultation with USFWS for that project has been completed.

No Build Alternative

The No Build Alternative would not have permanent or temporary impacts to any natural communities within the project limits.

Avoidance, Minimization, and/or Mitigation Measures

Where possible, permanent impacts to sensitive habitats would be minimized by construction of retaining walls and by minimizing grading behind the walls. The following measures will be implemented to minimize impacts to sensitive habitats and species.

- All native or sensitive habitats outside the permanent and temporary construction limits should be designated as Environmentally Sensitive Areas (ESAs) on project maps. ESAs should be temporarily fenced during construction with orange plastic snow fence. No personnel, equipment, or debris would be allowed within the ESAs.
- All native vegetation and non-native shrubs and trees within the impact areas would be removed outside of the breeding season (February 15 to September 15) to avoid impacts to nesting birds. Otherwise, a qualified biologist would thoroughly survey all vegetation prior to removal during the breeding season to ensure there are no nesting birds onsite. If nesting birds are identified onsite,

vegetation removal would be delayed until the nest no longer supports eggs or chicks.

- A qualified biologist would attend both the pre-construction and construction phases to review grading plans, address protection of special status biological resources, and monitor ongoing work. The biologist should be familiar with the habitats, plants, and wildlife of the project area, and maintain communications with the resident engineer, to ensure that issues relating to biological resources are appropriately and lawfully managed.
- Duff (top soil) from areas with coastal sage scrub, native grassland, and chaparral may be saved to aid in revegetating slopes with native species.
- All temporary impact areas would be revegetated and restored to pre-existing conditions. Plants salvaged from construction areas could be placed on created slopes or in an offsite mitigation area.

2.15 WETLANDS AND OTHER WATERS

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 U.S.C. 1344) is the primary law regulating wetlands and waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be

significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (ACOE) with oversight by the Environmental Protection Agency (EPA).

The Executive Order for the Protection of Wetlands (E.O. 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the California Department of Fish and Game (CDFG) and the Regional Water Quality Control Board (RWQCB). In certain circumstances, the Coastal Commission may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that would substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFG before beginning construction. If CDFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required. CDFG jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the ACOE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFG.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCB also issues water quality certifications in compliance with Section 401 of the Clean Water Act. Please see the Water Quality Section 2.8 for additional details.

Affected Environment

The jurisdictional areas that would be impacted by the proposed project are discussed below. Impact acreage calculations were completed by overlaying proposed construction plans with the jurisdictional delineation. Temporary and permanent impacts to U.S. Army Corps of Engineers (ACOE) jurisdictional wetlands/other waters of the U.S., and CDFG jurisdictional wetlands at each drainage are detailed in Table 33. Impacts to other waters of the U.S. are regulated by ACOE and RWQCB and include the area within the ordinary high water mark (OHWM). Impacts to lakes and streambeds are

defined as the area within the full bank-to-bank distance of the waterway or drainage and any associated riparian vegetation are regulated by CDFG. A water quality certification under Section 401 of the Clean Water Act is required with every Section 404 permit. The vernal pools/road ruts are not ACOE jurisdictional habitats.

Environmental Consequences

Build Alternative

I-805 crosses 3 large creeks, the San Clemente Canyon Creek, Rose Canyon Creek, and Soledad Canyon Creek. The Build Alternative would construct managed lanes which would require widening of the existing alignment, including the overcrossings of the canyons. The watersheds in the project area drain from east to west making it impossible for the proposed project to avoid crossing the wetlands.

As part of the Build Alternative, there are three bridges that span wetland areas and that would need to be widened. The bridge widening would be attached to the existing bridges and, therefore, must use the same structure components of the existing bridge. As a result, the bridge spans, columns and bent locations need to be in a parallel location to the existing bridge so they can act as one bridge. This is found to be the least existing wetland impact for a Build Alternative.

San Clemente Canyon Creek and Tributaries

Approximately 0.03 acre of permanent impacts and 0.01 acre of temporary impacts to ACOE jurisdictional wetlands/Other waters of the U.S. in San Clemente Canyon Creek would occur as a result of the proposed project. Permanent impacts to 0.22 acres and temporary impacts to 0.20 acre would occur to CDFG-jurisdictional wetlands. No interstate or intrastate wetlands that are not under ACOE or CDFG jurisdiction would be impacted in San Clemente Canyon.

Rose Canyon Creek and Tributaries

Permanent and temporary impacts would occur to ACOE jurisdictional waters of the U.S. and CDFG jurisdictional wetlands where Rose Canyon Creek flows under I-805. These impacts include a total of 0.07 acre of permanent, and 0.07 acre of temporary impacts to ACOE jurisdictional waters of the U.S.; and 0.24 acre of permanent, and 0.38 acre of temporary impacts to CDFG jurisdictional wetlands. No interstate or intrastate wetlands that are not under ACOE or CDFG jurisdiction would be impacted by the proposed Project at Rose Canyon.

Permanent impacts to unnamed drainage 2 include less than 0.01 acre of ACOE jurisdictional waters of the U.S., and 0.16 acre of CDFG jurisdictional wetlands. Impacts to unnamed drainage 3 include 0.03 acre of permanent and 0.02 acre of temporary impacts to ACOE jurisdictional waters of the U.S. Approximately 0.05 acre of permanent and 0.18 acre of temporary impacts would occur to CDFG jurisdictional wetlands in Unnamed Drainage 3. A total of 0.01 acre of temporary impacts to ACOE wetlands and CDFG jurisdictional wetlands would occur at the small non-linear wetland identified as Unnamed Drainage 4.

Soledad Canyon Creek and Tributaries

Impacts to Soledad Canyon Creek include 0.17 acre of permanent impacts and 0.02 acre of temporary impacts to ACOE jurisdictional waters of the U.S. including wetlands. Approximately 0.50 acre of permanent and 0.19 acre of temporary impacts to CDFG jurisdictional wetlands would occur with project implementation. Less than 0.01 acres of permanent impact would occur to both ACOE and CDFG jurisdictional areas in Unnamed Drainage 7. Approximately 0.01 acre of temporary impacts to CDFG jurisdictional channel/wetlands would occur in the tributary at Unnamed Drainage 7.

Additional Minor Drainages

At unnamed drainage 5, less than 0.01 acres of permanent impacts and 0.01 acres of temporary impacts would occur to ACOE jurisdictional waters of the U.S. An additional 0.01 acres of temporary impacts to CDFG jurisdictional channel/wetlands would occur in the drainage.

No-Build Alternative

The No-Build Alternative would avoid impacts to jurisdictional waters of the U.S.

Table 33: Potential Wetlands and Other Jurisdictional Areas Impacts

ACOE Jurisdictional Wetland/Waters		CDFG Channel/Wetlands		
Channel Location	Area (acres)	Area (acres)	Additional Cowardin (acres)	Total (acres)
Permanent Impacts				
San Clemente Canyon OWUS	0.02	0.04	0.15	0.19
San Clemente Canyon Wetland	0.01	0.03	0	0.03
Rose Canyon Creek	0.07	0.07	0.17	0.24
Soledad Canyon Creek	0.17	0.19	0.29	0.48
Soledad Canyon Creek Wetland	0.02	0.02	0	0.02
Unnamed Drainage 2	<0.01	0.01	0.15	0.16
Unnamed Drainage 3	0.03	0.02	0.03	0.05
Unnamed Drainage 5 Ditch in Uplands	<0.01	0.02	0	0.02
Unnamed Drainage 7	<0.01	<0.01	0	0
Total Permanent Other Waters of the US Impacts	0.29	--	--	--
Total Permanent Wetlands Impacts	0.03	0.40	0.79	1.19
Temporary Impacts				
San Clemente Canyon OWUS	0.01	0.01	0	0.01
San Clemente Canyon Wetland	0	0	0.19	0.19
Rose Canyon Creek (tributary)	0.07	0.08	0.04	0.12
Rose Canyon Creek	0.03	0.06	0.20	0.26
Soledad Canyon Creek	0.02	0.02	0.17	0.19
Unnamed Drainage 2	<0.01	<0.01	0	<0.01
Unnamed Drainage 3	0.02	0.05	0.13	0.18
Unnamed Drainage 4 Wetland	0.01	0.01	0	0.01
Unnamed Drainage 5	0.01	0.01	0	0.01
Unnamed Drainage 5- Ditch in Uplands	<0.01	<0.01	0	<0.01
Unnamed Drainage 7	<0.01	0.01	0	0.01
Total Temporary Other Waters of the US Impacts	0.17	--	--	--
Total Temporary Wetlands Impacts	0.01	0.25	0.73	0.98

Avoidance, Minimization, and/or Mitigation Measures

Since the proposed project crosses San Clemente Canyon, Soledad Canyon and Rose Canyon wetland impacts could not be completely avoided. Impacts to jurisdictional wetlands and riparian habitats would be minimized to the greatest extent practicable.

The following are proposed measures to minimize the impacts to wetlands and other waters.

- Appropriate best management practices (BMPs) would be used to control erosion and sedimentation. No sediment or debris would be allowed to enter the vernal pools, creeks, rivers, or other drainages.
- Fill slopes and areas adjacent to wetlands and drainages would be revegetated with appropriate native upland and wetland non-invasive species. The revegetated areas would have temporary irrigation and be planted with native container plants and seeds selected by a biologist. There would be at least three years of plant establishment/maintenance on these slopes to control invasive weeds.
- Detention basins would be placed in many of the loop ramps, and bioswales would be placed on many of the slopes to treat runoff from the freeway.
- Fueling of construction equipment would only occur at a designated area located at a distance greater than 100 feet from drainages, and associated plant communities to preclude adverse water quality impacts. Fuel cans and fueling of tools would not be allowed within drainages.
- Permanent impacts CDFG and ACOE jurisdictional waters of the U.S. would be compensated at a proposed 3:1 ratio offsite by wetland creation at the Deer Canyon (Pardee) Mitigation Site in McGonigle Canyon. Temporary impacts to these areas would be offset at a proposed 2:1 ratio; 1:1 onsite and 1:1 offsite creation.

2.16 PLANT SPECIES

Regulatory Setting

The U.S. Fish and Wildlife Service (USFWS) and CDFG share regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered

or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species section 2.18 in this document for detailed information regarding these species.

This section of the document discusses all the other special-status plant species, including CDFG species of special concern, USFWS candidate species, and non-listed California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act, found at Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act, Public Resources Code, Sections 2100-21177.

Affected Environment

Several CNPS listed species that would be impacted by the project are discussed below. Individual plant occurrences or populations with acreages under the minimum mapping unit of 0.1 acre are noted as a point location on Figures 19-A to 19-C. Plant populations with more than 50% coverage and span over 0.1 acre are shown on the figures as a polygon.

Environmental Consequences

Build Alternative

Locations of Palmer's sagewort (*Artemisia palmeri*) within the proposed project that would be both temporarily and permanently impacted exist mainly between Governor Drive and Rose Canyon. Two locations of wart-stemmed ceanothus (*Ceanothus verrococus*) of less than 0.1 acre are located within the temporary project impact footprint north of SR-52 on the east side of I-805. Permanent impacts to Nuttall's scrub oak (*Quercus dumosa*) would occur south of Nobel Drive on the west side on the I-805, and temporary impacts would occur north of Rose Canyon on the east side of the I-805.

Table 34 lists the plant species within the project area that are CNPS listed species with their permanent and temporary impacts.

Table 34: Special Status Plant Species Impacts

Special Status Plant Species	Permanent Impacts	Temporary Impacts
<i>Artemisia palmeri</i> (CNPS List 4.2) Palmer's sagewort	6 individuals	7 individuals
<i>Artemisia palmeri</i> Palmer's sagewort	0.6 acre	0.7 acre
<i>Ceanothus verrocosus</i> (CNPS List 2.2) Wart-stemmed ceanothus	0	2 individuals
<i>Quercus dumosa</i> (CNPS List 1B.1) Nuttall's scrub oak	9 individuals	5 individuals
<i>Quercus dumosa</i> Nuttall's scrub oak	0.4 acre	0

No Build Alternative

No USFWS and CDFG regulated special status plant species would be affected by the No Build Alternative.

Avoidance, Minimization, and/or Mitigation Measures

Locations of special status plant species have been identified and avoided in the design of the proposed project to the maximum extent practicable. There may be opportunities to avoid impacting some of the special status plants during final project design and when determining temporary construction access. Where practicable, sensitive plant species may be salvaged and seeds collected for use in post-construction habitat restoration.

2.17 ANIMAL SPECIES

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The USFWS, the National Oceanic and Atmospheric Administration (NOAA Fisheries) and the CDFG are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.18. All other special-status animal species are discussed here, including CDFG fully protected species and species of special concern, and USFWS or NOAA Fisheries candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act
-

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the Fish and Game Code
- Section 4150 and 4152 of the Fish and Game Code

Affected Environment

Several sensitive wildlife species were identified in and around the project footprint. Impacts to these sensitive wildlife species are discussed below.

Western spadefoot toad (*Spea hammondi*) larvae and neonates were identified within the vernal pools and ponded areas southwest of the Nobel Drive/I-805 intersection during wet season vernal pool surveys that were conducted in 2006-2008.

The coast horned lizard (*Phrynosoma coronatum*) and orange-throated whiptail lizard (*Aspidoscelis hyperythra beldingi*) were detected within the project study area during field surveys. The red diamond rattlesnake (*Crotalus ruber*) is often found in chaparral, coastal sage scrub, along creek banks, and in rock outcrops or piles of debris. One individual was identified in San Clemente Canyon. Impacts to Coastal sage scrub, grasslands, and chaparral communities have the potential to adversely affect these species. Two-striped garter snakes (*Thamnophis hammondi*) were observed in Rose Canyon. Impacts to aquatic habitats could affect this species.

One observation of Vaux's swift (*Chaetura vauxi*) was made within the permanent impact footprint south of Nobel Drive on the west side of I-805. This species is a spring and fall migrant that often winters in San Diego County and usually roosts in chimneys and other man-made structures. Impacts to this species from the proposed Project would be minimal.

Other avian species of concern were observed or have the potential to occur within the project study area and may be directly or indirectly affected by project impacts. These

include raptor species such as Cooper's hawk (*Accipiter cooperii*) and white-tailed kite (*Elanus leucurus*). Riparian birds, including yellow warbler (*Dendroica petechia*) and yellow-breasted chat (*Icteria virens*), were also observed within the project study area and could be indirectly affected by noise and loss of suitable riparian habitats.

Environmental Consequences

Build Alternative

Sensitive wildlife species would be adversely affected by permanent impacts to grasslands, coastal sage scrub, chaparral, riparian, aquatic habitats, and nesting and foraging habitats. The reduction of available habitat would incrementally affect the more mobile species. Permanent impacts to one "rut" pool that supports the Western spadefoot toad would eliminate those individuals unless they are moved prior to construction. There is a potential for these impacts to indirectly affect animal species that exist within the I-805 project corridor. Construction noise may have a short term effect on species, with long term noise effects expected to be minimal. Edge effects and affects to movement corridors are anticipated to be minimal. Although bridges over the creek corridors would be widened, they are high enough above the habitat to have little affect after construction is completed.

No Build Alternative

The No Build alternative would not have any impacts to special status animal species.

Avoidance, Minimization, and/or Mitigation Measures

Locations of special status wildlife species and their habitat have been identified and avoided to the maximum extent practicable. Due to the length of the project, the special status habitats it transverses, and the special status species that occur along the corridor, there are extensive impacts that could not be avoided. Compensatory measures would be used to minimize the unavoidable impacts.

The following are proposed measures to minimize impacts to special status habitats and species during construction.

- All native or sensitive habitats outside the permanent and temporary construction limits would be designated as ESAs on project maps. ESAs should be temporarily fenced during construction with orange plastic snow fence. No personnel, equipment, or debris would be allowed within the ESAs.

- All native vegetation and non-native shrubs and trees within the impact areas would be removed outside of the breeding season (February 15 to August 31) to avoid impacts to nesting birds. Otherwise, a qualified biologist must thoroughly survey all vegetation prior to removal during the breeding season to ensure there are no nesting birds onsite. If nesting birds are identified onsite, vegetation removal would be delayed until the nest no longer supports eggs or chicks.
- A qualified biologist would be available for both the pre-construction and construction phases to review grading plans, address protection of special status biological resources, and monitor ongoing work. The biologist should be familiar with the habitats, plants, and wildlife of the project area, and maintain communications with the resident engineer, to ensure that issues relating to biological resources are appropriately and lawfully managed.
- Exclusion devices would be installed during construction on bridge drain holes and ledges during the non-breeding season (September 1 through February 15) to prevent swallows, swifts, and any other birds or bats from nesting on or within bridges to be demolished or expanded.
- All sensitive/native temporary impact areas would be revegetated and restored to pre-existing conditions. Plants salvaged from construction areas could be placed on created slopes or in an offsite mitigation area.
- Permanent impacts to sensitive upland vegetation would be offset by preservation offsite at Sage Hill Mitigation Site.
- Permanent and temporary impacts to “rut” pools and species would be offset at a 30-acre site on Del Mar Mesa.
- Permanent and temporary impacts to wetland/riparian habitats would be offset offsite at Deer Canyon Mitigation Site (Pardee).
- Lighting used at night for construction would be shielded away from environmentally sensitive areas.

2.18 THREATENED AND ENDANGERED SPECIES

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC), Section 1531, et seq. See also 50 CFR Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, are required to consult with the USFWS and the NOAA Fisheries to ensure that they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an incidental take permit. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code, Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project caused losses of listed species populations and their essential habitats. The CDFG is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFG. For projects requiring a Biological Opinion under Section 7 of the FESA, CDFG may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

Affected Environment

Several endangered wildlife species may be adversely affected by construction of the project, as well as one area of proposed designated critical habitat.

Two “rut” pools where endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*) have been identified during dry season sampling in 2006 exist within the permanent impact footprint. San Diego fairy shrimp are listed as an endangered species. One pool is located south of Nobel Drive on the west side of I-805, and the other can be found south of Mira Mesa Blvd. Another occupied rut pool lies just outside the proposed Nobel Drive DAR and would likely be indirectly impacted. Caltrans has already completed formal consultation with USFWS for impacts and mitigation under the Carroll Canyon Road extension project for the “rut” pool located south of Mira Mesa Blvd.

Spreading navarretia (*Navarretia fossalis*) occurs within the study area southwest of the Nobel/I-805 interchange. The plant inhabits one of the fenced City owned vernal pools southwest of the Nobel DAR. These vernal pools will not be directly impacted and because they occur on land slightly higher than the DAR location, the watersheds should not be impacted. There is proposed critical habitat for spreading navarretia on the entire mesa. Approximately 7.3 acres of proposed critical habitat for spreading navarretia will be permanently impacted by construction of the DAR and interchange.

Quino checkerspot butterfly (*Euphydryas editha quino*) surveys were conducted by a permitted biologist. Quino checkerspot butterflies were not detected within the Project study area, impacts to this federally endangered listed species are not expected.

Coastal California gnatcatchers (*Polioptila californica californica*) are listed as a federally listed threatened species. Nineteen California gnatcatcher territories were identified within the study area for the Project. Breeding gnatcatchers in San Diego County have territory sizes ranging from approximately 2.5 acres to approximately 22 acres.

The least Bell's vireo (*Vireo bellii pusillus*) is listed as a state and federally listed endangered species. Two territories for the least Bell's vireo were identified within the project study area, one in Rose Canyon and one in Soledad Canyon. No individual vireo observations occur within the permanent or temporary impact areas of the project footprint.

Environmental Consequences

Build Alternative

The two “rut” pools that support San Diego fairy shrimp (SDFS) that would be impacted by the build alternative. A third “rut” pool that is occupied by SDFS lies just outside the

project footprint and would likely be indirectly impacted. Potential indirect impacts to SDFS include loss of suitable habitat, decreased attractiveness to waterfowl that may aid in cyst dispersal, and changes in hydrology and water quality. Indirect impacts to fairy shrimp are also likely where disturbance limits are adjacent to occupied habitat or the watershed of the “rut” pool.

One pair of California gnatcatchers was observed within the permanent impact footprint south of Nobel Drive on the west side of I-805. A large portion of the gnatcatchers pair territory would be permanently impacted by the DAR. A second pair was identified within the permanent impact footprint north of Governor Drive and east of I-805. In addition, two additional territories were identified immediately adjacent to the temporary impact footprint in the same canyon east of I-805 and north of Governor Drive. Additional observations of California gnatcatchers occurred within the temporary impact footprint in the southwest portion of the 52/805 interchange, and southwest of Rose Canyon. Portions of California gnatcatcher territories would likely be impacted at least temporarily by the project.

Least Bell's vireo were detected within Rose and Soledad Canyons east of I-805. Both vireo males were detected outside of the permanent and temporary impact areas. However, the territory at Rose Canyon was identified approximately 100 ft from the proposed construction access road and more than 300 ft from the remainder of the temporary construction work. There is a potential for adverse effects to least Bell's vireo due to increased construction noise. However, the loudest construction activities will be completed at least 300ft from the edge of the vireo territory and noise levels in the territories are not anticipated to be elevated above ambient. The proximity to the freeway and frequent trains passing this habitat result in average ambient noise levels above 60 dBA. The vireo in Soledad Canyon is over 400 ft from the closest access road and over 500 ft from the construction area. More recent protocol surveys for the Carroll Canyon Road Extension Project did not detect least Bell's vireo in this location. No impacts from construction noise are anticipated.

No USFWS designated critical habitat (DCH) falls within the project impact footprint. Therefore, no impacts to DCH for the Least Bell's vireo, California gnatcatcher, or San Diego fairy shrimp would occur with project implementation.

No Build Alternative

The No Build alternative would not have any impacts on listed species or their critical habitat.

Avoidance, Minimization, and/or Mitigation Measures

Due to the length of the project, the special status habitats it transverses, and the special status species that occur along the corridor, there are impacts that could not be avoided. Compensatory measures would be used to offset the unavoidable impacts. Possible ratios and compensatory measures have not been agreed upon by the resource agencies at this time. However, the following identifies potential measures that have been identified to offset impacts associated with the project.

Coastal sage scrub and other upland plant communities would be offset by preservation at the Sage Hill Mitigation site.

Permanent impacts to San Diego fairy shrimp would likely be offset on Del Mar Mesa and are proposed at a 2:1 creation. All details concerning the locations and ratios would be developed through consultation with the appropriate resource agencies to determine the appropriate location and amount of mitigation. Conceptual plans would be completed and submitted to the agencies for review.

The following are proposed measures to minimize impacts to special status species during construction.

- All native or sensitive habitats outside the permanent and temporary construction limits should be designated as ESAs on project maps. ESAs should be temporarily fenced during construction with orange plastic snow fence. No personnel, equipment, or debris would be allowed within the ESAs.
- All native vegetation and non-native shrubs and trees within the impact areas would be removed outside of the breeding season (February 15 to August 31) to avoid impacts to nesting birds. Otherwise, a qualified biologist would thoroughly survey all vegetation prior to removal during the breeding season to ensure there are no nesting birds onsite. If nesting birds are identified onsite, vegetation removal would be delayed until the nest no longer supports eggs or chicks.
- All pile driving near the creeks that support threatened and endangered bird species would be completed outside the bird breeding season (March 15 to

September 15) to avoid construction noise impacts to sensitive riparian-nesting bird species.

- All debris from the expansion of bridges would be contained so that it does not fall into rivers and creeks.
- A qualified biologist would be available for both the pre-construction and construction phases to review grading plans, address protection of special status biological resources, and monitor ongoing work. The biologist would be familiar with the habitats, plants, and wildlife of the project area, and maintain communications with the resident engineer, to ensure that issues relating to biological resources are appropriately and lawfully managed.
- Appropriate best management practices (BMPs) would be used to control erosion and sedimentation. No sediment or debris would be allowed to enter the vernal pools, creeks, rivers, or other drainages.
- Cut slopes would be revegetated with native upland habitats with similar composition to those within the project study area. Fill slopes and areas adjacent to wetlands and drainages would be revegetated with appropriate native upland and wetland non-invasive species. The revegetated areas would have temporary irrigation and be planted with native container plants and seeds selected by the biologist. There would be at least three years of plant establishment/maintenance on these slopes to control invasive weeds. Bioswales and detention basins would be planted with appropriate native species as determined by the biologist and storm water pollution prevention professional. Slopes adjacent to developed urban areas would be vegetated with native and drought tolerant non-invasive species selected by the biologist and landscape architect. Interchanges located in urban areas would be landscaped with native or ornamental non-invasive species.
- Duff from areas with coastal sage scrub and chaparral may be saved to aid in revegetating slopes with native species.
- Salvaging of soil supporting San Diego fairy shrimp prior to grading is recommended where practicable.
- Lighting used at night for construction would be shielded away from ESAs.

2.19 INVASIVE SPECIES

Regulatory Setting

On February 3, 1999, President Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Federal Highway Administration guidance issued August 10, 1999 directs the use of the state’s noxious weed list to define the invasive plants that must be considered as part of the NEPA analysis for a proposed project.

Affected Environment

The study area of the I-805 currently supports the following invasive species: tamarisk (*Tamarix* spp.), pampus grass (*Cortaderia* spp.), giant reed (*Arundo donax*), fennel (*Foeniculum vulgare*), and African fountain grass (*Penisetum setaceum*). The majority of these species are found both on the slopes of I-805 and in the wetland habitats.

Environmental Consequences

Build Alternative

Several of the invasive species currently found in the right of way could spread during construction activities. During construction, ground disturbance activities provide new areas for weeds to germinate.

No Build Alternative

The No Build alternative would not disturb any new ground; however, existing invasive species problems would likely become worse through time and species may spread.

Avoidance, Minimization, and/or Mitigation Measures

In compliance with the Executive Order on Invasive Species, E.O. 13112, and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project would not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions would be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur. Special care would be taken when transporting, use and disposing of soils with invasive weed seeds. All heavy equipment would be washed and cleaned of

debris prior to entering a wetland area, to minimize spread of invasive weeds. Special care would be taken when transporting, use, and disposing of soils containing invasive weed seeds.

2.20 Cumulative Impacts

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines, Section 15130, describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under CEQA, can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts, under NEPA, can be found in 40 CFR, Section 1508.7 of the CEQ Regulations.

Affected Environment

The proposed project could have a cumulative effect on the following resources: San Diego fairy shrimp due to "rut" pool impacts, Riparian/Wetlands, Coastal sage scrub(CSS), and directly related to the loss of CSS the California gnatcatcher.

San Diego Fairy Shrimp

San Diego fairy shrimp (SDFS) are known to occur in most of the vernal pool complexes in coastal San Diego County. Many populations of SDFS have likely been exterminated or have experienced drastic declines due to the substantial loss of habitat in Southern California. The greatest recent losses of vernal pool habitat in San Diego County have occurred in Mira Mesa, Rancho Peñasquitos, and Kearny Mesa, which accounted for 73% of all the pools destroyed between 1979 and 1990.

The SDFS is especially vulnerable to alteration in hydrology; thus, the protection of watershed function is critical to its survival. SDFS are threatened by urban development, agricultural development, modified hydrology due to adjacent road construction, and illegal trash dumping. Unpredictable natural events such as drought or fire may exterminate the SDFS due to its fragmented and restricted range. They are also vulnerable to contaminants in runoff waters and watershed quality. Low levels of genetic variability may affect the species potential for long-term viability.

The resource study area (RSA) for SDFS is comprised of primarily coastal mesa areas located west of I-15, east of I-5 and north of I-8 and south of SR-56 including Kearny Mesa, Mira Mesa and Del Mar Mesa.

Riparian/Wetlands

Riparian wetlands areas may be the most important natural habitat in the western United States. Although comprising less than 1 percent of land area, riparian habitats support the most diverse and abundant wildlife communities. Yet they are disappearing at an alarming rate. In California, an estimated 95 percent of riparian habitat has disappeared during the last hundred years.

Riparian wetland areas or streamsides are found at the bottom of canyons and valleys throughout San Diego County, wherever a stream is present. Riparian communities are characterized by deciduous trees and shrubs requiring a close source of abundant water. They form dense understories in moist canyons and drainage areas, such as the thickets found along the San Diego, San Louis Rey, and Santa Margarita Rivers (major San Diego County Rivers). While small in total area, riparian areas are of special value to wildlife habitat. Over 135 species of California birds and 90 species of mammals, reptiles, and amphibians either completely depend upon these habitats or use them preferentially at some stage of their life history. Riparian habitats also provide riverbank

protection, erosion control and improved water quality. In Southern California, only 3 to 5% of the pre-settlement riparian forest remains, the rest having been converted primarily to farming or urban uses.

The RSA for Riparian wetlands is located west of the I-15 to the coast, and between SR-52 and SR-56 and includes the watersheds of Los Penasquitos Lagoon, Carroll Canyon, Soledad Creek, Penasquitos Creek, Carmel Creek, and the San Diego Bay watersheds of San Clemente Canyon and Rose Canyon.

Coastal Sage Scrub/California Gnatcatcher

Habitat loss is the main threat to the California gnatcatcher whose distribution is mostly restricted to the CSS plant community. Coastal sage scrub habitat was developed rapidly from the 1940's to 1990's for agriculture, grazing, or urban areas, and is considered now one of the most endangered habitats in the U.S.

Coastal sage scrub is considered a sensitive habitat by the City and County of San Diego. The USFWS has estimated that coastal sage scrub habitat has been reduced by 70 to 90% of its historical extent, primarily due to historical agricultural land uses and urban expansion along the Southern California coastal plain. Additional evidence of the decline of this once common habitat is the growing number of declining plant and animal species associated with it.

The RSA for CSS is located west of I-15, east of I-5 and north of SR-52 and south of SR-56. Other current or proposed projects in the area include the I-5 North Coast project, Genesee/I-5 project, and the I-805 Carroll Canyon DAR.

Environmental Consequences

Build Alternative

The I-805 project would have an incremental contribution of up to approximately 1.42 acres of jurisdictional wetlands and other waters, 1.2 acres of wetland/riparian habitat loss, and 32.5 acres of native upland habitat loss. The project would also impact portions of two territories of California gnatcatcher and rut pools supporting SDFS. The incremental impacts of the project are small; however, the entire project would result in a cumulatively considerable impact on natural communities, and special status species prior to mitigation. Mitigation measures discussed below would reduce project-specific and cumulative impacts to below a level of significance.

Table 35 references other projects located within the RSA's for Rut Pools/SDFS, Riparian wetlands, Coastal sage scrub, and California gnatcatcher.

Table 35: Projects Considered in Cumulative Impact Analysis

Project Name	Jurisdiction Location	Proposed Development	Rut Pools/ San Diego Fairy Shrimp	Riparian/ Wetlands	Coastal Sage Scrub	CA Gnatcatcher	Project Status
*Carroll Canyon Rd. Extension	I-805 (Carroll Canyon Road North to the I-5 HOV lanes)	DAR, HOV lanes, and BRT	1 rut pool	0.18 acres	0.6 acres	Species not observed during surveys.	IS/EA approved
I-5/ Genesee Ave.	I-5 and Genesee Ave	Interchange Reconstruction	No impacts identified in RSA.	No impacts identified in RSA.	1 acre	1 pair impacted	IS/EA approved
I-5 North Coast	Del Mar Heights Rd to Vandergrift Boulevard/ Harbor Drive in Oceanside	HOV/ Managed Lanes/ Widening	No impacts identified in RSA.	4.4 acres	21.5 acres	14 territories impacted.	EIR/EIS in progress

* Within the vicinity of the proposed project

No Build Alternative

Under the No Build Alternative, no construction or grading activities would occur, and no associated cumulative impacts to biological resources would occur.

Avoidance, Minimization, and/or Mitigation Measures

Minimization measures for adverse and cumulatively considerable impacts to natural communities are located in Sections 2.14. Implementation of the measures in this section would mitigate adverse effects of the project. Mitigation impacts to native upland communities would reduce the cumulative impacts to less than considerable.

All impacts occurring from other projects in the vicinity would be mitigated to below a level of significance.

2.21 Climate Change

Regulatory Setting

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to greenhouse

gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are primarily concerned with the emissions of GHG related to human activity that include carbon dioxide (CO₂), methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with GHG emissions and climate change at the state level. Assembly Bill 1493 requires the California Air Resources Board (CARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year; however, in order to enact the standards California needed a waiver from the U.S. Environmental Protection Agency (EPA). The waiver was denied by EPA in December 2007. See *California v. Environmental Protection Agency*, 9th Cir. Jul. 25, 2008, No. 08-70011. However, on January 26, 2009, it was announced that EPA will reconsider their decision regarding the denial of California's waiver. On May 18, 2009, President Obama announced the enactment of a 35.5 mpg fuel economy standard for automobiles and light duty trucks which will take effect in 2012. This standard is the same standard that was proposed by California, and so the California waiver request has been shelved.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that CARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team.

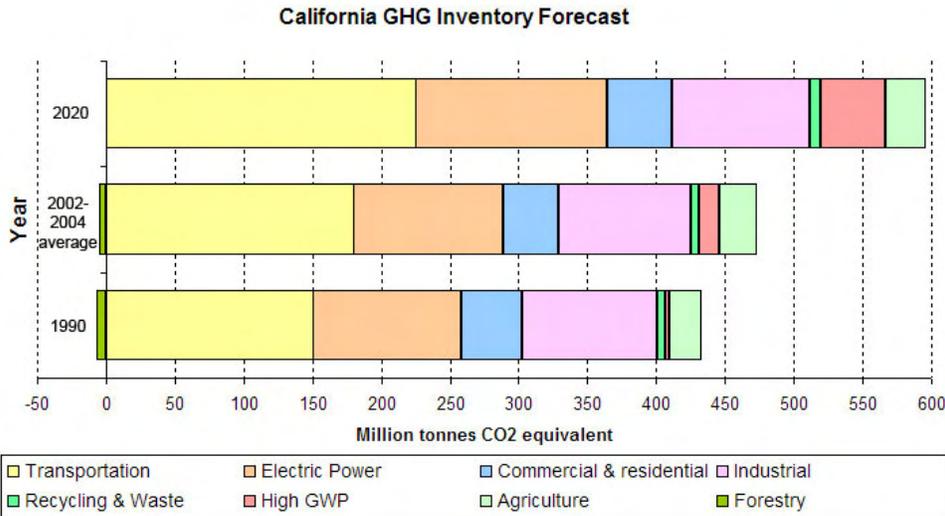
With Executive Order S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

Climate change and GHG reduction is also a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing GHG emissions reductions and climate change. California, in conjunction with several environmental organizations and several other states, sued to force the U.S. Environmental Protection Agency (EPA) to regulate GHG as a pollutant under the Clean Air Act (*Massachusetts vs. Environmental Protection Agency et al.*, 549 U.S. 497 (2007)). The court ruled that GHG does fit within the Clean Air Act's definition of a pollutant, and that the EPA does have the authority to regulate GHG. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting GHG emissions.

According to Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate change in CEQA Documents (March 5, 2007), an individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable." See CEQA Guidelines sections 15064(i)(1) and 15130. To make this determination the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

As part of its supporting documentation for the Draft Scoping Plan, CARB recently released an updated version of the GHG inventory for California (June 26, 2008). Shown below is a graph from that update that shows the total GHG emissions for California for 1990, 2002-2004 average, and 2020 projected if no action is taken.

Table 36: California Greenhouse Gas Inventory

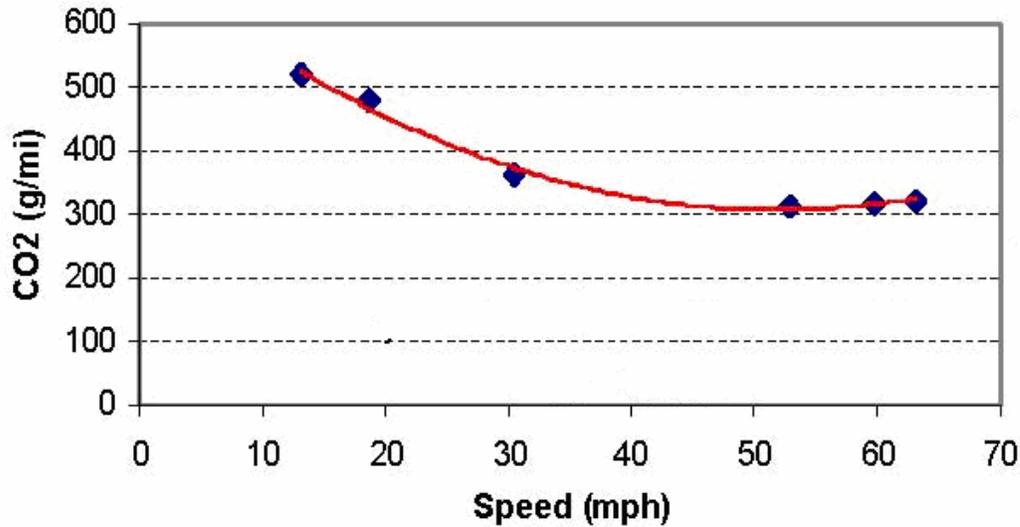


Taken from: <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>

Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98% of California’s GHG emissions are from the burning of fossil fuels and 40% of all human made GHG emissions are from transportation (see Climate Action Program at Caltrans (December 2006), Caltrans has created and is implementing the Climate Action Program at Caltrans that was published in December 2006. This document can be found at: <http://www.dot.ca.gov/docs/ClimateReport.pdf>.

One of the main strategies in Caltrans’ Climate Action Program to reduce GHG emissions is to make California’s transportation system more efficient. The highest levels of carbon dioxide from mobile sources, such as automobiles, occur at stop-and-go speeds (0-25 miles per hour) and speeds over 55 mph; the most severe emissions occur from 0-25 miles per hour (see Figure below). Relieving congestion by enhancing operations and improving travel times in high congestion travel corridors would lead to an overall reduction in GHG emissions.

Fleet CO2 Emissions vs. Speed (Highway)



Source: Center for Clean Air Policy— [http://www.ccap.org/Presentations/Winkelman%20TRB%202004%20\(1-13-04\).pdf](http://www.ccap.org/Presentations/Winkelman%20TRB%202004%20(1-13-04).pdf)

Build Alternative

GHG emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events. However, the project itself would not result in an increase in vehicular emissions within the air basin, as overall on-road vehicle trips would occur regardless of whether the project is constructed. Please see Section 2.5 for additional discussion of the traffic impacts.

In addition, the proposed project would improve the overall efficiency of the transportation network in the project area. Proposed transit/transportation facilities in the project area include a transit center/DAR at Nobel Drive, and the south facing portion of

the Carroll Canyon DAR and the I-805 Managed Lanes facility. The Nobel Drive transit center would serve to increase access and transfer needs for existing local and express bus routes and would accommodate planned Bus Rapid Transit (BRT) services.

Together with the I-805 Managed Lanes Facility, augmented transit service would be provided in the project vicinity. The managed lanes would improve corridor capacity for both HOV, and transit users.

Construction-related GHG emissions are expected to occur with the Project. These include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through implementation of measures, such as idling restrictions, in the plans and specifications and by implementing better traffic management during construction phases.

There are numerous key greenhouse gas variables that are likely to change dramatically during the design life of the proposed project and result in decreases in GHG emissions.

First, vehicle fuel economy is increasing. The Environmental Protection Agency's annual report, Light-Duty Automotive Technology and Fuel Economy Trends: 1975 through 2008 (<http://www.epa.gov/oms/fetrends.htm>), which provides data on the fuel economy and technology characteristics of new light-duty vehicles including cars, minivans, sport utility vehicles, and pickup trucks, confirms that average fuel economy, has improved each year beginning in 2005, and is now the highest since 1993. Most of the increase since 2004 is due to higher fuel economy for light trucks, following a long-term trend of slightly declining overall fuel economy that peaked in 1987. These vehicles also have a slightly lower market share, peaking at 52% in 2004 with projections at 48% in 2008.

Second, near zero carbon vehicles would come into the market during the design life of this project. According to a March 2008 report released by University of California Davis (UC Davis), Institute of Transportation Studies:

“Large advancements have occurred in fuel cell vehicle and hydrogen infrastructure technology over the past 15 years. Fuel cell technology has progressed substantially resulting in power density, efficiency, range, cost, and durability all improving each year. A number of the U.S. Department of Energy 2010 milestones for fuel cell vehicles development and commercialization are expected to be met by 2010. Accounting for a

five to six year production development cycle, the scenarios developed by the U.S. DOE suggest that 10,000s of vehicles per year from 2015 to 2017 would be possible in a federal demonstration program, assuming large cost share grants by the government and industry are available to reduce the cost of production vehicles.”

Third and as previously stated, California has recently adopted a low-carbon transportation fuel standard. The California Air Resources Board is scheduled to come out with draft regulations for low carbon fuels in late 2008 with implementation of the standard to begin in 2010.

Fourth, driver behavior has been changing as the U.S. economy and oil prices have changed. In its January 2008 report, *Effects of Gasoline Prices on Driving Behavior and Vehicle Market*, <http://www.cbo.gov/ftpdocs/88xx/doc8893/01-14-GasolinePrices.pdf> the Congressional Budget Office found the following results based on data collected from California: 1) freeway motorists have adjusted to higher gas prices by making fewer trips and driving more slowly; 2) the market share of sports utility vehicles is declining; and 3) the average prices for larger, less-fuel-efficient models have declined over the past five years as average prices for the most-fuel-efficient automobiles have risen, showing an increase in demand for the more fuel-efficient vehicles.

CEQA Conclusion

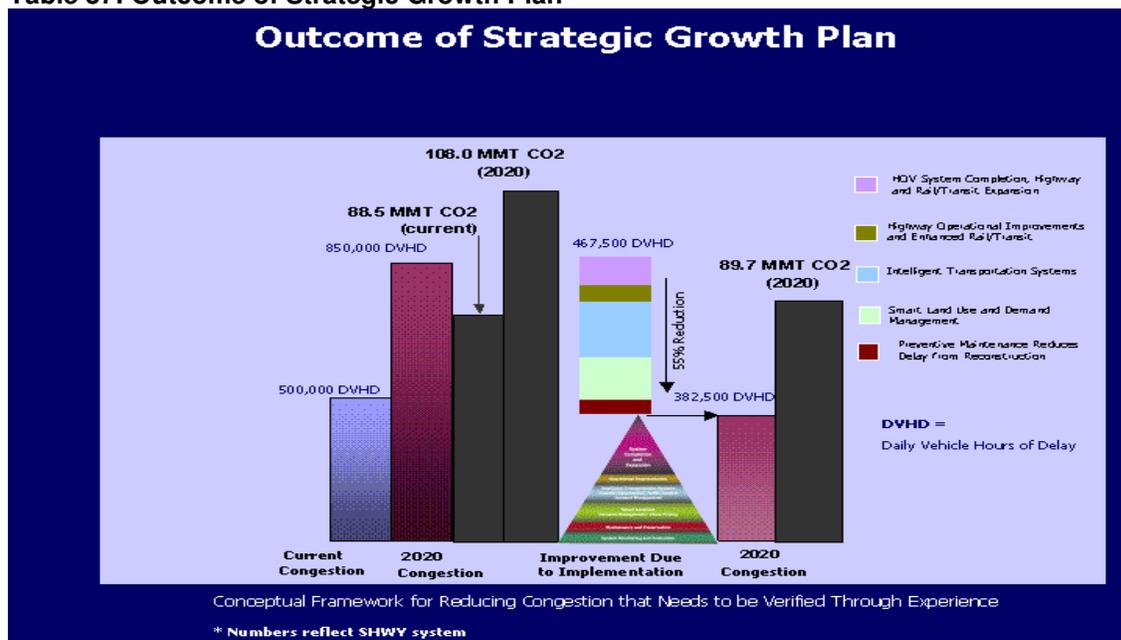
Based on the above, it is Caltrans determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a determination regarding the project’s direct impact and its contribution on the cumulative scale to climate change. However, as previously stated, Caltrans does not anticipate any increase in greenhouse gas emissions with the project. Nonetheless, Caltrans is taking further measures to help reduce energy consumption and greenhouse gas emissions.

AB 32 Compliance

Caltrans continues to be actively involved on the Governor’s Climate Action Team as California Air Resources Board works to implement AB 1493 and help achieve the targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year.

Governor Arnold Schwarzenegger’s Strategic Growth Plan calls for a \$222 billion infrastructure improvement program to fortify the state’s transportation system, education, housing, and waterways, including \$107 billion in transportation funding during the next decade. As shown on the figure below, the Strategic Growth Plan targets a significant decrease in traffic congestion below today’s level and a corresponding reduction in greenhouse gas emissions. The Strategic Growth Plan proposes to do this while accommodating growth in population and the economy. A suite of investment options has been created that combined together yield the promised reduction in congestion. The Strategic Growth Plan relies on a complete systems approach of a variety of strategies: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements.

Table 37: Outcome of Strategic Growth Plan



As part of the Climate Action Program at Caltrans (December 2006, <http://www.dot.ca.gov/docs/ClimateReport.pdf>), Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high density housing along transit corridors. Caltrans is working closely with local jurisdictions on planning activities; however, Caltrans does not have local land use planning authority. Caltrans is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; Caltrans is doing this by supporting on-going research efforts at universities, by supporting

legislation efforts to increase fuel economy, and by its participation on the Climate Action Team. It is important to note, however, that the control of the fuel economy standards is held by the United States Environmental Protection Agency and California Air Resource Board. Lastly, the use of alternative fuels is also being considered; Caltrans is participating in funding for alternative fuel research at the University of California Davis.

Table 38 summarizes efforts that Caltrans is implementing in order to reduce greenhouse gas emissions. For more detailed information about each strategy, please see Climate Action Program at Caltrans (December 2006); it is available at <http://www.dot.ca.gov/docs/ClimateReport.pdf>.

To the extent that it is applicable or feasible for the project and through coordination with the project development team, the following measures would also be included in the project to reduce the greenhouse gas emissions and potential climate change impacts from the project:

The proposed project would be designed to minimize removal of existing trees, especially mature trees.

Caltrans and the California Highway Patrol are working with regional agencies to implement Intelligent Transportation Systems (ITS) to help manage the efficiency of the existing highway system. ITS is commonly referred to as electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system.

In addition, Caltrans and SANDAG provide ridesharing services and park-and-ride facilities to help manage the growth in demand for highway capacity.

The following "green" practices and materials would be used in the project as part of highway planting and erosion control work:

- Compost and soil amendments derived from sewage sludge and green waste materials
- Fiber produced from recycled pulp such as newspaper, chipboard, cardboard
- Wood mulch made from green waste and/or clean manufactured wood or natural wood

The State of California maintains several websites, which provide public information on measures to improve renewable energy use, energy efficiency, water conservation and

efficiency, land use and landscape maintenance, solid waste measures, and transportation alternatives.

Table 38: Climate Change Strategies

Strategy	Program	Partnership		Method/Process	Estimated CO2 Savings (MMT)	
		Lead	Agency		2010	2020
Smart Land Use	Intergovernmental Review (IGR)	Caltrans	Local Governments	Review and seek to mitigate development proposals	Not Estimated	Not Estimated
	Planning Grants	Caltrans	Local and regional agencies & other stakeholders	Competitive selection process	Not Estimated	Not Estimated
	Regional Plans and Blueprint Planning	Regional Agencies	Caltrans	Regional plans and application process	0.975	7.8
Operational Improvements & Intelligent Trans. System (ITS) Deployment	Strategic Growth Plan	Caltrans	Regions	State ITS; Congestion Management Plan	.007	2.17
Mainstream Energy & Greenhouse Gas into Plans and Projects	Office of Policy Analysis & Research; Division of Environmental Analysis	Interdepartmental effort		Policy establishment, guidelines, technical assistance	Not Estimated	Not Estimated
Educational & Information Program	Office of Policy Analysis & Research	Interdepartmental, CalEPA, CARB, CEC		Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening & Fuel Diversification	Division of Equipment	Department of General Services		Fleet Replacement B20 B100	0.0045	0.0065 0.45 .0225
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team		Energy Conservation Opportunities	0.117	.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries		2.5 % limestone cement mix 25% fly ash cement mix	1.2 .36	3.6
Goods Movement	Office of Goods Movement	Cal EPA, CARB, BT&H, MPOs		Goods Movement Action Plan	Not Estimated	Not Estimated
Total					2.72	18.67

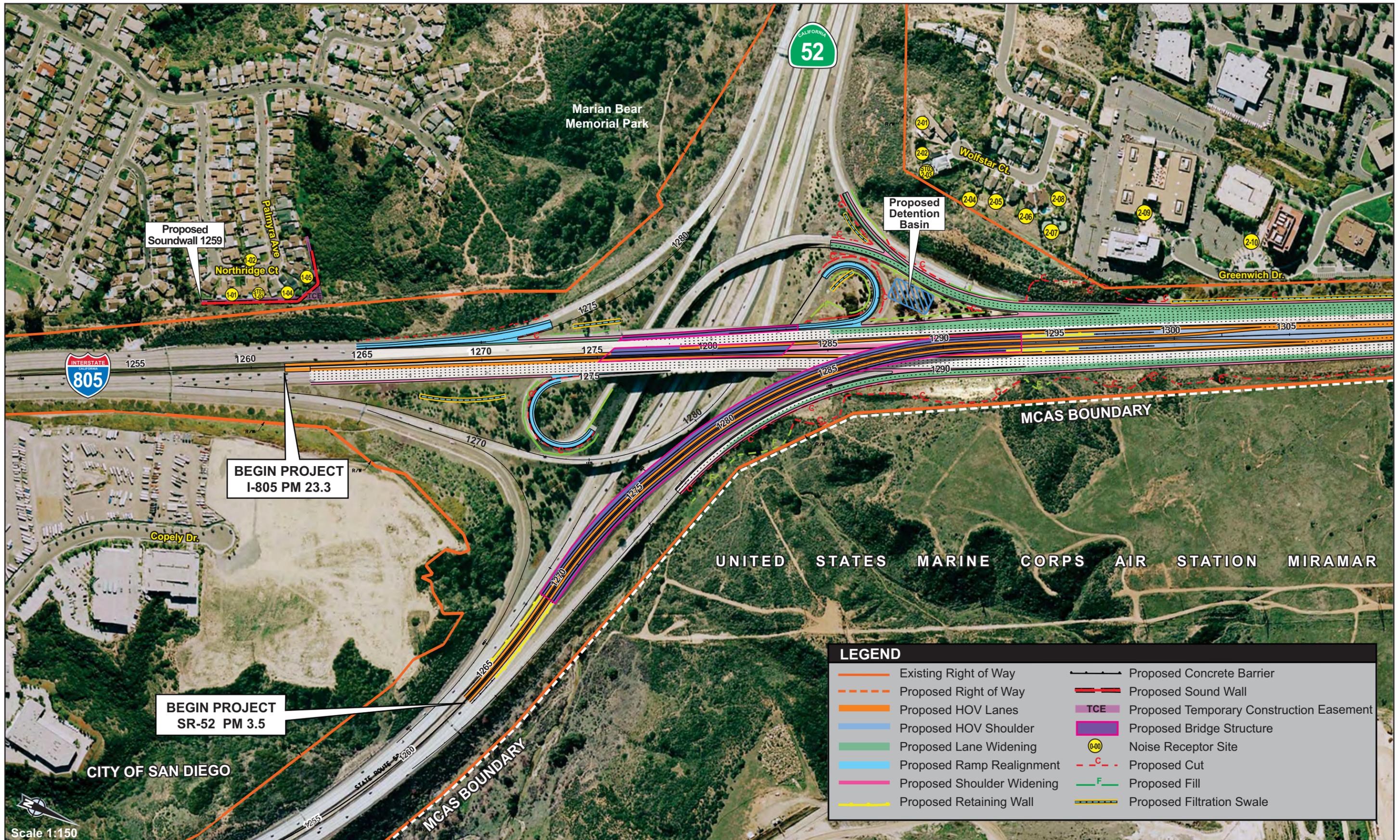


Figure 3A
Project Features Map

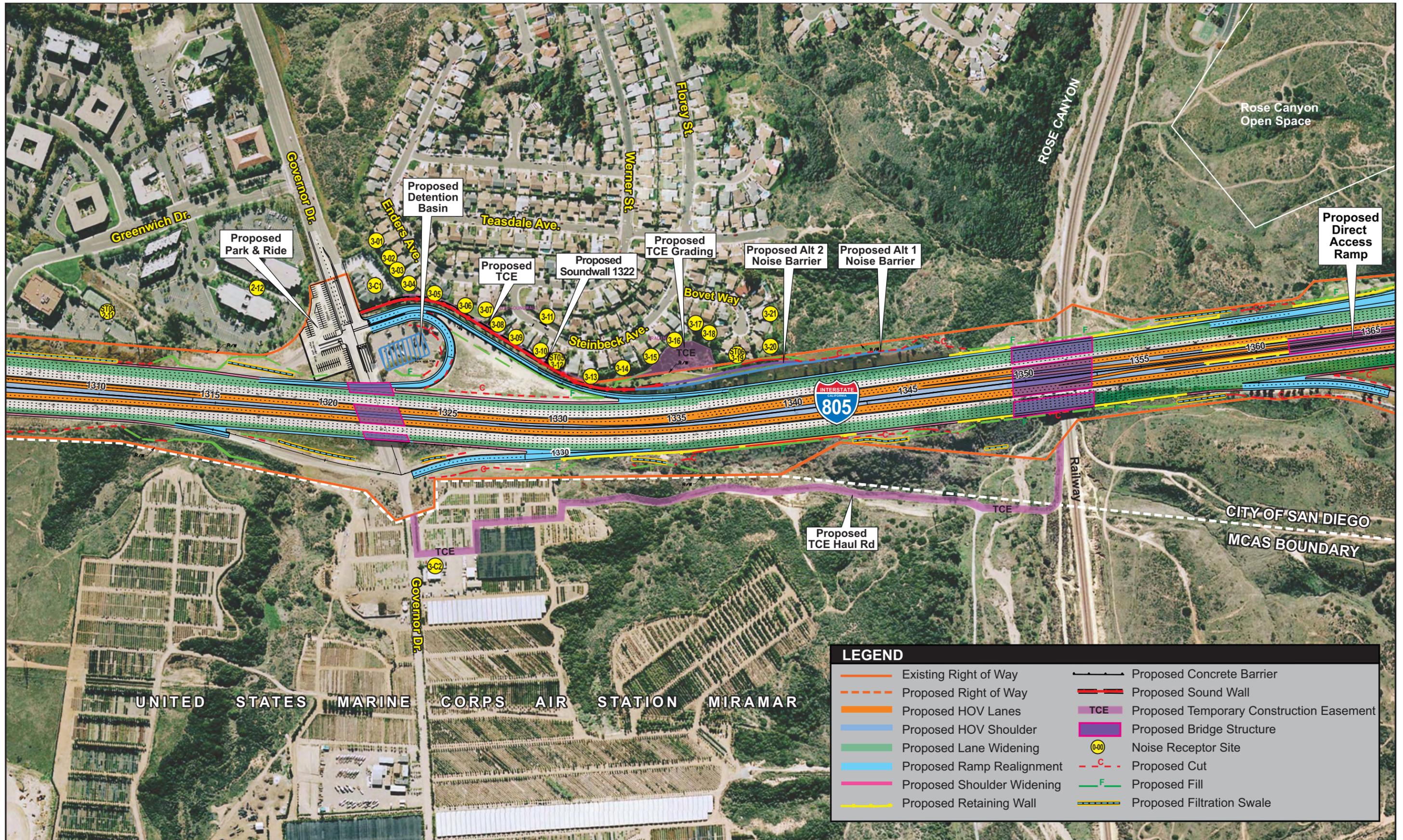


Figure 3B
Project Features Map

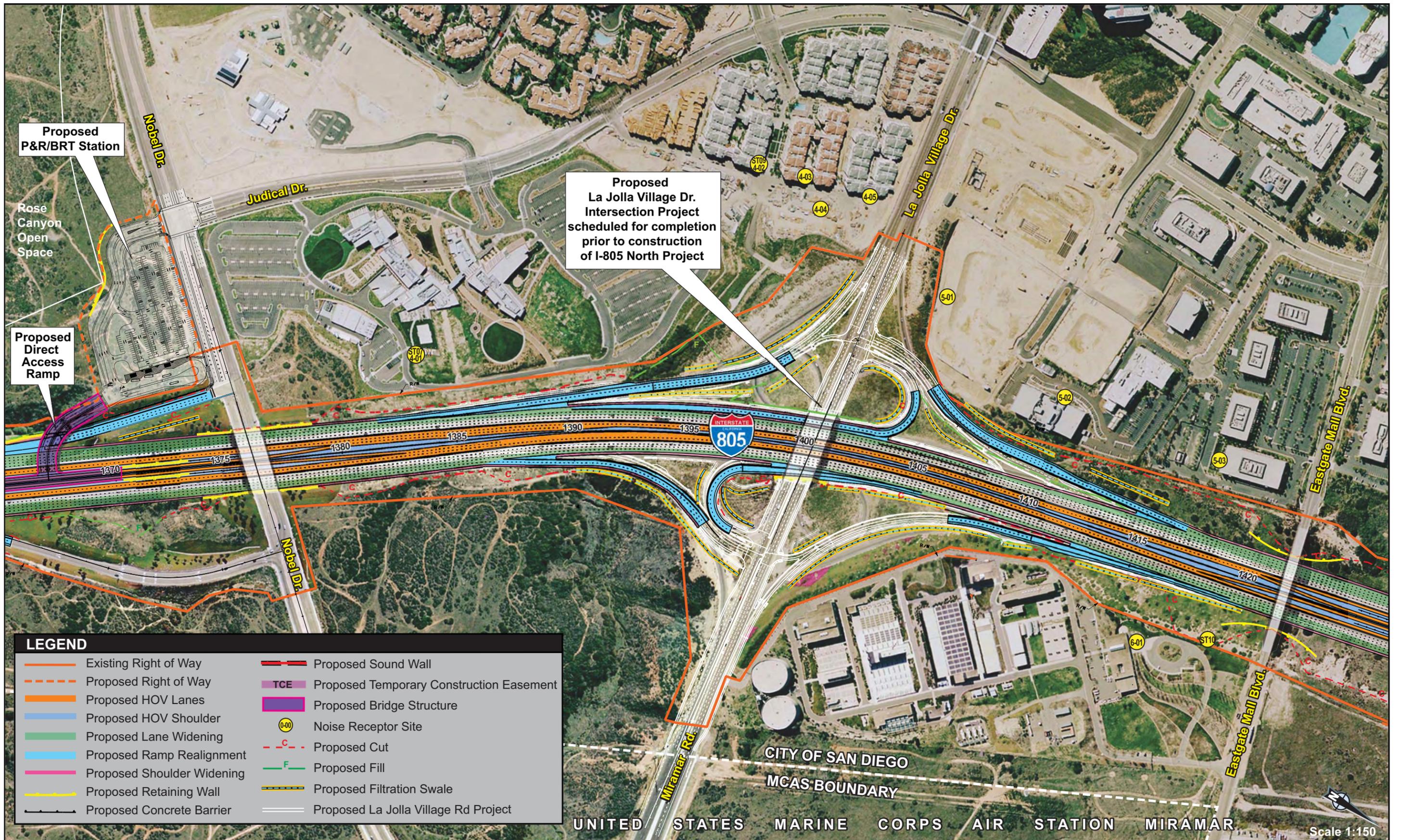


Figure 3C
Project Features Map

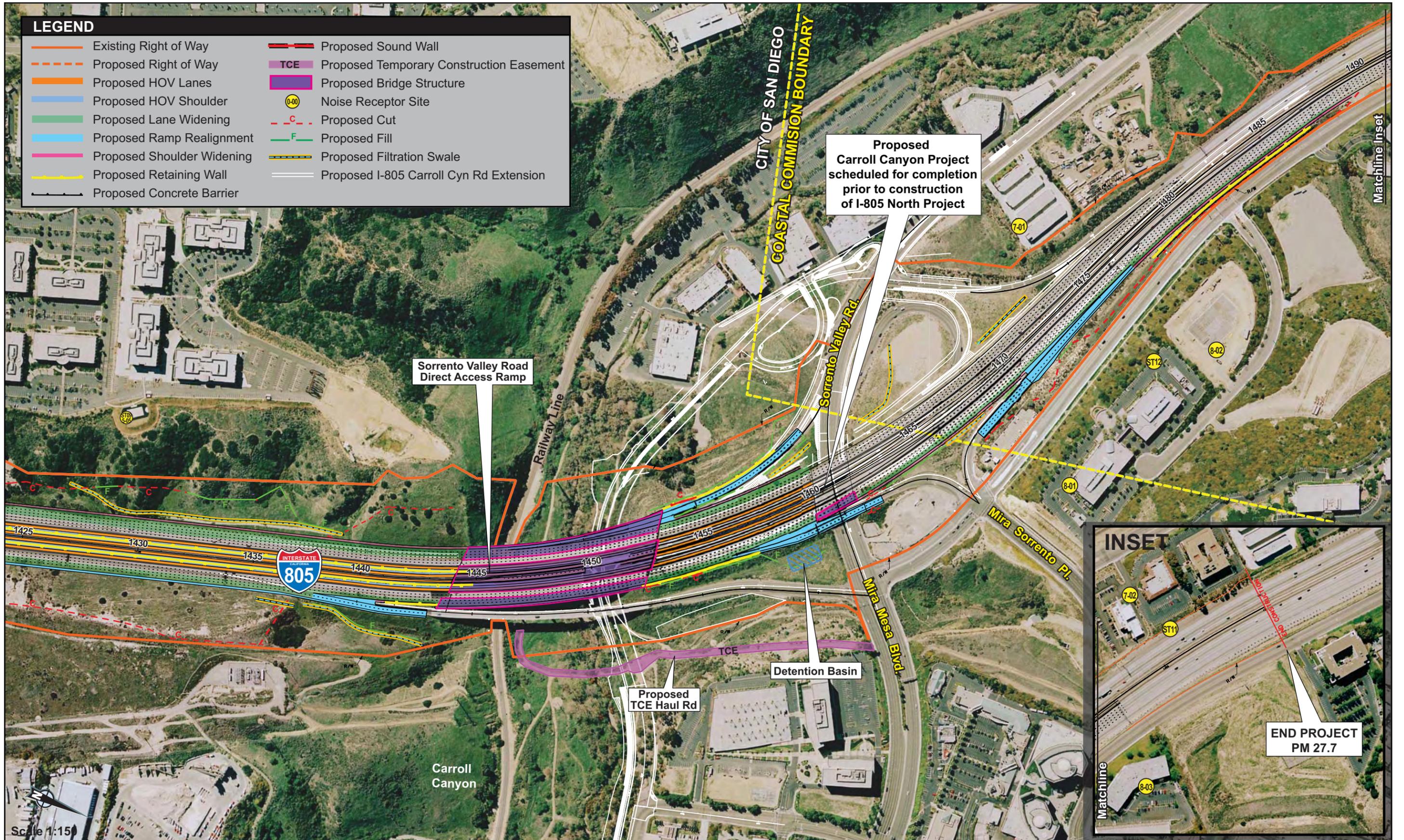


Figure 3D
Project Features Map

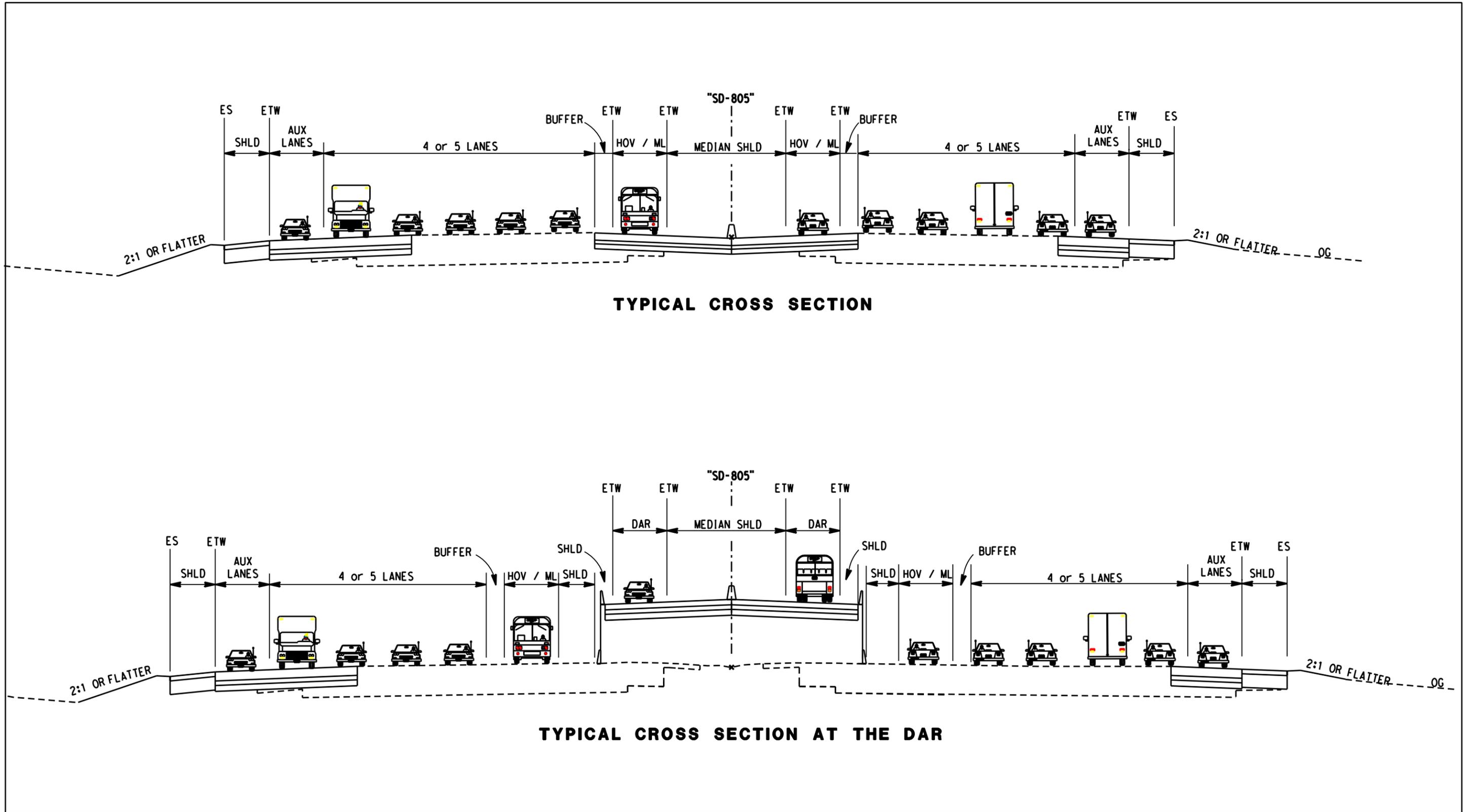
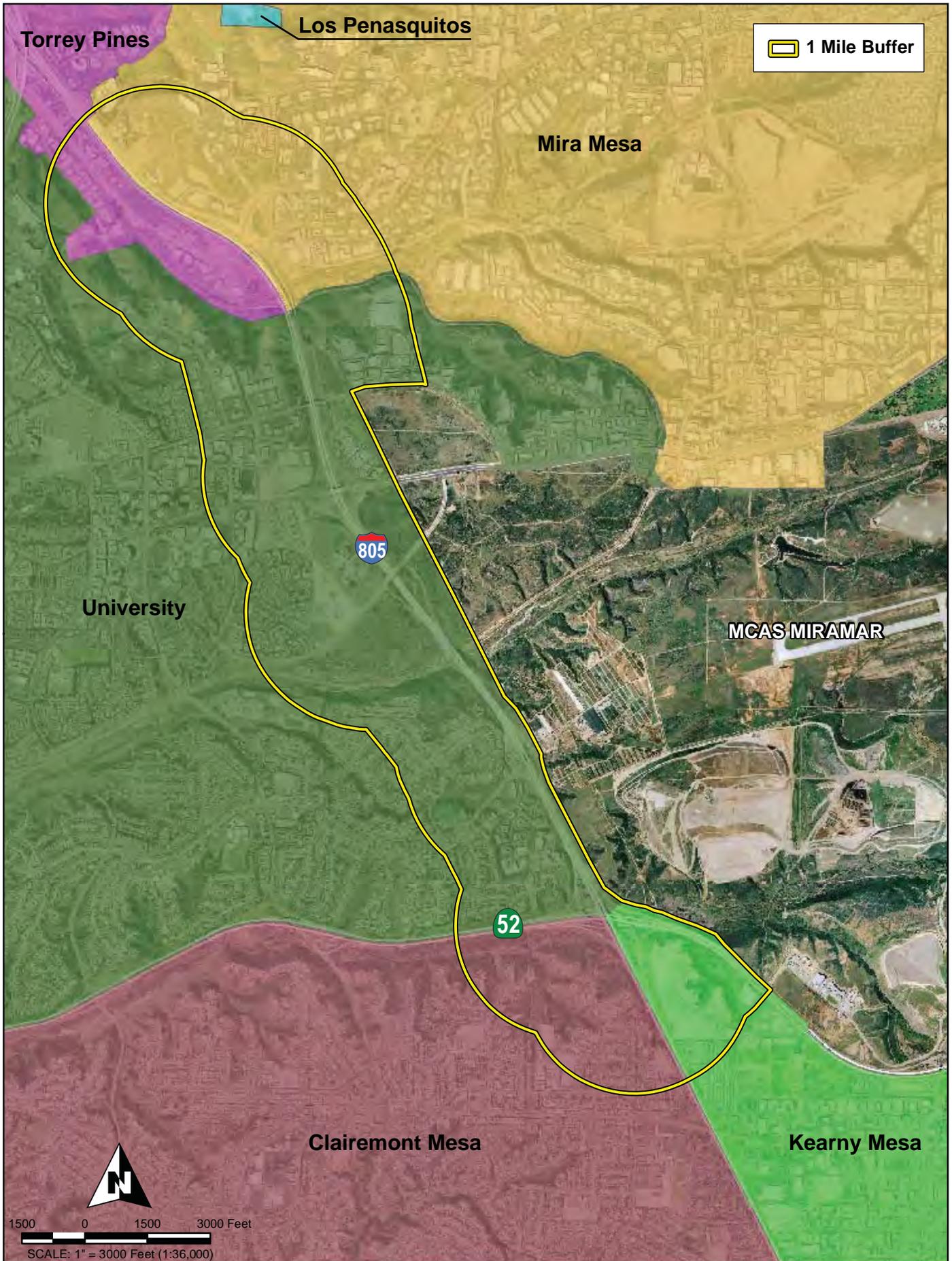
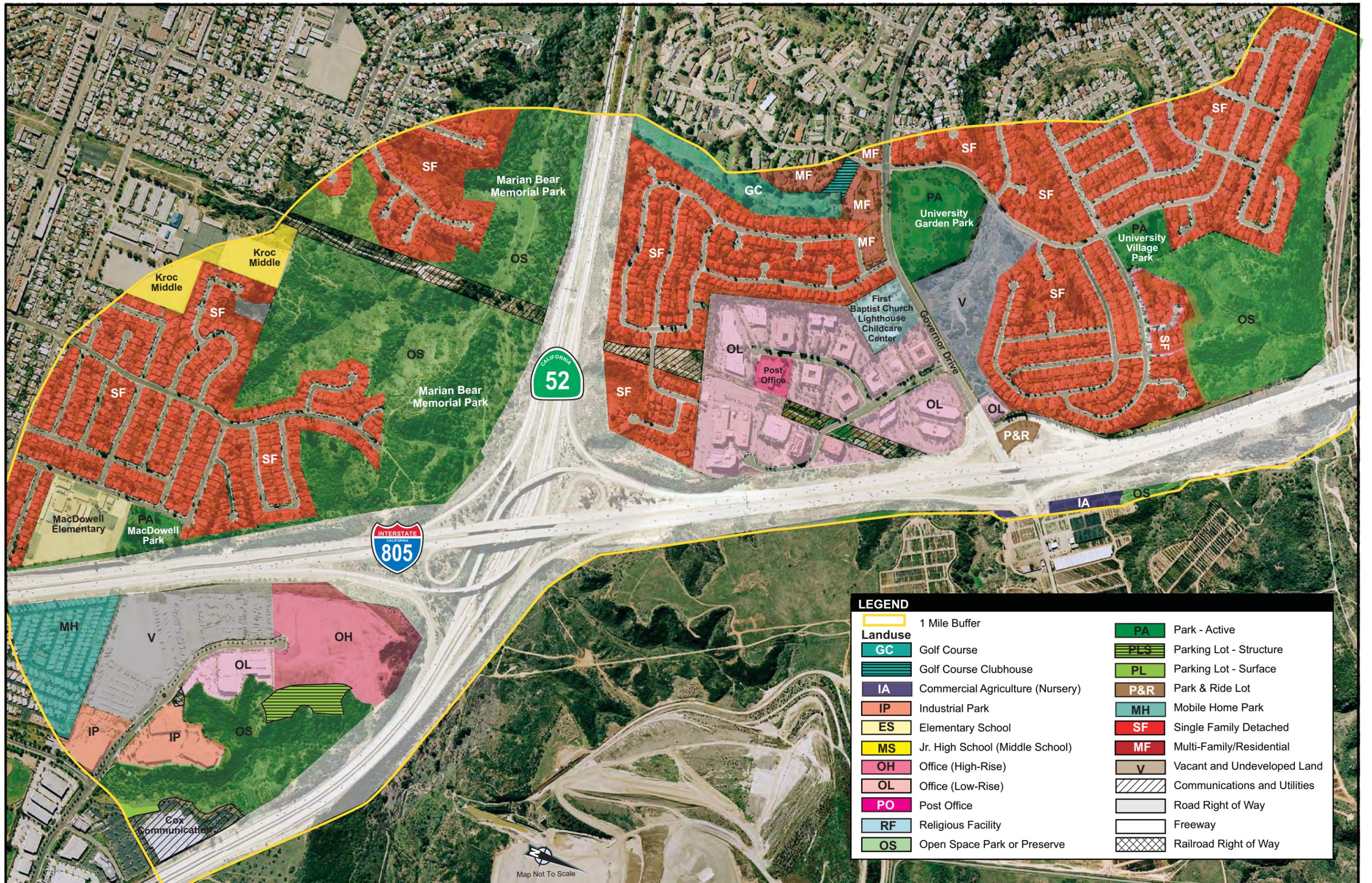


Figure 4
Typical Cross-section



SOURCES: AirPhoto USA (Aerial 2007); SANDAG (Freeways 2006); SanGIS (CPA's 2006)
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Figure 5
Adjacent San Diego Communities



Source: Sandag 2007

Figure 6A
Existing Land Use

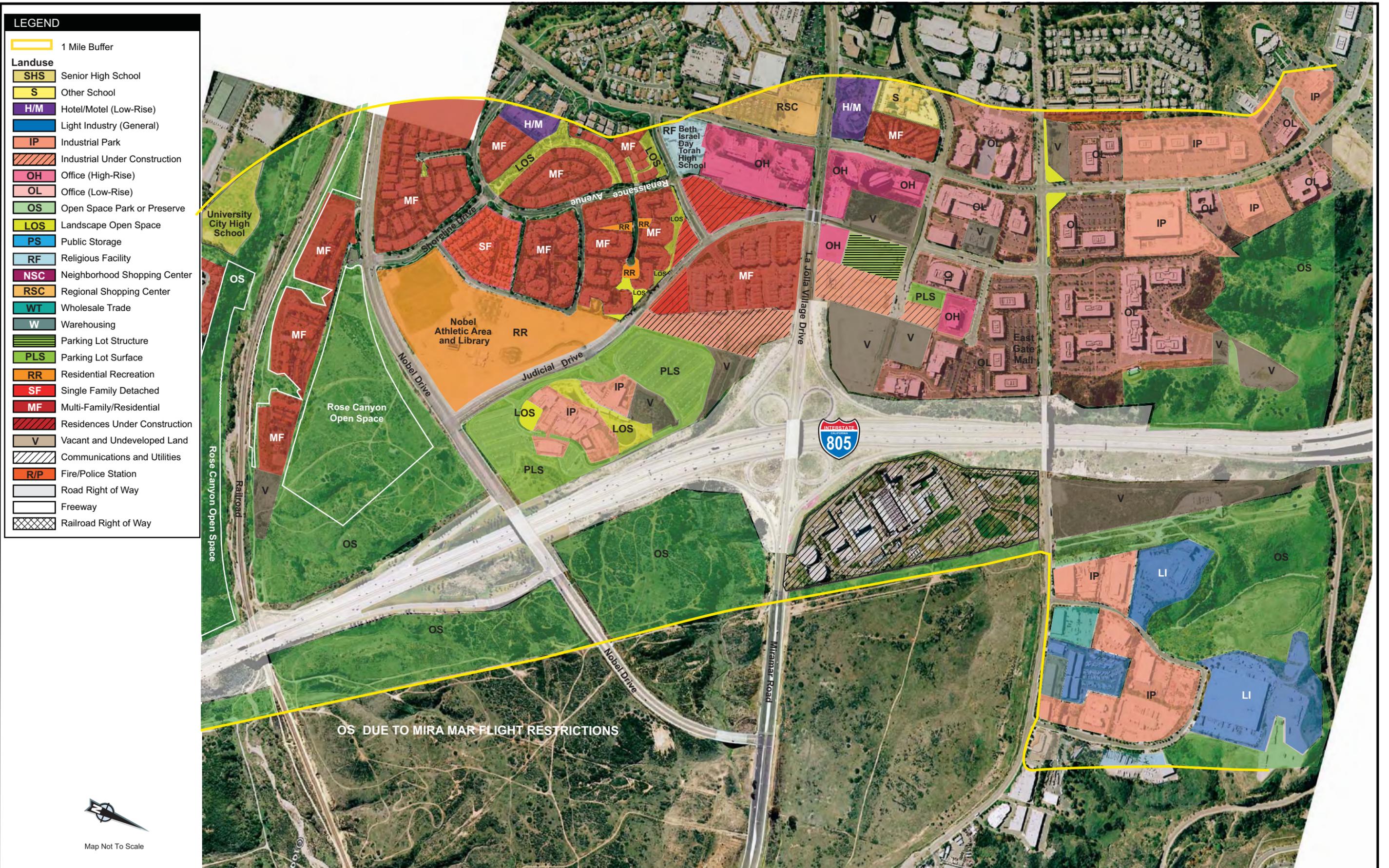


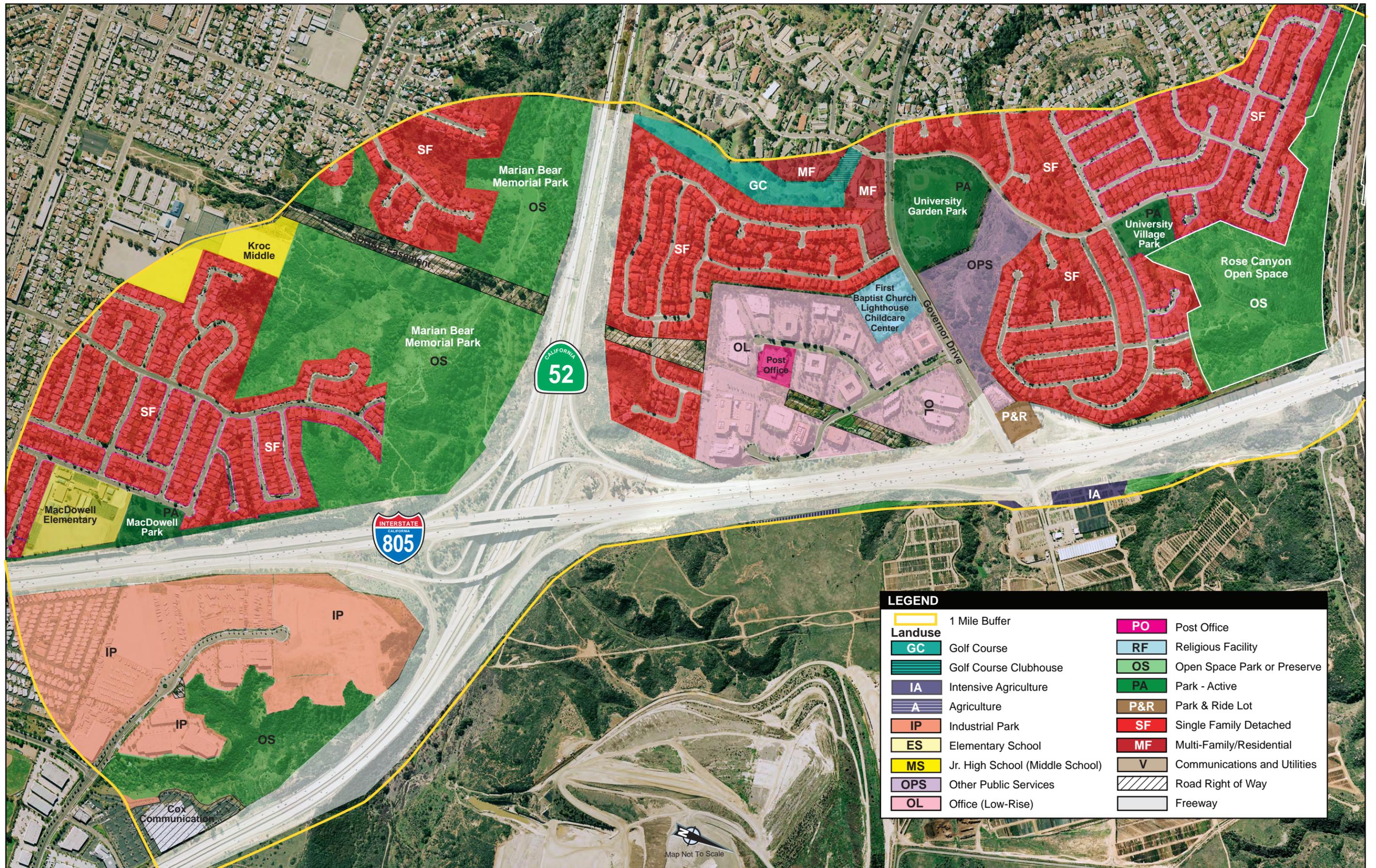
Figure 6B
Existing Land Use



	1 Mile Buffer
	Coastal Zone Boundary
Landuse	
	H/M Hotel/Motel (Low-Rise)
	LI Light Industry (General)
	IP Industrial Park
	Industrial Under Construction
	OH Office (High-Rise)
	OL Office (Low-Rise)
	OS Open Space Park or Preserve
	LOS Landscape Open Space
	PS Public Storage
	NSC Neighborhood Shopping Center
	WT Wholesale Trade
	W Warehousing
	Parking Lot Structure
	RR Residential Recreation
	MF Multi-Family/Residential
	V Vacant and Undeveloped Land
	Communications and Utilities
	R/P Fire/Police Station
	Road Right of Way
	Freeway
	Railroad Right of Way

Map Not To Scale

Figure 6C
Existing Land Use



LEGEND	
	1 Mile Buffer
Landuse	
	GC Golf Course
	Golf Course Clubhouse
	IA Intensive Agriculture
	A Agriculture
	IP Industrial Park
	ES Elementary School
	MS Jr. High School (Middle School)
	OPS Other Public Services
	OL Office (Low-Rise)
	PO Post Office
	RF Religious Facility
	OS Open Space Park or Preserve
	PA Park - Active
	P&R Park & Ride Lot
	SF Single Family Detached
	MF Multi-Family/Residential
	V Communications and Utilities
	Road Right of Way
	Freeway

Source: Sandag 2007

Figure 7A
Planned Land Use

LEGEND

-  1 Mile Buffer
- Landuse**
-  SHS Senior High School
-  S Other School
-  H/M Hotel/Motel (Low-Rise)
-  LI Light Industry (General)
-  IP Industrial Park
-  Industrial Under Construction
-  OH Office (High-Rise)
-  OL Office (Low-Rise)
-  OS Open Space Park or Preserve
-  LOS Landscape Open Space
-  PA Park Active
-  RF Religious Facility
-  NSC Neighborhood Shopping Center
-  RSC Regional Shopping Center
-  WT Wholesale Trade
-  W Warehousing
-  RR Residential Recreation
-  SF Single Family Detached
-  MF Multi-Family/Residential
-  Residences Under Construction
-  V Vacant and Undeveloped Land
-  Communications and Utilities
-  R/P Fire/Police Station
-  Road Right of Way
-  Freeway
-  Railroad Right of Way

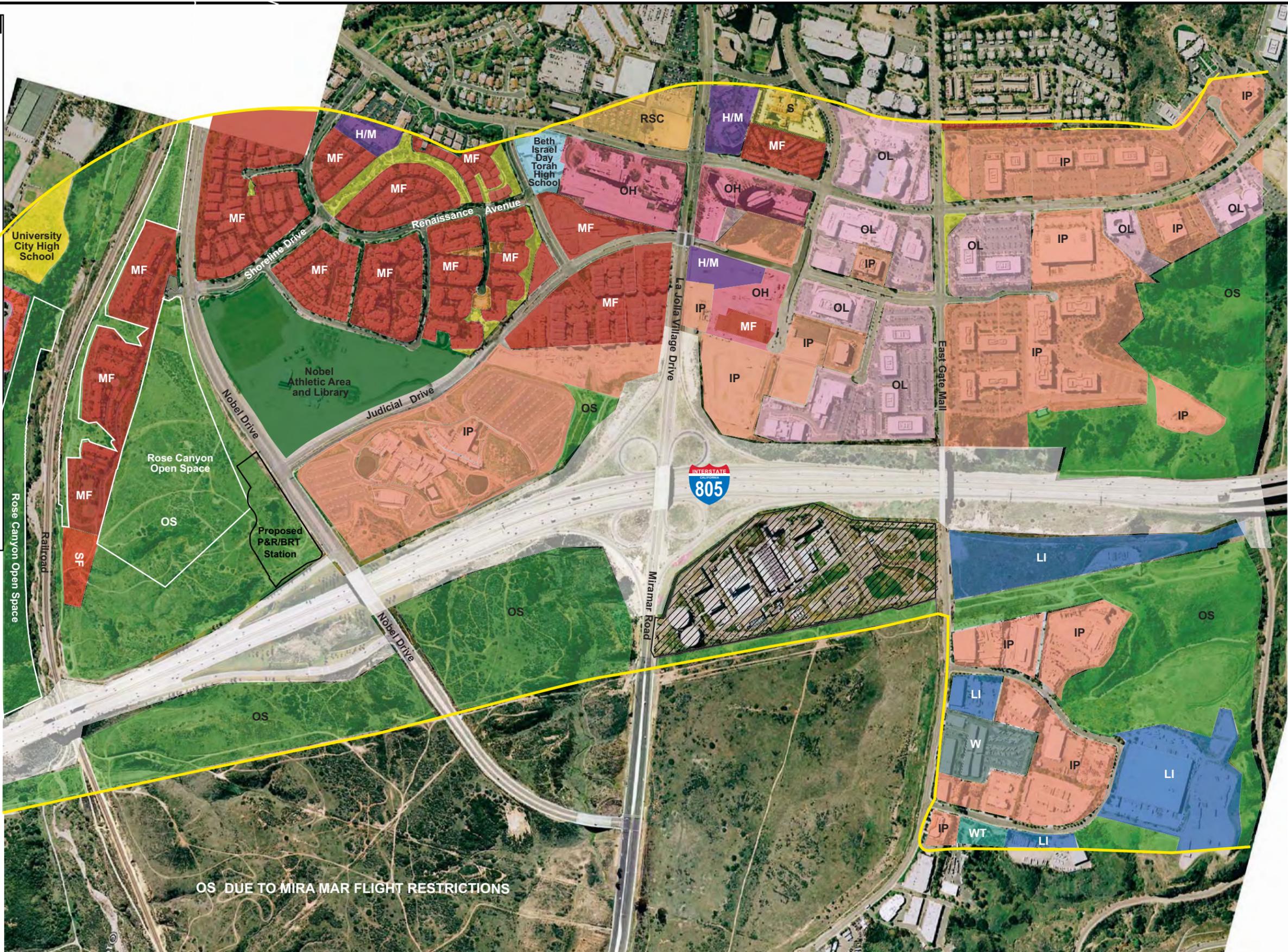


Figure 7B
Planned Land Use



LEGEND	
	1 Mile Buffer
	Coastal Zone Boundary
Landuse	
	H/M Hotel/Motel (Low-Rise)
	LI Light Industry (General)
	IP Industrial Park
	OH Office (High-Rise)
	OL Office (Low-Rise)
	OS Open Space Park or Preserve
	LOS Landscape Open Space
	NSC Neighborhood Shopping Center
	ORT Other Retail Trade & Commercial
	WT Wholesale Trade
	W Warehousing
	RR Residential Recreation
	MF Multi-Family/Residential
	Communications and Utilities
	R/P Fire/Police Station
	Road Right of Way
	Freeway
	Railroad Right of Way

Map Not To Scale

Figure 7C
Planned Land Use

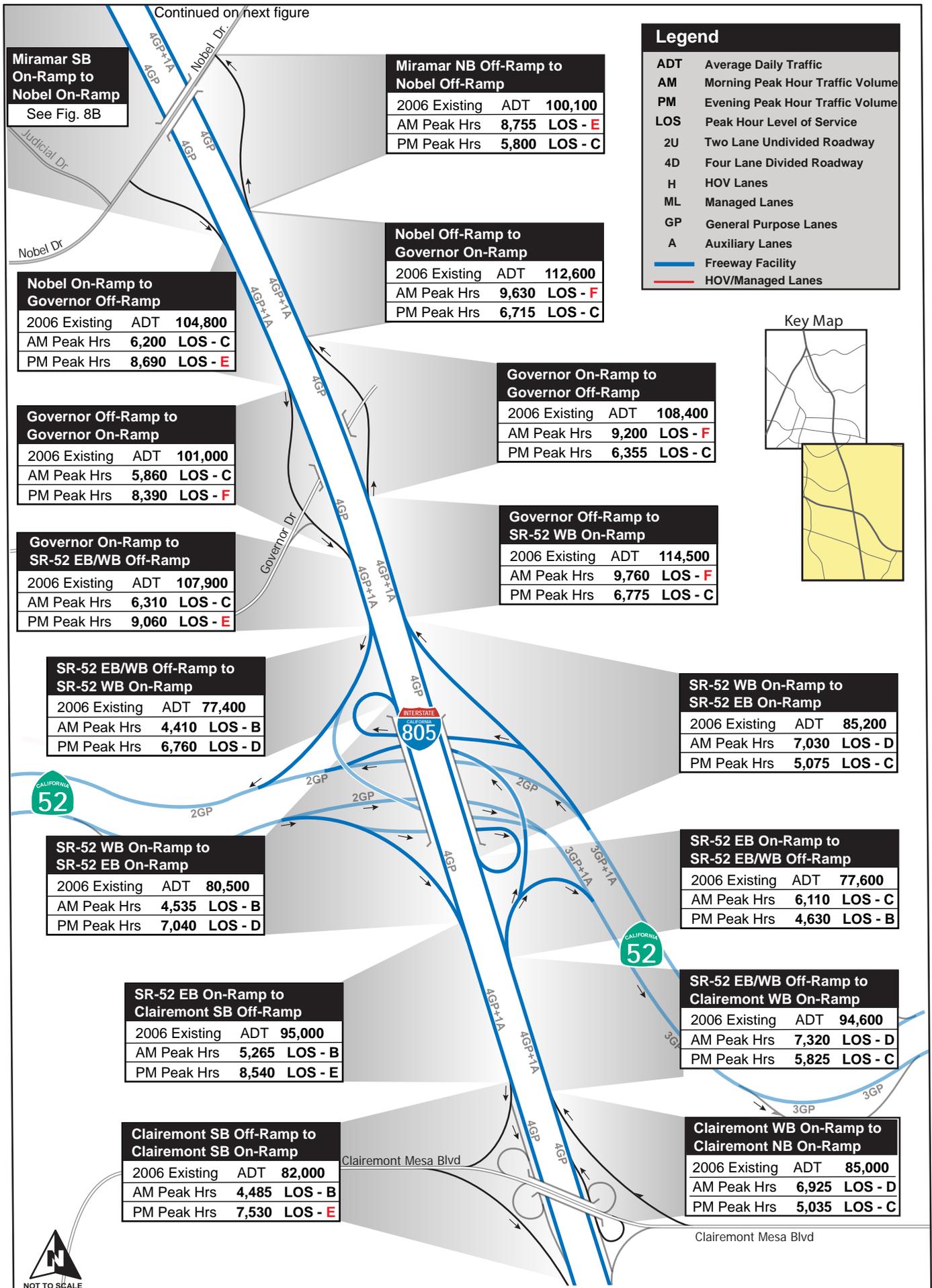


Figure 8A
2006 Existing Conditions Traffic Analysis

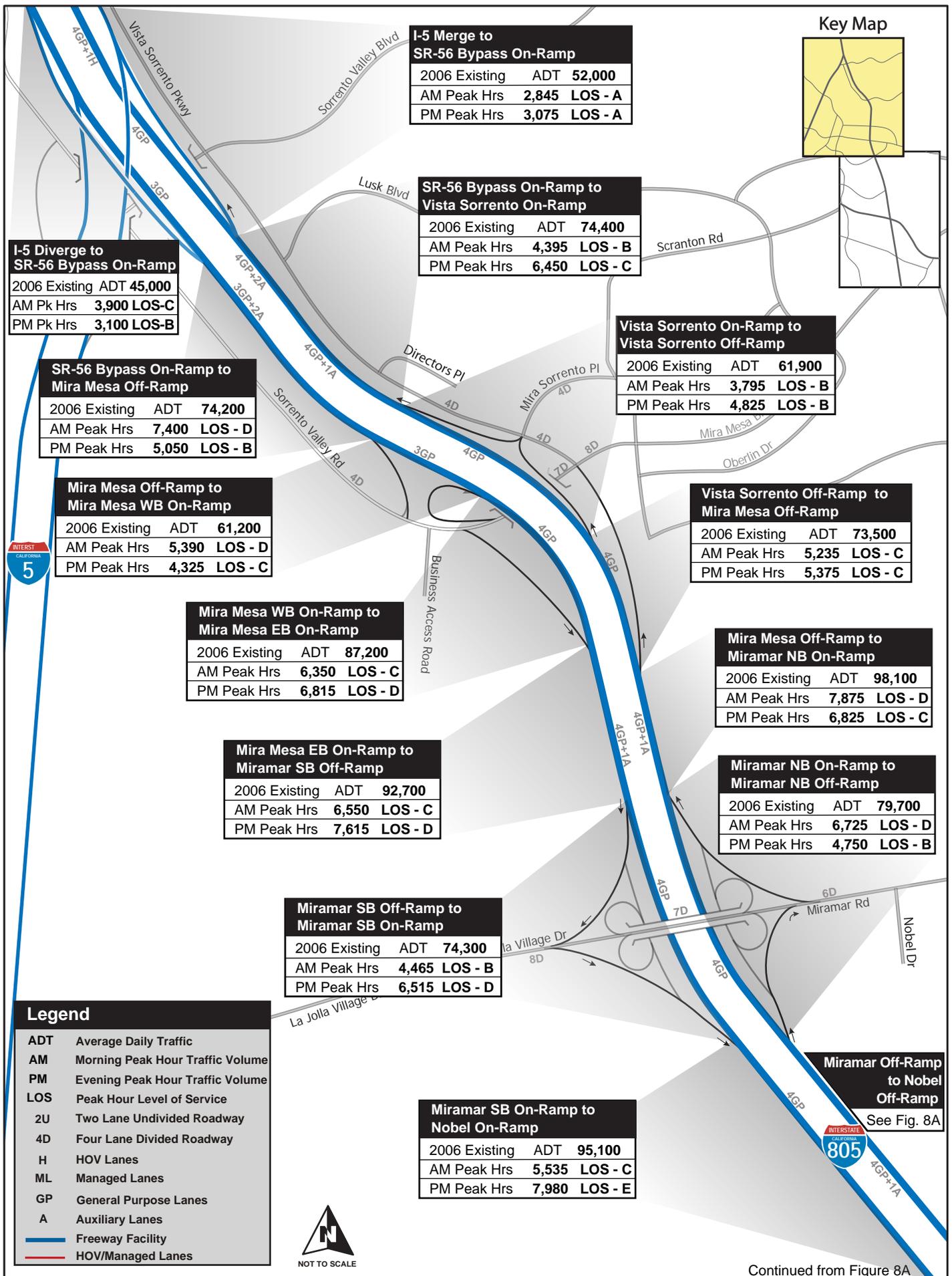


Figure 8B
2006 Existing Conditions Traffic Analysis

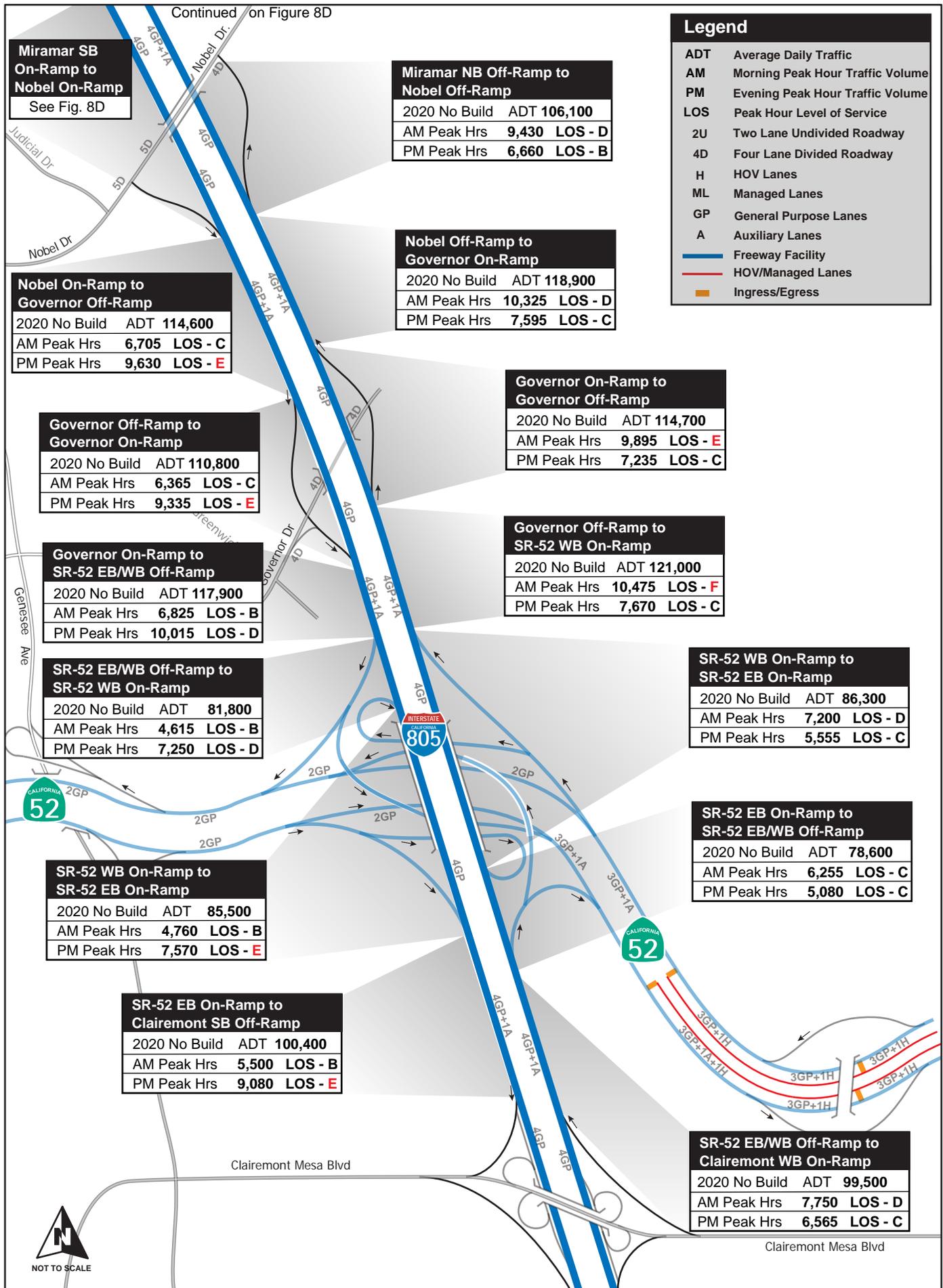
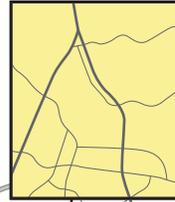


Figure 8C
2020 No Build Traffic Analysis Conditions

Key Map



I-5 Merge to SR-56 Bypass Off-Ramp			
2020 No Build	ADT	40,100	
AM Peak Hrs	2,600	LOS - A	
PM Peak Hrs	3,200	LOS - A	

SR-56 Bypass Off-Ramp to Vista Sorrento On-Ramp			
2020 No Build	ADT	75,400	
AM Peak Hrs	4,585	LOS - B	
PM Peak Hrs	7,170	LOS - C	

I-5 Diverge to SR-56 Bypass On-Ramp			
2020 No Build	ADT	41,100	
AM Pk Hrs	4,075	LOS - C	
PM Pk Hrs	3,085	LOS - B	

Vista Sorrento On-Ramp to Vista Sorrento Off-Ramp			
2020 No Build	ADT	57,100	
AM Peak Hrs	3,670	LOS - B	
PM Peak Hrs	4,885	LOS - B	

SR-56 Bypass On-Ramp to Mira Mesa Off-Ramp			
2020 No Build	ADT	78,600	
AM Peak Hrs	8,035	LOS - E	
PM Peak Hrs	5,320	LOS - C	

Vista Sorrento Off-Ramp to Vista Sorrento HOV Ingress			
2020 No Build	ADT	69,000	
AM Peak Hrs	5,140	LOS - C	
PM Peak Hrs	5,445	LOS - C	

Mira Mesa Off-Ramp to Mira Mesa WB On-Ramp			
2020 No Build	ADT	60,100	
AM Peak Hrs	5,265	LOS - D	
PM Peak Hrs	4,245	LOS - C	

Vista Sorrento HOV Ingress to Mira Mesa Off-Ramp			
2020 No Build	ADT	78,800	
AM Peak Hrs	5,800	LOS - C	
PM Peak Hrs	6,205	LOS - C	

Mira Mesa WB On-Ramp to Mira Mesa EB On-Ramp			
2020 No Build	ADT	78,800	
AM Peak Hrs	5,955	LOS - C	
PM Peak Hrs	6,210	LOS - C	

Mira Mesa Off-Ramp to Miramar WB On-Ramp			
2020 No Build	ADT	103,900	
AM Peak Hrs	8,490	LOS - D	
PM Peak Hrs	7,685	LOS - D	

Mira Mesa EB On-Ramp to Miramar Off-Ramp			
2020 No Build	ADT	102,200	
AM Peak Hrs	7,075	LOS - C	
PM Peak Hrs	8,540	LOS - E	

Miramar WB On-Ramp to Miramar EB On-Ramp			
2020 No Build	ADT	95,800	
AM Peak Hrs	7,695	LOS - E	
PM Peak Hrs	6,855	LOS - D	

Miramar Off-Ramp to Miramar WB On-Ramp			
2020 No Build	ADT	83,300	
AM Peak Hrs	4,930	LOS - B	
PM Peak Hrs	7,405	LOS - E	

Miramar EB On-Ramp to Miramar Off-Ramp			
2020 No Build	ADT	84,900	
AM Peak Hrs	7,320	LOS - D	
PM Peak Hrs	5,570	LOS - C	



Legend	
ADT	Average Daily Traffic
AM	Morning Peak Hour Traffic Volume
PM	Evening Peak Hour Traffic Volume
LOS	Peak Hour Level of Service
2U	Two Lane Undivided Roadway
4D	Four Lane Divided Roadway
H	HOV Lanes
ML	Managed Lanes
GP	General Purpose Lanes
A	Auxiliary Lanes
	Freeway Facility
	HOV/Managed Lanes
	Ingress/Egress

Miramar WB On-Ramp to Miramar EB On-Ramp			
2020 No Build	ADT	94,800	
AM Peak Hrs	5,350	LOS - C	
PM Peak Hrs	8,140	LOS - F	

Miramar EB On-Ramp to Nobel On-Ramp			
2020 No Build	ADT	105,100	
AM Peak Hrs	6,020	LOS - C	
PM Peak Hrs	8,900	LOS - F	

Miramar Off-Ramp to Nobel Off-Ramp			
See Fig. 8C			

Continued from Figure 8C

Figure 8D
2020 No Build Traffic Analysis Conditions

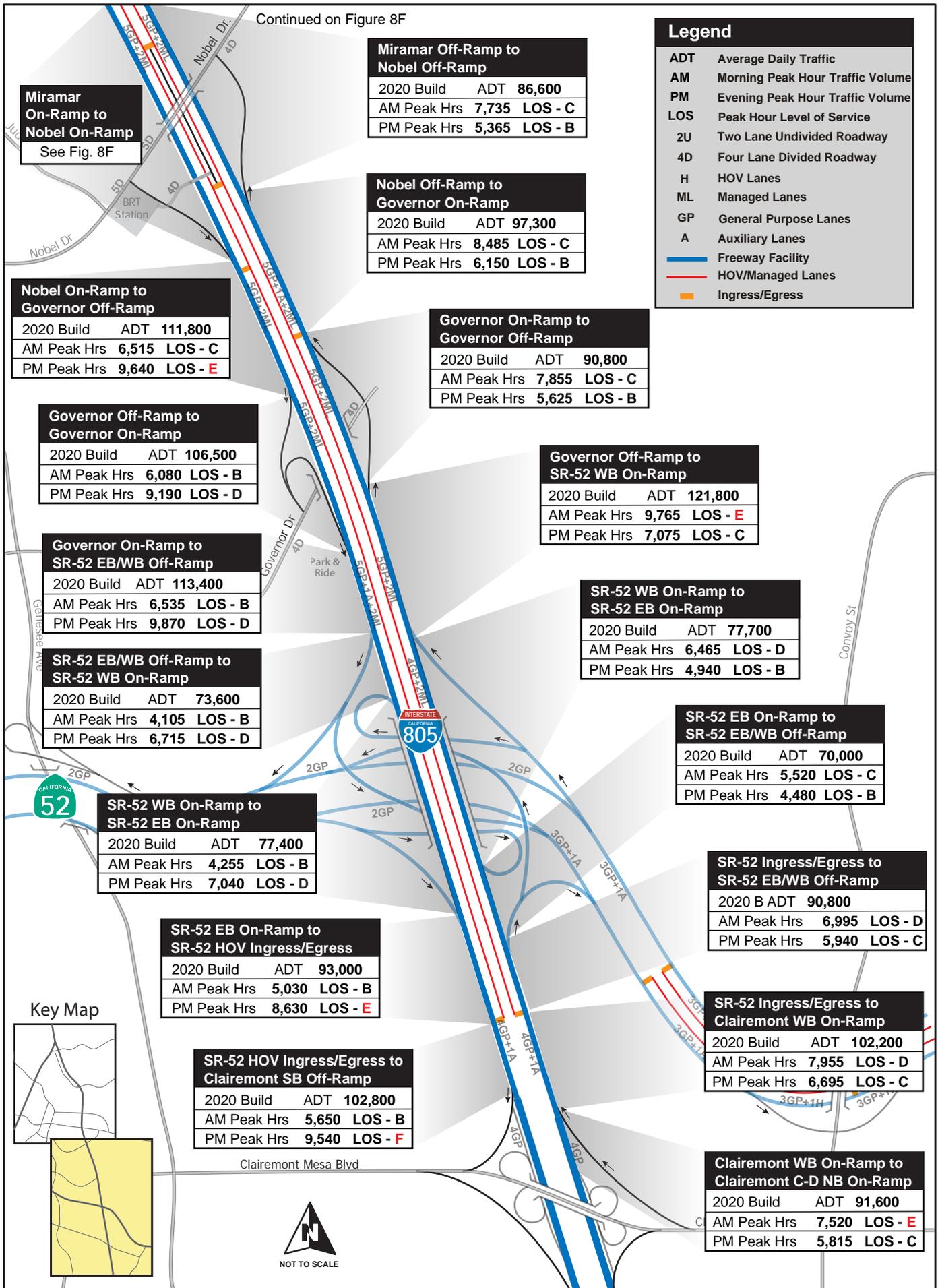


Figure 8E
2020 Build Traffic Analysis Conditions

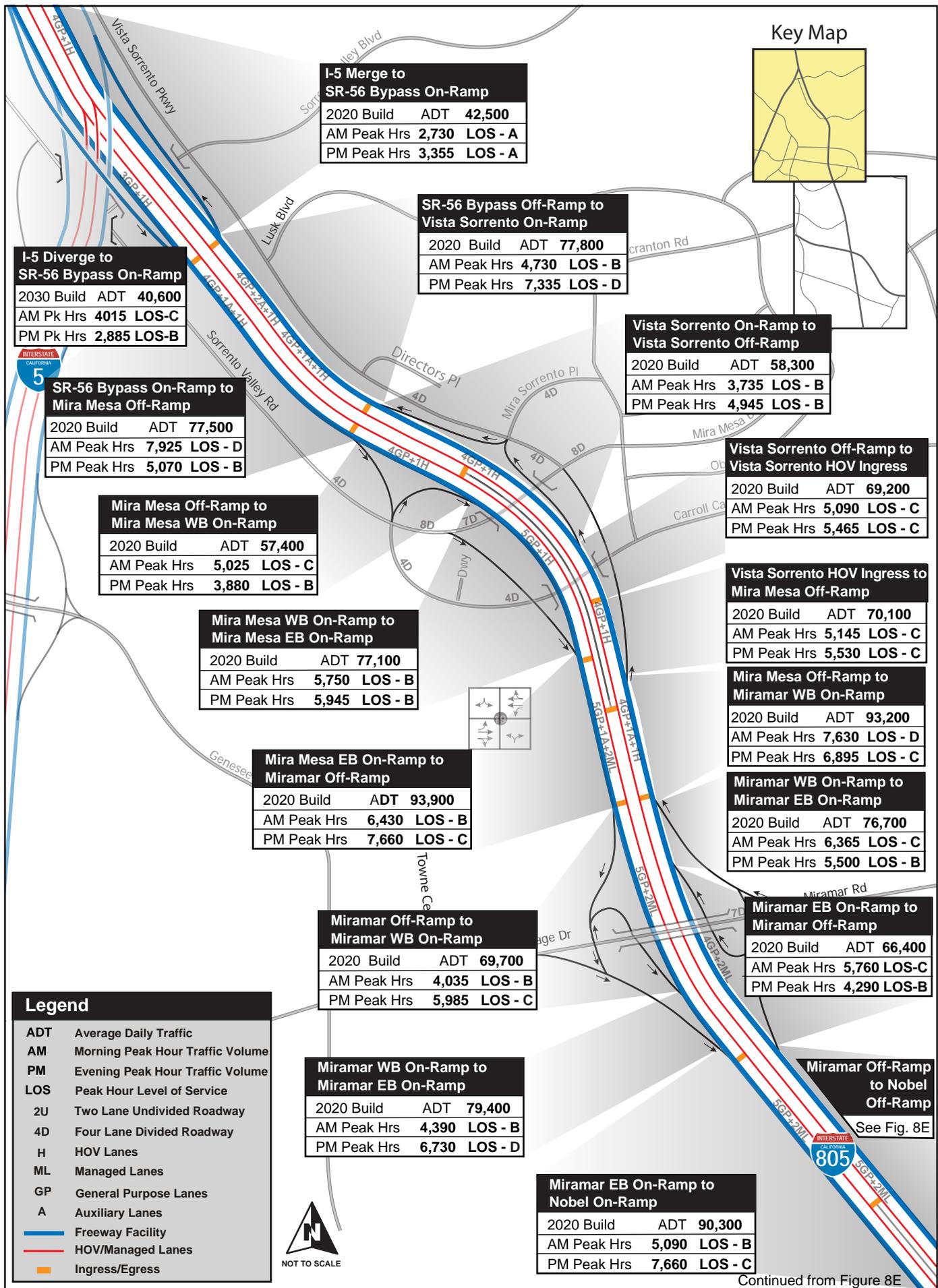


Figure 8F
2020 Build Traffic Analysis Conditions

Continued on Figure 8H

Legend

- ADT Average Daily Traffic
- AM Morning Peak Hour Traffic Volume
- PM Evening Peak Hour Traffic Volume
- LOS Peak Hour Level of Service
- 2U Two Lane Undivided Roadway
- 4D Four Lane Divided Roadway
- H HOV Lanes
- ML Managed Lanes
- GP General Purpose Lanes
- A Auxiliary Lanes
- Freeway Facility
- HOV/Managed Lanes
- Ingress/Egress

Miramar SB On-Ramp to Nobel On-Ramp
See Fig. 8H

Miramar Off-Ramp to Nobel Off-Ramp

2030 NB ADT	117,600
AM Peak Hrs	10,270 LOS - F
PM Peak Hrs	7,530 LOS - D

Nobel On-Ramp to Governor Off-Ramp

2020 NB ADT	129,200
AM Peak Hrs	7,810 LOS - D
PM Peak Hrs	10,810 LOS - F

Nobel Off-Ramp to Governor On-Ramp

2030 No Build ADT	130,700
AM Peak Hrs	11,185 LOS - F
PM Peak Hrs	8,490 LOS - D

Governor Off-Ramp to Governor On-Ramp

2030 NB ADT	125,200
AM Peak Hrs	7,455 LOS - E
PM Peak Hrs	10,495 LOS - F1

Governor On-Ramp to Governor Off-Ramp

2030 No Build ADT	126,300
AM Peak Hrs	10,740 LOS - F1
PM Peak Hrs	8,115 LOS - F

Governor On-Ramp to SR-52 EB/WB Off-Ramp

2030 NB ADT	132,400
AM Peak Hrs	7,930 LOS - D
PM Peak Hrs	11,195 LOS - F

Governor Off-Ramp to SR-52 WB On-Ramp

2030 No Build ADT	132,800
AM Peak Hrs	11,335 LOS - F
PM Peak Hrs	8,560 LOS - E

SR-52 EB/WB Off-Ramp to SR-52 WB On-Ramp

2030 NB ADT	93,200
AM Peak Hrs	5,410 LOS - C
PM Peak Hrs	8,215 LOS - F

SR-52 WB On-Ramp to SR-52 EB On-Ramp

2030 No Build ADT	96,600
AM Peak Hrs	7,970 LOS - E
PM Peak Hrs	6,355 LOS - C

SR-52 WB On-Ramp to SR-52 EB On-Ramp

2030 NB ADT	97,100
AM Peak Hrs	5,575 LOS - C
PM Peak Hrs	8,555 LOS - F

SR-52 EB On-Ramp to SR-52 EB/WB Off-Ramp

2030 No Build ADT	88,800
AM Peak Hrs	7,020 LOS - D
PM Peak Hrs	5,875 LOS - C

SR-52 EB On-Ramp to Clairemont SB Off-Ramp

2030 NB ADT	113,300
AM Peak Hrs	6,390 LOS - C
PM Peak Hrs	10,150 LOS - F

SR-52 EB/WB Off-Ramp to Clairemont WB On-Ramp

2030 No Build ADT	111,100
AM Peak Hrs	8,595 LOS - E
PM Peak Hrs	7,455 LOS - D

Clairemont WB On-Ramp to Clairemont C-D NB On-Ramp

2030 No Build ADT	100,500
AM Peak Hrs	8,595 LOS - E
PM Peak Hrs	7,455 LOS - D

Key Map

Clairemont Mesa Blvd



Clairemont Mesa Blvd

Source: URS Revision Date: 6-8-09

Figure 8G
2030 No Build Traffic Analysis Conditions

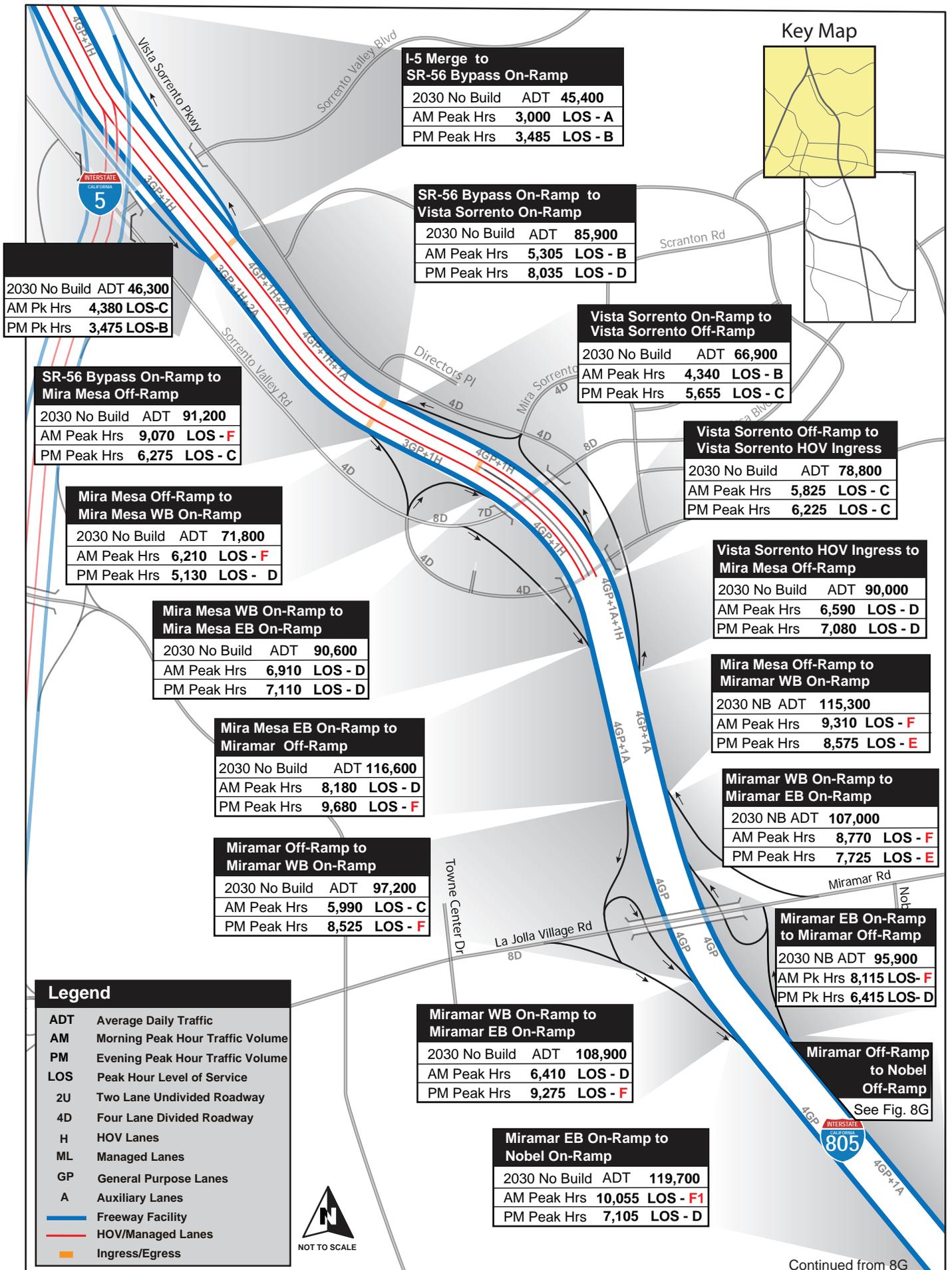


Figure 8H
2030 No Build Traffic Analysis Conditions

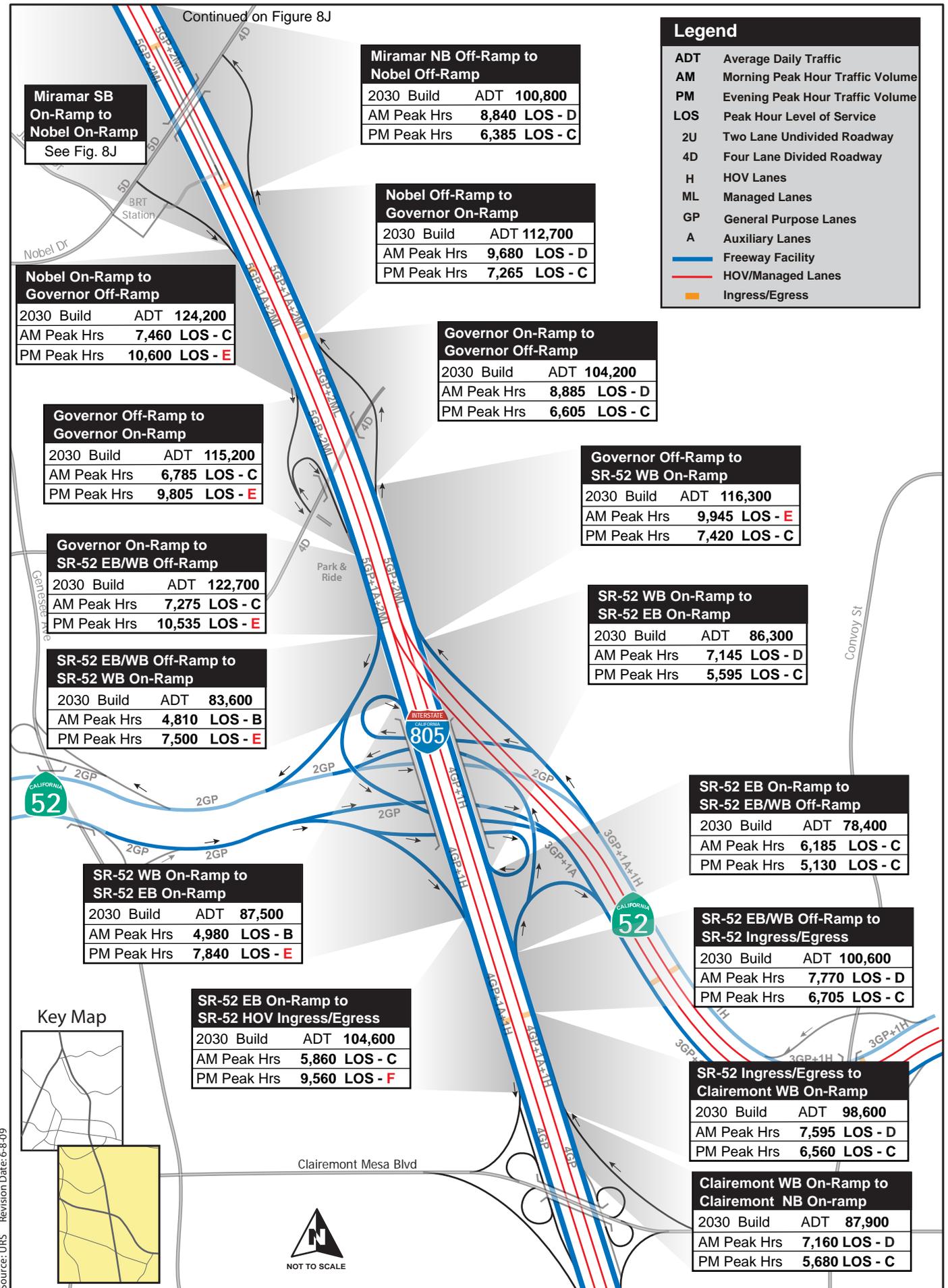


Figure 8I
2030 Build Traffic Analysis Conditions

Key Map

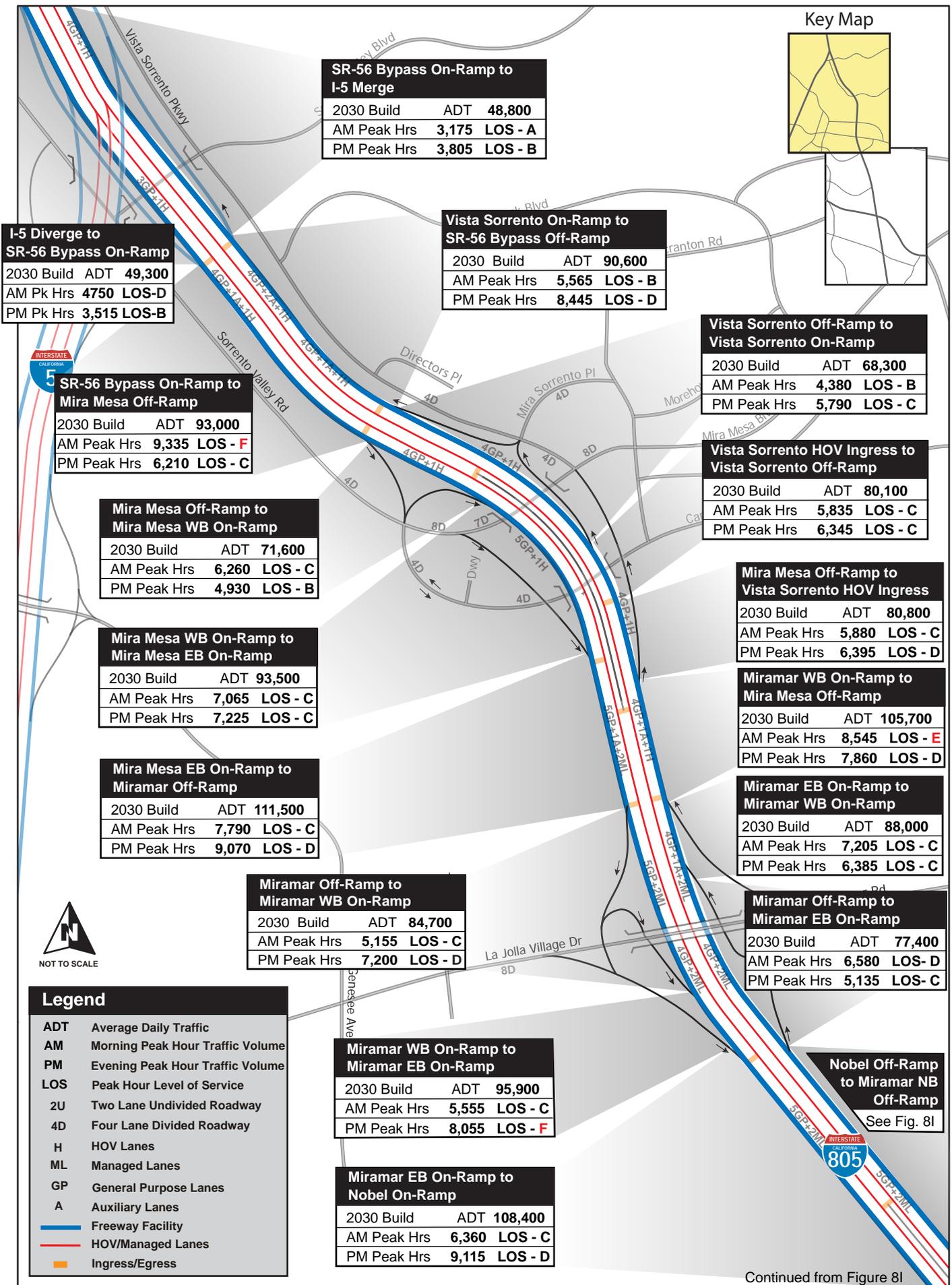
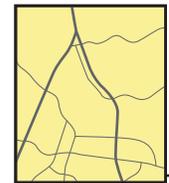


Figure 8J
2030 Build Traffic Analysis Conditions

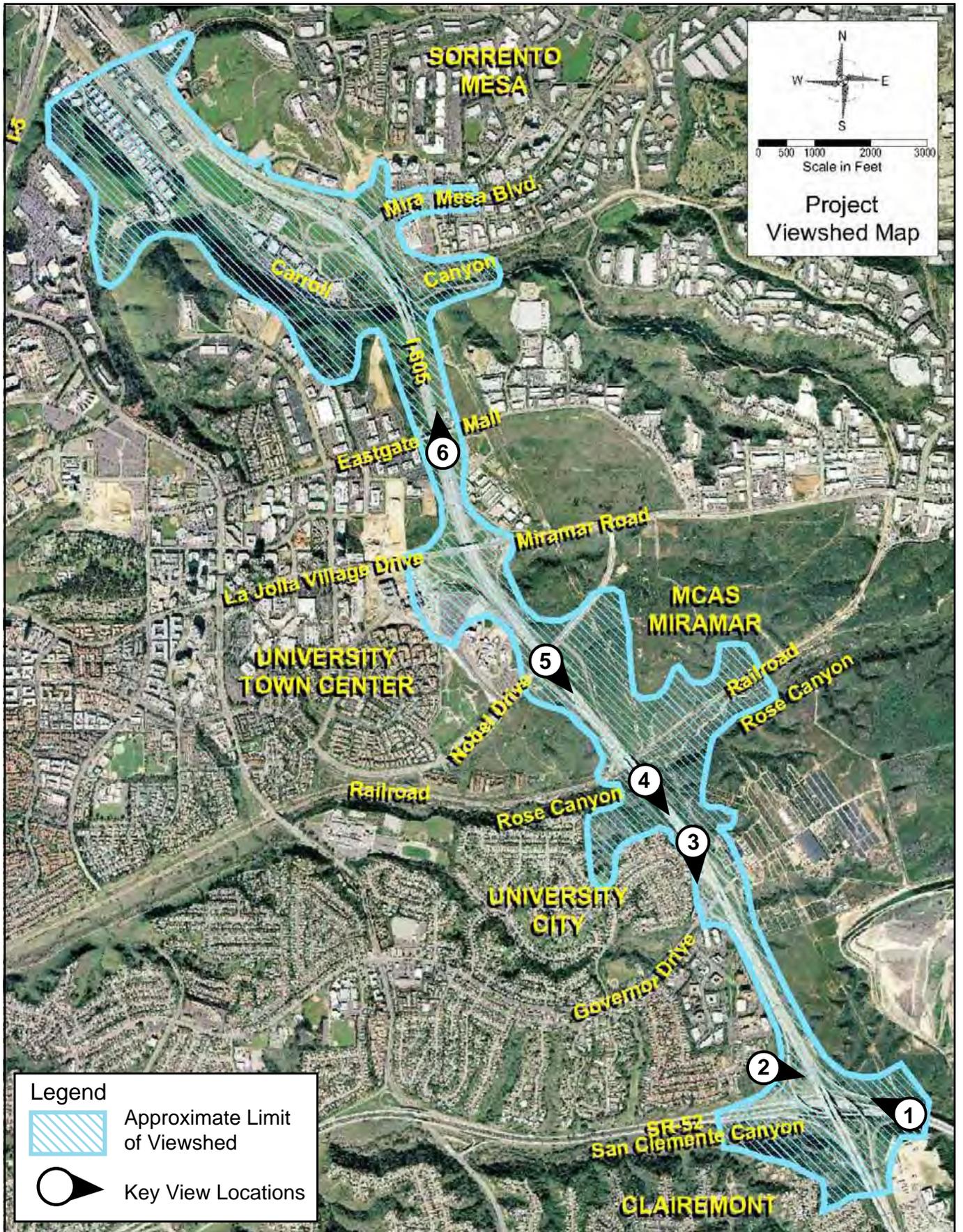


Figure 9
I-805 North Viewshed and Key View Locations



Figure 10-A : Key View 1- Existing Conditions

View from SR-52 westbound looking in a westerly direction toward the SR-52 / I-805 Interchange



Figure 10-B: Key View 1- Proposed Conditions

View from SR-52 westbound looking in a westerly direction toward the proposed connector bridge at the SR-52 / I-805 Interchange



Figure 11-A : Key View 2 - Existing Conditions

View from a private residence located in the northwest quadrant of the SR-52/I-805 interchange looking eastward.



Figure 11-B: Key View 2 - Proposed Conditions

View from a private residence located in the northwest quadrant of the SR-52/I-805 interchange looking eastward toward the new connector ramp structure and roadway widening along the I-805 corridor.



Figure 12-A: Key View 3 - Existing Conditions

View from Governor Drive southbound exit looking in a southerly direction toward the end of the off-ramp



Figure 12-B: Key View 3 - Proposed Conditions

View from the proposed realigned and widened Governor Drive southbound off-ramp with proposed concrete barrier, drought tolerant vegetation and noise wall.



Figure 13-A: Key View 4 - Existing Conditions

View from the fourth southbound lane approaching Governor Drive exit.

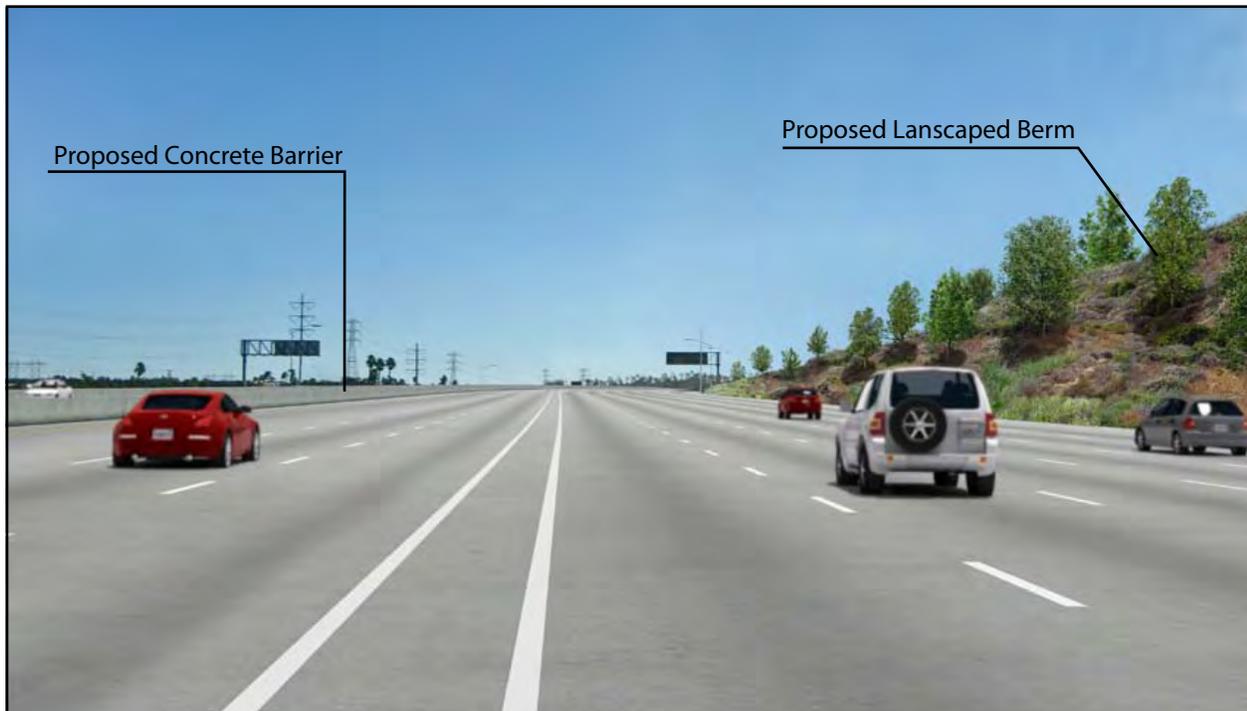


Figure 13-B: Key View 4 - Proposed Conditions

View of the proposed widened lanes, relocated noise berm to the west and continuous concrete barrier in the median.



Figure 14-A: Key View 5 - Existing Conditions

View from the shoulder of the southbound I-805 lanes just south of the Nobel Drive interchange.

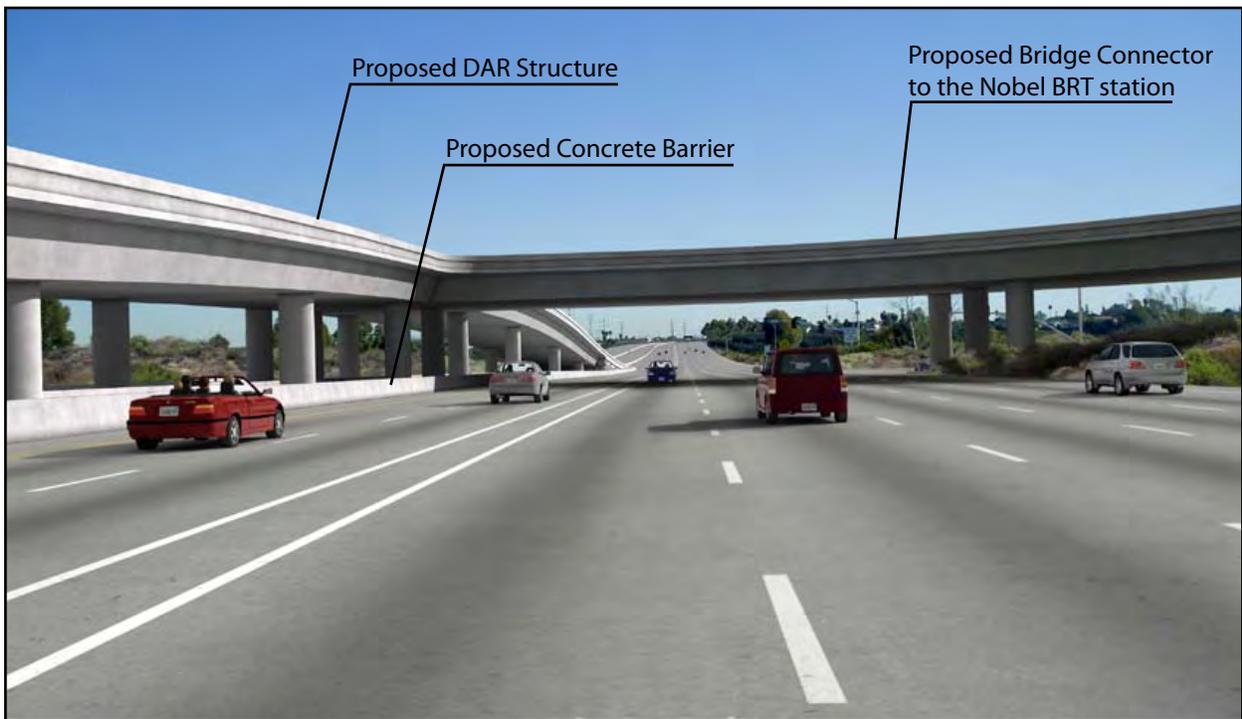


Figure 14-B: Key View 5 - Proposed Conditions

View from the widened southbound travel lanes in a southwesterly direction toward the new Direct Access Ramp for the Nobel Drive BRT station.

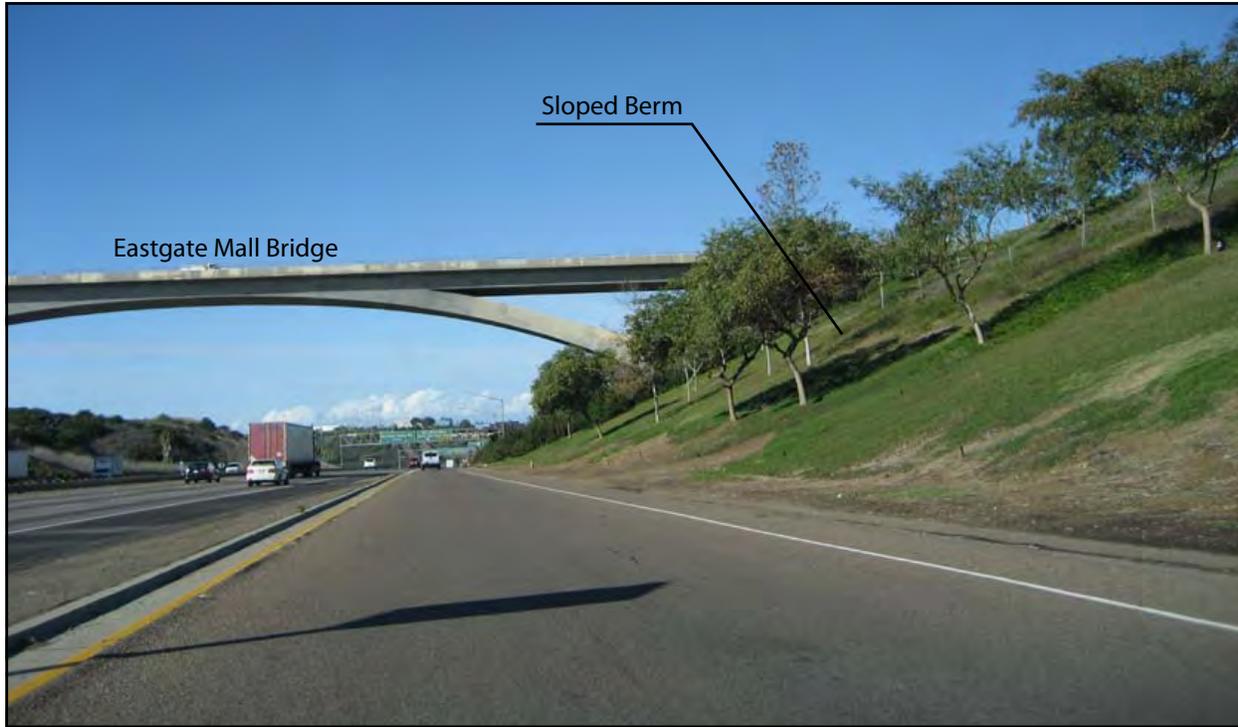


Figure 15-A: Key View 6 - Existing Conditions

View from the northbound on-ramp from the La Jolla Village Drive / Miramar Road interchange toward the Eastgate Mall Bridge.

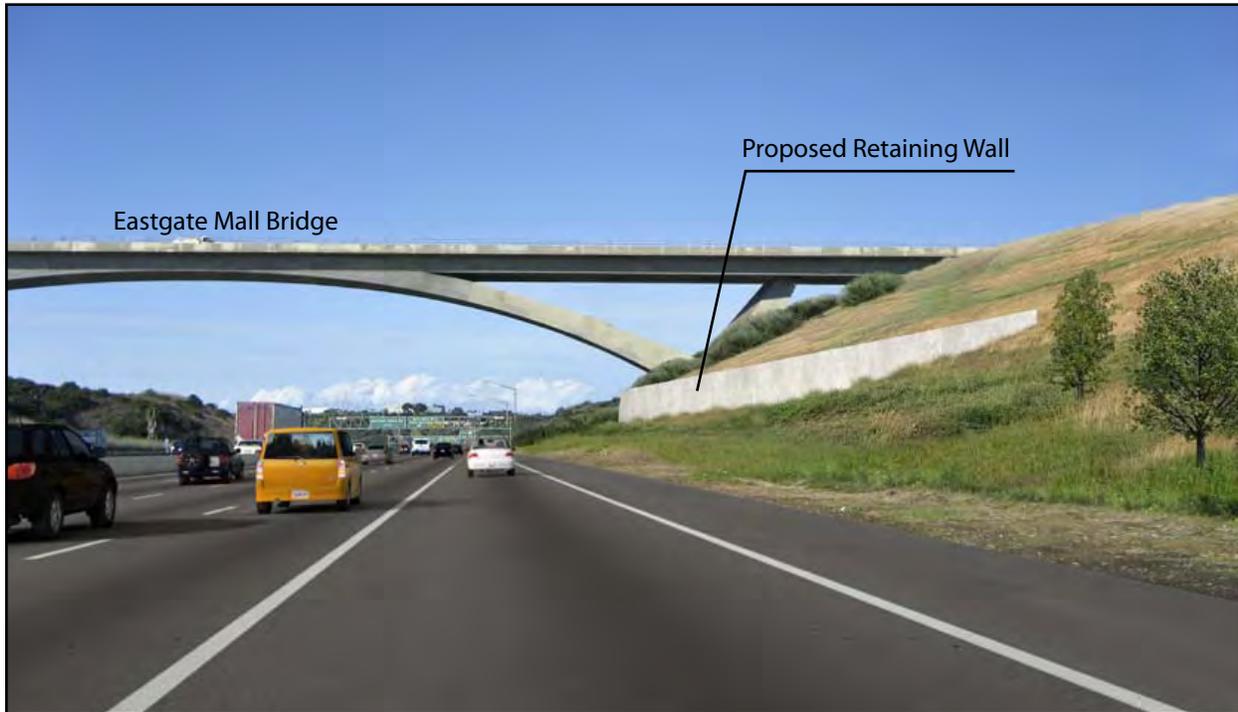
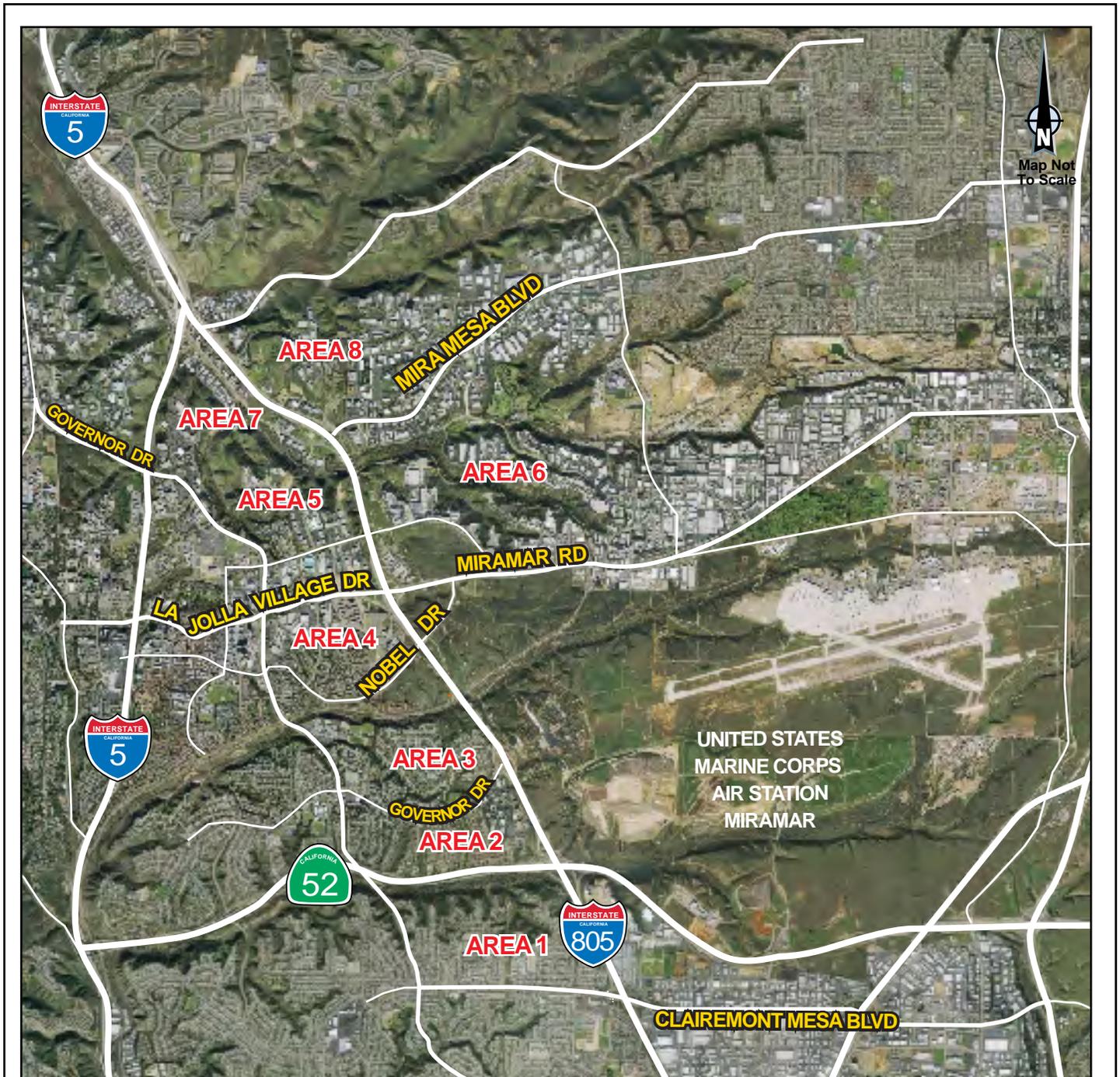


Figure 15-B: Key View 6 - Proposed Conditions

View of the proposed retaining wall at the Eastgate Mall Bridge at the edge of the widened roadway.



SEGMENT BREAKDOWN

AREA 1
NOISE BARRIER S1258

AREA 2
NOISE BARRIER S1286
NOISE BARRIER S1288

AREA 3
NOISE BARRIER S1322

AREA 4
NONE

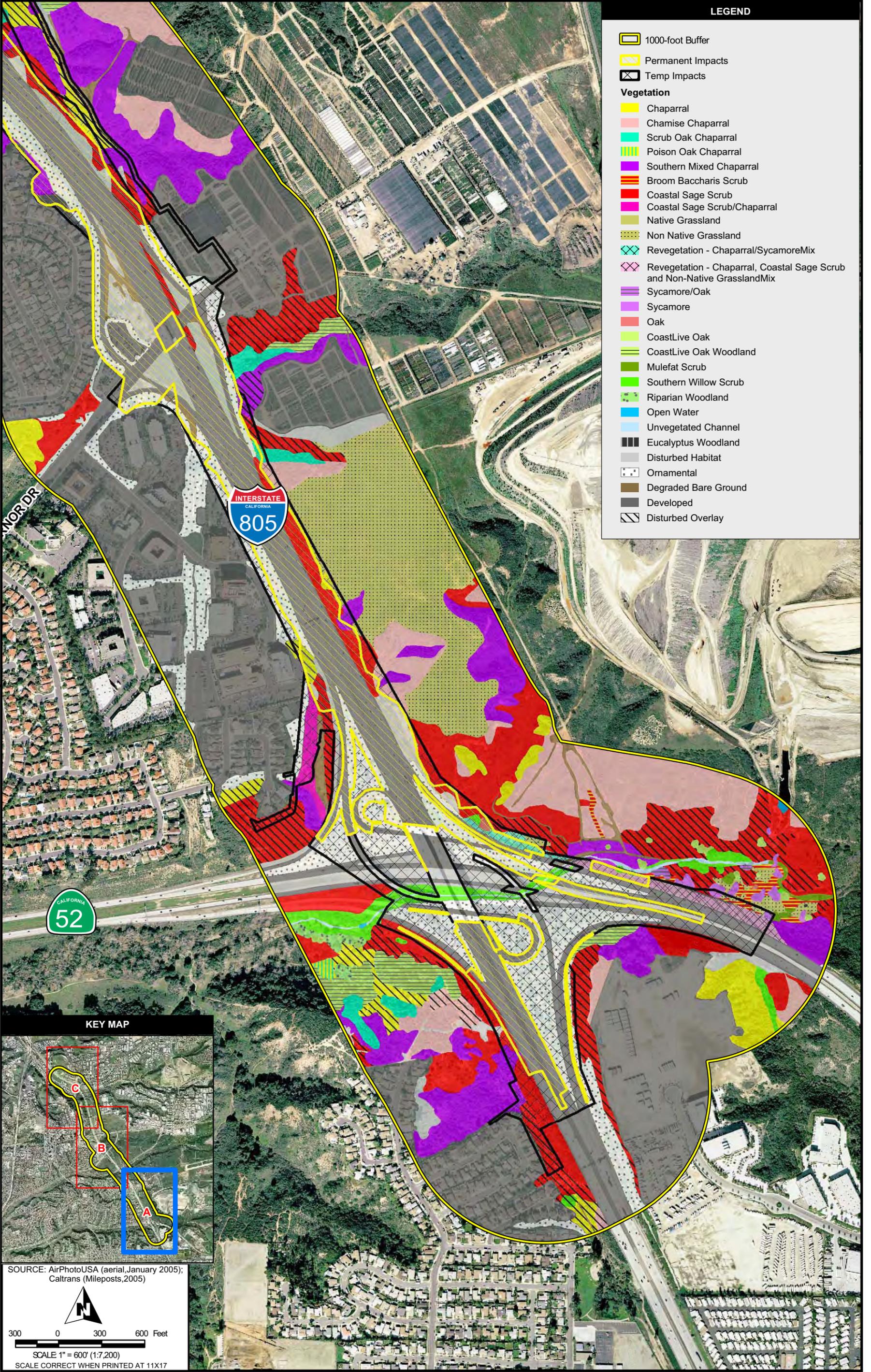
AREA 5
NONE

AREA 6
NONE

AREA 7
NONE

AREA 8
NONE

**Figure 17
Noise Analysis Areas**



Natural Communities
Figure 18A

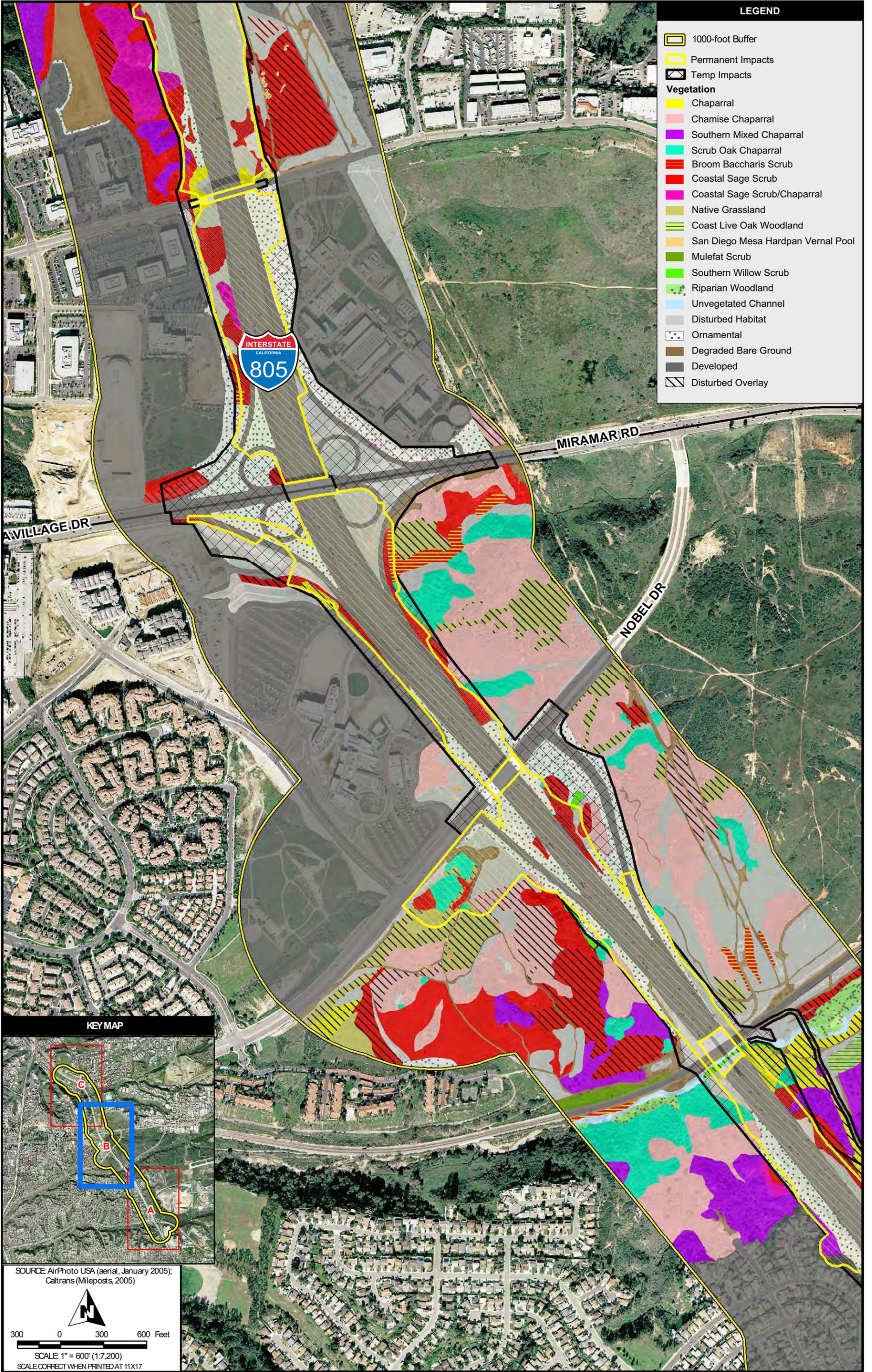


Figure 18B
Natural Communities

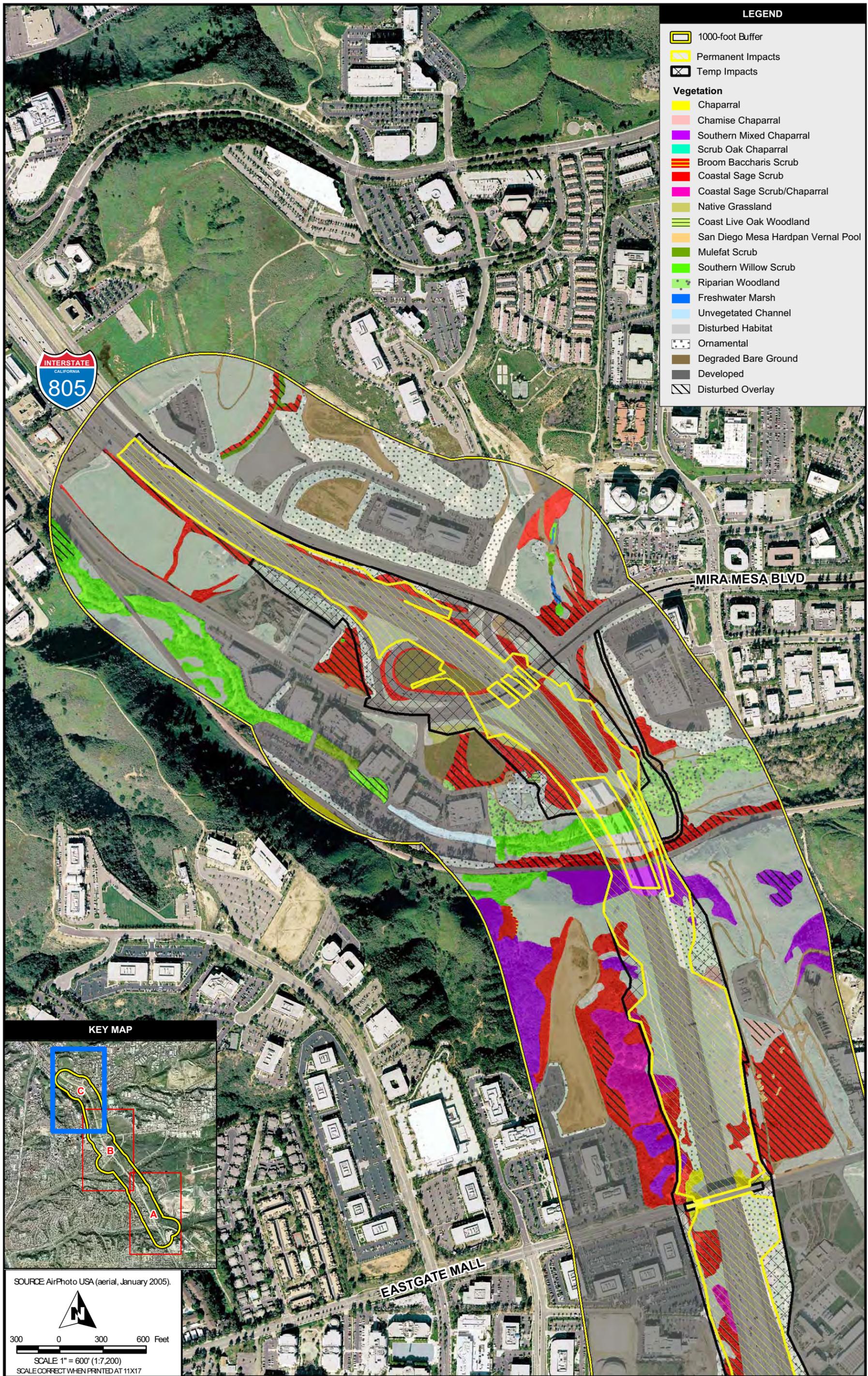


Figure 18C
Natural Communities

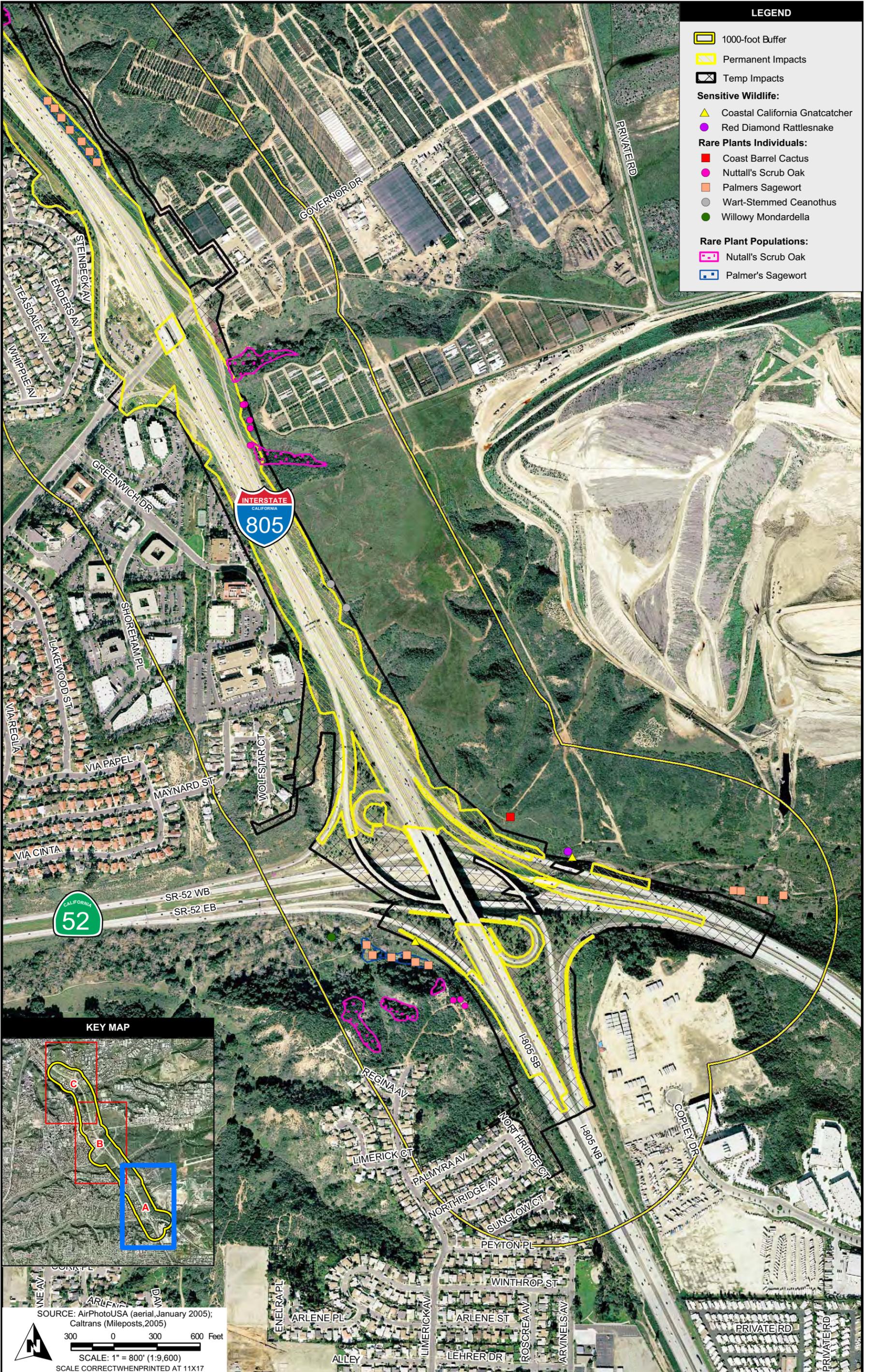
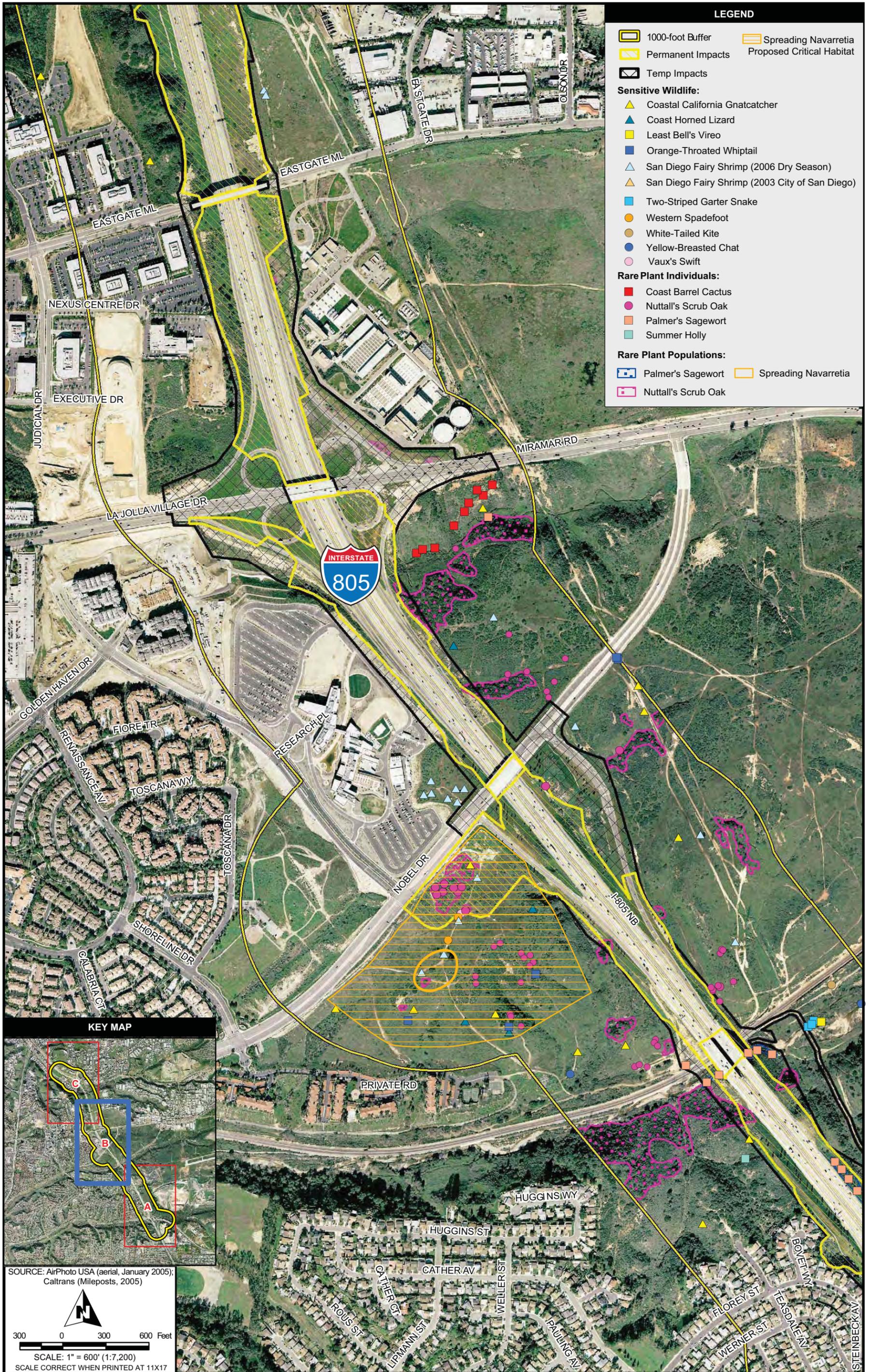


Figure 19 A
Special Status Species



Special Status Species
Figure 19B

SOURCE: AirPhoto USA (aerial, January 2005);
Caltrans (Mileposts, 2005)



SCALE: 1" = 600' (1:7,200)
SCALE CORRECT WHEN PRINTED AT 11X17

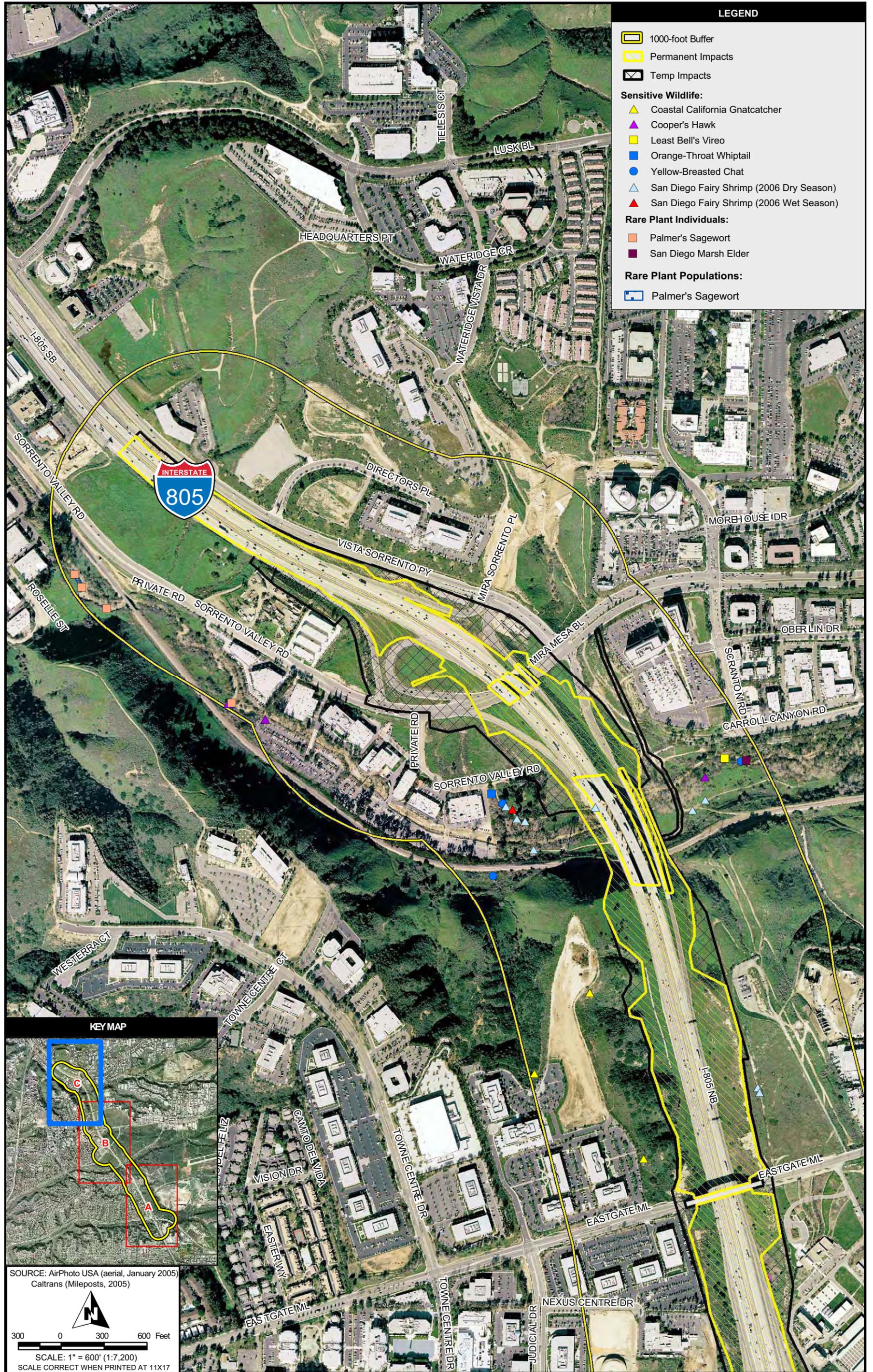


Figure 19C
Special Status Species

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Chapter 3 – Comments and Coordination

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including: project development team meetings, interagency coordination meetings, and public open houses. This chapter summarizes the results of the Caltrans' efforts to fully identify, address and resolve project-related issues through early and continuing coordination.

Caltrans and SANDAG held three open houses in April 2004 for the I-805/I-5 Corridor Study. The purpose of the open houses was to provide information to the public on the study and obtain the public's input on the proposed transportation improvement alternatives. The open houses were held the week of April 12 on Monday, Wednesday, and Thursday in the evening (either from 5:00 to 7:00 or 6:00 to 8:00 pm). About 50 people attended the open houses in Chula Vista and the communities of City Heights and University City in the City of San Diego. Comments were received by e-mail and at the workshops from 18 people. Comments included suggestions regarding the various proposed alternatives and meeting locations and general comments about traffic, transit, and highways in the San Diego Region.

Presentations were made at meetings of Community Planning Groups of the City of San Diego and the County of San Diego. These presentations were made to various community planning organizations throughout September and October 2004.

Project Development Team (PDT) meetings were held every month from 2006 until the present to discuss issues related to the project.

Marine Corps Air Station Miramar

Initial coordination between the MCAS occurred during April and May 2009. MCAS requested project schedules, maps and additional technical information on the project to determine the level of involvement of MCAS at this stage in the project. On September 1, 2009 MCAS sent a formal response to Caltrans in electronic format with the following requirements for the project:

- Submit a FAA Determination Waiver in advance
- Provide MCAS at least two weeks, minimum, notice prior to start of work (more if possible). A contact person for this was identified.
- Requested formal Caltrans submittal to MCAS of any TCE requirements

The above requirements will be handled throughout the project Design phase/process for FAA requirements and/or Right of Way coordination. Any specific requirements for the contractor will be included in the construction contract.

Federal Aviation Administration

The project is in compliance with the Highway Design Manual (HDM) standards and the Federal Aviation Administration (FAA) regulations.

Index 207.3 (Submittal of Airway-Highway Clearance Data) of the HDM states that Notice to the FAA is required when highway construction is planned near an airport (civil or military). It further specifies that a “Notice of Proposed Construction or Alteration” should be submitted to the FAA administrator when required under criteria listed in Paragraph 77.13 of the latest Federal Aviation Regulations, Part 77.

Based on engineering measurements, the project does not meet any of the submittal criteria and therefore, does not require any notification to the FAA administrator.

The criteria above also holds true for temporary structures/equipment and an FAA Form 7460-1 will need to be submitted for the construction equipment necessary to construct the project to address the temporary impacts during construction. These notices would be submitted during the design phase just before the project is Ready-to-List (because this type of notice is only valid for 18 months). The contractor would also submit the notices, as the contractor would be more knowledgeable and responsible with the heights of the construction equipment that will be used during the project.

Coordination between Caltrans and Marine Corps Air Station Miramar (MCAS) resulted in the request for Caltrans to submit to FAA a Letter of Determination. Therefore, although not required to comply with formal policy, an FAA Form 7460-1 would be submitted during the 30% to 50% design stage to formally document that FAA coordination is not needed.

San Diego Gas & Electric

Coordination between Caltrans and San Diego Gas & Electric (SDG&E) regarding California Public Utilities Commission (CPUC) General Order 131D is required at the PA/ED phase. This coordination is also supported by an internal Caltrans memo, dated December 13, 1995, which requires coordination and environmental clearance for the relocation of electric lines exceeding 50KV.

Initial coordination regarding the relocation of two 69KV electrical lines at Rose Canyon began on September 30, 2009. A meeting was held to discuss the planned relocation of the 69 KV lines under the I-805 Overhead bridge at Rose Canyon. During October and November 2009, SDG&E and Caltrans coordinated to develop alternatives to relocate the existing two 69 KV lines under the I-805 bridge at Rose Canyon.

On December 10, 2009, a meeting between Caltrans and SDG&E reviewed the alternatives and determined that de-energizing the lines in distinct phases during bridge construction was the best solution to provide minimal grading and project related work outside of the State R/W at the lowest cost. In addition, SDG&E has a project scheduled prior to the I-805 project that will allow the necessary relocation of the existing poles.

Railroad Coordination

I-805 crosses over the railroad in two locations: Bridge no. 57-0760 at Rose Canyon and Bridge no. 57-0787 at Carroll Canyon. Due to the widening of these bridges and the additional DAR structure over Carroll Canyon, easements and construction/maintenance agreements would be coordinated with the railroad agencies/owners. The legal owner for formal coordination is the Metropolitan Transit System (MTS), but notice would be required to other users of the rail system. In addition, a long-clause permit application to the California Public Utilities Commission (CPUC) will be required.

The acquisition of this CPUC permit and coordination of easements/agreements will be addressed in the design phase of the project.

Caltrans has prepared an extensive list of interested agencies and parties to distribute the draft environmental document to review. A list of all parties in which the document would be sent to can be found in Chapter 5.

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Chapter 4 – List of Preparers

This IS/EA was prepared by the San Diego Region of the California Department of Transportation (Caltrans). The following Caltrans staff prepared this document.

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Baird, Gladys - Associate Environmental Planner (Natural Sciences), B.S. Biology from California State University, San Diego: 9 years Caltrans experience.

Barron, Claudia - Graphic Designer III, B.F.A. Illustration from Syracuse University, 19 years Caltrans experience.

Basinski, Katie – Environmental Planner, B.A. Geography from San Francisco State University, 1.5 years Caltrans experience.

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Vermeuleun, Diane – Transportation Engineer, Civil Engineering, San Diego State University, 18 years Caltrans experience.

Zhang, Danielle – M.A. Landscape Architecture, University of Guelph, Canada, 10 years Caltrans experience.

Chapter 5 – Distribution List

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State Senator 39th District Christine Kehoe 2445 5th Ave, Ste 200 San Diego, CA 92101	State Assembly 76th District Lori Saldana 1557 Columbia Street San Diego, CA 92101	US Department of Transportation FHWA South Region CA Division Attn: Cesar Perez 650 Capitol Mall, Ste 4-100 Sacramento, CA 95814
U.S. Representative 50th District Brian Bilbray 462 Stevens Avenue, Suite 107 Solana Beach, CA 92075	University Community Planning Group Linda Colley, Chair 3589 Syracuse Avenue San Diego, CA 92122	US General Services Administration San Diego Field Office Edward J. Schwartz Federal Building 880 Front Street San Diego, CA 92101-8897
City of San Diego City Clerk 202 C Street, 2nd Floor San Diego, CA 92101	Mayor Jerry Sanders City Administration Building 202 C Street, 11th Floor San Diego, CA 92101	County of San Diego County Clerks Office 1600 Pacific Highway, Room 402 San Diego, CA 92101
San Diego Association of Governments 401 B Street, Suite 800 San Diego, CA 92101	Director CA Department of Water Resources 1416-9th Street, Rm 1115-1 Sacramento, CA 95814	CHP-Border Division 9330 Farnham Street San Diego, CA 92123-1216
US Fish & Wildlife Attn: Kurt Roblek 6010 Hidden Valley Road Carlsbad, CA 92001	San Diego County Air Pollution Control District 10124 Old Grove Road San Diego, CA 92131	State Clearing House Office of Planning & Research 1400 Tenth Street Sacramento, CA 95814
Secretary Resource Agency 1416 Ninth Street, Ste 1311 Sacramento, CA 95814	CA Department of Fish & Game 4949 Viewridge Avenue San Diego, CA 92123	Executive Director State Water Resources Control Board 1001 I Street Sacramento, CA 95814
North University Community Branch Library 8820 Judicial Drive San Diego, CA 92122-4684	University Community Branch Library 4155 Governor Drive San Diego, CA 92122-2501	Chair California Air Resources Board 1001 I street PO Box 2815 Sacramento, CA 95812
Executive Officer State Lands Commission 100 Howe Ave, Ste 100 South Sacramento, CA 95825-8202	Director CA Department of Conservation 801 K Street, MS 24-01 Sacramento, CA 95814	Director CA Department of Parks & Recreation 1416 9th Street Sacramento, CA 95814
US Army Corps of Engineers Los Angeles District 915 Wilshire Blvd., Ste 980 Los Angeles, CA 90017	CA Public Utilities Commission San Francisco Office (Headquarters) 505 Van Ness Avenue San Francisco, CA 94102	Council Member Donna Frye District 6 202 C Street, MS #10A San Diego, CA 92101
Council Member Sherri S. Lightner District 1 202 C Street, MS #10A San Diego, CA 92101	Council Member Marti Emerald District 7 202 C Street, MS #10A San Diego, CA 92101	Council Member Carl DeMaio District 5 202 C Street, MS #10A San Diego, CA 92101

U.S. Representative 53rd District Susan Davis 4305 University Avenue, Suite 515 San Diego, CA 921054	Supervisor Pam Slater-Price, District 3 San Diego County Board of Supervisors 1600 Pacific Highway, Room 335 San Diego, CA 92101	Supervisor Ron Roberts, District 4 San Diego County Board of Supervisors 1600 Pacific Highway, Room 335 San Diego, CA 92101
California Department of Toxic Substances Control 9174 Sky Park Court, Suite 150 San Diego, CA 92123	California Transportation Commission - Division of Environmental Analysis 1120 N Street, Room 2221 (MS-52) Sacramento, CA 95814	Native American Heritage Commission 915 Capitol Mall, Room 364 Sacramento, CA 95814
Torrey Pines Community Planning Board Morton Printz, Chair 2480 El Amigo Road Del Mar, Ca 92014	Torrey Hills Community Planning Board Guy Ravad, Chair 4541 Vereda Mar De Ponderosa San Diego, Ca 92130	San Diego Gas & Electric Company 8315 Century Park Court, CP21E San Diego, CA 92123 Attention: Dashiell S. Meeks, PE, AICP
Friends of Rose Canyon P.O. Box 221051 San Diego, CA 92192-1051	San Diego Canyon Lands 3552 Bancroft St. San Diego, CA 92104	University Community Planning Group Linda Colley, Chair 3589 Syracuse Ave San Diego, CA 92122
Metropolitan Transit Services 1255 Imperial Avenue, Ste. 1000 San Diego, CA 92101-7490	North County Transit District 810 Mission Avenue Oceanside, CA 92054	City of San Diego Engineering Capital Projects 600 B Street MS-908A San Diego, CA 92101
City of San Diego Metropolitan Wastewater Department 9192 Topaz Way San Diego, CA 92123	City of San Diego, Development Services Dept. Attn: Myra Herrmann 1222 First Avenue, MS-501 San Diego, CA 92101	City of San Diego, Planning and Community Investment Dept. –MSCP 202 C Street, MS-5A San Diego, CA 92101
Edward Howes 7345 Steinbeck Ave San Diego, CA, 92122	Mark Efron 7315 Steinbeck Ave San Diego, CA, 92122	Armando & Sally Estacio 7305 Steinbeck Ave San Diego, CA, 92122
Stephen Harris 7273 Steinbeck Ave San Diego, CA, 92122	Bostwick 7265 Steinbeck Ave San Diego, CA, 92122	Andrew & Esta Hearsom 7257 Steinbeck Ave San Diego, CA, 92122
Renee Krolikowski 7119 Enders Ave San Diego, CA, 92122	John & Mary O'Neill 7141 Enders Ave San Diego, CA, 92122	Ellen & Glenn Minter 7155 Enders Ave San Diego, CA, 92122
Erik & Jonabelle Hustoft 7217 Steinbeck Ave San Diego, CA, 92122	Jamie Smith 7225 Steinbeck Ave San Diego, CA, 92122	Richard & Debra Dawson 7241 Steinbeck Ave San Diego, CA, 92122
Daniel & Tina Vaught 7249 Steinbeck Ave San Diego, CA, 92122	Anne Hones 5419 Northridge Ct. San Diego, CA, 92117	Yoshifumi & Katsuko Yamamoto 5409 Northridge Ct. San Diego, CA, 92117
Douglas & Jo Anne Powell 5469 Northridge Ct. San Diego, CA, 92117	Margaret Benis 5384 Palmyra Ave San Diego, CA, 92117	Bryce Pearson 5364 Palmyra San Diego, CA, 92117
Giacomini Inter Vivos Trust 5342 Constitution Rd. San Diego, CA 92117	Hall Family Trust 5439 Northridge Ct San Diego, CA 92117	W.L. Oostenveld Living Trust 5459 Northridge Ct San Diego, CA, 92117

Taylor Revoc Living Trust 6141 Dirac St San Diego, CA, 92122	Evans Family Trust 7017 San Carlos St Carlsbad, CA 92011	Sheila Fisher Living Trust 7455 Bovet Way San Diego, CA, 92122
Disalvo Trust 7445 Bovet Way San Diego, CA, 92122	Chen Family Trust 7335 Steinbeck Ave San Diego, CA, 92122	Johnson Survivors Trust 7325 Steinbeck Ave San Diego, CA, 92122
Weyer Family Trust 7125 Enders Ave San Diego, CA, 92122	James & Debra Dawson Trust 7233 Steinbeck Ave San Diego, CA, 92122	Sol Rochman & Meryl Revoc Trust 7131 Enders Ave San Diego, CA, 92122

Appendix A:
Resources Evaluated Relative to the
Requirements of Section 4(f)
For the Interstate-805 Managed Lanes North Project
San Diego, California

CHAPTER 1: INTRODUCTION

The following discusses existing and planned properties adjacent to the proposed Interstate 805 Managed Lanes North Project (805 North Project) that may warrant protection under Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966. The document begins with a discussion of resources that do not warrant protection under Section 4(f) because the resources are not a public park, recreation area or historic property, or the resources are not publicly owned. The properties are evaluated with respect to any proximity impacts resulting from the proposed project. In instances where there is an actual use of a portion of a 4(f) resource, this impact is evaluated with references to de minimis criteria.

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327. The discussion is prepared in support of the Draft Mitigated Negative Declaration / Environmental Assessment (Draft MND/EA) being prepared for the proposed project. Figure A1 shows the locations of the potential 4(f) resources evaluated in this document.

Section 4(f) of the USDOT Act of 1996, codified in federal law as 49 U.S.C. 303, declares that “[it] is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

Section 4(f) specifies that “the Secretary [of Transportation] may approve a transportation program or project...requiring the use of any publicly owned land from a public park, recreation area, wildlife and waterfowl refuge of national, State or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State or local officials having jurisdiction over the park, area, refuge, or site) only if:

- (1) There is no prudent and feasible alternative to using that land; and

(2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from such use.

Section 4(f) also requires consultation with the Department of the Interior and, as appropriate, the involved offices of the Department of Agriculture and Housing and Development in developing transportation projects and programs that use lands protected by Section 4(f). Reviews by these Departments are not required for Programmatic 4(f) Evaluations or de minimis findings.

This evaluation is organized into three chapters: Chapter 1 addresses regulatory language, Chapter 2 offers a brief project description of each build alternative, and Chapter 3 identifies all potential Section 4(f) properties within a half mile radius of the project.

CHAPTER 2: PROJECT DESCRIPTION

One build alternatives and one no-build alternative are under consideration for the 805 North Project. These alternatives are briefly described as follows. Please refer to Chapter 2 of the Draft EA/IS for a detailed description of the project alternatives:

Proposed Project

The I-805 North Project is located in the City of San Diego, on Route 805 (Post mile 23.3) from just south of Route 52 to just north of the Mira Mesa Boulevard Undercrossing (Post mile 27.7). The project covers a distance of approximately 4.4 miles. The project proposes to construct four managed lanes (two lanes in each direction) in the freeway median from Route 52 to Carroll Canyon Road and single HOV (High Occupancy Vehicle) lanes from Carroll Canyon Road to Mira Mesa Boulevard. These median lanes would result in shifting the existing main lanes and auxiliary lanes to the outside. These mainlane shifts would result in the realignment of all existing ramps within the project limits. Existing overcrossing and undercrossing structures will need to be modified to accommodate the proposed cross-section. Retaining walls will be placed along the route at appropriate locations to minimize right-of-way impacts. Noise barriers may be placed at some locations within the project limits. Modifications have been proposed in the Governor Drive interchange in order to increase the weaving distance

between the existing Governor Drive on-ramp to southbound I-805 and the connector from southbound I-805 to westbound Route 52. The existing southbound on-ramp will be replaced by a loopramp originating from the westbound side of Governor Drive and this would result in the relocation of the existing Park and Ride lot at this area to the southwest side of the Governor Drive interchange.

Additional transit features consist of Direct Access Ramps (DAR) at Nobel Drive and Carroll Canyon Road (southbound only), a Park and Ride/ Bus Rapid Transit (BRT) Station at Nobel Drive, and an HOV/transit Direct Connector Ramp for the Route 52/ Route 805 Interchange (westbound to northbound and, southbound to eastbound).

In the median, both northbound and southbound, four 12-ft PCC lanes are proposed and are separated by a Type 60 concrete barrier. In each direction, 10-ft PCC inside shoulders will be adjacent to the concrete median barrier. A 4-ft buffer and continuous HOV ingress/egress will be used to separate the HOV/Transit lanes from the mixed-flow lanes. HOV/transit direct connectors will be two-lane structures, with one lane in each direction separated by a Type 60 concrete barrier, with 5-ft inside shoulders, 12-ft lanes and 10-ft outside shoulders. For locations with a DAR, the HOV/transit lanes will be separated from the DAR with a combination of barriers and retaining walls.

No Build Alternative

The No-Build Alternative would include normal maintenance or the reconstruction of a facility to modern, safe, and structurally adequate standards without increasing capacity in the transportation corridor. The No-Build Alternative implies an evaluation of existing conditions; a projection of existing conditions based on the best available information on population increase, density, and location, the availability and use of resources, and the conditions of the environment resulting from available transportation; and a comparison of the existing and project situation after the improved transportation system is provided (Adams 1973).

CHAPTER 3: DISCUSSION OF PROPERTIES

Field reconnaissance and reviews of applicable general plans, parks and recreation websites, and Google Earth aeriels were used to identify resources that could potentially be subject to evaluation under Section 4(f). All potential Section 4(f) properties within a half-mile of the build alternative were identified.

From this analysis, the following list was developed (Table A1). The location of each property is shown in Figure A1. After assembly of this list, the properties were researched to determine if they met the criteria for eligibility as Section 4(f) properties. The remaining properties were inspected to confirm their location with respect to the proposed project and to inventory the attributes of each property. Properties that are over a half-mile from the proposed project are not included in the analysis.

Table A1: Potential Section 4(f) Resources and Distance from I-805 North Project

Resource	City	Dist (mi) to I-805
Innovation Middle School	San Diego	0.46
MacDowell Park	San Diego	0.36
Marian Bear Memorial Park	San Diego	0.01
University Garden park	San Diego	0.37
University Village park	San Diego	0.25
Nobel Athletic Fields and Recreation Center	San Diego	0.21
Rose Canyon Open Space	San Diego	0.05

3.1 Resources Not Protected by Section 4(F)

Table A2 provides a list of the properties that were evaluated but were found not to warrant protection under Section 4(f). Although the properties listed below have the potential to be parks, recreational facilities, wildlife refuges and historic properties found within or adjacent to the project area, they do not trigger Section 4(f) because: 1) they are not publicly owned, 2) they are not open to the public, 3) they are not eligible historic properties, 4) the project does not permanently use the property and does not hinder the preservation of the property, or 5) the proximity impacts do not result in constructive use.

The following section briefly characterizes the resources found within a half-mile limit from the proposed project which were found not to be eligible for protection under Section 4(f).

Table A2: Resources Not Protected by Section 4(f)

Resource	City	Type	Dist (mi) to I-805
Innovation Middle School	San Diego	playground and fields	0.46

Innovation Middle School

Innovation Middle School is located on the west side of I-805 south of SR-52. The school sits directly south of MacDowell Park in the Clairemont Mesa Community. It is located approximately 0.46 miles south of the proposed project. The school opened in the fall of 2008 and focuses on education in science, technology, engineering, and mathematics for 7th and 8th grades. Recreational equipment at this location includes fields, basketball and handball courts, and playground equipment. The play area is located behind the school between the buildings and I-805. These facilities are not open to the public after school hours.

3.2 Section 4(F) Resources Evaluated for Proximity Impacts

Constructive use (23 CFR 774.15) involves the evaluation of indirect or “proximity impacts” to a 4(f) resource. No actual use or “take” is involved. A constructive use occurs when the project’s proximity impacts are so severe that the protected activities, features or attributes that affords the resource for protection under Section 4(f) are “substantially impaired.” Substantial impairment occurs only when the protected activities, features or attributes are substantially diminished by the proposed project.

All public and publicly accessed parks, recreational facilities, and wildlife refuges within approximately 0.5 mi of the project have been identified and inspected. The attributes contributing to the Section 4(f) resources listed in Table A3 below have been inventoried and the effects of the project upon access, visual, noise, vegetation, wildlife, air quality and water quality have been considered. It has been determined that the proposed

project would not result in a constructive use due the project's proximity to these resources. Each of these Section 4(f) resources is described briefly below.

Table A3: Section 4(f) Resources and Distance from I-805 North Project

Resource	City	Type	Dist (mi) to I-805
MacDowell Park	San Diego	community park	0.36
Marian Bear Memorial Park	San Diego	Trails, open space	0.01
University Garden park	San Diego	community park	0.38
University Village park	San Diego	community park	0.25
Nobel Athletic Fields and Recreation Center	San Diego	community park	0.21
Rose Canyon Open Space	San Diego	Trails, open space	0.05

MacDowell Park

MacDowell Park is a 7.2 acre neighborhood park that is owned by the City of San Diego. It is located west of I-805 and south of SR-52 in the Community of Clairemont Mesa. The park is located 0.36 miles south of the proposed project, directly adjacent to I-805. The park has a large, flat, open grassy area with picnic benches and a sandy area with dedicated playground equipment. The eastern edge of the park is bounded by a meandering sidewalk/bike path that continues south of the park parallel to I-805. It is surrounded by numerous large eucalyptus trees. Access is achieved by City streets and parking is available directly in front of the park. Given the public ownership of the park, it is clear that McDowell Park is a Section 4(f) resource.

In this area, the I-805 is located below the urban development on the mesa tops. Here, the park is situated well above (although adjacent to) the freeway. Given this context, the only park functions and/or activities that could be impacted by the proposed project would be those that have visual or auditory components.

With respect to visual, from the park, one sees residential development to the north and west, commercial and industrial areas to the north and on the opposite side of the freeway (east), and a school play ground to the south. One would have to go to the

eastern edge of the park to see the freeway below. Because the project is located north of the park and is located well beneath it, none of the proposed project improvements would be seen by park visitors as they would be shielded by the existing development and the large trees. As stated above, the park is directly adjacent to I-805 and is therefore located in an already noisy context. People use the park despite its proximity to the freeway. Given the distance from the proposed project, park users would not notice any increase in noise level when compared to the existing condition.

Due to its distance from the proposed improvements, elevation above the freeway, and shielding from existing structures, the proposed project would not impact any of the park's recreational features or attributes. The proposed project would not cause a constructive use of MacDowell Park because the proximity of the project would not substantially impair the protected activities, features, or attributes of the park.

Marian Bear Memorial Park

As described by the City of San Diego, Marian Bear Memorial Park is located in San Clemente Canyon directly south of SR-52. It stretches from I-5 to I-805 in the Clairemont Mesa Community. The park is owned by the City of San Diego. It provides 467-acres of dedicated natural parkland and includes finger canyons and mesas on the south side. There are over three miles of mostly flat trails along the length of the canyon, with more challenging hiking available on the trails in several of the finger canyons leading up to the mesa tops. Biking is permitted on the maintenance roads in the canyon however no equestrian use is permitted. Major entries to the park are off of Genesee Avenue and Regents Road, where parking and picnic areas with restroom facilities are available. A Park Ranger assigned to the park area provides interpretive programs, public assistance, guidance, enforcement, and protection. In terms of the park's spatial relationship to the proposed project, only its extreme eastern edge (the portion accessed by the Limerick Avenue trailhead) is adjacent to the project. In this area and depending on where one is located within the park (canyon top or bottom), the freeway is either visually blocked by hills/freeway cut slopes or partially shielded by the mature vegetation in the park, respectively. At this location, changes closest to the park would include minor ramp and freeway widening that would not be much different than what currently exists.

An important purpose of the park is to provide a natural setting for recreational hiking and biking. This natural setting is integral to the park. Users enjoy the main canyon and its tributaries which support a population of resident wildlife including raccoons, skunks, rabbits, amphibians, reptiles, and birds, and serve as a pathway for coyote, fox, and other mammals. Along the length of the canyon are oak, sycamore, and willow trees and their undergrowth of native and other plant species. There is riparian woodland along the creek beds and side canyons where water flows. The hillsides contain coastal sage scrub and chaparral. Although the park is important for the natural setting it provides its users, it is situated directly adjacent to a busy freeway (SR-52) for its entire length and abutted at each end by two other heavily traveled transportation corridors, I-5 and I-805. Even with these freeways so close to the park, it is enjoyed by users despite its context within an urban, built environment.

Given its public ownership and the fact that the park is open to the public for their enjoyment, it is clear that Marian Bear Memorial Park is a Section 4(f) resource.

In addition to considering both auditory and visual impacts that may result as part of the proposed project, impacts to the vegetation and wildlife had to be considered given their importance to the park.

Habitat within Marian Bear Park in the vicinity of I-805 is dominated by southern willow scrub and riparian woodland dominated by sycamore trees (*Platanus racemosa*) along San Clemente Creek. The slopes of the canyon are a mixture of coastal sage scrub and chaparral habitat with some coast live oak woodland. An endangered plant, willowy monardella (*Monardella viminea*), is found along San Clemente Creek in a part of the park where a revegetation project was completed. Coastal California gnatcatcher (*Polioptila californica californica*) inhabit the slopes of the park in coastal sage scrub. The park is an important wildlife corridor that connects the park with open habitat east of I-805. The project will minimally impact some wetlands and coastal sage scrub within Caltrans right of way adjacent to the park, but it will not effect the wildlife corridor along San Clemente Creek under I-805

With respect to any auditory impacts, noise measurements were taken at three locations in the eastern most area of Marian Bear Memorial Park to determine if the proposed project would affect noise levels. Existing noise measurements in this part of the park

range from 63 to 72 dBA. With the proposed project in place, the measurements showed an increase of only 0.2 dBA over the existing noise levels. This increase would be unperceivable.

Due to the freeways location below surrounding grade, views of the project from the park are limited and would remain consistent with existing views. Users currently see a shielded view of the freeway, this would not change and the additional infrastructure would not be noticeable. People would be able continue to enjoy the park in the manner they do today, there would be no impairment to their hiking or biking in a natural setting. Therefore, the proposed project would not cause a constructive use to the Marian Bear Memorial Park because the proximity of the project would not substantially impair the protected activities, features, or attributes of the Park.

University Gardens Park

University Gardens Park is located approximately 0.38 miles west of the proposed project off of Governor Drive in the University Community. The park is owned by The City of San Diego. The park is 10 acres of developed, dedicated park land, as described in the Open Space and Recreation Element of the University Community Plan. The park includes a single baseball/softball field, a large flat grass field area, a small playground area that was remodeled in 2002, and a comfort station that was constructed in 2006. Access to the park is achieved off of Governor Drive. Numerous, large trees border the park to its south and west. The park is surrounded by residential and commercial development. Views of the existing freeway are nonexistent. Given its status as a publicly owned park that is open to the public, University Gardens Park is a Section 4(f) resource.

This park, due to its location within a heavily developed residential community far removed from I-805, would not have any of its functions impaired by the proposed project. Any improvements to I-805 would go unnoticed by a park user. All activities that occur today would continue unimpaired with the proposed project in place. Therefore, the proposed project would not cause a constructive use to the University Gardens Park because the proximity of the project would not substantially impair the protected activities, features, or attributes of the Park.

University Village Park

University Village Park is located 0.25-miles west of the proposed project at Florey Street and Gullstrand Street in the University community. The park is owned by the City of San Diego and is 2.5-acres of partially developed, dedicated park land, as described in the Open Space and Recreation Element of the University Community Plan. The park is essentially an open grass field containing a few, sparsely spaced picnic tables surrounded by tall, mature trees. This layout is consistent with the Community Plan's description of the park which states that the parks emphasis should be on less intense recreational uses such as open play lawns and picnic facilities. Access to the park is achieved by on-street parking directly adjacent to the park.

The park is surrounded on three sides by residential development and it abuts a Rose Canyon finger canyon to its north. Rose Canyon is shielded from view by large, mature trees. Views of the existing freeway are nonexistent. Given its status as a public ally owned park that is open to the public, University Village Park is a Section 4(f) resource.

This park, due to its location within a developed residential community far removed from I-805, would not have any of its functions impaired by the proposed project. Any improvements to I-805 would go unnoticed by a park user. All activities that occur today would continue unimpaired with the proposed project in place. Therefore, the proposed project would not cause a constructive use to the University Gardens Park because the proximity of the project would not substantially impair the protected activities, features, or attributes of the Park.

Nobel Athletic Fields

The Nobel Athletic Fields and Recreation Center (also known as Nobel Athletic Area) is located within the University Community. The Center was completed in 2007 and is located just north of the proposed Nobel DAR. The Center includes a 30-acre municipal park with children's play areas, an off-leash dog park, two softball fields (one lighted), two soccer fields, multi-purpose fields, shaded picnic tables, barbeque pits, an exercise circuit, outdoor basketball courts, and a comfort station. Community buildings include a 16,100 square foot branch library (North University Branch Library) and a 10,200 square foot gymnasium/recreation center (Nobel Athletic Complex) with community meetings

available for rent. Public ownership and accessibility afford this resource protection under Section 4(f).

Areas directly adjacent to the Nobel DAR consist of fire pits, planted buffers and parking areas that are located below the grade of Nobel Drive. From these locations views of the proposed transit Station are obscured by the existing slope, which also act as a barrier to freeway noise. Any improvements to I-805 would go unnoticed by a park user. All activities that occur today would continue unimpaired with the proposed project in place. Therefore, the proposed project would not cause a constructive use to the Nobel Athletic Fields and Recreation Center because the proximity of the project would not impair the protected activities, features, or attributes of the center.

Rose Canyon Open Space Park

The Rose Canyon Open Space Park is located in the Clairemont Mesa and University communities and is located west of the project area. Rose Canyon is directly adjacent to the San Diego Northern Railway Coaster tracks and extends from the I-5/SR-52 interchange to I-805. Access to the park is achieved via numerous city streets. Rose Canyon is owned by the City of San Diego and consists of a well-defined valley floor bordered on the south and north by steep slopes. An existing unpaved hiking and biking trail runs along much of the length of the canyon, east-west, along the south side of the existing coaster tracks. To the north of the tracks, the City of San Diego is planning to develop existing unpaved utility access roads as part of their proposed Coastal Rail Trail project.

As was the case for Marian Bear Memorial Park, an important purpose of Rose Canyon is to provide a natural setting for recreational hiking and biking. Rose Canyon Creek is located within the canyon and eventually drains into Mission Bay. Rose Canyon Open Space Park contains many interacting habitats unique to Southern California. Coastal sage scrub and chaparral cover hills and fields, an oak woodland works along the north-facing hillsides, while a very rare riparian habitat runs the length of the park. The Rose Creek watershed is local in nature extending no further east than Scripps Ranch. The creek naturally meanders around the canyon floor, which continues to deepen and widen until it drains into Mission Bay. Wildlife includes raccoons, skunks, rabbits, coyotes,

foxes, and mule deer. The raptors flying above Rose Canyon include many varieties of owls and large hawks.

The Recreation Element of both the City of San Diego General Plan and the University Community Plan discuss open space as a dual purpose resource. According to each, open space is intended to preserve and protect native plants and animals while providing public access and enjoyment by the use of hiking, biking, and equestrian trails. In terms of this analysis, only those areas within Rose Canyon that are used for recreational purposes are discussed. Open Space dedicated for the preservation of habitat is not a resource afforded protection under Section 4(f). Those areas that are designated for hiking, biking, and equestrian enjoyment are Section 4(f) resources given that they are publicly owned recreational facilities open to the public.

The proposed Nobel Drive BRT Station is located directly adjacent to Rose Canyon park boundary. This area of park is located south of Nobel Drive and west of Judicial Drive. According to communications with City of San Diego staff, this area lacks officially recognized trails and is an open space area whose function is to conserve habitat and wildlife. Though the park does not exclude people from the area, it is not officially a recreational use area. Due to the limited uses in this area, views of the transit center would not affect the intended purpose of this area. The proposed transit center was designed to ensure hydrology of the vernal pools in the conservation area is not affected. This part of Rose Canyon is not a recreational use area and therefore no Section 4(f) analysis is required.

Although the natural setting surrounding the existing trail in Rose Canyon is important for its users, the trail is situated directly adjacent to a frequently traveled rail line for its entire length, parallels I-5 for almost one-half of its length, and terminates 0.17 miles west of I-805. Even with existing transportation infrastructure so close to the park and trail, both are enjoyed by users despite a context within an urban, built environment. Due to the trails distance from the freeway and existing topography, views of the project are limited and would remain consistent with existing views. With the proposed project in place, people would continue to be able to enjoy the park in the same manner as they do today. There would be no impairment to their hiking or biking in a natural setting. Therefore, the proposed project would not cause a constructive use to the Marian Bear

Memorial Park because the proximity of the project would not substantially impair the protected activities, features, or attributes of the Park.

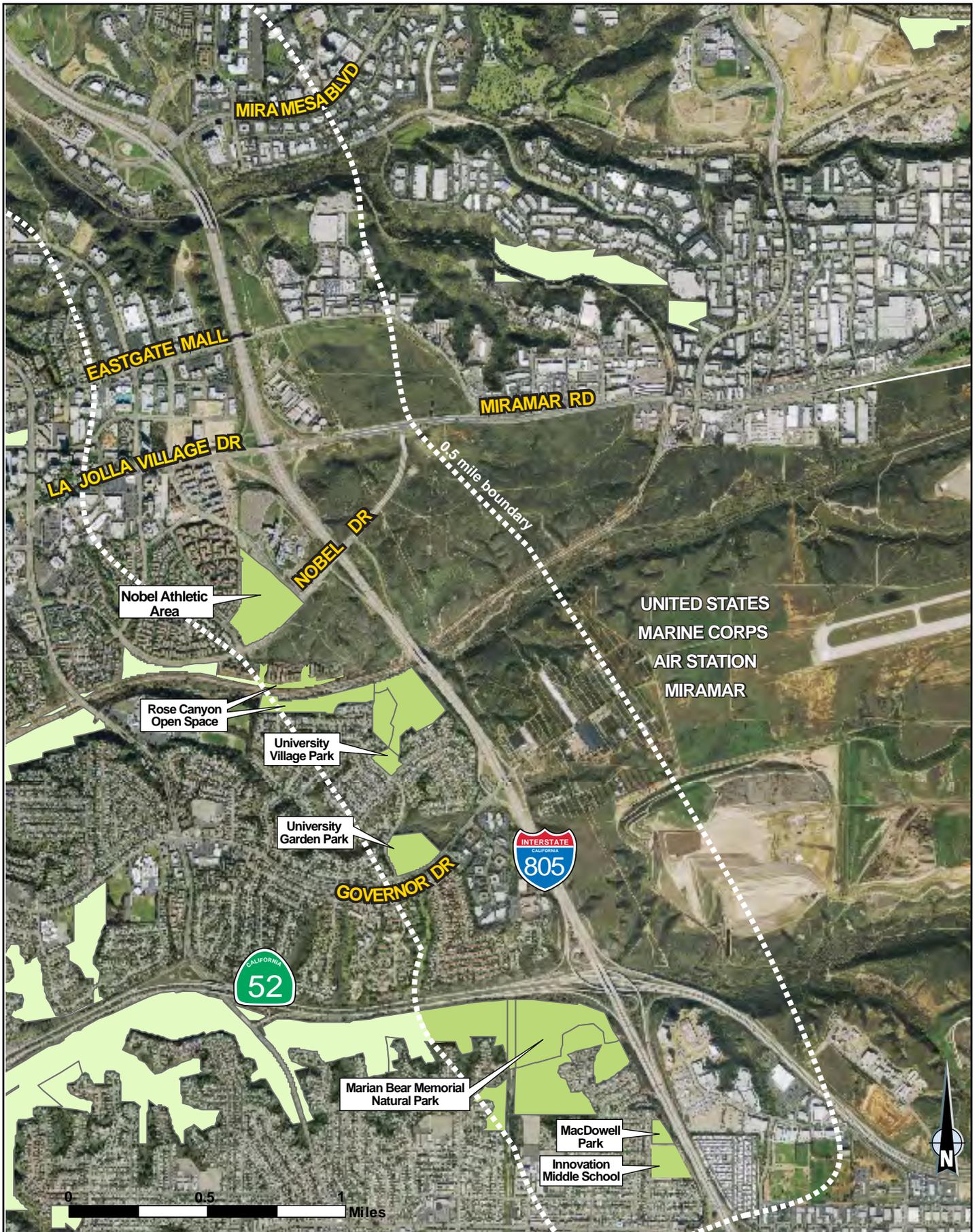


Figure A1
4(f) Resources

Appendix B. CEQA Checklist

Supporting documentation of all CEQA checklist determinations is provided in Chapter 2 of this Initial Study/Environmental Assessment. Documentation of “No Impact” determinations is provided at the beginning of Chapter 2. Discussion of all impacts, avoidance, minimization, and/or compensation measures under the appropriate topic headings in Chapter 2.

Project Title

Interstate 805 Managed Lanes North

Lead Agency name and address

California Department of Transportation
4050 Taylor Street
San Diego, CA 92110

Contact person and phone number

Dave Nagy
Senior Environmental Planner
Environmental Analysis, Branch A
(619) 688-0224

Project Location

Interstate 805, from postmile 23.2 to 27.7
State Route 52, from postmile 3.5-4.1
San Diego County, California

General Plan Designation

The project is consistent with the Mobility Element of the City of San Diego’s General Plan.

Land Uses

Land uses within the project area include a mixture of residential, commercial, open space, Military, and public facilities.

Description of Project

The project proposes to add four managed lanes (two in each direction) on Interstate 805 (I-805) from State Route 52 (SR-52) to La Jolla Village Drive and add two high occupancy vehicle (HOV) lanes (one in each direction) from La Village Drive to just north of Mira Mesa Boulevard (Blvd), construct a transit station and Direct Access Ramp (DAR) at Nobel Drive, a park-n-ride at Governor Drive, the southfacing portion of the Carroll Canyon DAR, and a direct connector from the SR-52 to the I-805 managed lanes.

Other public agencies whose approval is required

The City of San Diego

USFWS

- 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 Resources	<input type="checkbox"/>	Air Quality
<input checked="" type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Geology/Soils
<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:

<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.
<input checked="" type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, there would 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 would be prepared.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	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.
<input type="checkbox"/>	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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
II. AGRICULTURE 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 Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. 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"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
III. 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:				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" type="checkbox"/>
IV. 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 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 § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 type="checkbox"/>	<input checked="" type="checkbox"/>
VI. 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"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input type="checkbox"/>
VII. 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 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 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>
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"/>
IX. 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 checked="" type="checkbox"/>	<input 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"/>
X. MINERAL RESOURCES -- Would the project:				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>
XI. 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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"/>
XII. 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 checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>
XIII. 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:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>
XIV. 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XV. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<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
b) Exceed, either individually or cumulatively, a level of service standard 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 results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XVI. 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XVII. 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 would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Appendix C: Title VI Policy Statement

DEPARTMENT OF TRANSPORTATION
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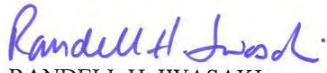


*Flex your power!
Be energy efficient!*

August 25, 2009

TITLE VI POLICY STATEMENT

The California State Department of Transportation under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.


RANDELL H. IWASAKI
Director

APPENDIX D ENVIRONMENTAL COMMITMENTS RECORD (ECR)

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP	Action Taken to Comply with Task	Task Completed	
					Initial	Date
DESIGN KICK-OFF	Project Manager	Beginning of 1 Phase				
PRE-LOG-IN REVIEW	Design	90% Plans				
ENVIRONMENTAL PS&E REVIEW	Environmental Coordinator	District PS&E Circulation				
IN-HOUSE PRECONSTRUCTION MEETING	Project Manager	Contract Award				
TRANSFER RESIDENT ENGINEER BOOK	Project Engineer (RE)	Preconst Meeting				
PREJOB MEETING WITH CONTRACTOR	Construction	Beginning of Construction				
ENVIRONMENTAL COMPLIANCE REVIEW	Construction	Safety Review				
DESIGN FEATURES MEMORANDUM	Construction / Design	Post Construction				
PERMITS						
Section 7 Threatened and Endangered Species	R.E. Construction	PreConstruction Construction Postconstruction				
Section 404 Permit for filling or dredging waters of the United States.	R.E. Construction	PreConstruction Construction Postconstruction				
1602 Agreement for Streambed Alteration	R.E. Construction	PreConstruction Construction Postconstruction				
Section 401 Water Quality Certification	R.E. Construction	PreConstruction Construction Postconstruction				
Local Coastal Permit	R.E. Construction	PreConstruction Construction Postconstruction				
AIR QUALITY						
Minimize land disturbance.	R.E. Construction	Construction				
Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas.	R.E. Construction	Construction				
Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.	R.E. Construction	Construction				

APPENDIX D ENVIRONMENTAL COMMITMENTS RECORD (ECR)

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP	Action Taken to Comply with Task	Task Completed	
					Initial	Date
Cover all trucks hauling dirt when traveling at speeds greater than 15 miles per hour.	R.E. Construction	Construction				
Stabilize the surface of dirt piles if not removed within 2 days.	R.E. Construction	Construction				
Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.	R.E. Construction	Construction				
Minimize unnecessary vehicular and machinery activities.	R.E. Construction	Construction				
Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.	R.E. Construction	Construction				
Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.	R.E. Construction	Construction				
Remove unused material.	R.E. Construction	Construction				
BIOLOGY						
Seeds from sensitive plant species removed during construction would be collected prior to brushing activities for use in revegetation efforts	R.E. Qualified Biologist Construction	PreConstruction Construction				
All native or sensitive habitats outside the permanent and temporary construction limits should be designated as Environmentally Sensitive Areas on project maps. Environmentally Sensitive Areas should be temporarily fenced during construction with orange plastic snow fence. No personnel, equipment, or debris would be allowed within the Environmentally Sensitive Areas.	R.E. Design Construction	PreConstruction Construction				
All native vegetation and non-native shrubs and trees within the impact areas would be removed outside of the breeding season (February 15 to September 15) to avoid impacts to nesting birds. Otherwise, a qualified biologist would thoroughly survey all vegetation prior to removal during the breeding season to ensure there are no nesting birds onsite. If nesting birds are identified onsite, vegetation removal would be delayed until the nest no longer supports eggs or chicks.	R.E. Qualified Biologist Construction	PreConstruction Construction				
All pile driving near the creeks that support Federally and State listed bird species would be completed outside the bird breeding season (February 15 to September 15) to minimize construction noise impacts to sensitive riparian-nesting bird species.	R.E. Construction	Construction				
All debris from the expansion of bridges would be contained so that it does not fall into rivers and creeks.	R.E. Construction	Construction				
Special care would be taken when transporting, use, and disposing of soils containing invasive weed seeds. All heavy equipment would be washed and cleaned of debris prior to entering a new area, to minimize spread of invasive weeds.	R.E. Construction	Construction				

APPENDIX D ENVIRONMENTAL COMMITMENTS RECORD (ECR)

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP	Action Taken to Comply with Task	Task Completed	
					Initial	Date
A qualified biologist would be available for both the pre-construction and construction phases to review grading plans, address protection of special status biological resources, and monitor ongoing work. The biologist should be familiar with the habitats, plants, and wildlife of the Project area, and maintain communications with the resident engineer, to ensure that issues relating to biological resources are appropriately and lawfully managed.	R.E. Qualified Biologist Construction	PreConstruction Construction				
Detention basins would be placed in many of the loop ramps, and bioswales would be placed on many of the slopes to treat runoff from the freeway.	R.E. Construction	PreConstruction Construction				
Appropriate best management practices (BMPs) would be used to control erosion and sedimentation. No sediment or debris would be allowed to enter the vernal pools, creeks, rivers,	R.E. Construction	PreConstruction Construction				
Exclusion devices would be installed on bridge drain holes and ledges during the non-breeding season (September 1 through February 15) to prevent swallows, swifts, and any other birds or bats from nesting on or within bridges to be demolished or expanded.	R.E. Construction	PreConstruction Construction				
Cut slopes would be revegetated with native upland habitats with similar composition to those within the Project study area. Fill slopes and areas adjacent to wetlands and drainages would be revegetated with appropriate native upland and wetland non-invasive species. The revegetated areas would have temporary irrigation and be planted with native container plants and seeds selected by the biologist. There would be at least three years of plant establishment/maintenance on these slopes to control invasive weeds. Bioswales and detention basins would be planted with appropriate native species as determined by the biologist and storm water pollution prevention professional. Slopes adjacent to developed urban areas would be vegetated with native and drought tolerant non-invasive species selected by the biologist and landscape architect. Interchanges located in urban areas would be landscaped with native or ornamental non-invasive species.	R.E. Qualified Biologist Construction Landscape Maintenance	Construction Postconstruction				
Duff (top soil) from areas with coastal sage scrub and chaparral would be saved to aid in revegetating slopes with native species.	R.E. Construction	PreConstruction Construction Postconstruction				
Salvaging of rare plants and/or soil supporting San Diego fairy shrimp prior to grading is recommended where practicable.	R.E. Construction	PreConstruction Construction				
All temporary impact areas would be revegetated and restored to pre-existing conditions. Plants salvaged from construction areas would be placed on created slopes or in an offsite mitigation area.	R.E. Construction	Construction Postconstruction				
Fueling of construction equipment should only occur at a designated area at a distance greater than 100 feet from drainages, and associated plant communities to preclude adverse water quality impacts. Fuel cans and fueling of tools would not occur within drainages.	R.E. Construction	Construction				
Lighting used at night for construction would be shielded away from environmentally sensitive areas.	R.E. Construction	Construction				
Dust generated by construction would be controlled as necessary.	Construction	Construction				
Permanent impacts to sensitive upland vegetation would be mitigated by preservation offsite at Sage Hill Mitigation Site.	Qualified Biologist					
Permanent and temporary impacts to wetland/riparian habitats would be mitigated offsite at Deer Canyon Mitigation Site (Pardee).	Qualified Biologist					
Permanent and temporary impacts to "rut" pools and species would be mitigated at a 30-acre site on Del Mar Mesa.	Qualified Biologist					

APPENDIX D ENVIRONMENTAL COMMITMENTS RECORD (ECR)

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP	Action Taken to Comply with Task	Task Completed	
					Initial	Date
WATER QUALITY/NPDES						
Best Management Practices would be implemented to address potential water quality impacts during the planning and design, construction, and operational (maintenance) stages.	Design R.E. Construction Maintenance	PreConstruction Construction Postconstruction				
Comply with the State Wide Storm Water Management Plan. Short-term potential impacts to water quality during the construction phase are prevented/minimized with Construction Site BMPs while the long-term potential impacts during the facility operation and maintenance are prevented/minimized through the implementation of Design Pollution Prevention BMPs, Treatment BMPs and Maintenance BMPs.	Design R.E. Construction Maintenance	PreConstruction Construction Postconstruction				
PALEONTOLOGY						
A Paleontological Mitigation Plan (PMP) A qualified paleontologist would be at the pre-construction meeting to consult with the grading and excavation contractors concerning excavation schedules, paleontological field techniques, and safety issues.	R.E. Construction Paleontologist	PreConstruction				
Grading plans would be provided to the paleontologist at least one week prior to the initiation of earth-moving activities.	R.E. Construction Paleontologist	PreConstruction				
A paleontological monitor would be on-site on a full-time basis during the original cutting of previously undisturbed deposits of high or moderate paleontological resource potential, and on-site on a part-time basis during the original cutting of previously undisturbed deposits of low paleontological resource potential (sedimentary deposits of younger alluvium), to inspect exposures for contained fossils. As grading progresses, the qualified paleontologist and paleontological monitor would have the authority to reduce the scope of the monitoring program to an appropriate level if it is determined that the potential for impact to paleontological resources is lower than anticipated.	R.E. Construction Paleontologist	Construction				
When fossils are discovered, the paleontologist (or paleontological monitor) would recover them. In most cases, this fossil salvage can be completed in a short period of time. If necessary, the paleontologist (or paleontological monitor) would be allowed to briefly redirect, divert, or halt grading. However, some fossil specimens (such as a complete large mammal skeleton) may require an extended salvage period. In these instances, the paleontologist (or paleontological monitor) would be allowed to redirect, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for the recovery of small fossil remains, such as isolated mammal teeth, it may be necessary to set up a screen-washing operation on the site.	R.E. Construction Qualified Paleontologist	Construction				
During the monitoring and recovery phases of the PMP, the qualified paleontologist and/or the paleontological monitor would also routinely collect stratigraphic data (e.g., lithology, vertical thickness, lateral extent of strata, nature of upper and lower contacts, and taphonomic character of exposed strata.) Collection of such data is critical for providing a stratigraphic context for any recovered fossils.	R.E. Construction Paleontologist	Construction				

APPENDIX D ENVIRONMENTAL COMMITMENTS RECORD (ECR)

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP	Action Taken to Comply with Task	Task Completed	
					Initial	Date
Fossil remains collected during monitoring and salvage would be cleaned (removal of extraneous enclosing sedimentary rock material), repaired (consolidation of fragile fossils and gluing together of broken pieces), sorted (separating fossils of the different species), and cataloged (scientific identification of species, assignment of inventory tracking numbers, and recording of these numbers in a computerized collection database) as part of the mitigation program.	R.E. Construction Paleontologist	Construction				
Prepared fossils, along with copies of all pertinent field notes, photos, and maps, would be deposited (as a donation) in an accredited scientific institution with permanent paleontological collections, such as the San Diego Natural History Museum. Donation of the fossils would be accompanied by financial support for preparation, curation, and initial specimen storage, if this work has not already been completed.	R.E. Construction Paleontologist	Construction				
A final summary report would be completed. It would outline the results of the mitigation program. This report would include discussion of the methods used, stratigraphic section(s) exposed and documented, fossils collected, and significance of recovered fossils.	R.E. Construction Paleontologist	Construction				
Hazardous Waste						
Treated Wood Waste	R.E. Construction	Construction		Comply with Standard Special Specification (SSP) 14-010		
Earth Material containing lead	R.E. Construction	Construction		Comply with SSP 15-027		
Yellow paint stripe removal	R.E. Construction	Construction		Comply with SSP14-001		
Paint stripe removal other than yellow	R.E. Construction	Construction		Comply with SSP 15-301		
Demolition, renovation, or removal of Asbestos Containing Materials (ACMs)	R.E. Design Construction	Pre-Construction Construction	Yes	Sampling and Removal of Asbestos Containing Materials - Bridges and Open Structures		
CULTURAL						
If cultural materials should be discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until qualified personnel could assess their nature and significance. Consultation with the City Archaeologist and Caltrans Archaeologist would ensure that if anything is discovered during construction that Section 106, CEQA, and City Guidelines would be followed. Should remains be discovered and further evaluation be necessary, construction would be diverted away from the find and sufficient time would be allowed for the proper professional recovery of the remains. Remains would be cleaned, catalogued, analyzed, reported, and curated in accordance with all appropriate professional archaeological standards.	R.E. Construction Archaeologist	Construction				

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Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP	Action Taken to Comply with Task	Task Completed	
					Initial	Date
<p>If human remains should be discovered, State Health and Safety Code §7050.5 states that further disturbances and activities would cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to PRC §5097.98, if remains are thought to be Native American, the coroner would notify the NAHC who would then notify the Most Likely Descendent (MLD). The party discovering the remains would contact the District Archaeologist, so that consultation may take place with the MLD to provide for the respectful treatment and disposition of the remains. Further provisions of PRC §5097.98 would be followed, as applicable.</p>	R.E. Construction Archaeologist	Construction				
NOISE						
All equipment should have sound-control devices no less effective than those provided on the original equipment. No equipment should have an unmuffled exhaust.	R.E. Construction	Construction				
Implement appropriate additional noise abatement measures including, but not limited to, changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, or installing acoustic barriers around stationary construction noise sources.	R.E. Construction	Construction				
VISUAL						
Native California trees such as oaks and pines would be planted near the middle of cut slopes (at least 30' from traveled way) in grouped clusters. Trees would not be placed near the tops of cut slopes where vertical forms would diminish easterly views from neighborhoods and commercial properties.	Design Landscape Architect R.E.	Construction				
Native shrubs would be used on all disturbed slopes adjacent to natural areas.	Design Landscape Architect R.E.	Construction				
Open views to the east would be preserved by minimal tree planting at the base of fill slopes. Native shrub plantings would be used in these locations.	Design Landscape Architect R.E.	Construction				
Wildflower groundcover would be planted intermittently along the edges of the freeway corridor to add seasonal accent color and for compliance with Federal funding requirements.	Design Landscape Architect R.E.	Construction				
Drought tolerant ornamental trees, such as eucalyptus, would be planted at the vicinity of the structures to help visually diminish the scale.	Design Landscape Architect R.E.	Construction				
Riparian tree species, such as sycamores, would be planted where possible in the lowest areas to enhance the low valleys that cross the project and provide for a greater diversity of native tree species.	Design Landscape Architect R.E.	Construction				
Native landscape plantings would be provided on short slopes and at the base of walls at either side of wall structures. Native plantings may include shrubs, groundcover, and trees. Trees would be planted at mid slope (at least 30' from traveled way) or at lower levels to avoid blocking views to the east from the residential neighborhoods.	Design Landscape Architect R.E.	Construction				
Use berms in place of sound walls wherever possible, such as along the west side of the freeway approaching Governor Drive. The existing berm at this location would be relocated further to the west where space allows.	Design Landscape Architect R.E.	Construction				

APPENDIX D ENVIRONMENTAL COMMITMENTS RECORD (ECR)

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP	Action Taken to Comply with Task	Task Completed	
					Initial	Date
Texture and color of walls would blend with surrounding landscape and indigenous soils.	Design Landscape Architect R.E.	Construction				
Provide screening of walls with tree, shrub, and vine plantings.	Design Landscape Architect R.E.	Construction				
Employ measures to minimize graffiti, such as tree, shrub and vine plantings on walls.	Design Landscape Architect R.E.	Construction				
Use transparent barriers when possible to preserve views from homes immediately adjacent to or that overlook the freeway at several locations near the I-805 / SR-52 interchange.	Design Landscape Architect R.E.	Construction				
Retaining walls that follow the contours of the topography and maintain a constant elevation at the top of wall would be used where appropriate. Wall layouts and profiles would be composed of long radius curves, with no tangents or points of intersection. This type of wall would be visually compatible with surrounding terrain and provide room at the base for a slope that would contain landscape screening.	Design Landscape Architect R.E.	Construction				
In areas too narrow to place a planting pocket, retaining walls would be recessed behind the face of safety barriers at a sufficient distance to allow architectural features to be included on the face of the retaining walls.	Design Landscape Architect R.E.	Construction				
In areas where space for architectural detailing would not exist, vertical concrete safety barriers would be considered. Vertical barriers add 12in (301mm) of additional width in which architectural elements such as mechanically stabilized earth (MSE) wall panel relief, pilasters, and wall caps can be included.	Design Landscape Architect R.E.	Construction				
Architectural features, textures and integral concrete colors would be used to mitigate the appearance of retaining wall surfaces. Walls would incorporate architectural features such as pilasters and caps to provide shadow lines, provide relief from monolithic appearance, and reduce their apparent scale. Enhanced materials such as mosaic tile and weathering steel would also be used where appropriate to meet community context and design goals.	Design Landscape Architect R.E.	Construction				
Mechanically stabilized earth (MSE) walls would have custom designed panels that include integral color, and an enhanced surface texture.	Design Landscape Architect R.E.	Construction				
Retaining walls would be located at the top of slope wherever possible in road fill sections to provide a buffer area for landscape screening between the wall and the community.	Design Landscape Architect R.E.	Construction				

APPENDIX D ENVIRONMENTAL COMMITMENTS RECORD (ECR)

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP	Action Taken to Comply with Task	Task Completed	
					Initial	Date
Grading would be designed using the techniques of contour grading that promote smooth transitions to existing landforms, eliminate appearance of engineered slopes and visually soften the contours. Stepped slopes in areas of cut would be considered.	Design Landscape Architect R.E.	Construction				
Placement of landscape slopes, noise walls, barriers, drainage conveyances, and other roadway features can require special design. MSE walls would have custom designed panels that include enhanced surface texture, and a 4" minimum pattern reveal on each panel.	Design Landscape Architect R.E.	Construction				
DAR structure columns would match existing bridge columns supports when present. New DAR structures would feature smooth curved forms in profile and section to minimize stark shadow lines where possible. Retaining walls would have a maximum height of 10 feet to minimize the structure height and retain views from adjacent neighborhoods.	Design Landscape Architect R.E.	Construction				
Landscaping would be provided within the facility and on all slopes and transitions to roadways and streets. Landscaping would be compatible with local landscape standards, including guidelines for screening and shade. Parking would be compatible with local development standards.	Design Landscape Architect R.E.	Construction				
New bridge columns would match the existing bridge columns. Undercrossing widening would use cast-in-place box girder construction to match existing structures wherever possible.	Design Landscape Architect R.E.	Construction				
Concrete lighting and signage pedestals would be designed in such a way that vertical barrier transitions are not required. Electrical and signal equipment at ramp termini would be placed in visually unobtrusive locations. Gore pavings would incorporate an enhanced architectural color and textural finish. Access control fencing would be placed in visually unobtrusive locations at interchanges and bridges, if possible. Retaining walls and noise walls near right-of-way boundaries would be designed in such a way that access control fencing would not be needed. The 'dead' spaces that occur between walls and fences would be avoided if at all possible. Fencing would abut proposed noise walls at ends of or at changes in direction of walls, if possible.	Design Landscape Architect R.E.	Construction				
Concrete interceptor ditches would not be placed at the toe of slopes adjacent to residential property or pedestrian use areas. Alternatives such as subterranean drainage placed below finish grade or a planted geo-reinforced drainage surface would be used.	Design Landscape Architect R.E.	Construction				
Linear ditches or bio-swales would be designed for dual use as maintenance vehicle access facilities, wherever possible. Where possible, bio-swales will be located in non-obtrusive areas, be designed to appear as natural features, and incorporate applicable measures listed above for detention basins.	Design Landscape Architect R.E.	Construction				
Maintenance access drives should be located in unobtrusive areas away from local streets and would consist of drivable inert materials with or without herbaceous groundcover that is visually compatible with the surrounding landscape.	Design Landscape Architect R.E.	Construction				

APPENDIX D ENVIRONMENTAL COMMITMENTS RECORD (ECR)

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP	Action Taken to Comply with Task	Task Completed	
					Initial	Date
Soft surface alternatives to concrete ditches and rock slope protections would be utilized wherever possible.	Design Landscape Architect R.E.	Construction				
All visible concrete structures and surfaces would be of special design and adhere to the corridor design guidelines. Rock slope protection would consider use of aesthetically pleasing whole material of various sizes.	Design Landscape Architect R.E.	Construction				
Concrete drainage devices located in highly visible areas would be colored to match the surrounding soil.	Design Landscape Architect R.E.	Construction				
Detention basins located at freeway interchanges or in areas of high visibility would incorporate the following design features. Basins would be located at least 10ft from clear recovery zones whenever possible to allow landscape screening to be installed. Basins would appear to be natural landscape features, such as, dry streambeds or riparian areas. Where possible they should be shaped in an informal, curvilinear manner, incorporate slope rounding, variable gradients, and be similar to the surrounding topography to deemphasize a defined outer edge.	Design Landscape Architect R.E.	Construction				
Whenever feasible, standpipes and other vertical appurtenances would be placed in unobtrusive locations and be painted an unobtrusive color.	Design Landscape Architect R.E.	Construction				
The use of pervious concrete for storm water pollution prevention would be considered to avoid adverse visual impacts. Project features such as interceptor ditches, inlet aprons, gutters, maintenance access road, maintenance vehicle pullouts, and parking lots could consist of pervious concrete and perhaps serve a dual purpose.	Design Landscape Architect R.E.	Construction				
TRAFFIC						
A Transportation Management Plan (TMP) would be prepared to minimize the impact of construction activities on highway users. Preceding roadway design, a final TMP, would be prepared to reduce potential construction-related traffic conflicts, detours, and delays. The elements to be considered for the highway-widening project include, but are not limited to the following:	Design Traffic	Construction				

2/2/2010

Environmental Coordinator:
Katie Basinski
Phone: 619-688-0192

Appendix D Environmental Commitments Record (ECR)

11-SD-805/52
PM: 23.3-27.7/3.5-4.1
EA : 081630
Managed Lanes North

PROJECT PERSONNEL

Initial	Full Name	Title	Phone Number	Assigned to Project	Transferred from Project	Remarks
		Project Manager				
	Roger Carlin	Project Engineer	619-688-6720			
	Katie Basinski	Environmental Coordinator	619-688-0192			
	Lauren Kemp	Construction & Geotechnical Liaison	619-688-0114			
	Sue Scatolini	Biologist	619-688-0191			
	Diane Vermeulen	Hazardous Waste	619-688-3148			
	Gladys Baird	Permits	619-688-0115			
	Ken Johansson	Air Quality	619-688-3166			
	Danielle Zhang	Landscape Architect	619-688-3658			
	May Alsheikh	Water Quality	619-688-0161			
	Karen Crafts	Paleontology	619-688-0188			
	Debra Dominici	Cultural	619-688-0187			
	Maurice Eaton	Traffic	619-688-3137			
	N/A	Construction Senior				
	N/A	Resident Engineer				

Appendix E:
Federally Listed or Candidate Species in the
Interstate-805 Managed Lanes North Project Area



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services

Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road, Suite 101
Carlsbad, California 92011



In Reply Refer To:
FWS-SDG-09B0274-09SL0802

MAY 29 2009

Chris White
Chief, Environmental Resource Studies
Department of Transportation, District 11
P.O. Box 85406, M.S. 25
San Diego, California 92110

Subject: Request for Candidate, Proposed, Threatened, or Endangered Species for the
Interstate 805 Widening Project – North Segment, San Diego, California

Attention: Sue Scatolini

Dear Mr. White:

The U.S. Fish and Wildlife Service has reviewed the information provided in your letter dated May 7, 2009, to assess and update potential presence of federally listed threatened, endangered, or proposed species at the proposed project site. To assist you in evaluating whether or not the proposed project may affect listed species, we are providing the attached list of federally listed species that may occur in the general project area. Please note that the list has not changed since our April 11, 2006, letter.

Should you have any questions regarding the species on the enclosed list or your responsibilities under the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*), please call Kurt Roblek of my staff at (760) 431-9440, extension 308.

Sincerely,

Karen A. Goebel
Assistant Field Supervisor

Enclosure:

**Federally Listed or Candidate Species Which Occur or May Occur
on the Project Site of the Interstate 805 – North Segment Widening Project**

Common Name	Scientific Name	Status
BIRDS		
Coastal California gnatcatcher	<i>Polioptila californica californica</i>	T
Light-footed clapper rail	<i>Rallus longirostris levipes</i>	E
Least Bell's vireo	<i>Vireo bellii pusillus</i>	E
Southwestern willow flycatcher	<i>Epidonax traillii extimus</i>	E
INVERTEBRATES		
San Diego fairy shrimp	<i>Branchinecta sandiegonensis</i>	E
PLANTS		
San Diego thornmint	<i>Acanthomintha ilicifolia</i>	T
San Diego button-celery	<i>Eryngium aristulatum</i> var. <i>parishii</i>	E
Willowy monardella	<i>Monardella linoides</i> ssp. <i>viminea</i>	E
San Diego mesa mint	<i>Pogogyne abramsii</i>	E
Spreading navarretia	<i>Navarretia fossalis</i>	T
San Diego ambrosia	<i>Ambrosia pumila</i>	E

E: Endangered

T: Threatened

Appendix F: Proposed Utility Relocations

OWNER	FACILITY	LOCATION	Potential Utility Conflict	Conflict Resolution
AT&T	Telephone - 1P2C	Transverse Sta. 1325	HOV lane Construction	Relocate
AT&T	Telephone - 6PC4C	Transverse Sta. 1377	HOV lane Construction	Relocate
AT&T	Telephone - 4MCD	Transverse Sta. 1401	Ramp Realignment	Relocate
AT&T	Telephone - 18" INVC	Transverse Sta. 1422	Lane Widening	Relocate
AT&T	Telephone - 6PC4C	Transverse Sta. 1461	Bride Widening	Relocate
City of San Diego	Water - 42" SCRW	Transverse Sta. 1325	HOV lane Construction	Relocate
City of San Diego	Water - 12" PVC	Transverse Sta. 1352	Bride Widening	Relocate
City of San Diego	Sewer - 12" PVC	Transverse Sta. 1352	Bride Widening	Relocate
City of San Diego	Sewer - 10" VC	Transverse Sta. 1397	Ramp Realignment	Relocate
City of San Diego	Sewer - 10" VC	Transverse Sta. 1403	Ramp Realignment	Relocate
City of San Diego	Water - 36" RCSC	Transverse Sta. 1422	Lane Widening	Relocate
City of San Diego	Water - 12" PVC	Transverse Sta. 1428	Lane Widening	Relocate
City of San Diego	Sewer - 30" VC	Transverse Sta. 1446	Bride Widening	Relocate
City of San Diego	Water - 15" AC	Transverse Sta. 1461	Bride Widening	Relocate
MCI	Telephone - MFS	Transverse Sta. 1401	Ramp Realignment	Relocate
MCI	Telephone - LD UG	Transverse Sta. 1446	Bride Widening	Relocate
Qualcomm	Fiber Optic	Transverse Sta. 1422	Lane Widening	Relocate
SDGE	Gas - 30" (595 PSI)	Transverse Sta. 1312	HOV lane Construction	Protect in Place
SDGE	Electric - 12 KV	Transverse Sta. 1377	HOV lane Construction	Relocate
SDGE	Electric - 12 KV	Transverse Sta. 1403	Ramp Realignment	Relocate
SDGE	Electric - 12 KV	Transverse Sta. 1422	Lane Widening	Relocate
SDGE	Electric - 12 KV	Transverse Sta. 1422	Lane Widening	Relocate
SDGE	Gas - 10" (400 PSI)	Transverse Sta. 1422	Lane Widening	Relocate
SDGE	Electric - 12 KV	Transverse Sta. 1469	HOV lane Construction	Relocate
TelePacific	Cable	Transverse Sta. 1422	Lane Widening	Relocate
Time Warner	Cable - 0.86 QR	Transverse Sta. 1422	Lane Widening	Relocate
Time Warner	Cable - 0.75 STD	Transverse Sta. 1422	Lane Widening	Relocate
Time Warner	Cable - 0.75 STD	Transverse Sta. 1422	Lane Widening	Relocate
Time Warner	Cable - 750 P3	Transverse Sta. 1461	Bride Widening	Relocate
Time Warner	Cable 0.75 STD	Transverse Sta. 1490	HOV lane Construction	Relocate
Time Warner	Cable 0.75 STD	Transverse Sta. 1490	HOV lane Construction	Relocate
Time Warner	Cable 0.75 STD	Transverse Sta. 1490	HOV lane Construction	Relocate